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Project No. CP00421438
USC WEST ENERGY PLANT
INSTALL 750KVA, 480 VOLT, 3PH TRANSFORMER
ADDENDUM NO. 1
December 3, 2015

This addendum modifies the Contract Documents only in the manner and to the extent stated herein and shown on any accompanying drawings and will become a part of the Contract Documents. Except as specified or otherwise indicated by this addendum, all work shall be in accordance with the basic requirements of the Contract Documents.

PRE-BID:

1. **PRE-BID ATTENDEES:**

- See attached sheets for list of Pre-Bid attendees.

2. **PRE-BID CLARIFICATIONS:**

- High Voltage terminations are to be performed by the Contractor.
- Contractor is responsible for turn-on and startup of system.
- Contractor is responsible for disposal of all wiring removed as a result of this work.
- Coordinate location of new pad with Owner prior to starting work.

SPECIFICATIONS:

3. **SECTION 261219 – PAD-MOUNTED, LIQUID-FILLED, MEDIUM-VOLTAGE TRANSFORMERS:**

- In Paragraph 2-03 under MANUFACTURERS, delete GE and Eaton and add ABB.
- Add the attached “AMENDMENT TO SECTION 261219”. Where conflicts occur between the attached Amendment and the Contract Documents, the requirements of the Amendment shall supersede.

DRAWINGS:

4. **SHEET E101 NEW PAD MOUNTED TRANSFORMER ELEVATION:**

- See attached bulletin drawing E101.1.

Each Bidder shall acknowledge receipt of this Addendum and all other Addenda on his bid form.

USC WEST ENERGY PLANT – INSTALL 750KVA, 480 VOLT, 3PH TRANSFORMER

AMENDMENT TO SECTION 261219 PAD-MOUNTED, LIQUID-FILLED, MEDIUM-VOLTAGE TRANSFORMERS

The following shall be added to Section 261219 of the specifications. Where conflicts occur between the Amendment to Section 261219 and the Contract Documents, the requirements of the Amendment shall supersede.

Manufacturer: ABB
Type: Liquid-Filled MTR Padmounted Transformer
Fluid: Mineral Oil
Core: Grain Oriented Steel
Phase: 3 Phase
Frequency: 60 Hz
Average Winding Rise: 65°C
Ambient Temperature: 30°C
High Voltage: 8320GrdY/4800
High Voltage Taps: +2 -2 2.5%
High Voltage BIL: 75kV BIL
Low Voltage: 480Y/277
Low Voltage BIL: 30kV BIL
Neutral: HOXO bushing with ground strap
Feed Configuration: Radial feed
Color: Green (Munsell 7GY 3.29/1.5)

Features (included in price):

TANK & CABINET

- Penta-head cabinet handle bolt

BUSHINGS

- Threaded stud LV bushings x4
- 2-hole spade HV terminals (live front) x3
- 6-hole NEMA spade terminals x4
- ANSI C57.12.26 Fig 3&4a minimum stgrd LV bushing pattern

FUSES

- Fused bayonet with isolation link x3

SWITCHES

- 2-position 300 amp LBOR transformer switch

MONITORING

- Liquid level gauge
- Dial type thermometer
- Pressure relief valve
- Pressure vacuum gauge

FITTINGS

- Drain Valve and sampler

MARKINGS

- Three (3) DANGER HIGH VOLTAGE signs
- Non-PCB label
- UL Certified Label
- External KVA Stencil

OTHER

- 9.5" x 17.5" Tank Handhole Cover
- 24" deep cabinet
- DOE Efficiency (2010)
- Trough Drip Shield

END OF SECTION 261219 AMENDMENT

University of South Carolina
 Pre Bid Sign In Sheet
 Columbia, South Carolina

Project Name: WEST ENERGY-INSTALL 750
 KVA, 480V, 3PH TRANSFORMER
 Project Number: CP00421438
 Pre Bid Date & Time: NOVEMBER 17, 2015 @10:30 AM

| SWMBE Contractor? | Name | Company Name | Address | Phone # | Email |
|-------------------|---------------|-----------------------|---|----------------|------------------------------------|
| S W M B E | Stuart Lail | ABMEPS | 3600 Woodpark Blvd Charlotte, NC 28204 | 704-288-2380 | stuart.lail@abm.com |
| S W M B E | Brad Elmore | ABMEPS | " | " | brad.elmore@abm.com |
| S W M B E | DANIEL DIPPEL | Gregory Elec | 2124 College St Columbia, SC | (803) 748-1742 | ddipele@gregoryelectric.com |
| S W M B E | BB Bell | Gregory Industrial | 2124 College St Columbia, SC | 803-748-1742 | bbbell@gregoryindustrial.com |
| S W M B E | SCOTT COOPER | USC | | 803-240-5744 | |
| S W M B E | Greg's Jolly | Premiere Constructors | 682 Division Ad w / Cole | 803-360-4869 | Sjolly@PremiereConstructors.net |
| S W M B E | Andy Gambrell | " " | " " | 803-309-1472 | AGambrell@PremiereConstructors.net |
| S W M B E | Troy Nelson | USC Energy | 743 Greene St Columbia, SC 29208 | 803-777-4674 | tnelson@sc.edu |
| S W M B E | D. GALLAGHER | U.S.C | | | |

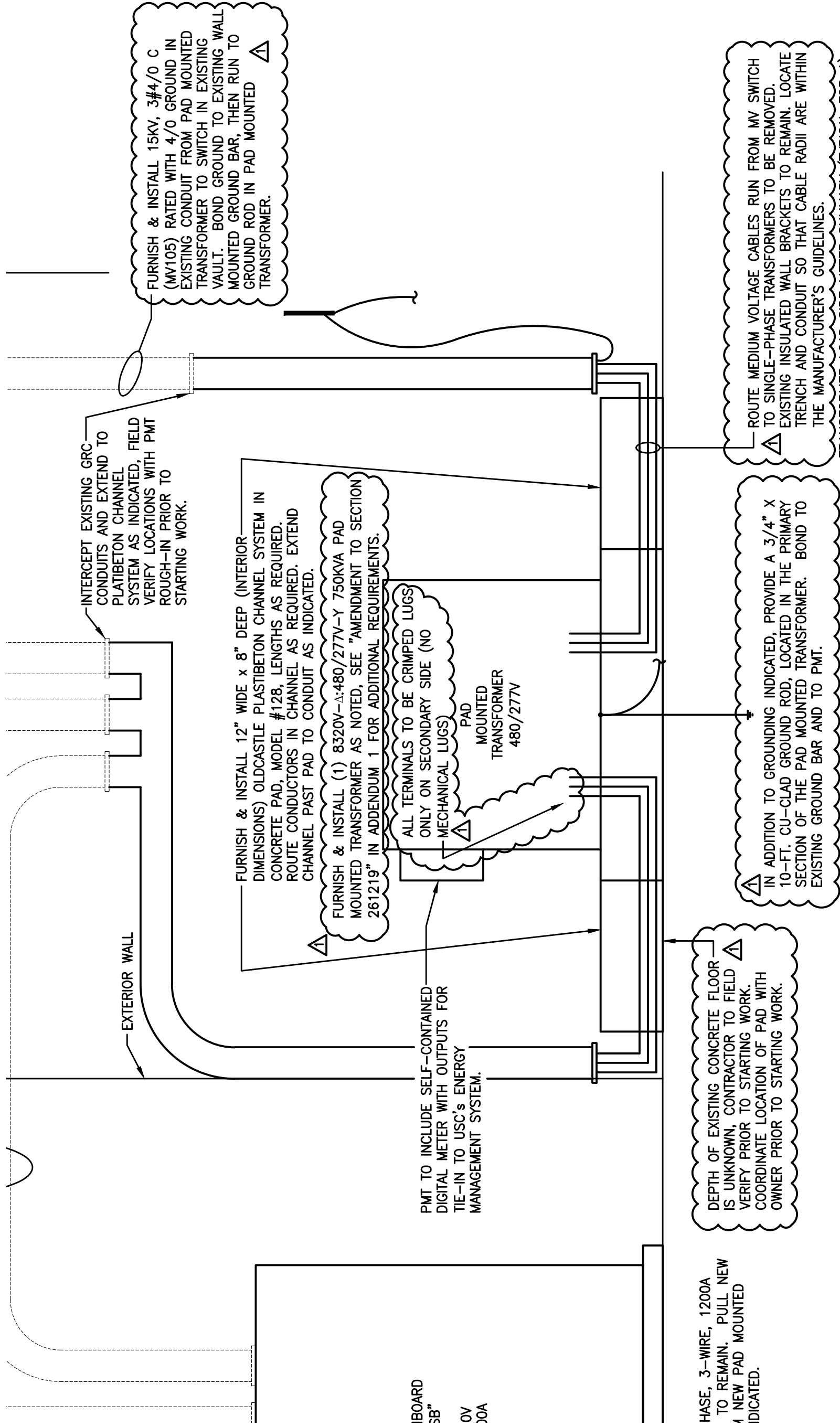
***By signing this sheet you agree to receive information electronically.

University of South Carolina
Pre Bid Sign In Sheet
 Columbia, South Carolina

Project Name: WEST ENERGY-INSTALL 750
 KVA, 480V, 3PH TRANSFORMER
Project Number: CP00421438
Pre Bid Date & Time: NOVEMBER 17, 2015 @10:30 AM

| SWMBE Contractor? | Name | Company Name | Address | Phone # | Email |
|-------------------|---------------|--------------|---------------|----------|------------------------|
| S W M B E | Haucci Hixson | USC | 743 Greene St | 777-9994 | hikmeth@mailbox.sc.edu |
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FURNISH & INSTALL 15KV, 3#4/0 C (MV105) RATED WITH 4/0 GROUND IN EXISTING CONDUIT FROM PAD MOUNTED TRANSFORMER TO SWITCH IN EXISTING WALL VAULT. BOND GROUND TO EXISTING WALL MOUNTED GROUND BAR, THEN RUN TO GROUND ROD IN PAD MOUNTED TRANSFORMER.

FURNISH & INSTALL 12" WIDE x 8" DEEP (INTERIOR DIMENSIONS) OLDCASTLE PLASTIBETON CHANNEL SYSTEM IN CONCRETE PAD, MODEL #128, LENGTHS AS REQUIRED. ROUTE CONDUCTORS IN CHANNEL AS REQUIRED. EXTEND CHANNEL PAST PAD TO CONDUIT AS INDICATED.

FURNISH & INSTALL (1) 8320V-Δ:480/277V-Y 750KVA PAD MOUNTED TRANSFORMER AS NOTED, SEE "AMENDMENT TO SECTION 261219" IN ADDENDUM 1 FOR ADDITIONAL REQUIREMENTS.

ALL TERMINALS TO BE CRIMPED LUGS ONLY ON SECONDARY SIDE (NO MECHANICAL LUGS)

PAD MOUNTED TRANSFORMER 480/277V

PMT TO INCLUDE SELF-CONTAINED DIGITAL METER WITH OUTPUTS FOR TIE-IN TO USC'S ENERGY MANAGEMENT SYSTEM.

DEPTH OF EXISTING CONCRETE FLOOR IS UNKNOWN, CONTRACTOR TO FIELD VERIFY PRIOR TO STARTING WORK. COORDINATE LOCATION OF PAD WITH OWNER PRIOR TO STARTING WORK.

IN ADDITION TO GROUNDING INDICATED, PROVIDE A 3/4" X 10-FT. CU-CLAD GROUND ROD, LOCATED IN THE PRIMARY SECTION OF THE PAD MOUNTED TRANSFORMER. BOND TO EXISTING GROUND BAR AND TO PMT.

ROUTE MEDIUM VOLTAGE CABLES RUN FROM MV SWITCH TO SINGLE-PHASE TRANSFORMERS TO BE REMOVED. EXISTING INSULATED WALL BRACKETS TO REMAIN. LOCATE TRENCH AND CONDUIT SO THAT CABLE RADII ARE WITHIN THE MANUFACTURER'S GUIDELINES.
TRANSFORMER LOAD SIDE METER SUMMARY (TYPICAL FOR 1):

FURNISH & INSTALL (1) ELECTRONIC POWER METER FOR THE LOAD SIDE OF THE TRANSFORMER. METER TO INCLUDE A LOCAL DISPLAY AND REMOTE COMMUNICATIONS TO METASYS. COMMUNICATIONS PROTOCOL TO BE BACnet MSTP or Ethernet WITH BACnet IP. THE METER SHOULD PROVIDE AT A MINIMUM THE FOLLOWING DATA:

6 NEW PAD MOUNTED TRANSFORMER ELEVATION

NOT TO SCALE

ACTUAL DIMENSIONS TO BE PROVIDED BY PAD MOUNTED TRANSFORMER MANUFACTURER - SHOWN FOR INFORMATIONAL PURPOSES ONLY.

IBOARD
3B"
0V
30A

HASE, 3-WIRE, 1200A TO REMAIN. PULL NEW 1 NEW PAD MOUNTED INDICATED.

INTERCEPT EXISTING GRC CONDUITS AND EXTEND TO PLASTIBETON CHANNEL SYSTEM AS INDICATED, FIELD VERIFY LOCATIONS WITH PMT ROUGH-IN PRIOR TO STARTING WORK.

EXTERIOR WALL