



**NOTES TO SUBCONTRACTOR:**

1. THE GENERAL SUBCONTRACTOR MUST VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS BEFORE PROCEEDING WITH THE WORK. ALL DISCREPANCIES SHALL BE RESOLVED BEFORE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVED WITH LOCAL CODES.
2. IT IS THE INTENTION OF THESE DRAWINGS TO SHOW THE COMPLETED INSTALLATION. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORM WORK, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL ORDINANCES. TO SAFELY AND ACCURATELY CONSTRUCT THE WORK, THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVED WITH LOCAL CODES.
3. THE SUBCONTRACTOR SHALL USE ADEQUATE NUMBER OF SKILLED WORKMAN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHOD NEEDED FOR PROPER PERFORMANCE OF THE WORK.
4. SUBCONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION SUBCONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORM WORK, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL ORDINANCES. TO SAFELY AND ACCURATELY CONSTRUCT THE WORK, THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVED WITH LOCAL CODES.
5. SITE GRADING SHALL COMPLY WITH AT&T WIRELESS SERVICES TECHNICAL SPECIFICATIONS FOR FACILITY GROUNDING FOR CELL SITE STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T TOWERS GROUNDING CHECKLIST, LATEST VERSION, WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEN SHALL GOVERN.
6. ALL WORK SHALL COMPLY WITH OSHA AND STATE SAFETY REQUIREMENTS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.
7. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVED WITH LOCAL CODES.
8. ANY DAMAGE TO THE ADJACENT PROPERTIES WILL BE CORRECTED AT THE SUBCONTRACTOR'S EXPENSE. THE COMPLETE BID PACKAGE INCLUDES THESE CONSTRUCTION DRAWINGS ALONG WITH THE SPECIFICATIONS. SUBCONTRACTOR IS RESPONSIBLE FOR REVIEW OF TOTAL BID PACKAGE PRIOR TO BID SUBMITTAL.
9. THE SUBCONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES WITHIN CONSTRUCTION LIMITS PRIOR TO CONSTRUCTION.
10. THE SUBCONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES. SILT AND EROSION CONTROL SHALL BE MAINTAINED ON THE DOWNSTREAM SIDE OF THE SITE AT ALL TIMES ANY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE SUBCONTRACTOR'S EXPENSE.
11. CLEARING OF TREES AND VEGETATION ON THE SITE SHOULD BE HELD TO A MINIMUM. ONLY THE TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED BY THE SUBCONTRACTOR.
12. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSAL.
13. PERMITS: THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND INCURRING THE COST OF ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATES, ETC.
14. RECORD DRAWINGS AND MAINTAIN A RECORD OF ALL CHANGES, SUBSTITUTIONS BETWEEN WORK AS SPECIFIED AND INSTALLED. RECORD CHANGES ON A CLEAN SET OF CONTRACT DRAWINGS. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVED WITH LOCAL CODES.
15. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE GROUND STRUCTURES AND/OR EXISTING UTILITIES BELIEVED TO BE IN THE WORKING AREA. IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO VERIFY ALL UTILITIES, PIPES AND OTHER STRUCTURES SHOWN OR LOCATE SERVICE BEFORE DESIGNING OR DRILLING. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AND ENGINEER AT THE SUBCONTRACTOR'S EXPENSE.

**GENERAL PROJECT NOTES:**

1. THIS PROPOSAL IS FOR THE ADDITION OF A NEW GENERATOR ON A NEW CONCRETE PAD TO AN EXISTING UNMANNED AND COMMUNICATIONS FACILITY CONSISTING OF AN EQUIPMENT SHELTER, PLATFORM AND TOWER.
2. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE PORTABLE WATER OR SEWER SERVICE.
3. THE PROPOSED FACILITY IS UNMANNED AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS IS REQUIRED).
4. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH BY AT&T TECHNICIANS.
5. OUTDOOR STORAGE AND SOLID WASTE CONTAINERS ARE NOT PROPOSED.
6. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
7. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY THE CONSTRUCTION OPERATION.
8. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTION REQUIRED FOR CONSTRUCTION.
9. SUBCONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.

**ELECTRICAL NOTES:**

- A. GENERAL**
1. COORDINATE LOCATION AND POWER REQUIREMENTS OF ALL EQUIPMENT WITH AT&T AND EQUIPMENT SUPPLIER PRIOR TO INSTALLATION.
  2. COORDINATE LOCATION AND REQUIREMENTS FOR ELECTRICAL AND TELEPHONE SERVICES WITH THE PROPERTY REPRESENTATIVE, AT&T AND UTILITY COMPANIES. ROUTING OF CONDUITS SHALL BE ADAPTED TO MEET SITE REQUIREMENTS. EXACT CONDUIT ROUTING TO BE DETERMINED IN THE FIELD.
  3. ALL WIRING AND ELECTRICAL PORTION OF CONTRACT UNLESS OTHERWISE NOTED INSTALLED UNDER ELECTRICAL PORTION OF CONTRACT UNLESS OTHERWISE NOTED.
  4. INTERRUPTED ELECTRICAL SERVICE FOR EXISTING EQUIPMENT SHALL BE MAINTAINED DURING THE INSTALLATION OF THE WORK DESCRIBED UNDER THESE DOCUMENTS. TEMPORARY EQUIPMENT, CABLES AND WATTEVER ELSE IS NECESSARY SHALL BE PROVIDED AS REQUIRED AT ANY TIME. SHALL NOT BE DISCONNECTED OR REMOVED UNTIL NEW SERVICE IS INSTALLED. THE CONTRACTOR SHALL REQUEST PERMISSION IN WRITING STATING THE DATE, TIME, ETC. THE SERVICE WILL BE INTERRUPTED AND THE AREAS AFFECTED. THIS REQUEST SHALL BE MADE IN SUFFICIENT TIME FOR PROPER ARRANGEMENTS TO BE MADE. WRITTEN PERMISSION SHALL BE OBTAINED FROM THE OWNER BEFORE INTERRUPTING ELECTRICAL SERVICE.
  5. COORDINATE NEW WORK WITH OTHER TRADES AND VERIFY EXISTING CONDITIONS TO AVOID INTERFERENCE. IN CASE OF INTERFERENCE, AT&T'S REPRESENTATIVE WILL DECIDE WHICH WORK IS TO BE RELOCATED, REGARDLESS OF WHICH WAS FIRST INSTALLED.
  6. THE INSTALLATION MUST COMPLY WITH NEC AND ALL FEDERAL, STATE AND LOCAL RULES AND REGULATIONS.
  7. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND EQUIPMENT UNLESS OTHERWISE DEFINED BY DIMENSIONS OR DETAILS. EXACT EQUIPMENT LOCATIONS AND RACKING ROUTING SHALL BE GOVERNED BY ACTUAL FIELD CONDITIONS AND/OR DIRECTIONS FROM AT&T'S REPRESENTATIVE.
  8. CONTRACTOR SHALL PAY ALL PERMITS AND FEES REQUIRED.
  9. ALL MATERIALS SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING STANDARDS REFERENCED BELOW:
    - a. ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE)
    - b. ASTM (AMERICAN SOCIETY FOR TESTING MATERIALS)
    - c. ETL (ELECTRICAL TESTING LABORATORY)
    - d. IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONICS ASSOCIATION)
    - e. IEC (INTERNATIONAL ELECTROTECHNICAL COMMISSION)
    - f. NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)
    - g. NEMA (NATIONAL ELECTRICAL SAFETY CODE)
    - h. NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)
    - i. NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)
    - j. UL (UNDERWRITERS LABORATORY)
    - k. NEC (NATIONAL ELECTRICAL CODE)
  10. CONTRACTOR SHALL REVIEW PLANS, DETAILS AND SPECIFICATIONS IN DETAIL AND ADJUST WORK TO CONFORM WITH ACTUAL SITE CONDITIONS SO THAT ELECTRICAL DEVICES AND EQUIPMENT WILL BE LOCATED AND READILY ACCESSIBLE. QUANTITIES LISTED IN MATERIAL LISTINGS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY QUANTITIES AND TYPES BASED ON ACTUAL SITE CONDITIONS. IN ADDITION, CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS TO INSTALL EQUIPMENT FURNISHED BY AT&T OR ITS SUPPLIERS. ALL ITEMS NOT SPECIFICALLY MENTIONED HEREIN OR SHOWN ON THE DRAWINGS, BUT WHICH ARE OBVIOUSLY NECESSARY TO MAKE A COMPLETE WORKING INSTALLATION, SHALL BE INCLUDED.
  11. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING IN WRITING AT&T'S REPRESENTATIVE OF ANY CONFLICTS PRIOR TO THE SUBMISSION OF THE PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRIORITIZE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.

**ELECTRICAL NOTES:**

12. ALL FLOORS WHERE PENETRATIONS ARE REQUIRED IN BUILDING ARE TO BE CORE DRILLED AND THEN REPROOFED.
- B. WIRING/CONDUIT**
1. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR AS REQUIRED BY CODE SUCH THAT NO MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (90 DEGREE) TOTAL EXIST IN A CONDUIT RUN.
  2. ALL POWER AND CONTROL/INDICATION WIRING SHALL BE TYPE THHN/THWN 90V/ RATED 75 DEGREE CELSIUS, UNLESS NOTED OTHERWISE.
  3. CONDUIT BENDS SHALL BE MADE IN ACCORDANCE WITH NEC TABLE 348.10, NO RIGHT ANGLE BENDS SHALL BE USED. CONDUIT ELBOWS WITH 1/2" MINIMUM INSIDE SWEEPERS FOR ALL CONDUITS 2" OR LARGER.
  4. POWER WIRING SIZE SHALL NOT BE SMALLER THAN #12 AWG.
  5. ALL WIRING SHALL BE COPPER, ALUMINUM WILL NOT BE ACCEPTABLE. ALL POWER CIRCUITS SHALL CONTAIN A GROUND WIRE.
  6. PHASE MARKINGS TO BE USED AT POWER CONDUCTOR TERMINATIONS.
  7. CONTRACTOR SHALL ENSURE INTEGRITY IS MAINTAINED WHEN INSTALLING CONDUIT AND WIRING.
  8. INSTALL PULL STRING IN ALL CONDUIT.
  9. FOR ROOF TOP INSTALLS AND BUILD-OUTS CONDUITS INSIDE BUILDING AND ON ROOF SHALL BE INSTALLED IN CONDUITS, RIGID METAL FLEX AND COULCATES, PVC SCHEDULE 80 SHALL BE UTILIZED UNLESS NOTED OTHERWISE.
  10. MAINTAIN MINIMUM 1"-0" VERTICAL AND 1"-0" HORIZONTAL SEPARATIONS FROM ANY MECHANICAL GAS PIPING.
  11. ALL WIRING ROUTED IN PLENUM TO BE RATED OR IN METALLIC FLEX (LIQUIDFILL) CONDUIT.
- C. EQUIPMENT**
1. EQUIPMENT PARTS CONNECTED TO EXISTING PANELS, DUCTS, ETC. SHALL MATCH THE CHARACTERISTICS (VOLTAGE, AMPERAGE, PHASE).
  2. ALL ELECTRICAL EQUIPMENT OUTSIDE SHALL BE NEMA 3R RATED.
- D. GROUNDING**
1. ALL GROUND CONNECTIONS TO BUILDING SHALL BE MADE USING TWO-HOLE CONNECTORS. PROVIDE STAINLESS STEEL BOLTS AND LOCK WASHERS ON ALL MECHANICAL GROUND CONNECTIONS.
  2. ALL EQUIPMENT SURFACES TO BE BONDED TO GROUNDING SYSTEM SHALL BE STRIPPED OF PAINT AND FINISH TO PRESENT A GALVANIC OR CORROSION REACTION AREA SHALL BE REPAINTED FOLLOWING BONDING.
  3. ANY METALLIC ITEM WITHIN 6" OF ANY EQUIPMENT OR METALLIC INFRASTRUCTURE TRACKS, GROUNDING SYSTEM PER AT&T STANDARDS.
  4. EXTERIOR ABOVE GRADE GROUND CONNECTIONS SHALL BE FURNISHED WITH ALUMERAL PROTECTIVE COATING OF ANTI-OXIDATION COMPOUND.
  5. ALL MATERIALS AND LABOR REQUIRED FOR THE GROUNDING SYSTEM AS INDICATED ON THE PLANS AND DETAILS, AND AS DESCRIBED HEREIN SHALL BE FURNISHED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
  6. EXACT LOCATION OF GROUND CONNECTION POINTS SHALL BE DETERMINED IN FIELD. CONTRACTOR SHALL VERIFY LOCATION OF ALL GROUND CONNECTIONS PRIOR TO INSTALLATION TO KEEP THE GROUND CONNECTION CABLES AS SHORT AND STRAIGHT AS PRACTICAL.
  7. PROVIDE ALL ELECTRICAL SYSTEM AND EQUIPMENT GROUNDINGS AS REQUIRED BY THE CURRENT EDITION OF THE NATIONAL ELECTRIC CODE, THE CURRENT EDITION OF THE NATIONAL ELECTRICAL SAFETY CODE, AND ALL APPLICABLE STANDARDS. EQUIPMENT GROUNDING SHALL BE INSTALLED AT ALL RACKINGS, EQUIPMENT ENCLOSURES, PULL BOXES, ETC. TO MAINTAIN GROUND CONTINUITY WHERE REQUIRED BY CODE.
  8. ALL BURRED EQUIPMENT GROUND CONDUCTORS SHALL BE #2 AWG BARE, TINNED, SOLID COPPER UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- E. INSPECTION/DOCUMENTATION**
1. THE CONTRACTOR, UPON COMPLETION OF HIS WORK, SHALL PROVIDE AS-BUILT DRAWINGS, INFORMATION SHOULD BE GIVEN TO THE GENERAL CONTRACTOR FOR INCLUSION IN FINAL AS-BUILT SURVEY DOCUMENTS TO BE GIVEN TO THE OWNER.
  2. CONTRACTOR SHALL SUPPLY DOCUMENTATION ATTENDING TO THE COMPLETE GROUND SYSTEMS RESISTANCE TO GROUND (MAX. 5 OHMS).
  3. AN ELECTRICAL INSPECTION SHALL BE MADE BY A11 INSPECTING AGENCY APPROVED BY AT&T'S REPRESENTATIVE. CONTROL OR SHALL GOVERNANTE ALL INSPECTIONS AND OTHER POWER COMPANY APPROVAL.
  4. CONTRACTOR SHALL HAVE AT&T AND GENERATOR RELAY INSTALLATION AND CONNECTIONS INSPECTED BY OTHERS TO ENSURE THAT UTILISING FOR THAT EQUIPMENT IS NOT VOIDED.



GENERAL DYNAMICS Information Technology



CONTRACT NO. 25254477 CONTACT: 303.534.4177 www.GEOSTRUCTURAL.COM

REV	DATE	DESCRIPTION	INT

1. Inspected for construction 1/25

CHECKED BY: GGP



SITE INFORMATION: CORRAL BLUFFS 10093745

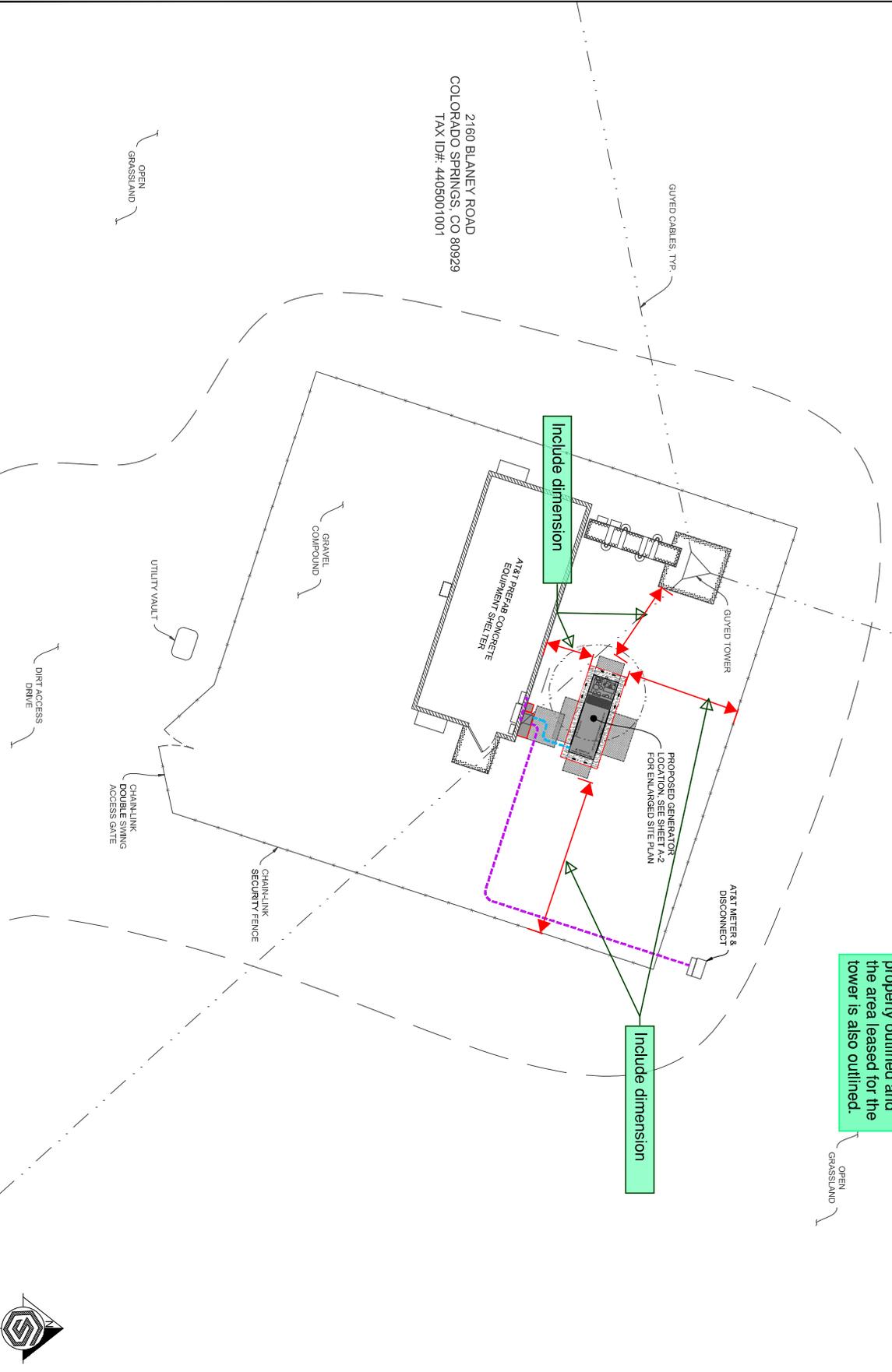
GENERATOR INSTALLATION PROJECT 2160 BLANEY ROAD COLOADO SPRINGS, CO 80929

JURISDICTION USE:

SHEET TITLE: GENERAL NOTES SHEET NUMBER: N-1

**EXISTING CONDITIONS:**  
 THESE DRAWINGS WERE PRODUCED WITH INFORMATION PROVIDED BY THE CLIENT. LINES, EASEMENTS, AND SETBACKS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. GEOSTRUCTURAL DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINE, EASEMENTS AND SETBACKS.

**NOTE:**  
 EVERYTHING SHOWN IS EXISTING UNLESS MARKED PROPOSED

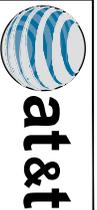


please include an image with the whole property outlined and the area leased for the tower is also outlined.

OVERALL SITE PLAN

SCALE: 1" = 10'-0" (11x17)

1



**GENERAL DYNAMICS**  
 Information Technology



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REV	DATE	DESCRIPTION	INT

REVISIONS  
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**SITE INFORMATION:**  
 CORRAL BLUFFS  
 10093745  
**GENERATOR INSTALLATION PROJECT**  
 2160 BLANEY ROAD  
 COLORADO SPRINGS, CO 80929  
 JURISDICTION USE:

**SHEET TITLE:**  
 OVERALL SITE PLAN  
**SHEET NUMBER:**  
 A-1

**UTILITY NOTE:**

THE UTILITIES AS SHOWN ON THIS SET OF DRAWINGS WERE DEVELOPED FROM RECORDED INFORMATION. THE INFORMATION PROVIDED IS IMPLIED NOT INTENDED TO BE A COMPLETE INVENTORY OF THE UTILITIES IN THIS AREA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY CONTRACTOR'S ACTIVITIES.

**EXISTING CONDITIONS:**

THESE DRAWINGS WERE PRODUCED WITH INFORMATION PROVIDED BY THE CLIENT. LINES, EASEMENTS, AND SETBACKS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. GEOSTRUCTURAL DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINE, EASEMENTS AND SETBACKS.

**SCOPE OF WORK DETAILS:**

**GENERAL:**

- NEW KOHLER 55 DIESEL GENERATOR PROVIDED BY GENERAL DYNAMICS & INSTALLED BY GENERAL CONTRACTOR. SEE SHEETS F-4.0, F-4.1, F-4.2.
- NEW CONCRETE PAD PROVIDED & INSTALLED BY GENERAL CONTRACTOR. SEE SHEET S-1.
- NEW KOHLER AUTOMATIC TRANSFER SWITCH PROVIDED BY GENERAL DYNAMICS & INSTALLED BY CONTRACTOR. SEE SHEETS S-2, E-5.0, E-5.1.
- CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL RESTORE & REPAIR ANY DAMAGED AREAS CAUSED BY CONSTRUCTION TO ORIGINAL OR BETTER CONDITION.
- INNER AND OUTER TANK TESTING DOCUMENTATION SHALL BE PROVIDED ONCE TANK IS IN PLACE ON SITE IN ACCORDANCE WITH NFPA 30.
- A CALIBRATION CHART OF PERMANENT AND DURABLE CONSTRUCTION SHALL BE LOCATED AT THE FILL BOX.

**CONDUITS:**

- INSTALL PULL STRING IN EACH CONDUIT.
- (1) NEW 2" AND (1) NEW 1" ELECTRICAL CONDUIT WITH CONDUITORS TO BE INSTALLED BY GENERAL CONTRACTOR. SEE SHEETS E-1, E-2.
- (2) NEW 1" ELECTRICAL CONDUITS WITH CONDUITORS TO BE INSTALLED FROM NEW GENERATOR TO AC PANEL. CONDUIT PROVIDED & INSTALLED BY GENERAL CONTRACTOR. SEE SHEETS E-1, E-2.
- (1) NEW 1" ALARM CONDUIT & CABLEING PROVIDED & INSTALLED BY GENERAL CONTRACTOR. SEE SHEETS E-1, E-2.

**GROUNDING:**

- NEW EXOTHERMIC CONNECTION FROM EXISTING GROUND RING TO NEW MECHANICAL CONNECTION AT GENERATOR CHASSIS. GENERAL CONTRACTOR TO VERIFY LOCATION IN FIELD. LOCATE GROUND RODS NO MORE THAN 8'-0" APART. SEE SHEET E-3.

**H-FRAME:**

- CONTRACTOR TO PROVIDE NEW H-FRAME FOR ATS INSTALLATION (IF REQUIRED). MATCH EXISTING H-FRAME MATERIAL FOR CONSTRUCTION OF NEW H-FRAME. SEE SHEET S-2.

**POWER ROUTING KEYED NOTES:**

- (M10)** EXISTING AT&T WETTER AND DISCONNECT
- (M11)** INTERCEPT EXISTING CONDUIT AND CONDUITORS AND RE-ROUTE THROUGH PROPOSED ATS. COORDINATE PATH WITH CONSTRUCTION MATERIALS.
- (E2)** EXISTING AC LOAD CENTER
- (E20)** PROPOSED 2" & UNDERGROUND GENERATOR CONDUIT ROUTE. SEE SHEETS E-1, E-2.
- (E21)** SEE SHEET E-1 FOR SINGLE LINE DIAGRAM.

**GENERATOR KEYED NOTES:**

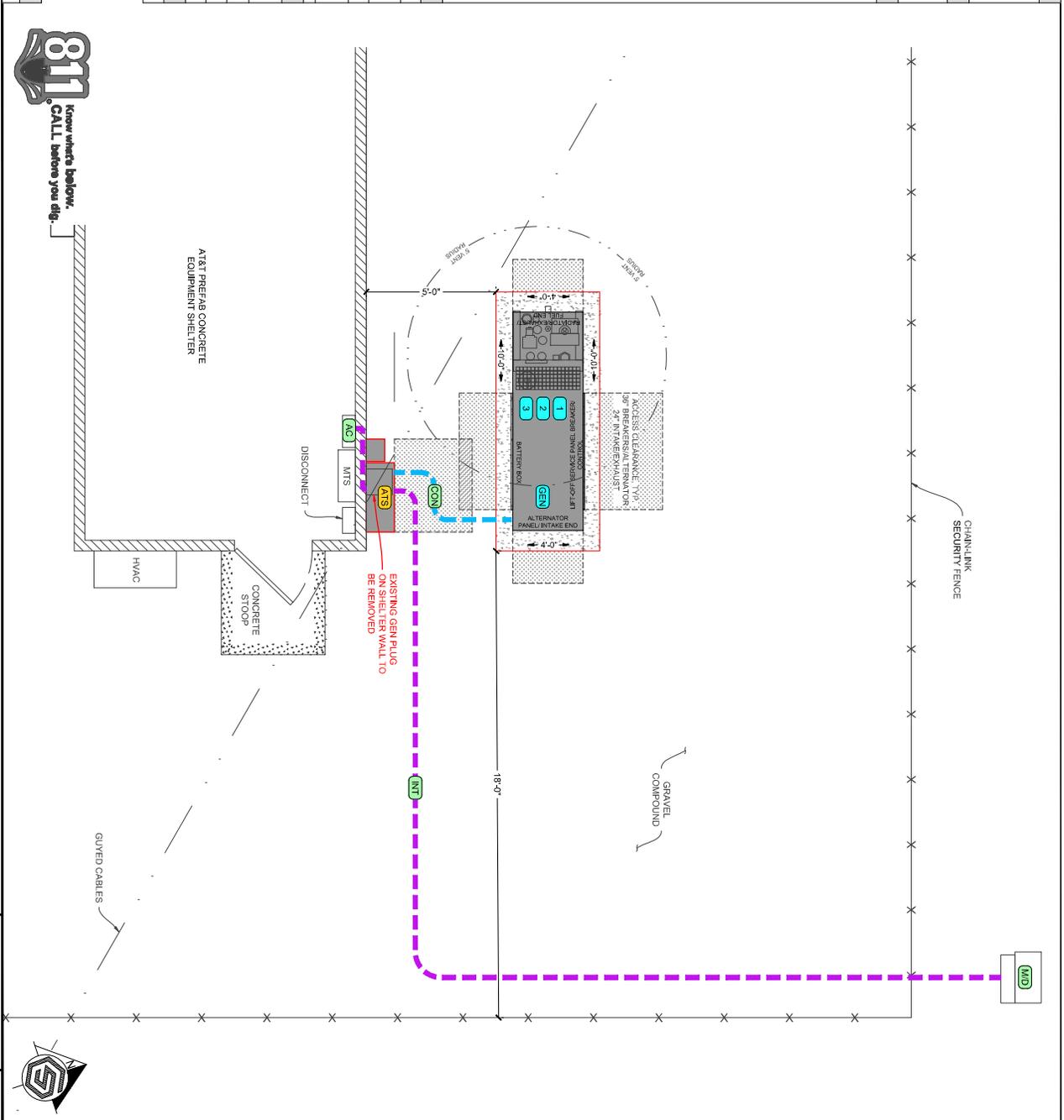
- (G1)** PROPOSED AT&T 30KV DIESEL GENERATOR W/ SOUND ATTENUATED TANK ON A CONCRETE PAD. SEE SHEETS S-1, S-2, E-3.
- (G2)** FUEL FILL SHALL BE PROVIDED WITH SPILL CONTROL, WITH A SOLID FILL CONNECTION, AND WITH OVERFILL PREVENTION.
- (G3)** FUEL TANK NORMAL AND EMERGENCY VENTS SHALL TERMINATE AT (EVS) 1/2" ABOVE THE ADJACENT GRADE. SEE SHEET E-2.
- (G4)** NFPA 704 P/ACORD AND OTHER SIGNAGE. SEE SHEET F-4.2.

**ATS / EQUIPMENT KEYED NOTES:**

- (A19)** PROPOSED ATS W/ GAINLOCK MOUNTED ON SHELTER WALL WITH 36" FRONT CLEARANCE. SEE SHEET S-2.

**NOTE:**  
EVERYTHING SHOWN IS EXISTING UNLESS MARKED PROPOSED

**ENLARGED SITE PLAN**



**NOTE:**  
EVERYTHING SHOWN IS EXISTING UNLESS MARKED PROPOSED

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REV.	DATE	DESCRIPTION	INT.
1		ISSUED FOR CONSTRUCTION	JEN

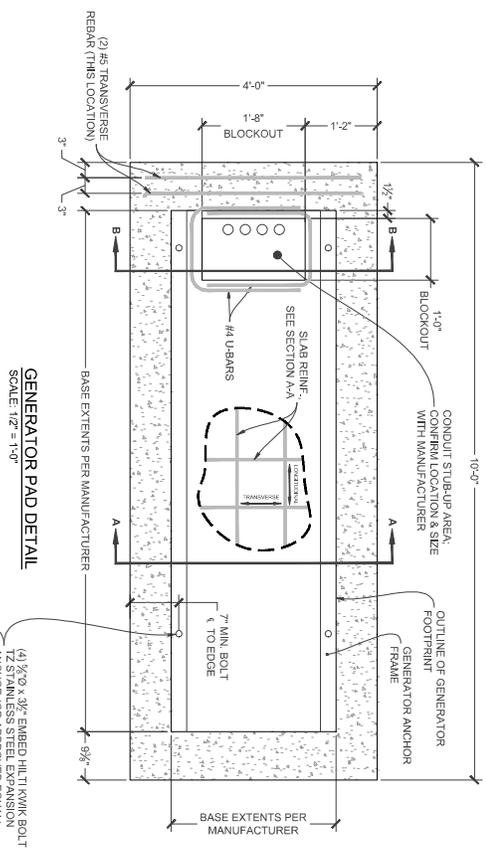
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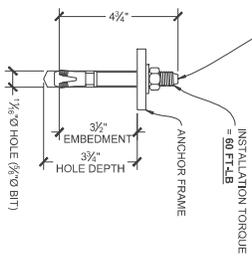
**SITE INFORMATION:**  
CORRAL BLUFFS  
10093745

**GENERATOR INSTALLATION PROJECT**  
2180 BLANEY ROAD  
COLORADO SPRINGS, CO 80929  
JURISDICTION USE:

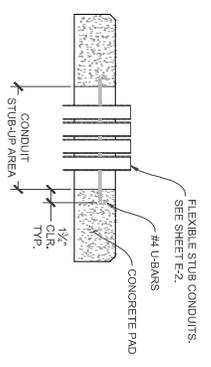
**SHEET TITLE:**  
ENLARGED SITE PLAN  
**SHEET NUMBER:**  
A-2



**GENERATOR PAD DETAIL**  
SCALE: 1/2" = 1'-0"



**TYPICAL ANCHOR**



**GENERATOR PAD - SECTION A-A**  
SCALE: 1/2" = 1'-0"

**STRUCTURAL DESIGN NOTES:**

- ALL LOADS DERIVED FROM REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, ASCE 7 & ANSI/TIA-222 BUILDING & COMMUNICATION STRUCTURES, (38,666893) / 104,57927(1)
- WIND LOADS - IBC 2015 & ASCE 7-10  
V = 115 MPH ULTIMATE WIND SPEED (90 MPH V<sub>50</sub>)  
STRUCTURE CLASS = II; EXPOSURE CATEGORY = C; TOPOGRAPHIC CATEGORY = 1.  
IMPORTANCE FACTOR = 1.0.
- SEISMIC LOADS - IBC 2015 & ASCE 7-10  
STRUCTURE CLASS = II; SITE CLASS = D.  
S<sub>s</sub> = 0.15; S<sub>1</sub> = 0.029; S<sub>2</sub> = 0.179

**CONCRETE NOTES:**

- PRIOR TO EXCAVATION CHECK THE AREA FOR UNDERGROUND FACILITIES.
- ALL CONCRETE SHALL BE IN ACCORDANCE WITH CHAPTER 19 OF THE IBC & ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," LATEST EDITION & HAVE THE FOLLOWING PROPERTIES:  
A. MINIMUM 28-DAY COMPRESSIVE STRENGTH (f<sub>c</sub>) OF 4,000 PSI.  
B. GENERAL SHALL BE CONCRETE TYPE IIIA MODERATE SULFATE RESISTANCE, AIR BEING ADMIXTURE.  
C. MAXIMUM WATER/CEMENT RATIO OF 0.45 AND AIR-ENTRAINED 4% TO 7%.  
D. TOLERANCES IN ACCORDANCE WITH ACI 117, COPIES OF CONCRETE MIX SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO PLACEMENT.  
E. AGGREGATES KNOWN NOT TO CAUSE EXCESSIVE SHRINKAGE. MAXIMUM AGGREGATE SIZE TO BE 3/4".  
F. MAXIMUM SLUMP: REFER TO GEOTECHNICAL REPORT WHEN APPLICABLE.
- FORMWORK FOR CONCRETE SHALL CONFORM TO ACI 347. TOLERANCES FOR FINISHED CONCRETE SURFACES SHALL MEET CLASS C REQUIREMENTS. IN NO CASE SHALL FINISHED CONCRETE SURFACES EXCEED THE FOLLOWING VALUES AS MEASURED FROM NEAT PLAN LINES AND FINISHED GRADES: ± 1/2" VERTICAL, ± 1" HORIZONTAL.
- CHAMFER ALL EXPOSED CORNERS AND FILET ENTRANT ANGLES 3/4" UNO.
- CONCRETE FINISHING, CONCRETE SURFACES SHALL BE FINISHED IN ACCORDANCE WITH ACI. PROVIDE ROUGH FINISH FOR ALL SURFACES NOT EXPOSED TO VIEW AND SMOOTH FINISH FOR ALL OTHERS, UNO.
- STEEL REINFORCEMENT AND CONCRETE SHOULD BE PLACED IMMEDIATELY UPON COMPLETION OF THE FOUNDATION EXCAVATION. CONTRACTOR SHALL NOT ALLOW A COLD JOINT TO FORM IN THE CONCRETE. PORTION AT GRADE SHOULD BE FORMED. TEMPORARY CASING MAY BE REQUIRED TO PREVENT COLLAPSE PRIOR TO CONCRETE PLACEMENT.

**REINFORCING STEEL NOTES:**

- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615. VERTICAL/HORIZONTAL BARS SHALL BE GRADE 60; TIES OR STIRRUPS SHALL BE A MINIMUM OF GRADE 40. ALL REINFORCING STEEL SHALL HAVE 3" (± 3/4") OF CONCRETE COVER, UNO.
- ALL BAR BENDS, HOOKS, SPICES AND OTHER REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ACI 318.
- ALL BARS SHALL BE SPICED WITH A MINIMUM LAP OF 48 BAR DIAMETERS. LAP SPICES OF DEFORMED BARS IN TENSION ZONES SHALL BE CLASS B SPICES. WELDING OF BARS IS NOT PERMITTED.
- AT ALL CORNERS AND WALL INTERSECTIONS, PROVIDE BENT HORIZONTAL BARS TO MATCH THE HORIZONTAL REINFORCING STEEL. PROVIDE VERTICAL DOWELS IN FOOTINGS AND AT CONSTRUCTION JOINTS TO MATCH BARS.
- APPROVED PLASTIC-COATED BAR CHAIRS OR PRECAST CONCRETE BLOCKS SHALL BE PROVIDED FOR SUPPORT OF ALL REINFORCING STEEL. CONTRACTOR SHALL PROVIDE ADEQUATE BRACING TO PREVENT SHRINKING METAL CLIPS OR SUPPORTS SHALL NOT BE PLACED IN CONTACT WITH THE FORMS OR THE SUBGRADE.
- DOWELS AND ANCHOR BOLTS SHALL BE EMBEDDED OR OTHERWISE HELD IN CORRECT POSITION PRIOR TO PLACING CONCRETE. IN NO CASE SHALL DOWELS OR ANCHOR BOLTS BE "STABBED" INTO FRESH-POURED CONCRETE.

**FOUNDATION NOTES:**

- THE CONTRACTOR SHALL READ THE GEOTECHNICAL REPORT AND SHALL CONSULT THE GEOTECHNICAL ENGINEER AS NECESSARY PRIOR TO CONSTRUCTION.
- THE GEOTECHNICAL ENGINEER (OR INSPECTOR) SHALL INSPECT THE EXCAVATION PRIOR TO THE PLACEMENT OF CONCRETE AND SHALL PROVIDE A NOTICE OF INSPECTION FOR THE BUILDING INSPECTOR FOR REVIEW AND RECORDS PURPOSES.
- THE CONTRACTOR SHALL DETERMINE THE MEANS AND METHODS NECESSARY TO SUPPORT THE EXCAVATION DURING CONSTRUCTION.
- REBAR AT BOTTOM OF FOUNDATIONS SHALL BE BONDED TO SITE GROUNDING SYSTEM (WHEN APPLICABLE). SEE ADDITIONAL DETAILS ON APPROVED A&E CONSTRUCTION DRAWINGS.
- ALL FOOTINGS TO BE PLACED ON FIRM, UNDISTURBED, INORGANIC MATERIAL. PROOF ROLL SUB-GRADE PRIOR TO PLACING CONCRETE. CONTRACTOR SHALL PROVIDE ADEQUATE BRACING TO PREVENT SHRINKING METAL CLIPS OR SUPPORTS SHALL NOT BE OVER-DECAVATED AND REPLACED WITH CLEAN CONCRETE FILL. THE GEOTECHNICAL REPORT SHALL BE REVIEWED AND ADHERED TO FOR SPECIFIC RECOMMENDATIONS.
- STRUCTURAL BACKFILL SHALL BE GRANULAR FREE-DRAINING MATERIAL, FREE OF DEBRIS, ORGANICS, REFUSE AND OTHERWISE DETERIOROUS MATERIALS. MATERIAL SHALL BE PLACED IN LIFTS NO GREATER THAN 6" IN DEPTH AND COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED PER ASTM D1557 (MODIFIED PROCTOR). THE GEOTECHNICAL REPORT SHALL BE REVIEWED AND ADHERED TO FOR SPECIFIC RECOMMENDATIONS.

**SOIL NOTES:**

- FOUNDATION DESIGN BASED ON THE PRESUMPTIVE MINIMUM SOIL PARAMETERS IN ACCORDANCE WITH THE IBC AND TIA, WHEN A SITE SPECIFIC GEOTECHNICAL REPORT IS AVAILABLE. THE CONTRACTOR SHALL ADHERE TO ALL RECOMMENDATIONS PROVIDED THEREIN.
- ALL FOUNDATIONS TO BE PLACED ON FIRM, UNDISTURBED, INORGANIC MATERIAL. PROOF ROLL SUB-GRADE PRIOR TO PLACING CONCRETE WHERE THE MATERIAL HAS BEEN DISTURBED BY EQUIPMENT. UNACCEPTABLE/DISTURBED MATERIAL SHALL BE OVER-EXCAVATED AND REPLACED WITH STRUCTURAL BACKFILL.
- STRUCTURAL BACKFILL SHALL BE GRANULAR FREE-DRAINING MATERIAL, FREE OF DEBRIS, ORGANICS, REFUSE AND OTHERWISE DETERIOROUS MATERIALS. MATERIAL SHALL BE PLACED IN LIFTS NO GREATER THAN 6" IN DEPTH AND COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED PER ASTM D1557 (MODIFIED PROCTOR). THE GEOTECHNICAL REPORT SHALL BE REVIEWED AND ADHERED TO FOR SPECIFIC RECOMMENDATIONS.

**MECHANICAL ANCHOR NOTES:**

- ANCHOR BOLTS MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS PRINTED INSTALLATION INSTRUCTIONS, AS INCLUDED IN THE ANCHOR BOLTS PACKAGING.
- CONTRACTOR SHALL AVOID DRILLING HOLES IN VERTICAL/HORIZONTAL REINFORCING BARS.
- HOLES MUST BE WIRE BRUSHED AND BLENDED WITH COMPRESSED AIR PRIOR TO INSTALLATION.
- TEMPERATURES WHILE WORKING THEREIN, ARE TO BE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.



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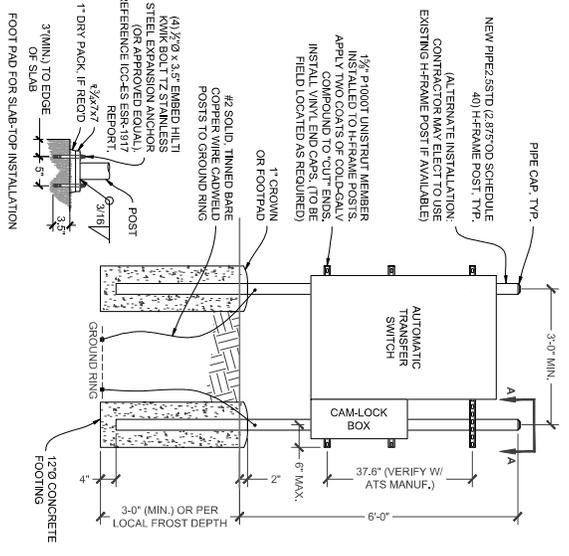


SITE INFORMATION:  
**CORRAL BLUFFS**  
10093745  
GENERATOR INSTALLATION PROJECT  
2160 BLANEY ROAD  
COLORADO SPRINGS, CO 80929  
JURISDICTION STATE:

SHEET TITLE:  
**GENERATOR PAD DETAILS**  
SHEET NUMBER:  
**S-1**

GALVANIZED H-FRAME POST  
 3/8" Ø BOLT FOLLOW COMMENTS FOR BOLT TORQUE.

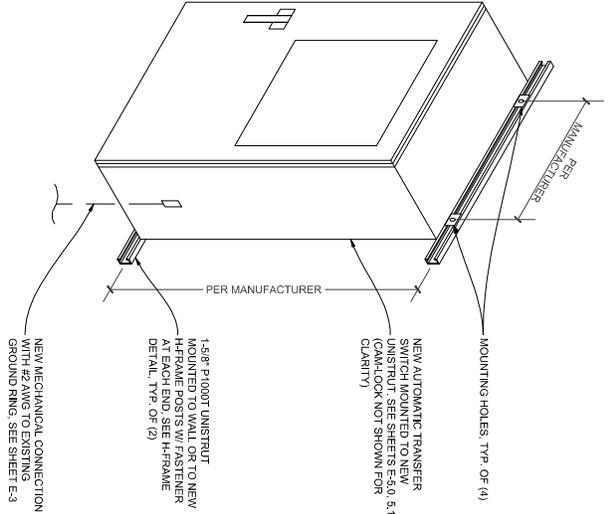
SECTION AA



H-FRAME DETAIL (IF REQUIRED)

UNISTRUT WALL ATTACHMENT:	
WALL CONSTRUCTION TYPE	FASTENER
HOLLOW	3/8" DIA. TOGGLE BOLT
HOLLOW, AT STUD	3/8" DIA. LAG SCREW
CONCRETE BLOCK (HOLLOW)	7/16" DIA. HILTI HV-270 WITH SCREEN, MINIMUM EMBEDMENT 2-1/2"
CONCRETE (SOLID)	7/16" DIA. HILTI HV-200, MINIMUM EMBEDMENT 2-1/2"

NOTES:  
 1. USE GALVANIZED OR STAINLESS STEEL HARDWARE FOR WALL MOUNT AND CONNECTION OF CHANNELS  
 2. GC SHALL USE NON-SHRINKING GROUT OR THROUGH SHELTER WALL ALL PENETRATIONS INTO OR THROUGH SHELTER WALL



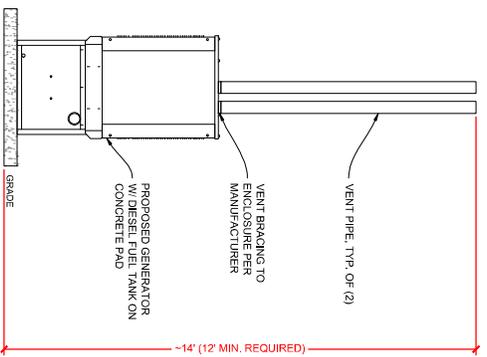
ATS MOUNTING DETAIL (IF REQUIRED)

**DOUBLE WALL FUEL TANK BASE SPECIFICATION:**

REF: AT&T 30KW GENERATOR PACKAGE  
 UL REGISTRATION NUMBER: MH 18469  
 UL 142 DOUBLE WALL FUEL TANK BASE SPECIFICATION  
 FUEL TANK SHALL BE CONSTRUCTED IN ACCORDANCE WITH UNDERWRITERS LABORATORIES STANDARD UL-142 BE CONSTRUCTED IN ACCORDANCE WITH FLAMMABLE COMBUSTIBLE LIQUIDS CODE, NFPA 30; THE STANDARD FOR INSTALLATION USE OF STATIONARY COMBUSTIBLE ENGINE GAS TURBINES, NFPA 97; AND THE STANDARD FOR EMERGENCY STANDBY POWER SYSTEMS, NFPA 110.  
 ANCHORS MINIMUM (4) 9/8" FOR GEN-SET MOUNTING

SUB BASE TANK TESTING:  
 \* PRIMARY TANK & SECONDARY CONTAINMENT BASIN SECTIONS SHALL BE PRESSURIZED AT 3.5 PSI AND LEAK-CHECKED TO ENSURE INTEGRITY OF SUB BASE WELD SEAMS PER UL-142 STANDARDS  
 FUEL FILL: 5 GALLON SPILL CONTAINMENT WITH ALARM  
 + 40% REMAINING FOR ALARM  
 + 20% REMAINING FOR SHUT-DOWN  
 FACTORY PRE-SET AT 95% FULL FOR ALARM

FUEL CONTAINMENT BASIN:  
 \* SUB BASE TANK SHALL INCLUDE A WELDED STEEL CONTAINMENT BASIN, SIZED AT A MINIMUM OF 110% OF THE TANK CAPACITY TO PREVENT ESCAPE OF FUEL INTO THE ENVIRONMENT IN THE EVENT OF A TANK RUPTURE. A FUEL CONTAINMENT BASIN LEAK DETECTOR SWITCH SHALL BE PROVIDED.



GENERATOR VENTING DETAIL



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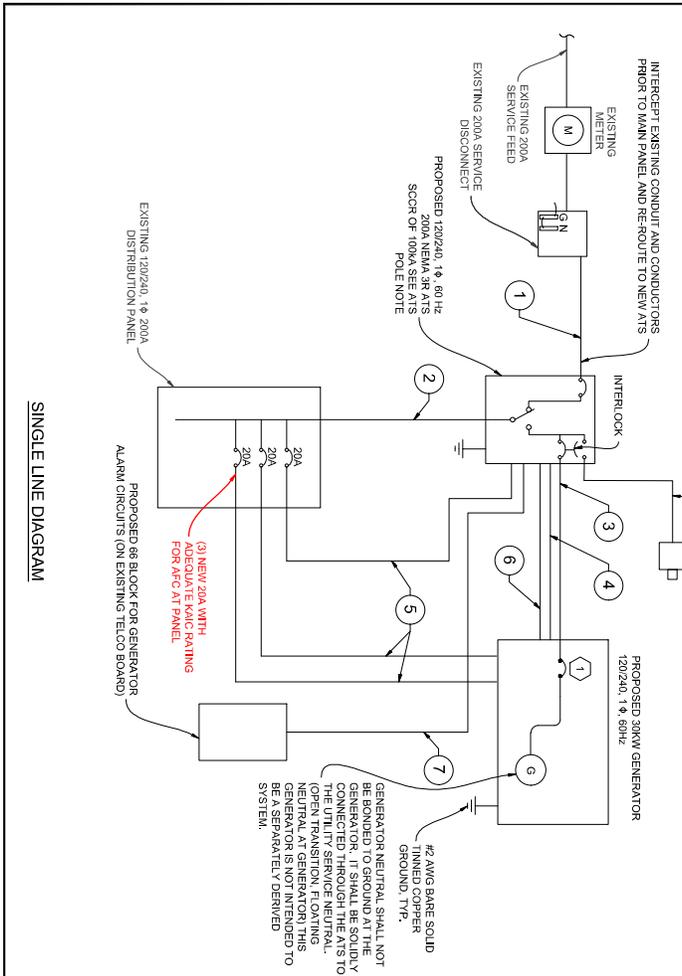


SITE INFORMATION:  
 CORRAL BLUFFS  
 10093745  
 GENERATOR INSTALLATION PROJECT  
 2180 BLANEY ROAD  
 COLORADO SPRINGS, CO 80929  
 JURISDICTION USE:

SHEET TITLE:  
 GENERAL STRUCTURAL DETAILS  
 SHEET NUMBER:  
 S-2

CONDUIT WIRE SCHEDULE:					NOTE: ALL CONDUCTORS TO BE COPPER UNLESS NOTED OTHERWISE.	
NO.	FROM	TO	WIRES	GROUND	CONDUIT SIZE	FUNCTION
1	NORMAL POWER SOURCE	AUTOMATIC TRANSFER SWITCH	(3) 3/0	(1) #4	2"	NORMAL POWER FEEDER TO ATS (CUT BACK EXISTING)
2	AUTOMATIC TRANSFER SWITCH	LOAD CENTER	(3) 3/0	(1) #4	2"	POWER FEEDER FROM ATS TO PANEL
3	GENERATOR	AUTOMATIC TRANSFER SWITCH	(3) 3/0	(1) #4	2"	EMERGENCY POWER FEEDER TO ATS
4	AUTOMATIC TRANSFER SWITCH	GENERATOR	(2) #10	(1) #10	1"	START CIRCUIT
5	LOAD CENTER (DISTRIBUTION CENTER)	GENERATOR ATS	(2) #12 (1) #12 (2) #12	(1) #12 (1) #12	1"	CIRCUIT FOR GENERATOR BLOCK HEATER & BATTERY HEATER, CIRCUIT FOR BATTERY CHARGER, CIRCUIT FOR ATS CONTROLS
6	GENERATOR	AUTOMATIC TRANSFER SWITCH	12-PAIR 24 AWG OR 2EA 6-PAIR CAT5	N/A	1"	ALARM CABLES (1) 12 PAIR 24 AWG, PROVIDE 24" OF SLACK CABLE. FINAL PUNCH DOWNS BY AT&T TECH. LABEL ALL WIRES
7	AUTOMATIC TRANSFER SWITCH	ALARM BLOCK	(2) 12-PAIR 24 AWG OR (2) 6-PAIR CAT5 (1) 12-PAIR 24 AWG	N/A	1"	INTERIOR OF SHELF OR FROM EQUIPMENT & COMMERCIAL POWER FAIL ALARM, PROVIDE 24" OF SLACK CABLE. FINAL PUNCH DOWNS BY AT&T TECH. LABEL ALL WIRES

ALARM WIRE IDENTIFICATION CHART:		GENERATOR TO ATS:	
WIRE	ALARM	CONDUCTORS TO CONFIRM GENERATOR CIRCUIT BREAKER SIZE	CONTRACTOR TO CONFIRM GENERATOR CIRCUIT BREAKER SIZE AND WIRE SIZE FOR THE BREAKER TO ATS ACCORDINGLY PER NEC REQUIREMENTS.
BROWN / WHITE	GENERATOR RUNNING		
GREEN	CRITICAL FAULT		
BLUE / WHITE	MINOR FAULT		
ORANGE / WHITE	LOW FUEL		
BROWN / WHITE	FUEL LEAK		
BROWN / WHITE	"CATS" CABLE ONLY FROM 2ND CAT5 CABLE		

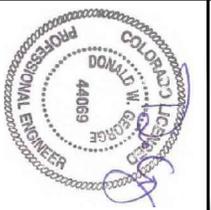


SINGLE LINE DIAGRAM

NO.	DATE	DESCRIPTION	BY
1		ISSUED FOR CONSTRUCTION	GD

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SITE INFORMATION:  
CORRAL BLUFFS  
10093745  
GENERATOR INSTALLATION PROJECT  
2180 BLANEY ROAD  
COLORADO SPRINGS, CO 80929  
JURISDICTION USE:

SHEET TITLE:  
ELECTRICAL DETAILS  
SHEET NUMBER:  
E-1



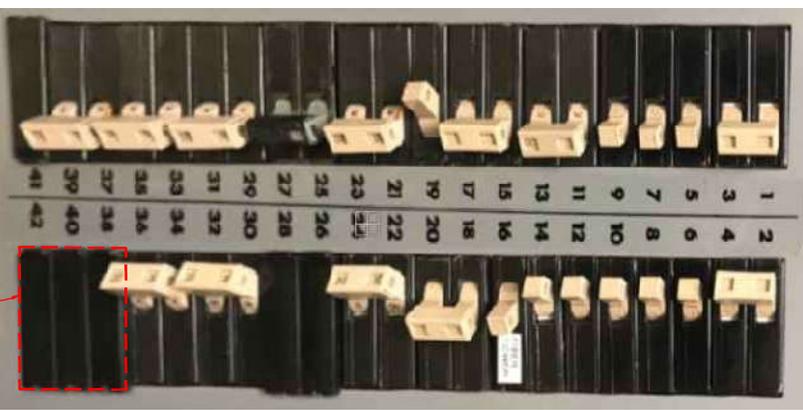
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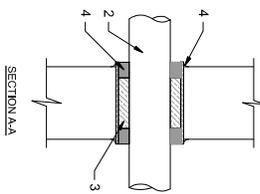
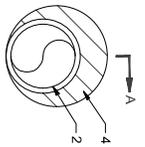
- PANEL NOTES:**
- CONTRACTOR TO LABEL WIRES WITH P-TOUGH OR SIMILAR LABELS ONLY. ABSOLUTELY NO HANDWRITTEN LABELS.
  - CONTRACTOR SHALL PERFORM A POWER STUDY ON EXISTING AC PANEL PRIOR TO INSTALLING CHANGING AUTOMERS, OR REMOVING ANY BREAKER. NO WORK SHALL BE COMPLETED ON AC PANEL WITHOUT PROPER INSPECTOR OR ENGINEER APPROVED DOCUMENTATION CONFIRMING CAPACITY ON SITE. ALL WORK SHALL CONFORM TO NEC VERSION ENFORCED BY A.H.J. AT TIME OF INSTALLATION.
  - CONTRACTOR SHALL VERIFY THAT THE MAXIMUM DEMAND FOR ALL CONNECTED EQUIPMENT AT THIS SITE AS CALCULATED PER NEC 220 DOES NOT EXCEED THE GENERATOR OUTPUT CIRCUIT BREAKER RATING. (SEE NOTE #4 ALSO.)
  - IF MAXIMUM DEMAND OF GENERATOR OUTPUT CIRCUIT BREAKER RATING AS CALCULATED PER NEC 220 IS CONTINGENT ON THE TWO HVAC UNITS NOT OPERATING CONCURRENTLY, THEN CONTRACTOR SHALL VERIFY THAT THE HVAC LEAD/LAG CONTROLLER IS CONFIGURED TO PREVENT CONCURRENT OPERATION, IE NOT THEN CONTRACTOR SHALL RECONFIGURE IT AS NEEDED TO PREVENT TRIPPING THE CIRCUIT BREAKER.

EXISTING DISTRIBUTION PANEL



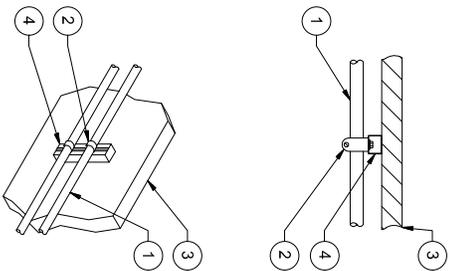
CONTRACTOR SHALL NOT SUBMIT BIDS OR PERFORM CONSTRUCTION WORK ON THIS PROJECT WITHOUT ACCESS TO THE CURRENT COMPLETE SET OF DRAWINGS LISTED IN THE TITLE SHEET INDEX.

U.L. SYSTEM NO. CA-1190  
 U.L. DESIGN NO. U902  
 F RATING = 0 HR



NOTE:  
 1. IF EXISTING CONSTRUCTION VARIES FROM THIS DETAIL, AN EQUAL 3-HR U.L. PENETRATION APPROPRIATE FOR THE EXISTING WALL TYPE SHALL BE CONSTRUCTED.  
 2. GC SHALL USE NON-SHRINKING CALK TO WEATHERSEAL ALL PENETRATIONS INTO OR THROUGH SHELTER WALL.

**OUTER WALL PENETRATION DETAIL (IF APPLICABLE)**



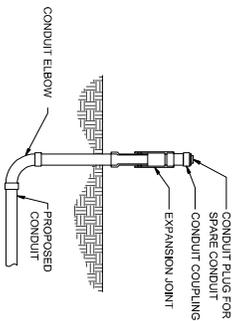
UNISTRUT WALL ATTACHMENT:	
WALL CONSTRUCTION TYPE	FASTENER
HOLLOW	3/8" DIA. TOGGLE BOLT
HOLLOW, AT STUD	3/8" DIA. LAG SCREW
CONCRETE BLOCK (HOLLOW)	7/16" DIA. U/LT IN 2" WITH GREEN MINIMUM EMBEDMENT 2-1/2"
CONCRETE (SOLID)	7/16" DIA. U/LT IN 2" MINIMUM EMBEDMENT 2-1/2"

- NOTES:  
 1. GALVANIZED OR STAINLESS STEEL HARDWARE FOR WALL MOUNT AND CONNECTION OF CHANNELS  
 2. GC SHALL USE NON-SHRINKING CALK TO WEATHER SEAL ALL PENETRATIONS INTO OR THROUGH SHELTER WALL
- CONDUIT (TYP)
  - P1119 OR P2588 CLAMP
  - EXISTING WALL/CEILING/PAVEMENT
  - VERTICAL "UNISTRUT" P1000T. REQUIRED LENGTH BASED ON QUANTITY OF CONDUIT TO BE MOUNTED. INSTALL AT 5'-0" O.C. MAX. W/ PASTER AT EACH END.

**CONDUIT WALL MOUNT DETAIL (IF APPLICABLE)**

**CONDUIT NOTES:**

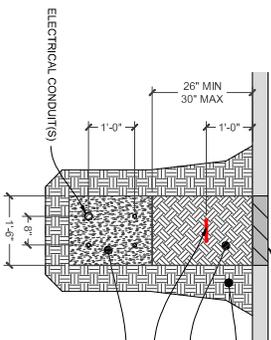
- VERIFY WIRE AND CONDUIT QUANTITY & SIZES WITH GENERATOR MAKE & MODEL # PRIOR TO INSTALLATION. VERIFY ELECTRICAL REQUIREMENTS WITH LOCAL UTILITY PROVIDER.
- ALL CONDUIT ABOVE GRADE OR IN AREAS OF HIGH TRAFFIC SHALL BE SCH 80 PVC
- PROVIDE SCH 40 PVC CONDUIT BELOW GRADE EXCEPT AS NOTED BELOW.
- PROVIDE RGS CONDUIT AND ELBOWS AT STUB UP LOCATIONS (I.E. SERVICE POLE, BTS EQUIPMENT, ETC.)
- INSTALL UTILITY PULLBOXES PER NEC.



**SLIP JOINT DETAIL**

**CONDUIT NOTES:**

- VERIFY WIRE AND CONDUIT QUANTITY & SIZES WITH GENERATOR MAKE & MODEL # PRIOR TO INSTALLATION. VERIFY ELECTRICAL REQUIREMENTS WITH LOCAL UTILITY PROVIDER.
- ALL CONDUIT ABOVE GRADE OR IN AREAS OF HIGH TRAFFIC SHALL BE SCH 80 PVC
- PROVIDE SCH 40 PVC CONDUIT BELOW GRADE EXCEPT AS NOTED BELOW.
- PROVIDE RGS CONDUIT AND ELBOWS AT STUB UP LOCATIONS (I.E. SERVICE POLE, BTS EQUIPMENT, ETC.)
- INSTALL UTILITY PULLBOXES PER NEC.



**UTILITY TRENCH SECTION (IF APPLICABLE)**

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 Information Technology



**GeoStructural**  
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REVISIONS  
 CHECKED BY: GBD  
 ISSUED FOR CONSTRUCTION: 1/20

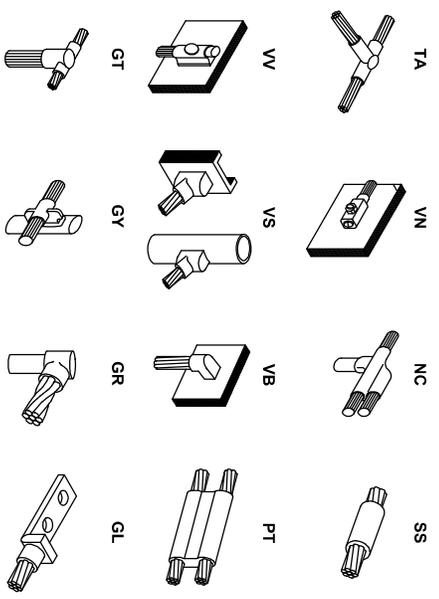
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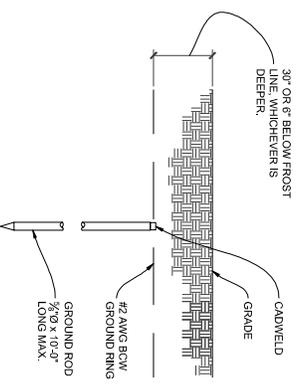
SITE INFORMATION:  
**CORRAL BLUFFS**  
 10093745

GENERATOR INSTALLATION  
 PROJECT  
 2180 BLANEY ROAD  
 COLORADO SPRINGS, CO 80929  
 JURISDICTION USE:

SHEET TITLE:  
**ELECTRICAL**  
**DETAILS**  
 SHEET NUMBER:  
**E-2**



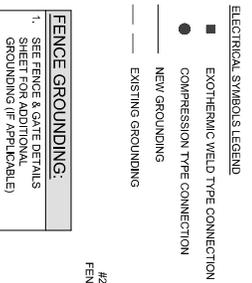
CADWELD DETAILS



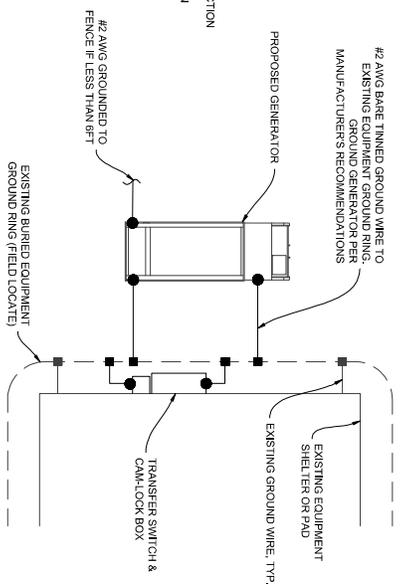
- GROUND ROD NOTES:**
- GROUND RODS MAY BE - SOLID COPPER - COPPER CLAD STEEL
  - GROUND RODS SHALL HAVE A MAXIMUM SPACING TWICE THE LENGTH OF ROD
  - SEE RESISTIVITY REPORT FOR VERIFICATION AS AVAILABLE
  - A LARGER CONDUCTOR SHALL BE USED IF THE SOIL IS HIGHLY ACIDIC
  - GROUND RODS INSTALLED WITHIN CLOSE PROXIMITY TO TOWER OR WHEN SOIL IS AT OR BELOW 2,000 OHM-CM, SHALL BE GALVANIZED TO PREVENT GALVANIC CORROSION OF TOWER. (SEE MSHA 34-22)
  - PROVIDE (1) GROUND LEAD TO EACH SIDE OF THE GENERATOR

GROUND ROD DETAILS

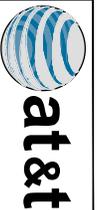
- GROUNDING NOTES:**
- IF MORE THAN 20' FROM EXISTING GROUND RING, INSTALL GROUND ROD (1/2" x 10' SS), ROD SPACING @ MAX. TOP OF ROD AND GROUND WIRE TO BE BELOW FROST LINE.
  - CONTRACTOR SHALL COORDINATE INCOMING SERVICES WITH LOCAL UTILITIES PRIOR TO TRENCHING.
  - ALL CONDUCTORS SHALL BE COPPER, 75 DEGREES C RATED, AND CONDUCTOR INSULATION BE THIN OR THIN.
  - ALL TERMINATION SHALL BE LISTED AND IDENTIFIED FOR USE WITH 75°C RATED CONDUCTORS OPERATING AT 75°C.
  - GROUND FAULT PROTECTION REQUIRED FOR UTILITY RECEPICLES.
  - GENERATOR NEUTRAL SHALL NOT BE GROUNDED AT THE GENERATOR. REFER TO SINGLE LINE DETAIL SHEET E-1.
  - EQUIPMENT LOCATED OUTSIDE OR EXPOSED TO MOISTURE SHALL BE NEMA 3R RATED.
  - CONTRACTOR SHALL USE SCHEDULE 80 PVC CONDUIT THROUGH CONCRETE AND ABOVE GROUND, UNLESS OTHERWISE NOTED.
  - ALL NEWLY INSTALLED EQUIPMENT SHALL BE RATED AT THE APPLICABLE HIGHER RATINGS SHALL BE REQUIRED UNLESS OTHERWISE NOTED.
  - ALL ELECTRICAL INSTALLATIONS SHALL BE COORDINATED WITH LOCAL UTILITY BASED ON EXACT CONDITIONS (XMR SIZE, PERCENT IMPEDANCE, LENGTH OF CONDUCTORS, ETC).



TYPICAL GROUNDING DIAGRAM



CONTRACTOR SHALL NOT SUBMIT BIDS OR PERFORM CONSTRUCTION WORK ON THIS PROJECT WITHOUT ACCESS TO THE CURRENT COMPLETE SET OF DRAWINGS LISTED IN THE TITLE SHEET INDEX.



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DATE: 12/20/2017

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SITE INFORMATION:  
CORRAL BLUFFS  
10093745  
GENERATOR INSTALLATION PROJECT  
2180 BLANEY ROAD  
COLORADO SPRINGS, CO 80929  
JURISDICTION USE:

SHEET TITLE:  
ELECTRICAL DETAILS  
SHEET NUMBER:  
E-3







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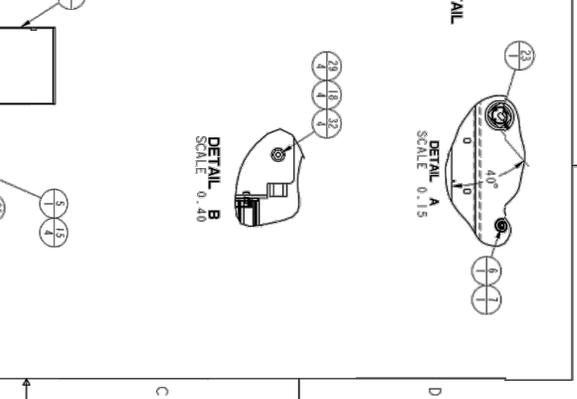
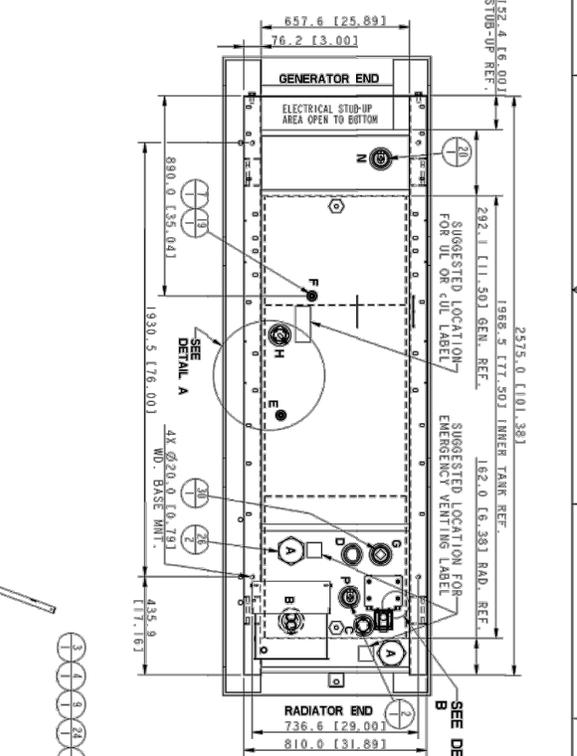
FOR INFORMATION ONLY

SITE INFORMATION:  
CORRAL BLUFFS  
10093745

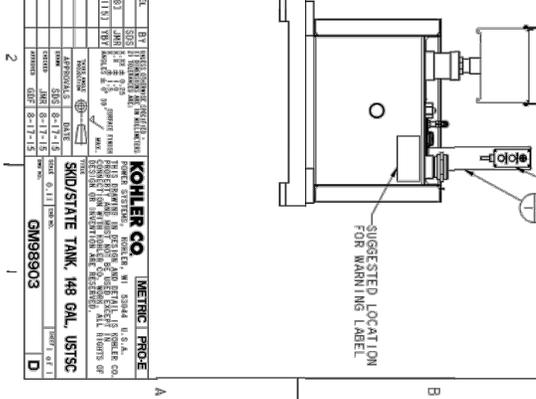
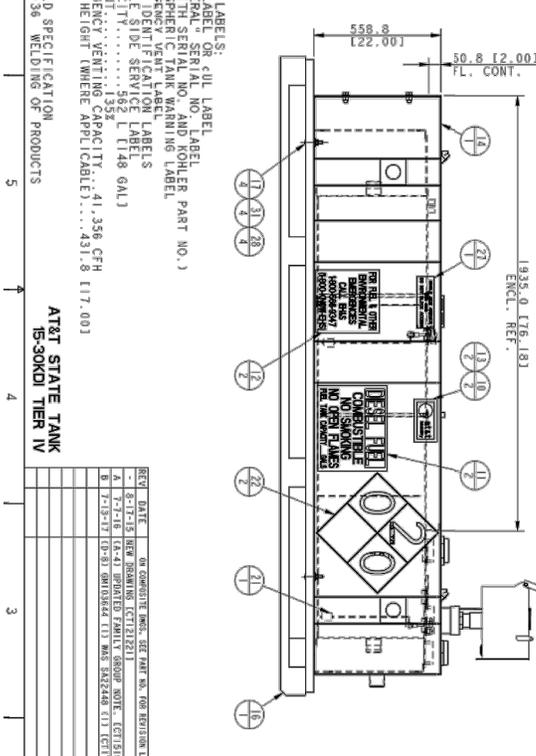
GENERATOR INSTALLATION  
PROJECT  
2160 BLANEY ROAD  
COLORADO SPRINGS, CO 80909  
JURISDICTION USE:

SHEET TITLE:  
GENERATOR SPECIFICATIONS  
SHEET NUMBER:  
E-4.2

ITEM	PART NO	QTY	DESCRIPTION
1	GM103644	1	KIT, SECONDARY CONTAINMENT TANK LABELS
2	GM11683	1	SWITCH, HIGH FUEL LEVEL 90#
3	GM42349	1	CAP, FUEL
4	GM42350	1	ADAPTER, FUEL CAP
5	GM42600	1	BOX, FUEL ALARM
6	GM89009	1	VALVE, CHECK (3/4" NPT), STAINLESS
7	GM89008	2	TUBE, DIP, ASSY, 3/4", SS
8	GM82508	1	TANK, SPILL/FILL, 5 GAL., 2" NPT
9	GM82517	1	PIPE, NIPPLE
10	GM82617	2	DECAL, AT&T DECAL BASE
11	GM82878	2	DECAL, AT&T COMBUST
12	GM82879	2	DECAL, AT&T EHS
13	GM83094	2	DECAL, AT&T MOBILITY
14	GM83094	2	TANK, FUEL WELDMENT
15	MT985A-04010-20	4	SCREEN, PAN HEAD MACHINED
16	PT-3-1260	1	BASE, WOOD
17	FM-2002-30	4	BOLT, CARTRIDGE (1/2-13 X 3.00")
18	SM10792	4	NUT, SPRING (1/4-20 MIN1)+2INCL
19	SM10998	1	COUPLING, FULL PIPE
20	SM21917	1	SWITCH, FUEL IN BASIN TOP MTD 2" 20H
21	SM22035	1	GALVE, ADJ. FUEL LEVEL
22	SM23662	2	DECAL, NFPA 704
23	SM24281-13	1	GALVE, ADJ. FUEL LEVEL
24	SM30119	1	VALVE, OVERFLL PREVENTION, 1228-03-23M07
25	SM31070	1	BRACKET
26	SM35555	2	CAP, EMERGENCY VENT (3 IN. NPT)
27	SM37644	1	LABEL, SINGLE SIDE SERVICE
28	X-25-113	4	WASHER, PLAIN
29	X-25-142	4	WASHER, PLAIN, .281 IDX, 625IN. OD
30	X-75-44	1	PLUG, PIPE (2"NPT)
31	X-09-17	4	NUT, HEX, 1/2-13
32	X-465-6	4	BOLT, HEX CAP (1/4-20 X 1/2") GR5



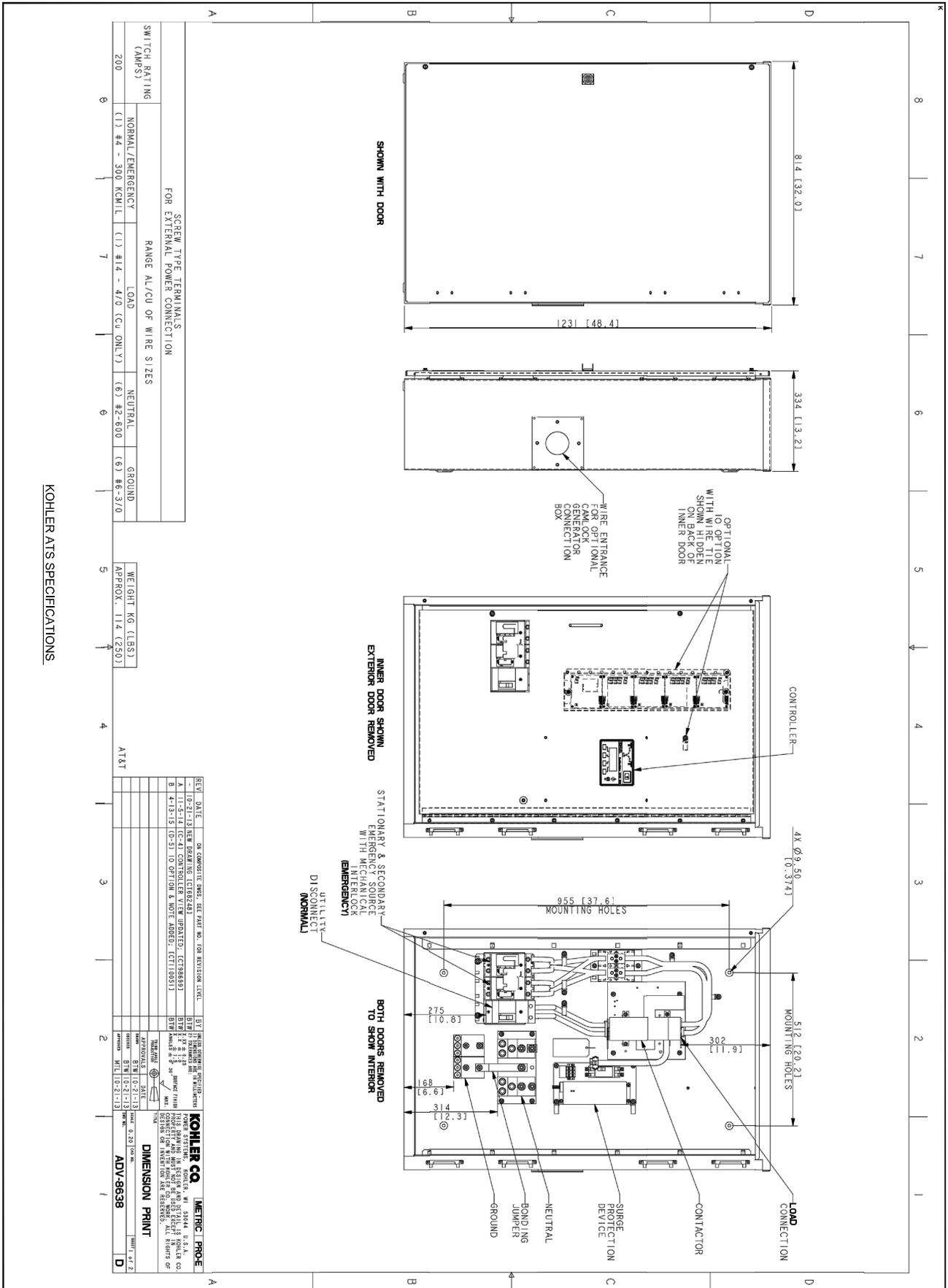
- TANK FITTINGS:**
- A. 3" NPT EMERGENCY VENT FITTING PER NFPA 30
  - B. 4" NPT FUEL FILL FITTING WITH A 5 GAL SPILL BOX AND FUEL OVERFLOW PREVENTION W/ DIRECT READING MECHANICAL GUAGE
  - C. 2" NPT NORMAL VENT FITTING WITH MUSHROOM VENT CAP AND 1.5G ROSE
  - D. 2" NPT SUPPLY DIP TUBE (3/4" NPT WITH CHECK VALVE)
  - E. 1/2" NPT RETURN DIP TUBE (3/4" NPT FEMALE)
  - F. 2" ACCESSORION (INSTALL STEEL 1/2" NPT PIPE PLUG)
  - G. 2" NPT FUEL LEVEL SENDING UNIT
  - H. 2" NPT FUEL LEVEL IN BASIN SWITCH
  - I. 2" NPT FUEL LEVEL IN HIGH FUEL LEVEL ALARM SWITCH (SET AT 90% FULL, SILENCE PACKED)
- ALL FITTINGS INSTALLED BY SUPPLIER.
1. Baffle to separate hot and cold side of tank.  
2. MATERIAL:  
COVER: T6A  
INNER TANK ENDS, SIDES, BOTTOM, BAFFLE, 10 GA  
RATER TANK ENDS, SIDES, GUSSETS, 7 GA  
OUTER TANK BOTTOM, 10 GA
3. EXTERIOR: PRIME OR PAINT BLACK PER G-57.  
4. TANK WELDMENT: 1/2" MIN. THICKNESS  
5. GENERATOR SET  
6. FITTINGS: "E", "A", "F" TO BE PLUGGED WITH PLASTIC SHIPPING PLUGS INSTALLED AS A SEPARATE UNIT.  
7. EACH TANK TO BE PACKAGED AS A SEPARATE UNIT.



REV	DATE	DESCRIPTION	BY	CHKD	APP'D
1	10-15-15	ON COMPLETE ENG. SET PART NO. FOR REVISION DATE	JSD	JSD	JSD
2	10-15-15	REVISION: 1. 1.5G ROSE VENT FITTING	JSD	JSD	JSD
3	10-15-15	REVISION: 2. 1.5G ROSE VENT FITTING	JSD	JSD	JSD
4	10-15-15	REVISION: 3. 1.5G ROSE VENT FITTING	JSD	JSD	JSD
5	10-15-15	REVISION: 4. 1.5G ROSE VENT FITTING	JSD	JSD	JSD
6	10-15-15	REVISION: 5. 1.5G ROSE VENT FITTING	JSD	JSD	JSD
7	10-15-15	REVISION: 6. 1.5G ROSE VENT FITTING	JSD	JSD	JSD
8	10-15-15	REVISION: 7. 1.5G ROSE VENT FITTING	JSD	JSD	JSD
9	10-15-15	REVISION: 8. 1.5G ROSE VENT FITTING	JSD	JSD	JSD
10	10-15-15	REVISION: 9. 1.5G ROSE VENT FITTING	JSD	JSD	JSD
11	10-15-15	REVISION: 10. 1.5G ROSE VENT FITTING	JSD	JSD	JSD
12	10-15-15	REVISION: 11. 1.5G ROSE VENT FITTING	JSD	JSD	JSD
13	10-15-15	REVISION: 12. 1.5G ROSE VENT FITTING	JSD	JSD	JSD

**KOHLER CO. METRIC PROE**  
1000 N. 10TH ST. PHOENIX, AZ 85010  
TEL: 602.974.2000 FAX: 602.974.2001  
WWW.KOHLER.COM  
SMD/STATE TANK, 149 GAL, UST5C  
GMB8903

KOHLER 30KW GENERATOR SPECIFICATIONS



SCREW TYPE TERMINALS FOR EXTERNAL POWER CONNECTION

SWITCH RATING (AMPS)	NORMAL/EMERGENCY	LOAD	NEUTRAL	GROUND
200	(1) #4 - 300 KCMIL	(1) #14 - 4/0 (Cu ONLY)	(6) #2-600	(6) #6-3/0

WEIGHT KG (LBS) APPROX. 114 (250)

AT&T

REV	DATE	BY	DESCRIPTION
1	10-21-13	NEW DRAWING	CT182483
2	11-5-14	IC-41	CONTROLLER VIEW UPDATED
3	4-13-15	IC-51	TO OPTION & NOTE ADDED

**KOHLER ATS SPECIFICATIONS**

<p><b>GENERAL DYNAMICS</b> Information Technology</p>	<p><b>GeoStructural</b> PO BOX 8821 TORRE, ID 83701 CONTACT: 505.534.6177 WWW.GEOSTRUCTURAL.COM</p>	<p>REV. DATE DESCRIPTION INT</p>
		<p>REVISIONS</p>
<p>FOR INFORMATION ONLY</p>		<p>CHECKED BY: GBD</p>
<p>SITE INFORMATION: CORRAL BLUFFS 10093745 GENERATOR INSTALLATION PROJECT 2160 BLANEY ROAD COLORADO SPRINGS, CO 80929 JURISDICTION USE:</p>		<p>THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS THE PROPERTY OF GENERAL DYNAMICS INFORMATION TECHNOLOGY. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REUSE OR MODIFICATION OF THIS INFORMATION WITHOUT THE WRITTEN PERMISSION OF GENERAL DYNAMICS INFORMATION TECHNOLOGY IS STRICTLY PROHIBITED.</p>
<p>SHEET TITLE: <b>ATS SPECIFICATIONS</b> SHEET NUMBER: <b>E-5.0</b></p>		

