

West Energy Plant Expansion Joint Replacement  
University of South Carolina  
State Project Number H27-Z213

Mechanical Addendum One

May 23, 2016

NOTE: The following amendments, additions, and deletions shall be made to the Construction Documents and Contract Documents. Insofar as those documents are at variance with this Addendum, this Addendum shall govern.

Drawings

- | <u>Item No.</u> | <u>Description</u>   |
|-----------------|--|
| 1.              | <u>Revision:</u> Reference Drawing M1, Site Plan - Renovation. Reference vault C3-19D. The note to sheet tag 5 should be changed to note to sheet. 6. These should be anchors on each side of the vault. |
| 2.              | <u>Revision:</u> Reference Drawing M2, Site Plan - Renovation. Reference vault C4-3D. The note to sheet tag 8 should be changed to note to sheet 5.  |

Specifications

- | <u>Item No.</u> | <u>Description</u>   |
|-----------------|--|
| 3.              | <u>Revision:</u> Reference the attached Asbestos Abatement Guidelines. Asbestos abatement shall be included in the contractor's scope of work and included in the bid. Exact quantities of material abated shall be coordinated by the contractor in order to accomplish his work. |

Clarifications

- | <u>Item No.</u> | <u>Description</u>  |
|-----------------|---|
| 4.              | <u>Clarification:</u> A site visit has been scheduled for Thursday May 26 at 8:00 at the West Energy Plant on the corner of Main Street and Blossom Street.   |
| 5.              | <u>Clarification:</u> The project will be completed in 7 phases. Each phase will be approximately 5 days, but exact durations will be coordinated with the contractor's proposed schedule. The phases will be as follows:<br><br>Phase 1: C3-1D to C4-1D<br>Phase 2: C4-1D to C4-6D |

Phase 3: C4-6D to D4-2D

Phase 4: C4-6D to C3-16D

Phase 5: C3-17D to C3-20D

Phase 6: West Energy Plant to Computer Annex

Phase 7: C4-1D to C5-1D

6. Clarification: USC will shut down steam prior to work proceeding and start up steam after work is complete.
7. Clarification: F&ME will perform testing and monitoring and clear spaces after abatement. F&ME will contract directly to USC.

END OF ADDENDUM

Attachments

Pre bid Meeting Sign in Sheet

Asbestos Abatement Guidelines

**University of South Carolina**  
**Non Mandatory Pre Bid Sign In Sheet**  
 Columbia, South Carolina

Project Name:  
 Project Number:  
 Pre Bid Date & Time:

Steam Expansion Joint Repairs II  
 H27-Z213  
 May 23, 2016 11AM 743 Greene St; Conference Room 053

SWMBE Contractor Indicate Below	Name	Company Name	Address	Phone #	Email
S W M B E	Craig Livingston	HAYES Alom.	201 old Ferry Rd Chapin	803 528 4890	ChadLance@HAYESAluminum.com Clivingston24@gmail.com
S W M B E	Jason Probst	Hammer Const.	785 Hampton Creek Ln Columbia, SC 29209	803 783 7037	JASON@HAMMERLLC.COM
S W M B E	DANA QUATTLEBAUM	MSI	W/Colt SC	803-668-1774	DANA QUATTLEBAUM@MSIConst.COM
S W M B E	CYNTHIA ELLEN	F&M	3112 DEWEE ST. CANT. SC. 29205	(803) 238-4540	gallen@fmecon.com
S W M B E	B.B. Bell	Gregory Industrial	2124 College St Columbia SC 29205	803-748-1742	bbell@gregoryindustrial.com
S W M B E	Charles Owens	Gregory Industrial	2124 College St. Columbia, SC. 29205	803-309-5885	COwens@GregoryIndustrial.com
S W M B E	Kevin Broughton	Gregory Industrial	2124 College St Columbia, SC 29205	803-668-3960	KevinBroughton@gmail.com
S W M B E	David Welford	AAA Septic	1333 Pinview Rd Columbia SC 29205	803-238-2711	david@welford.com
S W M B E	Troy Nelson	USC Energy	743 Greene St Columbia, SC 29208	803-777-4674	tnelson@sc.edu

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

**University of South Carolina**  
**Non Mandatory Pre Bid Sign In Sheet**  
 Columbia, South Carolina

Project Name: Steam Expansion Joint Repairs II  
 Project Number: H27-Z213  
 Pre Bid Date & Time: May 23, 2016 11AM 743 Greene St; Conference Room 053

SWMBE Contractor Indicate Below	Name	Company Name	Address	Phone #	Email
S W M B E	Aimee Rish	USC Procurement	743 Greene 29208	7-2261	arish@mc.sc.edu
S W M B E	BILL LIVINGSTON	SWYGER ASSOC.	1315 STATE STREET, CAYCE	791-9300	BILL@SWYGERASSOCIATES.COM
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**ABATEMENT GUIDELINES FOR THERMAL SYSTEM INSULATION (TSI)  
WEST ENERGY TUNNEL EXPANSION JOINT REPLACEMENT PROJECT  
UNIVERSITY OF SOUTH CAROLINA PROJECT NO: H27-Z213**

As a component to the planned expansion joint replacement project for the University of South Carolina's West Energy tunnel, abatement of asbestos containing materials (ACM) in the form of thermal systems insulation (TSI) will be required at each location for the installation of a new expansion joints, pipe guides and anchoring points. The abatement will take place at all locations within the west tunnel where the removal of existing expansion joints and where the installation of new expansion joints, pipe guides and anchors points are to occur as part of these mechanical up fits to the existing steam systems. The abatement contractor (Contractor) shall be required to coordinate access to all areas where abatement is to occur with the mechanical contractor (GC). Contractor and GC are to ensure that all activities which will impact existing ACM thermal systems insulation (TSI) found within the portions of the west energy tunnel included in the project shall be completed by the Contractor.

The project involves the removal of thirteen (13) existing expansion joints; the installation of seventeen (17) new expansion joints; the installation of forty (40) new pipe guides; and installation of twenty-seven (27) anchors at twenty (20) utility vaults on various sized high pressure steam piping throughout the project area. The existing high pressure steam line located within these areas of the west tunnel varies in size, from 4' to 10" in diameter. It is insulated with ACM TSI pipe insulation and covered with a banded aluminum jacketing. Existing fittings and hangers are covered with an ACM mudding compound. Varying amounts of TSI and mudding compound is found on the tops of piping and on the ground surface in the majority of the project area. Contractor shall refer to the mechanical plans prepared by Swygert & Associated for locations and limits of the proposed project.

Contractor shall conduct a general clean-up of all loose ACM dirt and debris found within the interior portions of the tunnel where the mechanical up fits are to occur. This work shall include the clean-up of the tops of existing pipes, hangers and existing pipe rails. This work activity shall be performed by an SCDHEC-licensed Abatement Contractor (Contractor) only. The Contractor shall provide all appropriate supervision, personnel, equipment, labor and materials; the disposal of contaminated materials; removal of the waste from the premises; and incidentals necessary to perform abatement of ACM as described.

The contractor shall coordinate with the GC for glove bag abatement of TSI at all points requiring the removal of TSI to complete the required up fits to the mechanical systems. This will include removal of an adequate amount of TSI from the existing piping to allow the GC to complete the mechanical up fits without coming in contact with the ACM. The ends of all TSI shall not be left exposed at the completion of the glove bag removal operations and shall be covered with a material that will maintain the ends of the TSI intact and keep the GC from disturbing the ACM during re-insulation after mechanical up fits are complete. All glove bags utilized during the abatement activities shall be inspected, smoke tested and approved by the Owners Representative.

The Contractor shall be responsible to coordinate with the GC all removal as required for the installation of new mechanical components and connections to be made within the interior of the existing vaults.

Access to the tunnel and vaults shall be coordinated with the GC and be in accordance with all OSHA guidelines for confined spaces.

Additionally, the following performance guidelines are provided to the Contractor to establish minimum standards and compliance. Furthermore, if any of the guidelines need to be altered, all parties involved should be consulted and must consent to such changes. Should there be any difference between the requirements specified within these guidelines and the regulations, the regulations shall take precedence.

**Abatement Preparation** - Contractor shall cordon off entry points leading into the west energy tunnel where the abatement is to take place. Only personnel authorized and certified to enter the tunnel during abatement activities shall be allowed to enter during the abatement activities through to final clearance of the space. Contractor shall prepare and remove all designated thermal ACM using acceptable removal methods in accordance with SCDHEC regulations. ACM debris shall be removed from the top surfaces of all pipes, pipe hangers and pipe rails in which the GC will come in contact with during the up fits to the mechanical systems within the project area. The tops of all pipes, pipe hangers and pipe rails shall be wet wiped to remove loose ACM, dirt and debris. All loose debris found on the floor surface of the tunnel shall be removed utilizing wet methods. Once gross abatement of TSI within the tunnel is completed, Contractor shall clean all affected areas again, to include HEPA vacuuming and wet wiping, to ensure that no asbestos-fibers remain in this space.

**Limits of, Removal of Asbestos-Containing Materials** - GC shall coordinate with the Contractor so as to designate the limits and locations of mechanical up fits within the project area. Additionally, Contractor shall be responsible to clean loose ACM, contaminated dirt and debris within these limits and dispose of them as ACM. Contractor shall utilize appropriate wet methods during removal/ clean up activities.

**Abatement Clearance** - Once all dirt, debris and TSI have been removed from the affected spaces and final clean-up (i.e., wet wipe, HEPA vacuum) has been performed, Contractor shall coordinate with the University's Representative regarding final clearance sampling. Final clearance samples shall be collected from the West Tunnel and shall be analyzed via phase contrast microscopy (PCM). In the event that clearance samples fail to meet the standard, Contractor shall return to the space to perform additional clean-up at no additional cost to the University.