

# ADDENDUM NUMBER 1

Date: April 29, 2015

Re: Close Building AHU Upgrades  
University of South Carolina

A/E Proj. No.: 163290

Submitted By: Justin Varco, PE, CPD  
Mechanical Design, Inc.  
4403 Broad River Road  
Columbia, S.C. 29210  
(803)731-9834 Fax: (803)731-9837  
[justin@mdi9834.com](mailto:justin@mdi9834.com)

The following items take precedence over referenced portions of the Contract Documents for the referenced project dated March 15<sup>th</sup> 2016, and, in executing a contract, shall become a part thereof.

Where any item called for in the documents is supplemented hereby, the original requirements shall remain in effect. All supplemental conditions shall be considered as added thereto.

Where any original item is amended, voided, or superseded hereby, the provision of such items not so specifically amended, voided, or superseded shall remain in effect.

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## **General:**

1. A non-mandatory Pre-Bid was held on 04/28/2016 at 11:00 am EST. Attached is a list of the attendees. A site visit was made available immediately following the pre-bid meeting.
2. All questions shall be submitted in writing to Mechanical Design prior to noon on May 4<sup>th</sup>.
3. If necessary a final addendum will be issued on May 6<sup>th</sup>.
4. Asbestos containing materials are present on items requiring demolition. Asbestos abatement will be procured by USC. The mechanical contractor shall coordinate all demolition work with the asbestos abatement crew. Please see the attached asbestos inspection report for additional information.

**END OF ADDENDUM NO. 1**

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

Project Name: Close Building AHU Upgrades  
 Project Number: H27-6117 50002911-2  
 Pre Bid Date & Time: April 28, 2016@ 11:00am

SWMBE Contractor?	Name	Company Name	Address	Phone #	Email
S W M B E	John Gourdin Gary Till Justin Varco	Cullum Mechanical Construction Inc. MSI	3325 Pacific St North Charleston SC 4403 BROAD RIVER Rd. Columbia SC	843-554- 6645 (803) 731-9834	bids@culluminc.com justin@md.9834.com
S W M B E	Tosh Crowder	White Crane	3414 Augusta Hwy W. Columbia	(803) 360 0841 744 7444	TCrowder@WhiteCraneCo.net
S W M B E	B.B. Bell	Gregory Industrial	2124 College St Columbia, SC 29205	903-748-1742	bbbell@gregoryindustrial.com
S W M B E	Charles Owens	Gregory Industrial	2124 College St. Columbia, SC 29205	803-309-5535	Owens@gregoryindustrial.com
S W M B E	Frog Nebard	USC	743 Greene St Columbia, SC	803- 777- 4674	TRnebar@usc.edu
S W M B E	Green Khoo	USC	"	777- 5818	khoo@mailbox.usc.edu
S W M B E	Ward Shumpert	USC	"	777-3515	WARDS@usc.edu
S W M B E	Jones G. Herring II	Walker-White, Inc.	7409 Fairfield Rd. Columbia, SC.	691-0918	estimating@walker-white.com

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

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

Project Name: Close Building AHU Upgrades  
 Project Number: H27-6117 50002911-2  
 Pre Bid Date & Time: April 28, 2016@ 11:00am

SWMBE Contractor?	Name	Company Name	Address	Phone #	Email
S W M B E	Danny Wilder	MDI	4403 Broad River Rd., Cole, SC	803-731-9834	dan-jemdi@9834.com
S W M B E	ROBATEO MALDONADO-CHATO	USC	743 Greene	803-777-3536	rgmatt@sc.edu
S W M B E	Hatice Hikmet	USC	743 Greene St	803-777-9994	hikmeth@mailbox.sc.edu
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\*\*\*By signing this sheet you agree to receive information electronically.

**Description** HAZ MAT SURVEY - CLOSE BUILDING AHU REPLACEMENT

<b>Site</b>	COLUMBIA	<b>Assigned To</b>	JPROVENCE
<b>Building</b>	036 CLOSE-HIPP BUILDING	<b>Crew</b>	HAZMAT
<b>Floor</b>	<b>Room:</b>	<b>Start Date</b>	<b>Priority</b> 5
<b>Equipment</b>		<b>Due date</b>	11-JAN-16
		<b>Request Date</b>	11-DEC-15 <b>by</b> JOYG

<b>Request #</b>	FM00505532	<b>Description</b>	HAZ MAT SURVEY - CLOSE BUILDING AHU REPLACEMENT
<b>Parent WO #</b>			

<b>CP Number</b>	50002911-2	CLOSE BUILDING AHU REPLACEMENT
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<b>State/Internal Project Number</b>	H27-6117
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<b>Requestor</b>	KHOO, GEEN CHENG	<b>Project Manager</b>	KHOO, GEEN CHENG
<b>Telephone</b>	7-5818	<b>Telephone</b>	777-5818
<b>Alternate</b>		<b>Estimated Cost</b>	\$ 0.00
<b>Telephone</b>		<b>Billing</b>	FIXED PRICE
<b>Non-Available Time</b>	53120-W811-57120 (2015-16 MAINTENANCE NEEDS ACT 2)		

**Task List**

<b>DATE WORK STARTED</b>	<b>CAUSE</b>
<b>DATE WORK COMPLETED</b>	<b>CONDITION</b>
<b>EQUIPMENT</b>	
<b>CLOSING REMARKS</b>	
<b>BENCHSTOCK MATERIALS</b>	
<b>Qty</b>	<b>Description</b>
	<b>Price Per Unit</b>

**Supervisor's Approval** \_\_\_\_\_

Note Date	Title
14-MAR-16	HAZMAT SURVEY RESULTS
SURVEY DATE: 3/8/16	
INSPECTOR #: DARRYL WASHINGTON II (BI-00568) AND ERIC MELARO (BI-01296)	
STATUS: SCOPE OF WORK CONSISTS OF 1) REPLACE COILS 2) DRAIN PAN REPLACEMENT 3) CUT CONCRETE WALLS FOR ACCESS 4) ATTACH STAIRS TO ROOF 5) VALVE REPLACEMENT 6) FAN REPLACEMENT (IF FUNDING PERMITS ) 7) PUMP REPLACEMENT (IF FUNDING PERMITS ). THE FOLLOWING MATERIALS HAVE BEEN TESTED FOR ASBESTOS AND RESULTS FOLLOW.	
CREAM MASTIC- POSITIVE FOR ASBESTOS	
BLACK MASTIC- POSITIVE FOR ASBESTOS	
TAN DUCT MASTIC- POSITIVE FOR ASBESTOS	
TSI ELBOWS- NEGATIVE FOR ASBESTOS	
INSPECTOR'S NOTES:	

- ASBESTOS BLACK MASTIC WAS DETECTED ON FOAM GLASS ON CHILL WATER LINES. IF REMOVAL IS NECESSARY, PLEASE CONTACT USC HAZMAT FOR REMOVAL OF THIS MATERIAL.
- ASBESTOS BLACK MASTIC IS PRESENT UNDER THE DRAIN PAN AND MUST BE REMOVED BY A LICENSED ABATEMENT CONTRACTOR.
- ROOFING MATERIALS ARE PRESUMED POSITIVE FOR ASBESTOS UNTIL SAMPLING DATA IS AVAILABLE.
- BARE METAL AND BARE CONCRETE ARE NOT SUSPECT FOR ASBESTOS OR LEAD.
- USC INSPECTORS CAN WALK PROJECT WITH PROJECT MANAGER AND IDENTIFY ALL MATERIALS SAMPLED AND ITS EXACT LOCATIONS.

IF YOU ENCOUNTER ANY OTHER MATERIALS IN PLACE AND DEEM THEM SUSPECT FOR ASBESTOS AND/OR LEAD, PLEASE STOP WORK AND CONTACT THE ASBESTOS PROGRAM MANAGER FOR FURTHER TESTING OR ABATEMENT.

PLEASE NOTE THAT THE MATERIAL QUANTITY PROVIDED ON THE FIELD SHEET IS ONLY AN ESTIMATE FOR SAMPLING PURPOSES. THE QUANTITY SHOULD BE FIELD VERIFIED FOR ALL OTHER PURPOSES INCLUDING ABATEMENT.

REFER TO THE SURVEY RESULTS ATTACHED TO THE WORK ORDER FOR DETAILED INFORMATION.

**12-JAN-16 ASBESTOS SUMMARY FOR CLOSE-HIPP BUILDING (036) – JANUARY 2016**

ASBESTOS HAS BEEN FOUND IN THIS BUILDING. IF DISTURBED, ASBESTOS MAY BE HARMFUL TO YOUR HEALTH.

PLEASE DO NOT DISTURB THE FOLLOWING MATERIALS IN THIS BUILDING AS THEY HAVE BEEN FOUND TO CONTAIN ASBESTOS.

- JOINT COMPOUND / SHEETROCK
- PIPE INSULATION
- TEXTURED WALL MATERIAL
- BLACK DUCT MASTIC
- BLACK MASTIC UNDER FLOOR TILE

IF A BUILDING MATERIAL IS NOT LISTED, DO NOT ASSUME THAT IT DOES NOT CONTAIN ASBESTOS. IT MAY NOT HAVE BEEN TESTED.

FOR FURTHER INFORMATION, PLEASE CONTACT THE USC HAZMAT PROGRAM.



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

## Asbestos Bulk Building Material Chain of Custody

**EMSL Order Number** (Lab Use Only):

1689

EMSL ANALYTICAL, INC.  
200 ROUTE 130 NORTH  
CINNAMINSON, NJ 08077  
PHONE: (800) 220-3675  
FAX: (856) 786-5974

<b>Company:</b> University of South Carolina		<b>EMSL-Bill to:</b> <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
<b>Street:</b> 743 Greene Street		<i>Third Party Billing requires written authorization from third party</i>	
<b>City:</b> Columbia	<b>State/Province:</b> SC	<b>Zip/Postal Code:</b> 29208	<b>Country:</b> US
<b>Report To (Name):</b> USC Hazmat		<b>Telephone #:</b> 803-509-3376	
<b>Email Address:</b> asbestos@mailbox.sc.edu		<b>Fax #:</b>	<b>Purchase Order:</b>
<b>Project Name/Number:</b> Close Hipp Bld		<b>Please Provide Results:</b> <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
<b>U.S. State Samples Taken:</b> SC		<b>CT Samples:</b> <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour   
  6 Hour   
  24 Hour   
  48 Hour   
  72 Hour   
  96 Hour   
  1 Week   
  2 Week

\*For TEM Air 3 hr through 6 hr, please call ahead to schedule. \*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PLM - Bulk (reporting limit)	TEM - Bulk
<input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%)	<input checked="" type="checkbox"/> TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
<input type="checkbox"/> PLM EPA NOB (<1%)	<input type="checkbox"/> NY ELAP Method 198.4 (TEM)
Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	<input type="checkbox"/> TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
<input type="checkbox"/> NIOSH 9002 (<1%)	<input type="checkbox"/> TEM Qualitative via Filtration Prep Technique
<input type="checkbox"/> NY ELAP Method 198.1 (friable in NY)	<input type="checkbox"/> TEM Qualitative via Drop Mount Prep Technique
<input type="checkbox"/> NY ELAP Method 198.6 NOB (non-friable-NY)	<u>Other</u>
<input type="checkbox"/> OSHA ID-191 Modified	<input type="checkbox"/>
<input type="checkbox"/> Standard Addition Method	

**Check For Positive Stop - Clearly Identify Homogenous Group**      **Date Sampled:**

**Samplers Name:** \_\_\_\_\_      **Samplers Signature:** \_\_\_\_\_

Sample #	HA #	Sample Location	Material Description

<b>Client Sample # (s):</b> -	<b>Total # of Samples:</b> 15
<b>Relinquished (Client):</b> <i>[Signature]</i>	<b>Date:</b> <b>Time:</b>
<b>Received (Lab):</b> <i>[Signature]</i>	<b>Date:</b> 3-9-16 <b>Time:</b> 11:45
<b>Comments/Special Instructions:</b> <div style="text-align: center; font-size: 1.2em; font-family: cursive;">                 @ EFX 795/24454353             </div>	

Print Form

Reset Form

119801



Sample Analysis

Turn Around Time 24 HRS

Date: 3/8/16

Type of Analysis: Lead / Asbestos

Building # 036 CLOSE HIPPI BUILDING

Area	Sample ID	Material Sampled	Material Location	F/NF	Cond	Quantity	Pot to Disturb
A	1	CREAM MASTIC	ON LOUVER IN UPPER SECTION OF WEST UNIT	NF	G	<20 LIN FT	LOW
A	2	CREAM MASTIC	ON LOUVER IN UPPER SECTION OF WEST UNIT	NF	G	<20 LIN FT	LOW
A	3	CREAM MASTIC (Tom FF) (As)	ON LOUVER IN UPPER SECTION OF WEST UNIT	NF	G	<20 LIN FT	LOW
B	4	BLACK MASTIC	AROUND MAIN HEATING DUCT WEST UNIT	NF	G	<10 LIN FT	LOW
B	5	BLACK MASTIC	AROUND MAIN HEATING DUCT WEST UNIT	NF	G	<10 LIN FT	LOW
B	6	BLACK MASTIC (Tom FF) (As)	AROUND MAIN HEATING DUCT WEST UNIT	NF	G	<10 LIN FT	LOW
C	7	TSI	ON CHILL WATER LINES ELBOWS	F	G	<10 LIN FT	LOW
C	8	TSI	ON CHILL WATER LINES ELBOWS	F	G	<10 LIN FT	LOW
C	9	TSI	ON CHILL WATER LINES ELBOWS	F	G	<10 LIN FT	LOW
D	10	TAN DUCT MASTIC	MAIN SUPPLY DUCT IN ROOF AHU WEST	F	G	<50 LIN FT	LOW

License # BI-00568 FM# FM00505532 Signature *[Signature]* Requestor GEEN KHOO

Print Form

Reset Form

1689



**Sample Analysis**

Type of Analysis: Lead / Asbestos Date:

Building # \_\_\_\_\_ Turn Around Time \_\_\_\_\_

Area	Sample ID	Material Sampled	Material Location	F/NF	Cond	Quantity	Pot to Disturb
D	11	TAN DUCT MASTIC	MAIN SUPPLY DUCT IN ROOF AHU WEST	F	G	<50 LIN FT	LOW
D	12	TAN DUCT MASTIC	MAIN SUPPLY DUCT IN ROOF AHU WEST	F	G	<50 LIN FT	LOW
E	13	BLACK MASTIC	ON LOUVER ALONG FLOOR ON WEST UNIT	NF	G	<20 LIN FT	LOW
E	14	BLACK MASTIC	ON LOUVER ALONG FLOOR ON WEST UNIT	NF	G	<20 LIN FT	LOW
E	15	BLACK MASTIC (7cm #8 MS)	ON LOUVER ALONG FLOOR ON WEST UNIT	NF	G	<20 LIN FT	LOW

License # \_\_\_\_\_ FM# \_\_\_\_\_ Signature \_\_\_\_\_ Requestor \_\_\_\_\_





# EMSL Analytical, Inc.

706 Gralin Street Kernersville, NC 27284  
Tel/Fax: (336) 992-1025 / (336) 992-4175  
<http://www.EMSL.com> / [greensborolab@emsl.com](mailto:greensborolab@emsl.com)

EMSL Order: 021601689  
Customer ID: UNSC62  
Customer PO:  
Project ID:

**Attention:** USC Hazmat  
University of South Carolina  
743 Greene Street  
Columbia, SC 29208  
**Project:** 36 Close Hipp Building

**Phone:** (803) 777-7000  
**Fax:** (803) 777-3990  
**Received Date:** 03/09/2016 11:45 AM  
**Analysis Date:** 03/09/2016  
**Collected Date:**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1 021601689-0001	Cream Mastic	Gray Non-Fibrous Homogeneous	<1% Cellulose	97% Non-fibrous (Other)	3% Chrysotile
2 021601689-0002	Cream Mastic				Stop Positive (Not Analyzed)
3 021601689-0003	Cream Mastic				Stop Positive (Not Analyzed)
4 021601689-0004	Black Mastic	Black Fibrous Heterogeneous	1% Cellulose	94% Non-fibrous (Other)	5% Chrysotile
5 021601689-0005	Black Mastic				Stop Positive (Not Analyzed)
6 021601689-0006	Black Mastic				Stop Positive (Not Analyzed)
7 021601689-0007	TSI	Gray Fibrous Heterogeneous	1% Cellulose 80% Min. Wool	19% Non-fibrous (Other)	None Detected
8 021601689-0008	TSI	Gray Fibrous Heterogeneous	1% Cellulose 80% Min. Wool	19% Non-fibrous (Other)	None Detected
9 021601689-0009	TSI	Gray Fibrous Heterogeneous	1% Cellulose 80% Min. Wool	19% Non-fibrous (Other)	None Detected
10 021601689-0010	Tan Duct Mastic	Tan/Beige Non-Fibrous Homogeneous	1% Cellulose	96% Non-fibrous (Other)	3% Chrysotile
11 021601689-0011	Tan Duct Mastic				Stop Positive (Not Analyzed)
12 021601689-0012	Tan Duct Mastic				Stop Positive (Not Analyzed)
13 021601689-0013	Black Mastic	Brown/Black Fibrous Heterogeneous	2% Cellulose	90% Non-fibrous (Other)	8% Chrysotile
14 021601689-0014	Black Mastic				Stop Positive (Not Analyzed)
15 021601689-0015	Black Mastic				Stop Positive (Not Analyzed)



**EMSL Analytical, Inc.**

706 Gralin Street Kernersville, NC 27284  
Tel/Fax: (336) 992-1025 / (336) 992-4175  
<http://www.EMSL.com> / [greensborolab@emsl.com](mailto:greensborolab@emsl.com)

EMSL Order: 021601689  
Customer ID: UNSC62  
Customer PO:  
Project ID:

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type

Analyst(s)  
Nicole Shutts (7)

  
Stephen Bennett, Laboratory Manager  
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC NVLAP Lab Code 102104-0, CA ELAP 2689, Virginia 3333-000228, West Virginia LT000321

Initial Report From: 03/10/2016 09:10:03