



Matt Burke

16 Chestnut Street, Suite 220  
Foxboro, MA 02035  
Tel (508) 930-0974  
Fax (774) 215-5423

Melanie Bachman  
Acting Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

Re: **Notice of Exempt Modification - Emergency Backup Generator  
127 New Hartford Road, Barkhamsted, CT 06063 (FA# 10035345)**

Dear Ms. Bachman:

American Telephone and Telegraph Company ("AT&T") currently maintains a wireless telecommunications facility at the above referenced address. AT&T's facility consists of antennas at the 114' level of an existing 144' tower and a 12' x 26' equipment shelter. The tower and AT&T's shelter are located within an existing lease area. The shelter houses AT&T's equipment and space for a back-up generator. AT&T does not currently maintain a generator at this cell site.

In an effort to further enhance multiple tenants' network reliability, AT&T intends to modify its facility by installing a new diesel-fueled generator outside in a designated 4' x 8' ground space. The generator incorporates a built-in fuel tank as part of the unit. The diesel fuel tanks are double walled for added safety and will be filled by a licensed fuel filling company. The proposed modification will remain within the existing, fenced-in compound. The new generator and tank will be surrounded by a security fence and gate and will be placed on a 4' x 8' concrete pad. (See Facility Compound Plan attached).

Please accept this letter as notification pursuant to R.C.S.A Section 16-50j-73, for construction that constitutes modification pursuant to R.C.S.A Section 16-50j-72(b)(2). In accordance with R.C.S.A Section 16-50j-73, a copy of this submission is being sent to the Town of Barkhamsted. A copy of this submission is also being sent to Everett R. Slate, the property owner on which the tower is located.

### **AT&T's Proposed Wireless Modifications Constitute An "Exempt Modification"**

The proposed modification to the above mentioned Facility constitutes an exempt modification of an existing facility provided for in R.C.S.A Section 16-50j-72(b)(2) and Council regulations promulgated pursuant thereto.

- 1) The proposed modification will not result in an increase in the height of the existing tower.
- 2) The generator and attached fuel tank will remain entirely within the limits of the leased area. The modifications therefore, will not require the extension of the boundary.
- 3) The proposed modification does not increase the noise levels at the boundary by six (6) decibels or more under normal conditions. Proposed modification is only used during emergency power failure.
- 4) The installation of a new generator and attached fuel tank will not change, in any way, radio frequency (RF) emissions at the facility.
- 5) The facility has received all municipal zoning approvals and building permits. (Regs., Conn. State Agencies Section 16-50j-72))

For all the foregoing reasons, American Telephone and Telegraph Company respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A Section 16-50j-72(b)(2)

Respectfully submitted,

**Matt Burke 508.930.0974**

On behalf of AT&T

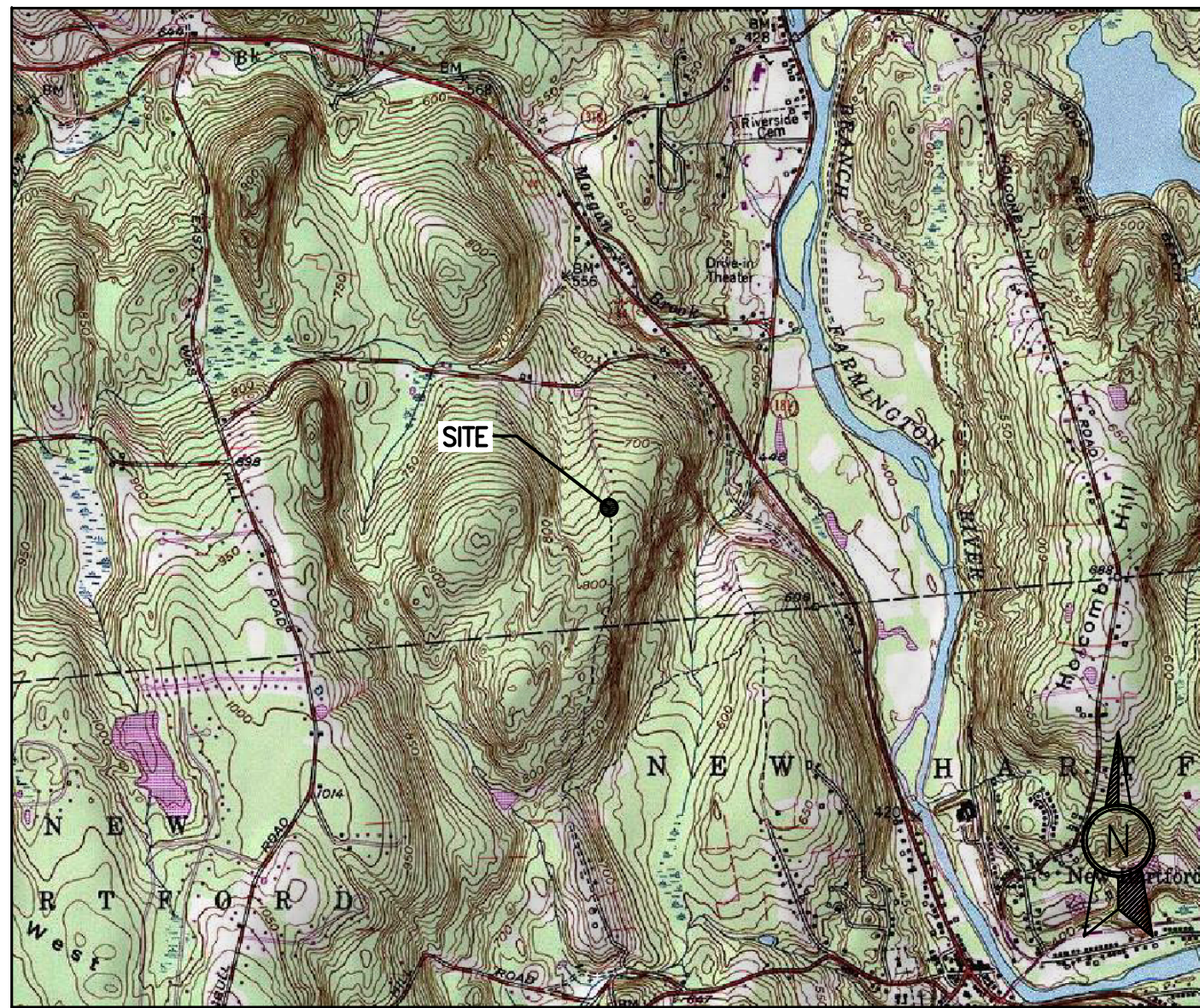
c/o Tower Resource Management, Inc.  
16 Chestnut Street, Suite 220  
Foxboro, MA 02035

cc: **Town of Barkhamsted, CT**  
**Everett R. Slater**

Exhibit 1

Site Plan





VICINITY MAP



# BACKUP POWER PROJECT

**SITE IDENTIFICATION**  
**SITE NUMBER: 10035345**  
**SITE NAME: BARKHAMSTED**

**SITE ADDRESS: 127 NEW HARTFORD ROAD  
 BARKHAMSTED, CT 06063**



LOCAL MAP

**CHAPPELL ENGINEERING ASSOCIATES, LLC**  
 Civil Structural - Land Surveying  
 R.K. EXECUTIVE CENTRE  
 201 BOSTON POST ROAD WEST,  
 SUITE 101  
 MARLBOROUGH, MA 01752  
 (508) 481-7400  
 www.chappellengineering.com

**TRM**  
 TOWER RESOURCE MANAGEMENT  
 30 LYMAN STREET  
 WESTBOROUGH, MA 01581  
 PHONE: (508) 389-1731  
 www.trmcom.com

**at&t**  
 AT&T MOBILITY  
 550 COCHITUATE ROAD  
 SUITES 13 & 14  
 FRAMINGHAM, MA 01701



Know what's below.  
 Call before you dig.

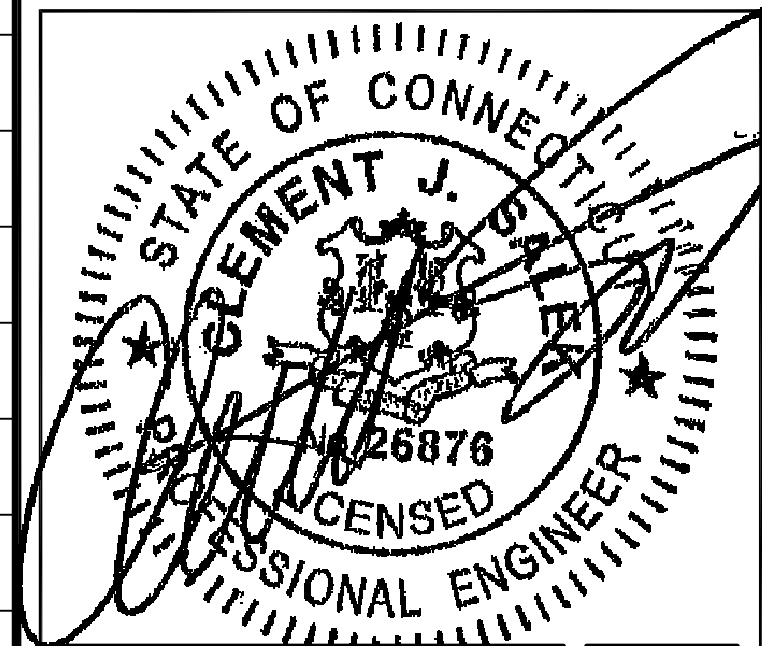
**PROJECT DESCRIPTION**  
**THE PROPOSED PROJECT INCLUDES PLACING A 50 KW GENERATOR  
 WITHIN AN EXISTING CELLULAR TOWER COMPOUND.**

| PROJECT TEAM  | PROJECT SUMMARY  | PROJECT NOTES  | SHEET INDEX |   |      |          |     |
|---|--|--|-------------|---|------|----------|-----|
| <p><b>ENGINEER:</b><br/>           CHAPPELL ENGINEERING ASSOCIATES, LLC<br/>           201 BOSTON POST ROAD WEST, SUITE 101<br/>           MARLBOROUGH, MA 01752<br/>           508-481-7400</p> <p><b>APPLICANT:</b><br/>           AT&amp;T MOBILITY<br/>           550 COCHITUATE ROAD<br/>           SUITES 13 &amp; 14<br/>           FRAMINGHAM, MA 01701</p> <p><b>CUSTOMER REPRESENTATIVE:</b><br/>           SABRE INDUSTRIES<br/>           PEGGY POOR<br/>           MARKET LEAD - AT&amp;T NE GENERATOR PROGRAM<br/>           13010 MORRIS ROAD, 6TH FLOOR, BLDG 1<br/>           ALPHARETTA, GA 30004<br/>           770-990-0137</p> <p><b>LANDLORD:</b><br/>           CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS<br/>           180 WASHINGTON VALLEY ROAD<br/>           BEDMINSTER, NJ 07921<br/>           (866) 862-4404</p> <p><b>UTILITIES:</b><br/> <b>POWER COMPANY:</b><br/>           CONNECTICUT LIGHT &amp; POWER<br/>           P.O. BOX 270<br/>           HARTFORD, CT 06141<br/>           (800) 286-2000</p> | <p><b>GEOGRAPHIC COORDINATES:</b><br/>           LATITUDE: N 41° 53' 37.24"<br/>           LONGITUDE: W 72° 59' 47.37"</p> <p><b>CODE BLOCK:</b><br/>           CT BUILDING CODE: 2009 INTERNATIONAL BUILDING CODE</p> <p><b>AT&amp;T OPS FOR POWER CUT OVER:</b><br/>           NEED 24 HOUR NOTICE<br/>           TO OPEN A TAP TICKET<br/>           DIAL: 1-800-638-2822<br/>           SELECT OPTION 1, THEN OPTION 2</p> <p><b>MUX NOTE:</b><br/>           CONTRACTOR TO VERIFY EXISTING MUX LOCATION. IF MUX<br/>           LOCATION IS OUTSIDE OF AT&amp;T EQUIPMENT AREA,<br/>           CONTRACTOR IS TO FIELD VERIFY THE PRESENCE OF<br/>           EMERGENCY BACK-UP SERVICE IS NOT PRESENT.<br/>           CONTRACTOR IS TO ROUTE NEW SERVICE FROM AT&amp;T<br/>           EQUIPMENT AREA.</p> | <ol style="list-style-type: none"> <li>THE FACILITY IS UNMANNED</li> <li>A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE</li> <li>THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE</li> <li>NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED</li> <li>HANDICAP ACCESS IS NOT REQUIRED</li> </ol> <p><b>PROJECT LOCATION DIRECTIONS</b></p> <ul style="list-style-type: none"> <li>- TAKE I-90 WEST TOWARDS SPRINGFIELD/ALBANY NY</li> <li>- TAKE EXIST 9 TO MERGE ONTO I-84 TOWARDS US-20/HARTFORD/NEW YORK CITY</li> <li>- TAKE EXIT 50 TO MERGE ONTO US-44 WEST/ MORGAN STREET TOWARD I-91 SOUTH/ MAIN STREET</li> <li>- SLIGHT RIGHT ONTO MAIN STREET</li> <li>- CONTINUE ONTO US-44 WEST/ ALBANY AVENUE</li> <li>- TURN LEFT ONTO OLD COUNTRY ROAD</li> <li>- TAKE FIRST LEFT ONTO RUST ROAD</li> <li>- DESTINATION WILL BE ON THE LEFT</li> </ul> | SHEET NO:   | DESCRIPTION:                                    | REV: | DATE:    | BY: |
|   |  |  | T-1         | TITLE SHEET, VICINITY MAP & GENERAL INFORMATION | 1    | 01/27/14 | CAW |
|   |  |  | A-1         | SITE PLAN                                       | 1    | 01/27/14 | CAW |
|   |  |  | A-2         | CONCRETE PAD DETAILS                            | 1    | 01/27/14 | CAW |
|   |  |  | E-1         | GENERATOR WIRING DIAGRAM                        | 1    | 01/27/14 | CAW |
|   |  |  | E-2         | ELECTRICAL DETAILS                              | 1    | 01/27/14 | CAW |
|   |  |  | E-3         | GENERATOR CONTROL & ALARM WIRING                | 1    | 01/27/14 | CAW |
|   |  |  | G-1         | GROUNDING & TRENCH DETAILS                      | 1    | 01/27/14 | CAW |
|   |  |  |             |   |      |          |     |
|   |  |  |             |   |      |          |     |

**SITE NUMBER:**  
 10035345

**SITE NAME:**  
 BARKHAMSTED

**SITE ADDRESS:**  
 127 NEW HARTFORD ROAD  
 BARKHAMSTED, CT 06063

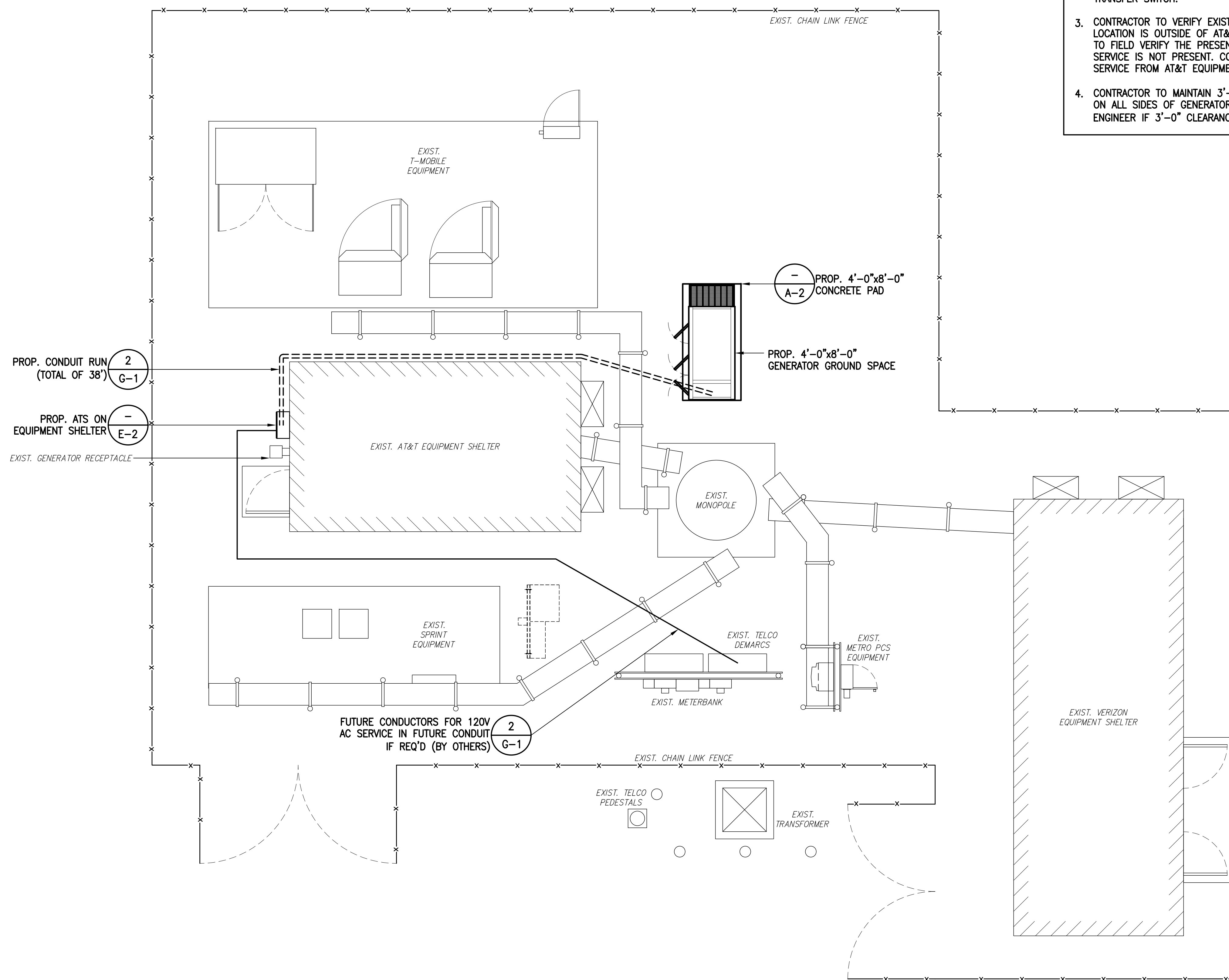
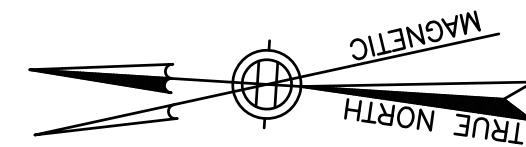


|                          |      |
|--------------------------|------|
| ENGINEER/LAND SURVEYOR   | DATE |
| DRAWN BY: CAW            |      |
| CHECKED BY: JMT          |      |
| DATE DRAWN: 01/27/14     |      |
| CEA JOB NUMBER: 1337.036 |      |

**DRAWING TITLE:**  
 TITLE SHEET  
 VICINITY MAP &  
 GENERAL INFO

|                           |                       |
|---------------------------|-----------------------|
| <b>DRAWING NO:</b><br>T-1 | <b>REVISION:</b><br>1 |
|---------------------------|-----------------------|



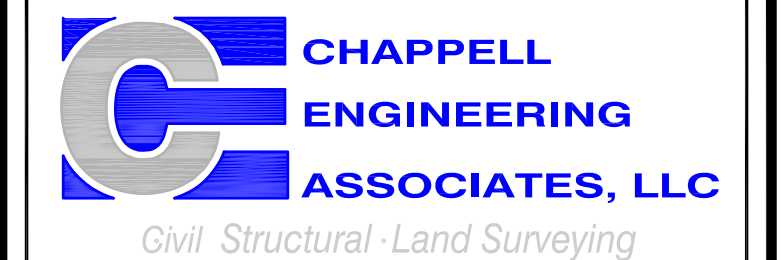


**SITE PLAN**  
SCALE: 1/4" = 1'-0"

1  
A-1

**NOTES:**

1. A SITE VISIT/SURVEY WAS NOT CONDUCTED BY CHAPPELL ENGINEERING ASSOCIATES. SITE PLAN REFERENCED FROM DRAWINGS ENTITLED "BARKHAMSTED" BY CENTEK ENGINEERING, DATED 10/08/12
2. ELECTRICAL CONTRACTOR SHALL MAINTAIN ALL MANUFACTURER'S REQUIRED CLEARANCES FOR GENERATOR AND AUTOMATIC TRANSFER SWITCH.
3. CONTRACTOR TO VERIFY EXISTING MUX LOCATION. IF MUX LOCATION IS OUTSIDE OF AT&T EQUIPMENT AREA, CONTRACTOR IS TO FIELD VERIFY THE PRESENCE OF EMERGENCY BACK-UP SERVICE IS NOT PRESENT. CONTRACTOR IS TO ROUTE NEW SERVICE FROM AT&T EQUIPMENT AREA.
4. CONTRACTOR TO MAINTAIN 3'-0" MINIMUM WORKING CLEARANCE ON ALL SIDES OF GENERATOR. CONTRACTOR TO CONTACT ENGINEER IF 3'-0" CLEARANCE CAN NOT BE MAINTAINED.



R.K. EXECUTIVE CENTRE  
201 BOSTON POST ROAD WEST,  
SUITE 101  
MARLBOROUGH, MA 01752  
(508)481-7400  
www.chappellengineering.com



TOWER RESOURCE MANAGEMENT  
30 LYMAN STREET  
WESTBOROUGH, MA 01581  
PHONE: (508) 389-1731  
www.trmcom.com



AT&T MOBILITY  
550 COCHITUATE ROAD  
SUITES 13 & 14  
FRAMINGHAM, MA 01701

SITE NUMBER:

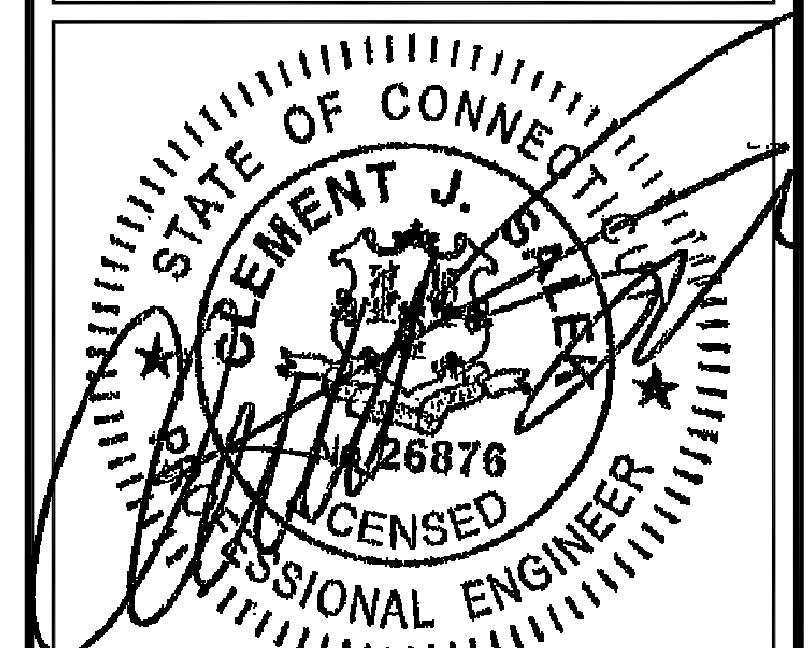
10035345

SITE NAME:

BARKHAMSTED

SITE ADDRESS:

127 NEW HARTFORD ROAD  
BARKHAMSTED, CT 06063



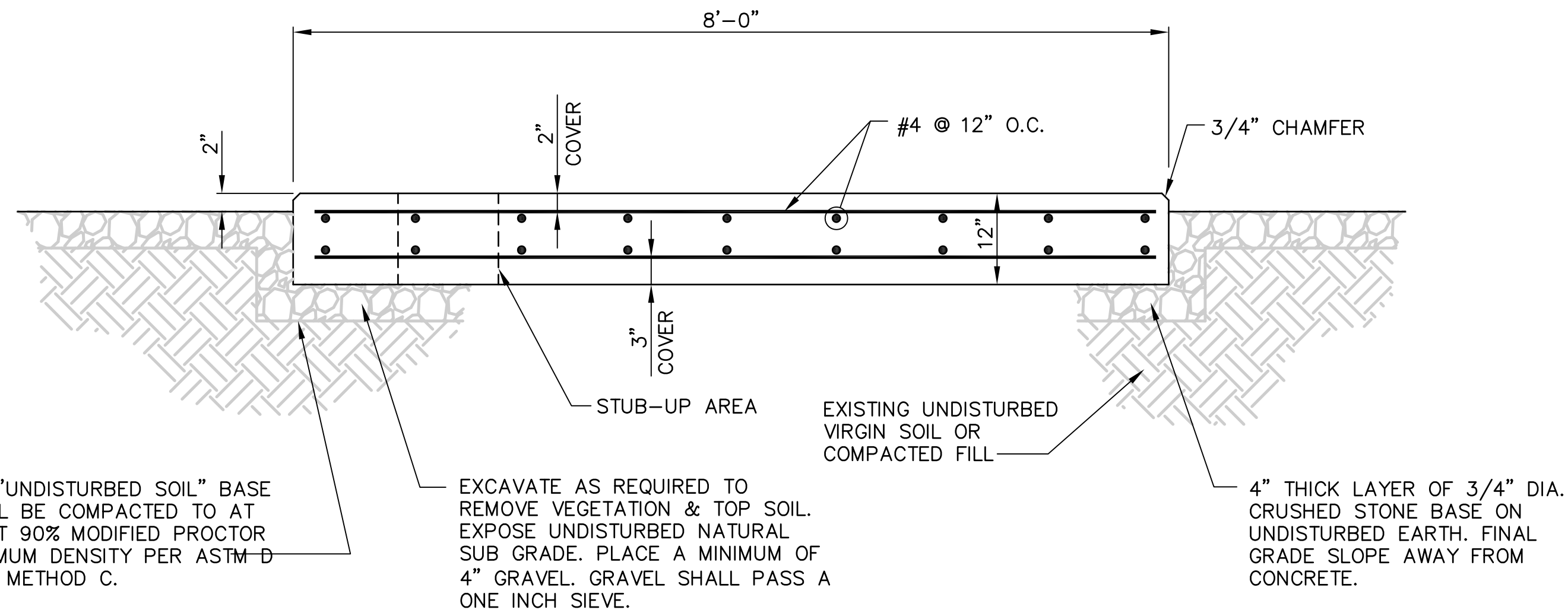
|                          |      |
|--------------------------|------|
| ENGINEER/LAND SURVEYOR   | DATE |
| DRAWN BY: CAW            |      |
| CHECKED BY: JMT          |      |
| DATE DRAWN: 01/27/14     |      |
| CEA JOB NUMBER: 1337.036 |      |

DRAWING TITLE:

SITE PLAN

|             |           |
|-------------|-----------|
| DRAWING NO: | REVISION: |
| A-1         | 1         |



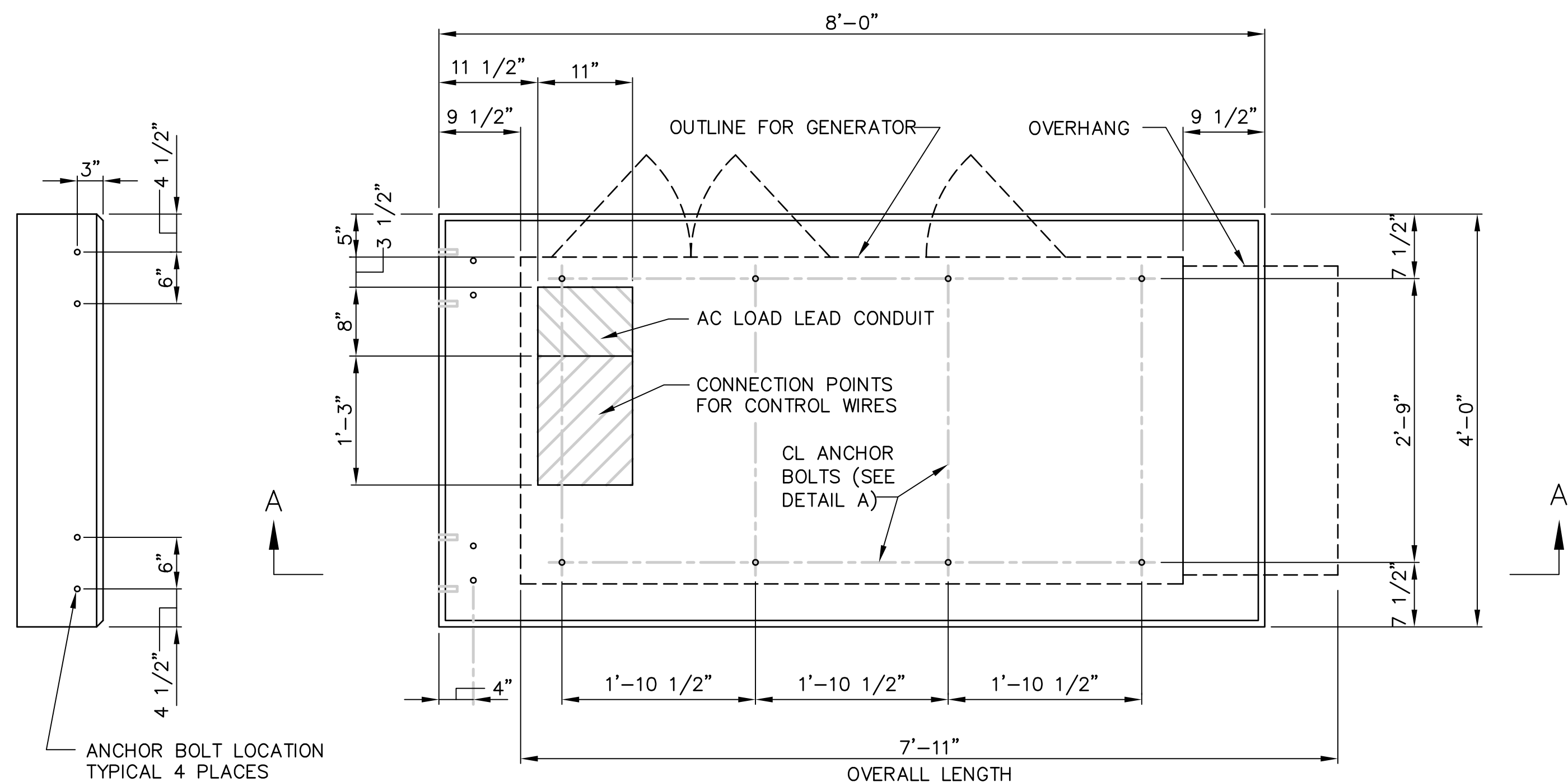


THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.

EXCAVATE AS REQUIRED TO REMOVE VEGETATION & TOP SOIL. EXPOSE UNDISTURBED NATURAL SUB GRADE. PLACE A MINIMUM OF 4" GRAVEL. GRAVEL SHALL PASS A ONE INCH SIEVE.

4" THICK LAYER OF 3/4" DIA. CRUSHED STONE BASE ON UNDISTURBED EARTH. FINAL GRADE SLOPE AWAY FROM CONCRETE.

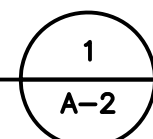
SECTION A-A



PLAN VIEW

**CONCRETE SLAB (GENERATOR FOUNDATION)**

SCALE: NOT TO SCALE



**CONCRETE AND REINFORCING STEEL NOTES:**

- ALL CONCRETE CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE (ACI 318-95) BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND (ACI 301) STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACIW301, ACIW318, ASTM A184 AND ASTM A185.
- MINIMUM ALLOWABLE CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH THE AMERICAN SOCIETY FOR TESTING AND MATERIALS METHODS STANDARDS ASTM C172, ASTM C31 AND ASTM C39 UNLESS NOTED OTHERWISE.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDING WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNLESS NOTED OTHERWISE.
- DETAILING SHALL BE ACCORDANCE WITH THE MANUAL OF STANDARD PRACTICE OF DETAILING REINFORCED CONCRETE STRUCTURES (ACI STD-315-92).
- CHAMFER ALL EXPOSED EDGES OF CONCRETE 3/4" IN ACCORDANCE WITH ACI 301 SECTION 4.2.2 UNLESS OTHERWISE NOTED.
- REINFORCING STEEL SHALL BE IN ACCURATELY PLACED AND ADEQUATELY SECURED IN POSITION. LOCATION OF REINFORCEMENT SHALL BE INDICATED ON THE DRAWINGS. CONCRETE COVER SHALL BE 3" MINIMUM.
- TOP OF FOUNDATION TO HAVE A "BRUSH FINISH".
- EXPOSED FINISHED SURFACE IS NOT TO HOLD WATER.
- ALL SURFACES ARE TO BE CLEANED OF ANY RESIDUAL CONCRETE FROM SPLASHING OR SPILLS.

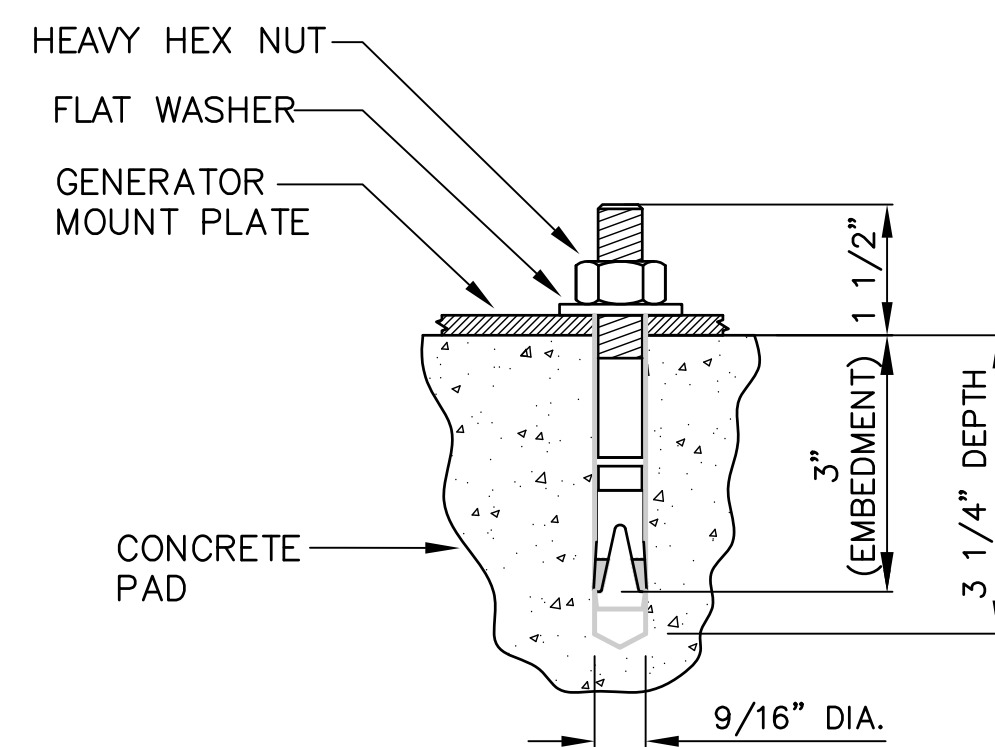
**SOIL COMPACTION NOTES FOR SLAB ON GRADE:**

- EXCAVATE AS REQUIRED TO REMOVE VEGETATION & TOPSOIL, EXPOSE UNDISTURBED NATURAL SUB GRADE AND PLACE CRUSHED STONE AS REQUIRED.
- COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEO TECHNICAL 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 SUB BASE 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 PROOF ROLL THE SUB GRADE 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.

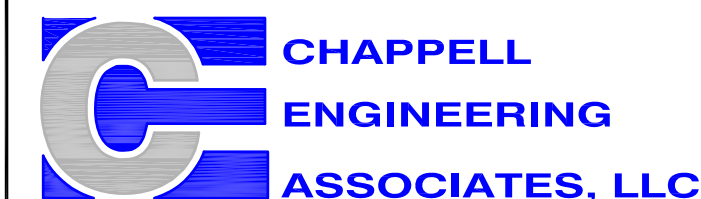
| MATERIALS LIST (FOR ONE CONCRETE PAD) |             |                                |                    |                                      |                 |  |
|---------------------------------------|-------------|--------------------------------|--------------------|--------------------------------------|-----------------|--|
| QTY REQ'D.                            | SIZE        | TOTAL LENGTH                   | TOTAL WEIGHT (LBS) | TYPE                                 | BENDING DIAGRAM |  |
|                                       |             |                                |                    |                                      | DIMENSION       |  |
| 20                                    | 1/2"        | 4 1/2" LONG WITH 2 7/8" THREAD | --                 | "HILTI" KWIK BOLT 3 EXPANSION ANCHOR | A= 4 1/2"       |  |
| 12                                    | #4          | 9'-9 1/2"                      | 78                 | STRAIGHT                             | A= 9'-9 1/2"    |  |
| 18                                    | #4          | 7'-9 1/2"                      | 94                 |                                      | A= 7'-9 1/2"    |  |
| 4                                     | #4          | 7'-9 3/8"                      | 21                 |                                      | A= 7'-9 3/8"    |  |
| 6                                     | #4          | 2'-7 1/2"                      | 11                 |                                      | A= 2'-7 1/2"    |  |
| 4                                     | #4          | 0'-5 5/8"                      | 2                  |                                      | A= 0'-5 5/8"    |  |
| STANDARD REBAR SIZES & WEIGHTS        |             |                                |                    |                                      |                 |  |
| BAR NO                                | LBS PER FT. | DIA. INCHES                    | GRADE              |                                      |                 |  |
| 4                                     | .6676       | .500                           | 60                 |                                      |                 |  |



DETAIL A  
SCALE: NOT TO SCALE

**"HILTI" KWIK BOLT 3 EXPANSION ANCHOR NOTES:**

- BOLTS CAN BE INSTALLED 2 DAYS AFTER POURING CONCRETE PROVIDED THE KWIK BOLTS ARE ONLY TIGHTENED TO A SNUG TIGHT CONDITION.
- APPLY "HILTI" HIT-RE 500-SD EPOXY TO ALL GAPS TO PREVENT WATER/MOISTURE BUILD-UP.



Civil Structural - Land Surveying  
R.K. EXECUTIVE CENTRE  
201 BOSTON POST ROAD WEST,  
SUITE 101  
MARLBOROUGH, MA 01752  
(508)481-7400  
www.chappellengineering.com



TOWER RESOURCE MANAGEMENT  
30 LYMAN STREET  
WESTBOROUGH, MA 01581  
PHONE: (508) 389-1731  
www.trmcom.com



AT&T MOBILITY  
550 COCHITUATE ROAD  
SUITES 13 & 14  
FRAMINGHAM, MA 01701

**SITE NUMBER:**

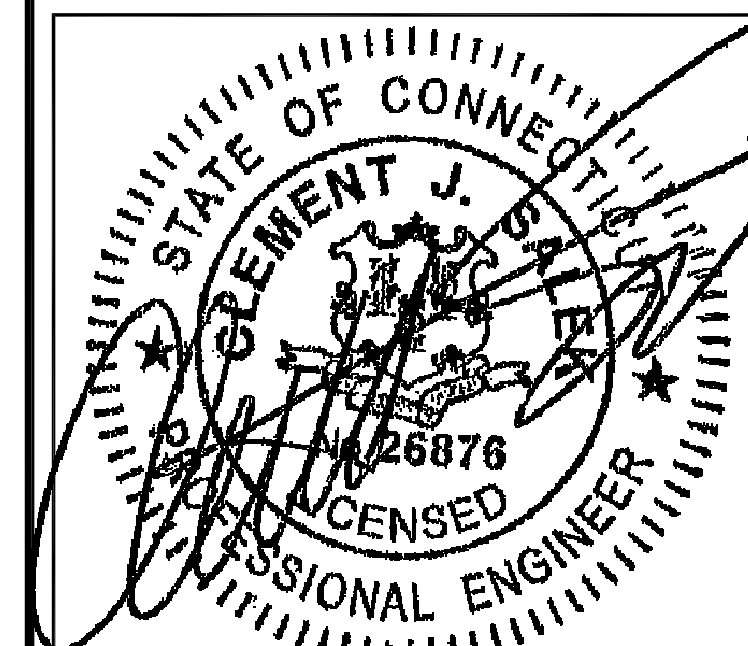
10035345

**SITE NAME:**

BARKHAMSTED

**SITE ADDRESS:**

127 NEW HARTFORD ROAD  
BARKHAMSTED, CT 06063



ENGINEER/LAND SURVEYOR DATE

|                 |          |
|-----------------|----------|
| DRAWN BY:       | CAW      |
| CHECKED BY:     | JMT      |
| DATE DRAWN:     | 01/27/14 |
| GEA JOB NUMBER: | 1337.036 |

**DRAWING TITLE:**

CONCRETE PAD  
DETAILS

**DRAWING NO:**

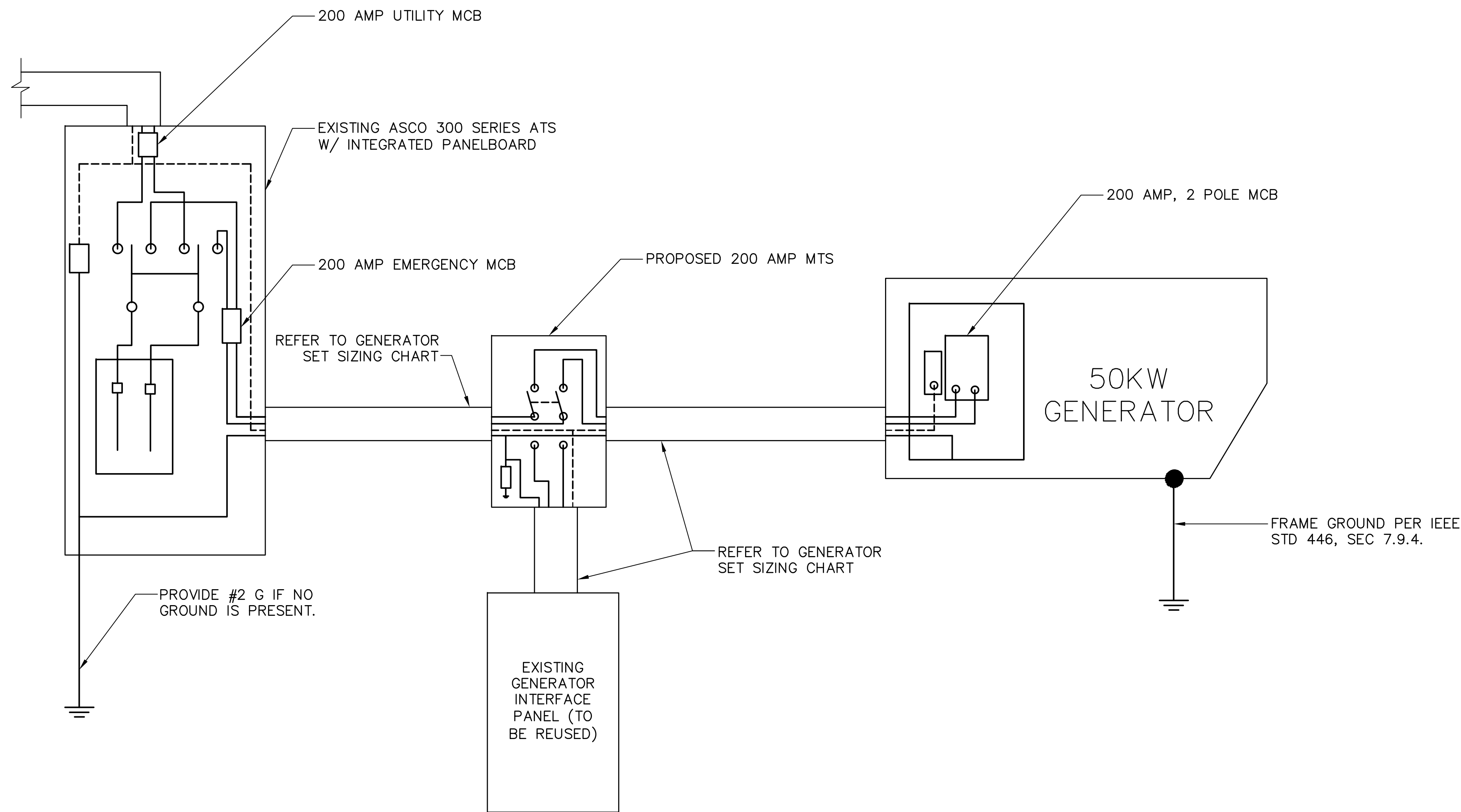
A-2

**REVISION:**

1

**MUX NOTE:**  
CONTRACTOR TO VERIFY EXISTING MUX LOCATION. IF MUX LOCATION IS OUTSIDE OF AT&T EQUIPMENT AREA, CONTRACTOR IS TO FIELD VERIFY THE PRESENCE OF EMERGENCY BACK-UP SERVICE IS NOT PRESENT. CONTRACTOR IS TO ROUTE NEW SERVICE FROM AT&T EQUIPMENT AREA.





**SINGLE CARRIER WIRING DIAGRAM** 1  
SCALE: NOT TO SCALE E-1

| FEEDER SIZING CHART FOR GENERATOR |                 |                        |                                       |  |  |
|-----------------------------------|-----------------|------------------------|---------------------------------------|--|--|
| GEN SET SIZE                      | VOLTS - PHASE   | PRIME RATING KW - AMPS | SIZE OF INLINE BREAKER (AT GENERATOR) | MAIN BREAKER SIZE SERVING ANCHOR TENANT: | FEEDER SIZES FROM GEN SET BREAKER TO DISTRIBUTION PANEL / ATS. |
| 50KW                              | 120/240V - 1-PH | 48KW - 200A            | 200A                                  | 200A 2-P C/B INTEGRAL TO GEN SET         | 3#3/0, 1#6G, IN 2" C   |

- NOTES:
- SERVICE VOLTAGE FOR EACH CARRIER IS 120/240 1-PHASE, AND SERVICE SIZES ARE TYPICAL 200A PER CARRIER.
  - DISTRIBUTION PANEL IS 800A, 120/240V 1-PHASE, WITH 200A C/B FOR THE LISTED CARRIER OUTPUT. PANEL HAS (3) 200A BREAKER SPACES FOR FUTURE CARRIERS.
  - AUTOMATIC TRANSFER SWITCH (ATS) ARE 200A 2-POLES, 120/240V 1-PHASE WITH SOLID NEUTRAL PER CARRIER.
  - ALL ELECTRICAL EQUIPMENT IS NEMA 3R RATED.
  - THE GENERATOR ELECTRICAL LOADS ARE ADEQUATE FOR THE CONNECTED LOADS.
  - ALL EQUIPMENT FURNISHED SHALL BE PROVIDED WITH EQUIPMENT RATED TO WITHSTAND FAULT CURRENT AVAILABLE AT PROJECT SITE.
  - ALL WIRE AND PANEL BUSSING SHALL BE COPPER UNLESS ALLOWED ELSEWHERE IN THIS DOCUMENT SET, WIRE SIZES ARE BASED ON COPPER.
  - A NEW SET OF PLANS WILL BE PROVIDED AND SUBMITTED FOR ADDITIONAL CARRIERS.
  - ALL WORK SHALL CONFORM WITH THE CURRENT VERSION OF THE NEC AND ALL OTHER APPLICABLE CODES.
  - FIRST OVER-CURRENT PROTECTION DEVICE IS INTEGRAL TO GENERATOR. FEEDER SIZES INDICATED IN TABLE ABOVE ARE DOWNSTREAM OF THE FIRST OVER-CURRENT PROTECTION DEVICE.
  - INLINE BREAKER AT GENERATOR IS FACTORY INSTALLED, AND IS THE MANUFACTURER'S RECOMMENDED SIZE.

**GENERATOR SET SIZING CHARTS** 2  
SCALE: NOT TO SCALE E-1

- NOTES:
- ALL UNDERGROUND CABLE TO BE BURIED AT 36" MIN. SHIELD TAPED AT 12" AND STUBBED OUT OF GROUND IN SCH 40 PVC CONDUIT.
  - LOW VOLTAGE CONTROL WIRE PROVIDED BY MONITORING PROVIDER IN SEPARATE 1/2" CONDUIT FROM ATS TO GENERATOR.
  - BTS SITES: THE TENANT CONTRACTOR TO COMPLETE CUSTOMER ELECTRICAL CONDUIT TO CUSTOMER METER PER STANDARD COLLOCATION INSTALL.
  - TENANT CONTRACTOR HAS NOTHING TO INSTALL OR COMPLETE FOR ATC SHARED GEN DURING CUSTOMER COLLOCATION ON ATC TOWER.
  - ATC SHARED GEN INSTALL IS COMPLETED AFTER CUSTOMER TOWER COLLOCATION IS COMPLETE WITH LOAD ON CUSTOMER METER.
  - ALL CONDUCTORS ARE SIZED FOR COPPER, BUT ALUMINUM CONDUCTORS ARE ALLOWED FOR FEEDERS PROVIDED THEY ARE UPSIZED PER NEC TABLE 310.16.
  - ALL ELECTRICAL WORK SHALL BE PER THE NATIONAL ELECTRICAL CODE (NFPA 70) AND ALL APPLICABLE LOCAL CODES.
  - MAINTAIN 36" CLEAR WORKSPACE IN FRONT OF METER, TRANSFER SWITCH, GENERATOR, PANELS, ETC.
  - 800A PANEL HAS A COMMON NEUTRAL BUS. NEUTRALS BACK TO EACH CARRIER METER ARE SIZED ACCORDING TO THE DISTRIBUTION PANEL BRANCH BREAKER RATING. NEUTRAL IS BONDED AT THE PRIMARY SERVICE MAIN BONDING JUMPER ONLY.
  - GENERATOR CONTROLS AND SENSORS SHALL HAVE GFCI SENSING CAPABILITY PER NEC 700-6(D).

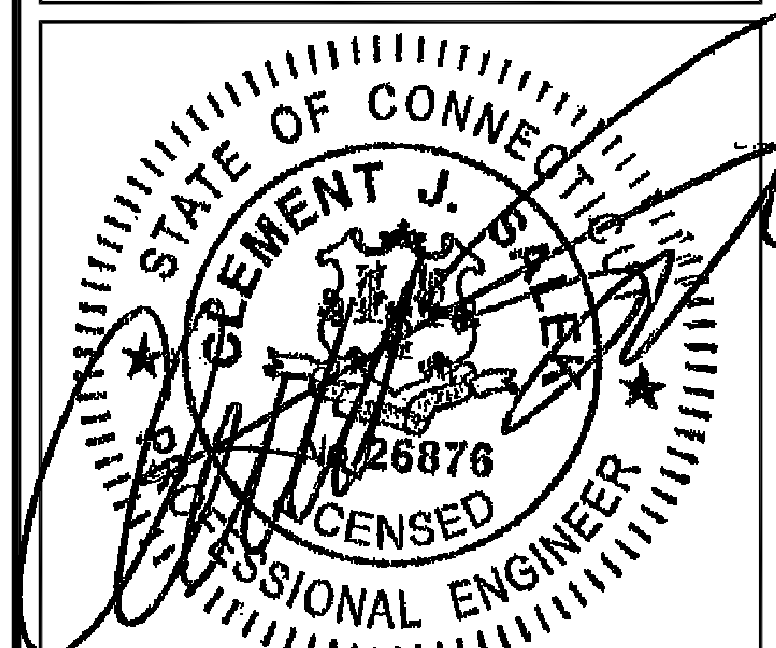
**MUX NOTE:**  
CONTRACTOR TO VERIFY EXISTING MUX LOCATION. IF MUX LOCATION IS OUTSIDE OF AT&T EQUIPMENT AREA, CONTRACTOR IS TO FIELD VERIFY THE PRESENCE OF EMERGENCY BACK-UP SERVICE IS NOT PRESENT. CONTRACTOR IS TO ROUTE NEW SERVICE FROM AT&T EQUIPMENT AREA.

**CHAPPELL ENGINEERING ASSOCIATES, LLC**  
Civil Structural - Land Surveying  
R.K. EXECUTIVE CENTRE  
201 BOSTON POST ROAD WEST,  
SUITE 101  
MARLBOROUGH, MA 01752  
(508)481-7400  
www.chappellengineering.com

**TRM**  
TOWER RESOURCE MANAGEMENT  
30 LYMAN STREET  
WESTBOROUGH, MA 01581  
PHONE: (508) 389-1731  
www.trmcom.com

**at&t**  
AT&T MOBILITY  
550 COCHITUATE ROAD  
SUITES 13 & 14  
FRAMINGHAM, MA 01701

SITE NUMBER:  
10035345  
SITE NAME:  
BARKHAMSTED  
SITE ADDRESS:  
127 NEW HARTFORD ROAD  
BARKHAMSTED, CT 06063

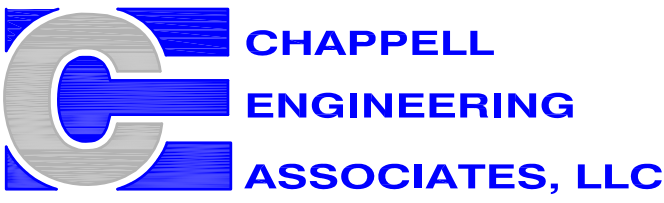


|                          |      |
|--------------------------|------|
| ENGINEER/LAND SURVEYOR   | DATE |
| DRAWN BY: CAW            |      |
| CHECKED BY: JMT          |      |
| DATE DRAWN: 01/27/14     |      |
| GEA JOB NUMBER: 1337.036 |      |

DRAWING TITLE:  
**GENERATOR WIRING DIAGRAM**

|                    |                |
|--------------------|----------------|
| DRAWING NO:<br>E-1 | REVISION:<br>1 |
|--------------------|----------------|

**MUX NOTE:**  
 CONTRACTOR TO VERIFY EXISTING MUX LOCATION. IF MUX LOCATION IS OUTSIDE OF AT&T EQUIPMENT AREA, CONTRACTOR IS TO FIELD VERIFY THE PRESENCE OF EMERGENCY BACK-UP SERVICE IS NOT PRESENT. CONTRACTOR IS TO ROUTE NEW SERVICE FROM AT&T EQUIPMENT AREA.



Civil Structural - Land Surveying  
 R.K. EXECUTIVE CENTRE  
 201 BOSTON POST ROAD WEST,  
 SUITE 101  
 MARLBOROUGH, MA 01752  
 (508)481-7400  
 www.chappellengineering.com



TOWER RESOURCE MANAGEMENT  
 30 LYMAN STREET  
 WESTBOROUGH, MA 01581  
 PHONE: (508) 389-1731  
 www.trmcom.com



AT&T MOBILITY  
 550 COCHITUATE ROAD  
 SUITES 13 & 14  
 FRAMINGHAM, MA 01701

SITE NUMBER:

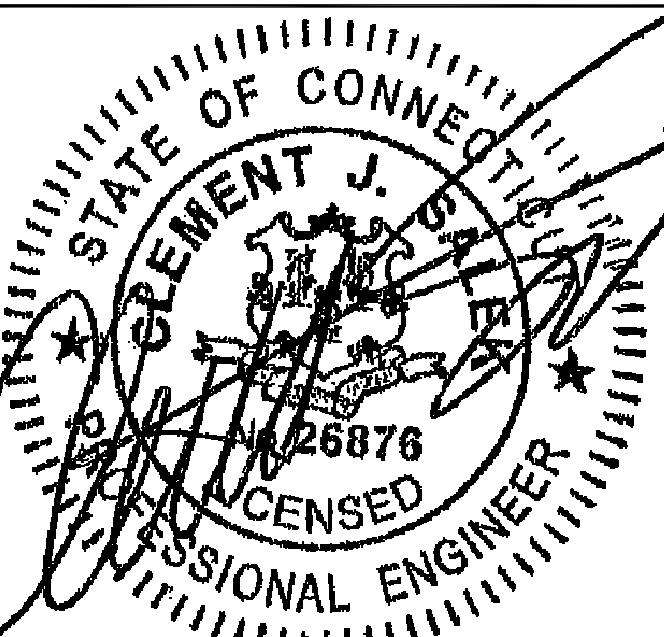
10035345

SITE NAME:

BARKHAMSTED

SITE ADDRESS:

127 NEW HARTFORD ROAD  
 BARKHAMSTED, CT 06063



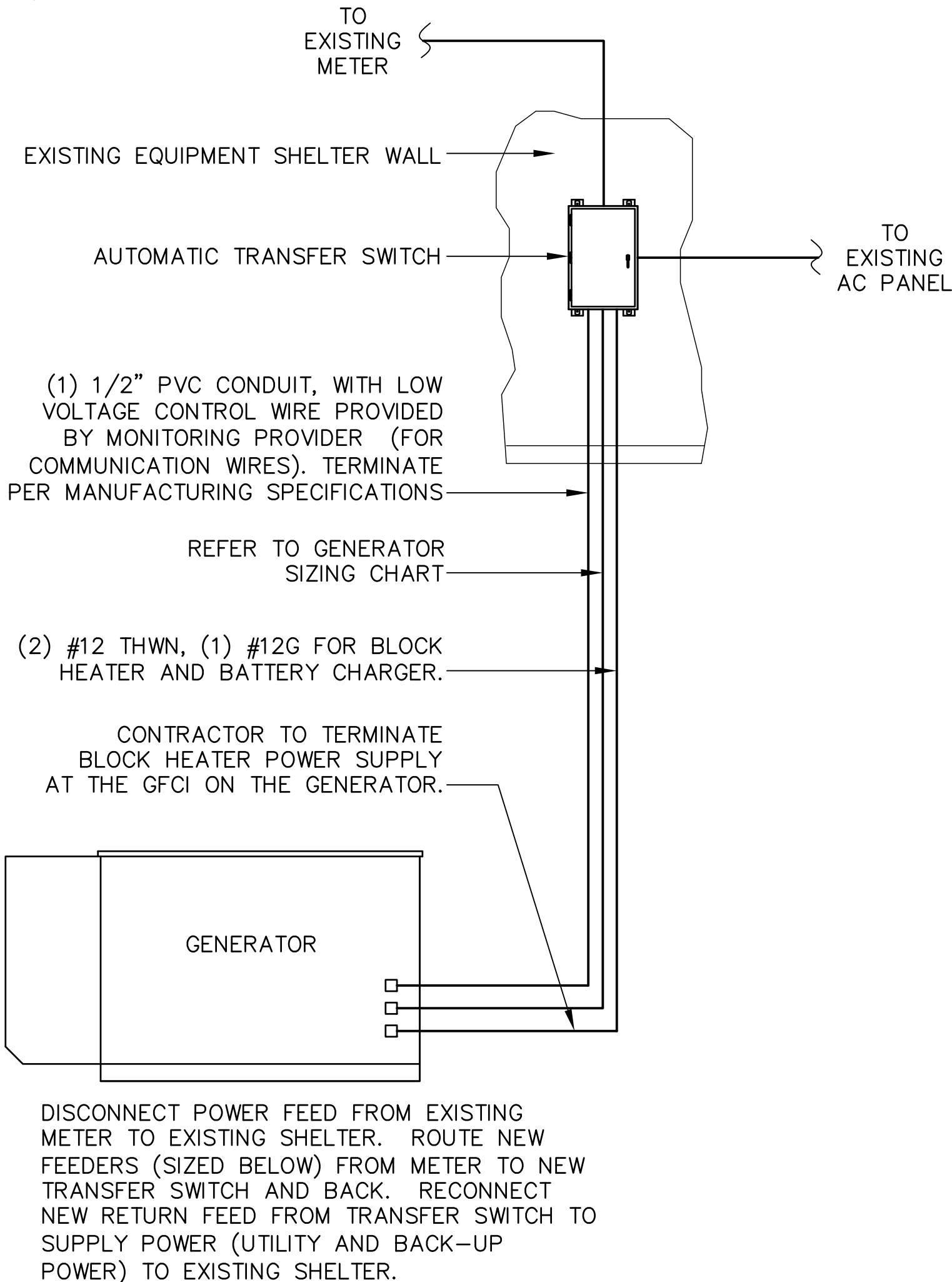
|                          |      |
|--------------------------|------|
| ENGINEER/LAND SURVEYOR   | DATE |
| DRAWN BY: CAW            |      |
| CHECKED BY: JMT          |      |
| DATE DRAWN: 01/27/14     |      |
| GEA JOB NUMBER: 1337.036 |      |

DRAWING TITLE:

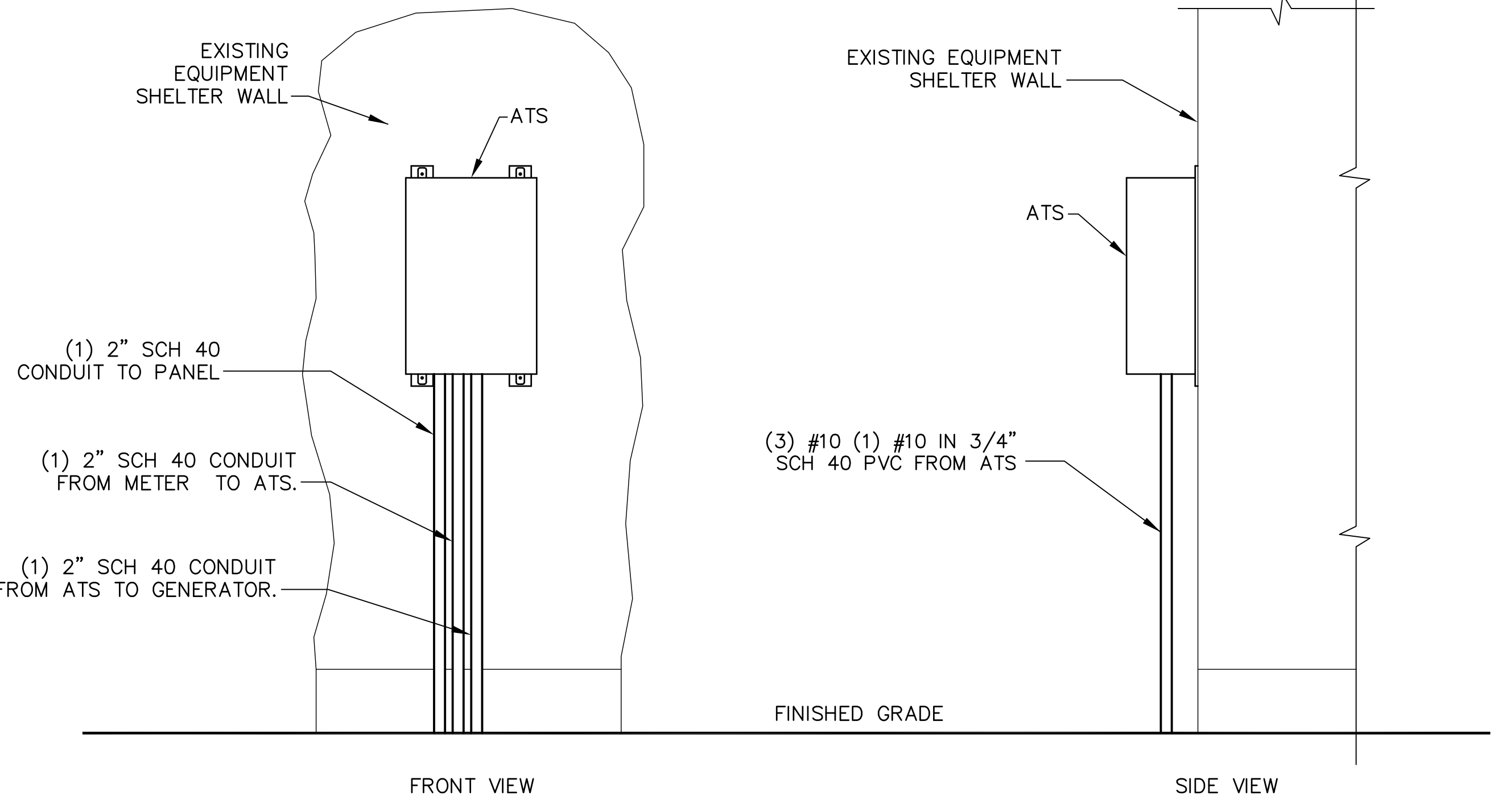
ELECTRICAL  
 DETAILS

|             |           |
|-------------|-----------|
| DRAWING NO: | REVISION: |
| E-2         | 1         |

NOTE: UTILITY POWER FEEDS SHALL BE CONNECTED TO THE TRANSFER SWITCH FROM THE LOAD SIDE OF THE EXISTING SERVICE DISCONNECT. NO MODIFICATIONS SHALL BE MADE ON THE LINE SIDE OF THE EXISTING SERVICE DISCONNECT.



**METER CONFIGURATION** 1  
 SCALE: NOT TO SCALE E-2



**AUTOMATIC TRANSFER SWITCH LAYOUT** 2  
 SCALE: NOT TO SCALE E-2



| SITE GENERATOR CONTROL & ALARMS RECEPTACLE  |   |                          |  |         |        |   |                                   |    |
|---|---|--------------------------|--|---------|--------|---|-----------------------------------|----|
| Distributor for Deutsch connectors is LADD Industries. Contact: Melissa Watkins (800)-223-1236 melissaw@laddinc.com |   |                          | LADD website: <a href="http://LADD Industries- Deutsch IPD Electrical Connectors">LADD Industries- Deutsch IPD Electrical Connectors</a> |         |        |   |                                   |    |
| GENERATOR FUNCTION  | DEUTSCH DTM0412PA-L012 SITE RECEPTACLE FOR GENERATOR ALARMS & CONTROL |                          | CONNECTING CABLE   |         |        | SITE CONNECTIONS  | NOTES                             |    |
|   | SOCKET PART #   | PIN #                    | TYPE & PART #  | SIZE    | COLOR  |   |                                   |    |
| (CONTROL)<br>AUTOMATIC START/STOP   | #16 AWG<br>1062-20-0122   | 1                        | SJTO (2 Conductor)<br>ANIXTER #4BT-1602  | #16 AWG | BLACK  | AUTO TRANSFER SWITCH<br>ENGINE CONTROL LEADS<br>(FOR CINGULAR STANDARD:<br>INTERSECT/ASCO USE TB 14 & 15 - SEE<br>CONTROL WIRING WORKSHEET) | "CLOSE" =<br>ENGINE<br>START (NO) |    |
|   | #16 AWG<br>1062-20-0122   | 2                        |  | #16 AWG | WHITE  |   | "CLOSE" =<br>ALARM<br>(NO)        |    |
| (ALARM)<br>GENERATOR RUNNING  | #22 AWG<br>0462-201-20141   | 3                        | (10 Conductor)<br>BELDEN 8456  | #22 AWG | BLACK  | SITE EXTERNAL ALARM BLOCK<br>(GENERATOR RUNNING-MAJOR)  | "CLOSE" =<br>ALARM<br>(NO)        |    |
|   | #22 AWG<br>0462-201-20141   | 4                        |  | #22 AWG | WHITE  |   | "CLOSE" =<br>ALARM<br>(NO)        |    |
| (ALARM)<br>GENERATOR LOW FUEL   | #22 AWG<br>0462-201-20141   | 5                        |  | #22 AWG | RED    | SITE EXTERNAL ALARM BLOCK<br>(GENERATOR LOW FUEL-CRITICAL)  | "CLOSE" =<br>ALARM<br>(NO)        |    |
|   | #22 AWG<br>0462-201-20141   | 6                        |  | #22 AWG | GREEN  |   | "CLOSE" =<br>ALARM<br>(NO)        |    |
| (ALARM)<br>GENERATOR FAIL - MAJOR<br>(SHUTDOWN)   | #22 AWG<br>0462-201-20141   | 7                        |  | #22 AWG | BROWN  | SITE EXTERNAL ALARM BLOCK<br>(GENERATOR FAIL - CRITICAL)  | "CLOSE" =<br>ALARM<br>(NO)        |    |
|   | #22 AWG<br>0462-201-20141   | 8                        |  | #22 AWG | BLUE   |   | "CLOSE" =<br>ALARM<br>(NO)        |    |
| (ALARM)<br>GENERATOR MISSING<br>(THEFT)   | #22 AWG<br>0462-201-20141   | 9                        |  | #22 AWG | ORANGE | SITE EXTERNAL ALARM BLOCK<br>(GENERATOR MISSING - MAJOR)  | "OPEN" =<br>ALARM<br>(NC)         |    |
|   | #22 AWG<br>0462-201-20141   | 10                       |  | #22 AWG | YELLOW |   | "CLOSE" =<br>ALARM<br>(NO)        |    |
| (ALARM)<br>GENERATOR WARNING - MINOR<br>(NON-SHUTDOWN)  | #22 AWG<br>0462-201-20141   | 11                       |  | #22 AWG | PURPLE | SITE EXTERNAL ALARM BLOCK<br>(GENERATOR WARNING - MAJOR)  | "CLOSE" =<br>ALARM<br>(NO)        |    |
|   | #22 AWG<br>0462-201-20141   | 12                       |  | #22 AWG | GRAY   |   | "CLOSE" =<br>ALARM<br>(NO)        |    |
| NA  | WM-12S  | RECEPTACLE<br>WEDGE LOCK |  | NA      | NA     | NA  | NA                                | NA |

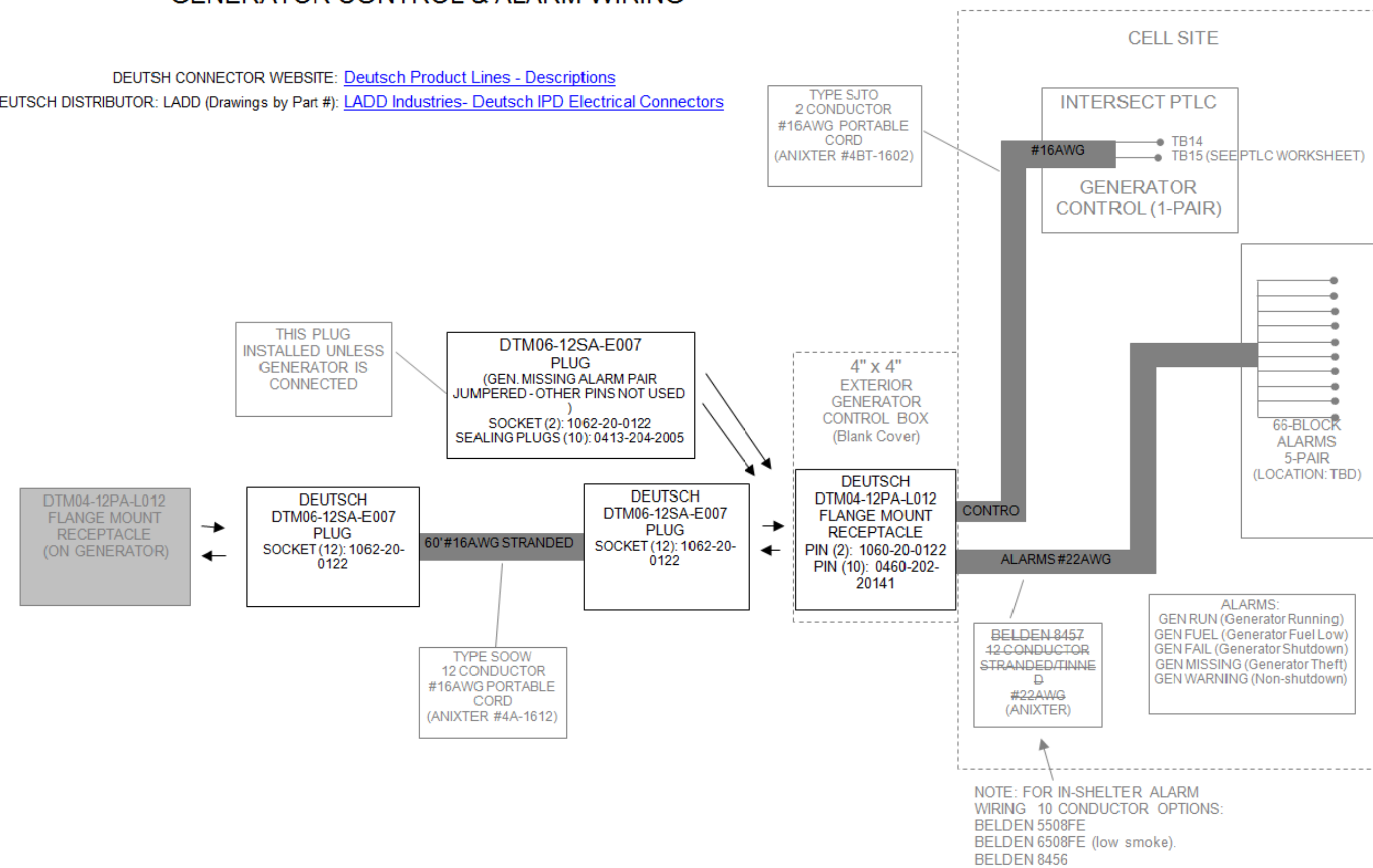
| 60' GENERATOR ALARM & CONTROL CABLE MATERIALS LIST                  |                    |  |   |
|---|--------------------|--|---|
| DEUTSCH DTM0612SA-E007<br>CABLE PLUG FOR GENERATOR ALARMS & CONTROL |                    | CONNECTING CABLE   | DEUTSCH DTM0612SA-E007<br>CABLE PLUG FOR GENERATOR ALARMS & CONTROL |
| PIN PART #  | PIN #              | TYPE & PART #  | PIN #   |
| #16 AWG<br>1060-20-0122   | 1                  | 60' SOOW 12 conductor #16 AWG<br>Generator Alarm Cable<br>ANIXTER #4A-1612 | 1   |
| #16 AWG<br>1060-20-0122   | 2                  |  | 2   |
| #16 AWG<br>1060-20-0122   | 3                  |  | 3   |
| #16 AWG<br>1060-20-0122   | 4                  |  | 4   |
| #16 AWG<br>1060-20-0122   | 5                  |  | 5   |
| #16 AWG<br>1060-20-0122   | 6                  |  | 6   |
| #16 AWG<br>1060-20-0122   | 7                  |  | 7   |
| #16 AWG<br>1060-20-0122   | 8                  |  | 8   |
| #16 AWG<br>1060-20-0122   | 9                  |  | 9   |
| #16 AWG<br>1060-20-0122   | 10                 |  | 10  |
| #16 AWG<br>1060-20-0122   | 11                 |  | 11  |
| #16 AWG<br>1060-20-0122   | 12                 |  | 12  |
| WM-12P  | PLUG<br>WEDGE LOCK | NA   | PLUG<br>WEDGE LOCK  |

| DEUTSCH DTM0612SA-E007<br>SITE PLUG FOR MISSING<br>ALARM BYPASS |                    |
|---|--------------------|
| PIN PART #  | PIN #              |
| DTM SEALING PIN<br>0413-204-2005                                | 1                  |
| DTM SEALING PIN<br>0413-204-2005                                | 2                  |
| DTM SEALING PIN<br>0413-204-2005                                | 3                  |
| DTM SEALING PIN<br>0413-204-2005                                | 4                  |
| DTM SEALING PIN<br>0413-204-2005                                | 5                  |
| DTM SEALING PIN<br>0413-204-2005                                | 6                  |
| DTM SEALING PIN<br>0413-204-2005                                | 7                  |
| DTM SEALING PIN<br>0413-204-2005                                | 8                  |
| #16 AWG<br>1060-20-0122   | 9                  |
| #16 AWG<br>1060-20-0122   | 10                 |
| DTM SEALING PIN<br>0413-204-2005                                | 11                 |
| DTM SEALING PIN<br>0413-204-2005                                | 12                 |
| WM-12P  | PLUG<br>WEDGE LOCK |

JUMPER PINS 9 & 10 USING #16 AWG

### GENERATOR CONTROL & ALARM WIRING

DEUTSCH CONNECTOR WEBSITE: [Deutsch Product Lines - Descriptions](http://Deutsch Product Lines - Descriptions)  
 DEUTSCH DISTRIBUTOR: LADD (Drawings by Part #: [LADD Industries- Deutsch IPD Electrical Connectors](http://LADD Industries- Deutsch IPD Electrical Connectors))



Cingular Wireless Central Region BTS Planning & Standards  
 DRAFT - 03/06/2006

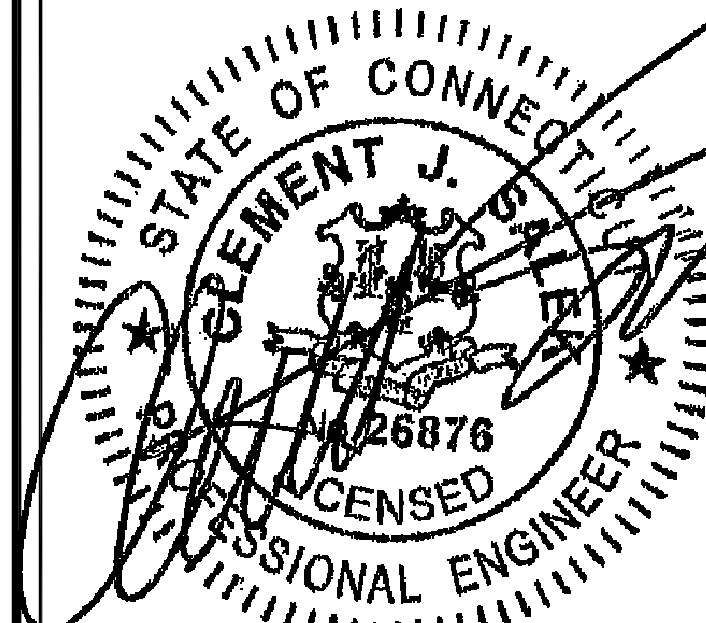
NOTE: FOR IN-SHELTER ALARM WIRING 10 CONDUCTOR OPTIONS:  
 BELDEN 5508FE  
 BELDEN 6508FE (low smoke).  
 BELDEN 8456

**CHAPPELL ENGINEERING ASSOCIATES, LLC**  
*Civil Structural - Land Surveying*  
 R.K. EXECUTIVE CENTRE  
 201 BOSTON POST ROAD WEST,  
 SUITE 101  
 MARLBOROUGH, MA 01752  
 (508)481-7400  
 www.chappellengineering.com

**TRM**  
 TOWER RESOURCE MANAGEMENT  
 30 LYMAN STREET  
 WESTBOROUGH, MA 01581  
 PHONE: (508) 389-1731  
 www.trmcom.com

**at&t**  
 AT&T MOBILITY  
 550 COCHITUATE ROAD  
 SUITES 13 & 14  
 FRAMINGHAM, MA 01701

SITE NUMBER:  
 10035345  
 SITE NAME:  
 BARKHAMSTED  
 SITE ADDRESS:  
 127 NEW HARTFORD ROAD  
 BARKHAMSTED, CT 06063



ENGINEER/LAND SURVEYOR DATE  
 DRAWN BY: CAW  
 CHECKED BY: JMT  
 DATE DRAWN: 01/27/14  
 CEA JOB NUMBER: 1337.036

DRAWING TITLE:  
 GENERATOR CONTROL & ALARM WIRING

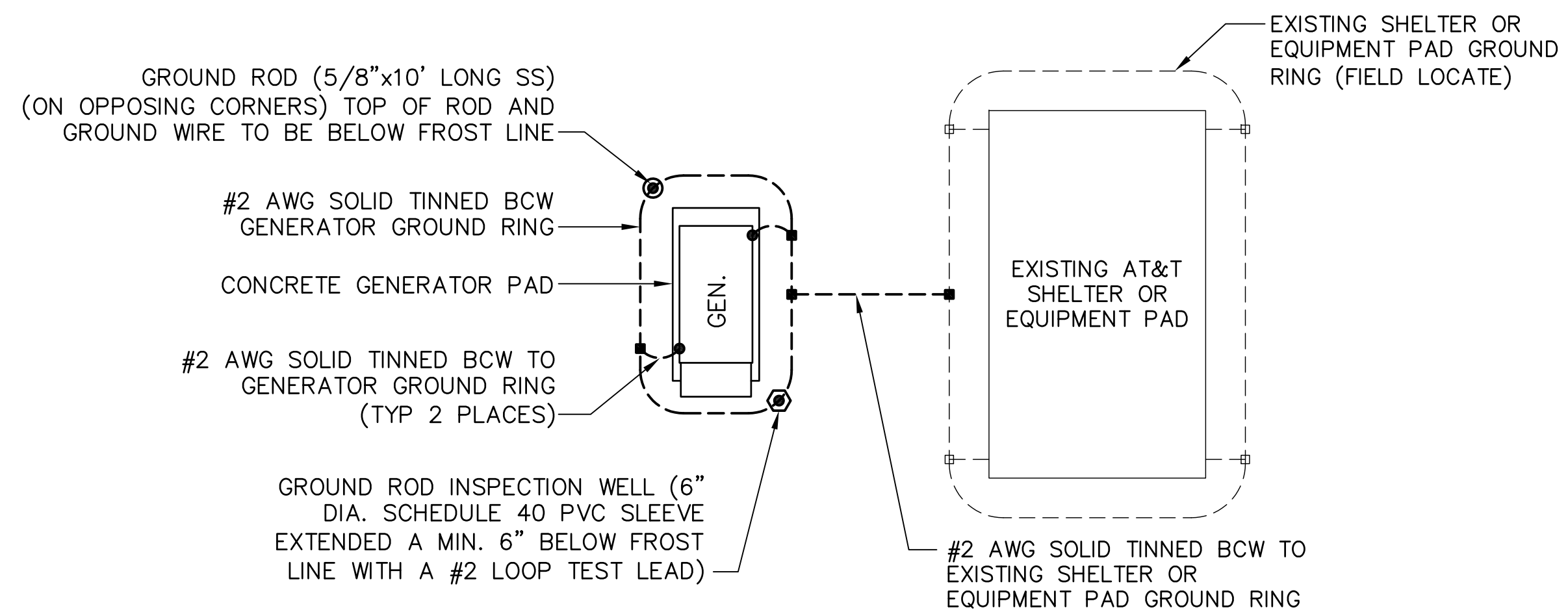
DRAWING NO: E-3  
 REVISION: 1



**MUX NOTE:**  
 CONTRACTOR TO VERIFY EXISTING MUX LOCATION. IF MUX LOCATION IS OUTSIDE OF AT&T EQUIPMENT AREA, CONTRACTOR IS TO FIELD VERIFY THE PRESENCE OF EMERGENCY BACK-UP SERVICE IS NOT PRESENT. CONTRACTOR IS TO ROUTE NEW SERVICE FROM AT&T EQUIPMENT AREA.

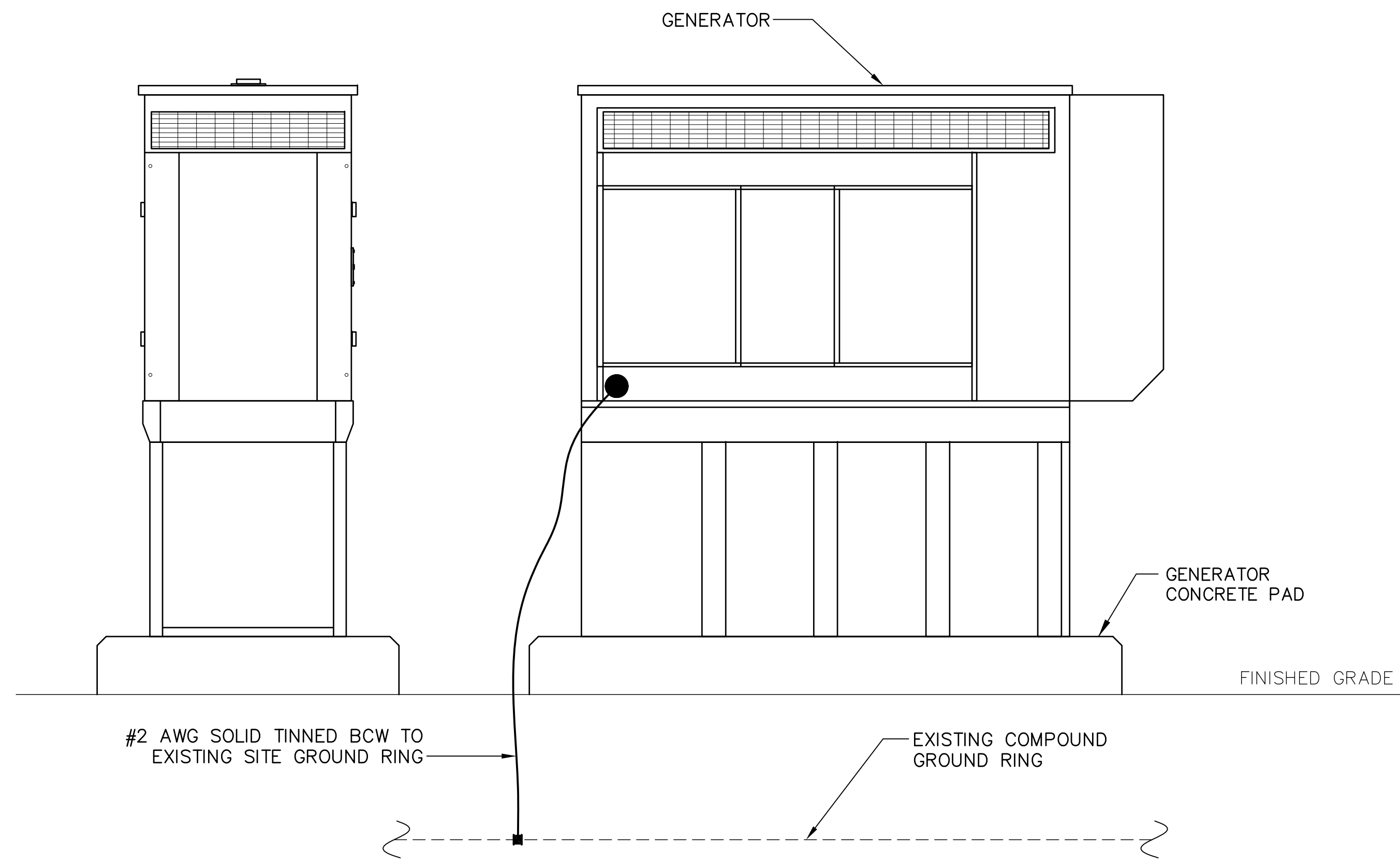
**NOTES:**

1. ELECTRICIAN SHALL VERIFY THAT GENERATOR IS INSTALLED SO THAT ELECTRICAL BACK-FEEDS ARE NOT POSSIBLE.
2. GENERATOR SYSTEM SHALL BE SOLIDLY GROUNDED PER NEC 250.020.
3. ELECTRICIAN SHALL VERIFY THAT GROUNDING IS INSTALLED SO THAT NO CIRCULATING CURRENTS ARE POSSIBLE SO GROUNDING IS CONNECTED TO EXISTING TOWER GROUND FIELD.
4. ALL LIGHTNING GROUNDING SHALL BE FREE OF KINKS AND SHALL HAVE LONG RADIUS BENDS (MINIMUM 8").
5. ALL GROUNDING SHOULD BE INSTALLED PER CURRENT NEC, SECTION 250.
6. CAD WELD CONNECTION FOR GROUNDING CONDUCTORS BETWEEN PROPOSED AND EXISTING SECTIONS OF FENCE,
7. USE #2 AWG SOLID TINNED COPPER WIRE TO EXISTING (2) FENCE POSTS AND CADWELD FROM GENERATOR GROUND RING

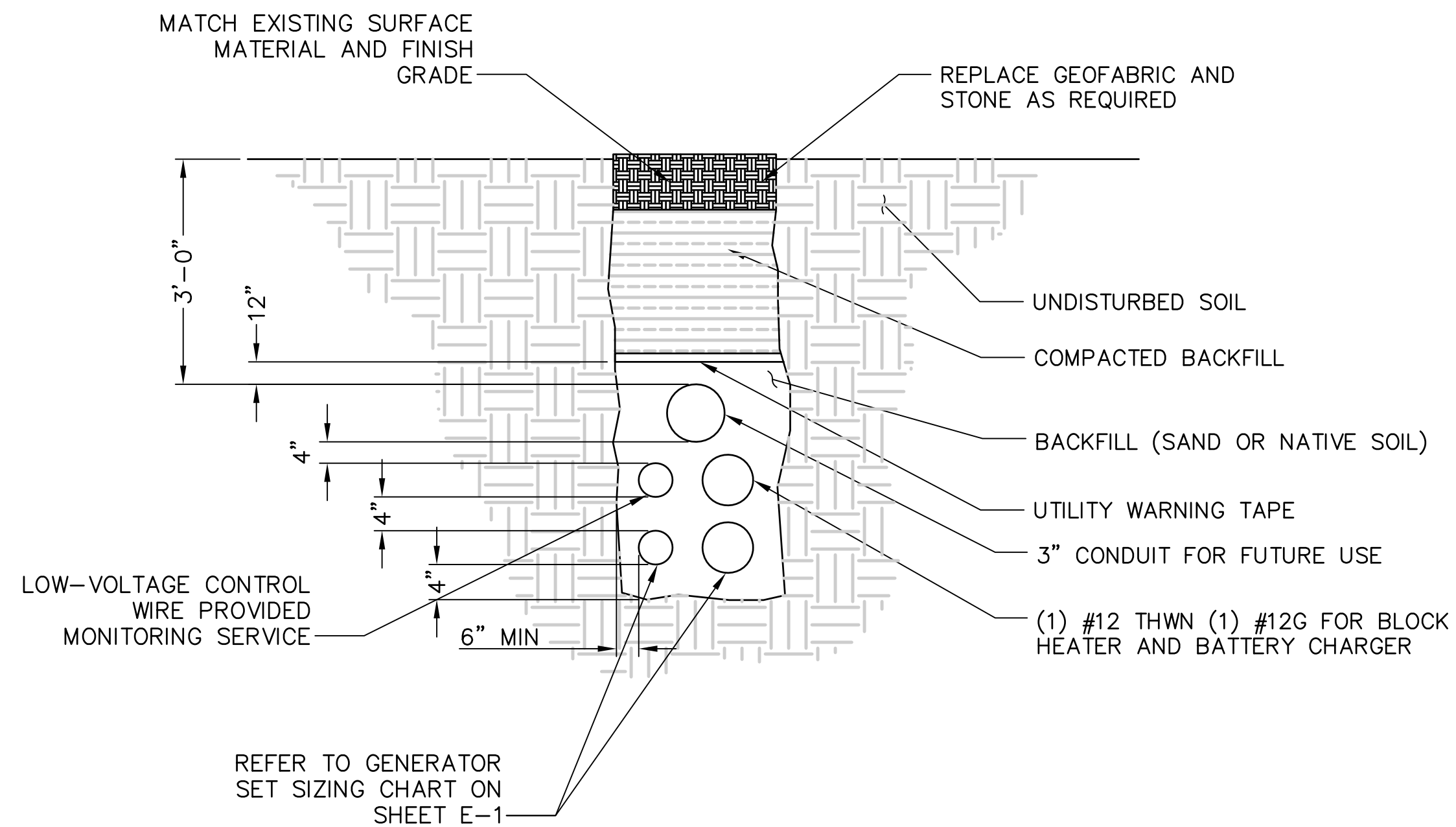


**NOTE:**  
 GROUNDING PLAN SHOWN ABOVE TO BE APPLIED WHEN PROPOSED GENERATOR IS LOCATED MORE THAN 20 FT. FROM AN EXISTING AT&T SHELTER OR EQUIPMENT PAD. FOR ACTUAL ORIENTATION OF PROPOSED GENERATOR WITH THE EXISTING AT&T SHELTER OR EQUIPMENT PAD SEE SITE PLAN DRAWING.

**GENERATOR GROUNDING PLAN** 3  
 SCALE: NOT TO SCALE G-1



**GENERATOR ELEVATION** 1  
 SCALE: NOT TO SCALE G-1



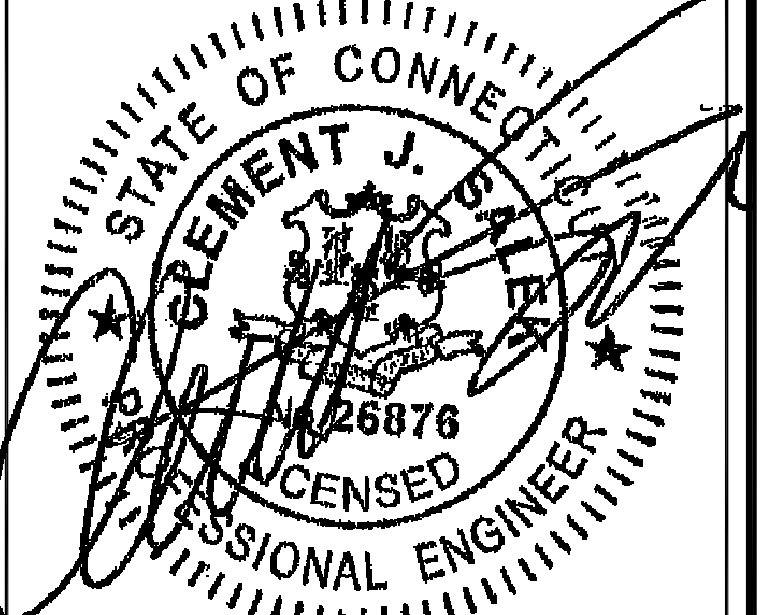
**TRENCH DETAIL** 2  
 SCALE: NOT TO SCALE G-1

**CHAPPELL ENGINEERING ASSOCIATES, LLC**  
 Civil Structural - Land Surveying  
 R.K. EXECUTIVE CENTRE  
 201 BOSTON POST ROAD WEST, SUITE 101  
 MARLBOROUGH, MA 01752  
 (508)481-7400  
 www.chappellengineering.com

**TRM**  
 TOWER RESOURCE MANAGEMENT  
 30 LYMAN STREET  
 WESTBOROUGH, MA 01581  
 PHONE: (508) 389-1731  
 www.trmcom.com

**at&t**  
 AT&T MOBILITY  
 550 COCHITUATE ROAD  
 SUITES 13 & 14  
 FRAMINGHAM, MA 01701

**SITE NUMBER:**  
 10035345  
**SITE NAME:**  
 BARKHAMSTED  
**SITE ADDRESS:**  
 127 NEW HARTFORD ROAD  
 BARKHAMSTED, CT 06063



|                          |      |
|--------------------------|------|
| ENGINEER/LAND SURVEYOR   | DATE |
| DRAWN BY: CAW            |      |
| CHECKED BY: JMT          |      |
| DATE DRAWN: 01/27/14     |      |
| GEA JOB NUMBER: 1337.036 |      |

**DRAWING TITLE:**  
 GROUNDING & TRENCH DETAILS

|                           |                       |
|---------------------------|-----------------------|
| <b>DRAWING NO:</b><br>G-1 | <b>REVISION:</b><br>1 |
|---------------------------|-----------------------|