



**Columbia Area Office**  
512 Limestone Point  
Chapin, SC 29036  
(803) 260-4532

**Greenville Area Office**  
702 Regency Circle  
Anderson, SC 29625  
(864) 965-8668

wmbeconsultants.com

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## Addendum No. 1

Date Issued: August 18, 2016

Project: University of South Carolina Upstate  
HEC Water Infiltration Repairs Upstate  
80 University Way  
Spartanburg, SC

USC Project Number: H34-9546

WMBE Project Number: 2016-07

Attachment: 1. Page BF 3 of the SE-330 Lump Sum Bid Form  
2. HEC and URC HAZMAT Reports  
3. Questions & Answers

This addendum modifies the Contract Documents as stated herein and shown on any accompanying drawings or attachments and is part of the Contract Documents.

Bidder shall acknowledge receipt of all addenda issued in the space provided on the Bid Form. Failure to acknowledge addenda may result in the bidders bid being rejected as non-responsive.

This addendum consists of 6 pages including attachments.

1. Changes to Bidding Requirements:
  - a. The Bid Receipt date is changed from Tuesday, August 23, 2016 to **Tuesday, August 30, 2016.**  
**The time and place of receipt remain unchanged.**
  - b. SE- 330 Lump Sum Bid Form: Delete page BF 3 and replace with the attached page BF 3.
2. Changes to Specifications: None
3. Changes to Drawings: None.

End of Addendum No. 1

## SE-330 LUMP SUM BID FORM

### § 8. LIST OF MANUFACTURERS, MATERIAL SUPPLIERS, AND SUBCONTRACTORS OTHER THAN SUBCONTRACTORS LISTED IN SECTION 7 ABOVE (*FOR INFORMATION ONLY*):

Pursuant to instructions in the Invitation for Construction Services, if any, Bidder will provide to Owner upon the Owner's request and within 24 hours of such request, a listing of manufacturers, material suppliers, and subcontractors, other than those listed in Section 7 above, that Bidder intends to use on the project. Bidder acknowledges and agrees that this list is provided for purposes of determining responsibility and not pursuant to the subcontractor listing requirements of SC Code Ann § 11-35-3020(b)(i).

### § 9. TIME OF CONTRACT PERFORMANCE AND LIQUIDATED DAMAGES

#### a) CONTRACT TIME

Bidder agrees that the Date of Commencement of the Work shall be established in a Notice to Proceed to be issued by the Owner. Bidder agrees to substantially complete the Work within 90 Calendar Days from the Date of Commencement, subject to adjustments as provided in the Contract Documents.

#### b) LIQUIDATED DAMAGES

Bidder further agrees that from the compensation to be paid, the Owner shall retain as Liquidated Damages the amount of \$ 200.00 for each Calendar Day the actual construction time required to achieve Substantial Completion exceeds the specified or adjusted time for Substantial Completion as provided in the Contract Documents. This amount is intended by the parties as the predetermined measure of compensation for actual damages, not as a penalty for nonperformance.

### § 10. AGREEMENTS

- a) Bidder agrees that this bid is subject to the requirements of the laws of the State of South Carolina.
- b) Bidder agrees that at any time prior to the issuance of the Notice to Proceed for this Project, this Project may be canceled for the convenience of, and without cost to, the State.
- c) Bidder agrees that neither the State of South Carolina nor any of its agencies, employees or agents shall be responsible for any bid preparation costs, or any costs or charges of any type, should all bids be rejected or the Project canceled for any reason prior to the issuance of the Notice to Proceed.

### § 11. ELECTRONIC BID BOND

By signing below, the Principal is affirming that the identified electronic bid bond has been executed and that the Principal and Surety are firmly bound unto the State of South Carolina under the terms and conditions of the AIA Document A310, Bid Bond, included in the Bidding Documents.

**ELECTRONIC BID BOND NUMBER:** \_\_\_\_\_

**SIGNATURE AND TITLE:** \_\_\_\_\_



**ASBESTOS INSPECTION REPORT**

**FOR**

**University of South Carolina Upstate**  
**800 University Way**  
**Spartanburg, South Carolina 29303**

**LOCATION**

**Health Education Complex (HEC) Roof System**  
**800 University Way**  
**Spartanburg, South Carolina**

**INSPECTION DATE: July 12, 2016**

**REPORT DATE: June 15, 2016**

**INSPECTORS**

**Travis Williams – SC-DHEC License #BI-00713, Exp. 11/02/16**  
**(864) 640-7744**

**Evans Harris – SC-DHEC License #BI-01224, Exp. 11/15/16**  
**(864) 680-1233**

**For**

**Crossroads Environmental, LLC**  
**1258 Boiling Springs Road**  
**Spartanburg, South Carolina 29303**  
**(864) 541-8736**  
**CRE Project # 14325-IN**

## TABLE OF CONTENTS

### INSPECTION REPORT/LETTER

- BACKGROUND INFORMATION
- BUILDING/AREA DESCRIPTION
- INSPECTION STRATEGY/SAMPLING PROTOCOL
- RESULTS
- CLOSING STATEMENTS AND LIMITATIONS

### ATTACHMENTS

- ATTACHMENT I: ASBESTOS SUMMARY TABLE RESULTS
- ATTACHMENT II: LABORATORY REPORT(S)
- ATTACHMENT III: SAMPLE LOCATION SKETCH
- ATTACHMENT IV: INSPECTOR'S LICENSE/ACCREDITATION

July 15, 2016

Mr. Cody Godfrey  
University of South Carolina Upstate  
800 University Way  
Spartanburg, South Carolina 29303

Re: Asbestos Inspection Report  
Health Education Complex (HEC) Roof system  
800 University Way, Spartanburg, SC 29303  
CRE Project Number: 14325-IN

Dear Mr. Godfrey:

Crossroads Environmental, LLC (CRE) completed a comprehensive asbestos inspection of the Health Education Complex (HEC) roof system, located on the campus of the University of South Carolina Upstate in Spartanburg, South Carolina on July 12, 2016. The scope of work included sampling all suspect asbestos-containing roofing materials prior to scheduled repairs. The inspection was performed by SC-DHEC Licensed Asbestos Inspectors, and in accordance with South Carolina Department of Health and Environmental Control (SC-DHEC) and Environmental Protection Agency (EPA) Requirements. **A detailed summary table of the sampling is included in Attachment I; however, this report should be read in its entirety.**

#### **Building Description**

The HEC roof system is a ballasted, built-up roofing system. The perimeter flashing, equipment flashing, skylight flashing, etc. are homogeneous in nature and were sampled accordingly; however, the two, lower level north side roofs featured perimeter flashing that was different in color and texture. This material was sampled as a different homogeneous area. HVAC equipment sealant and silver paint were also identified as suspect asbestos-containing materials during the inspection.

#### **Inspection Strategy/Sampling Protocol**

The inspection consisted of grouping suspect asbestos containing materials into homogeneous areas based on the color and texture of the material, and then performing representative sampling of the materials included in those homogeneous

areas. SC-DHEC has requirements for the minimum number of samples that can be collected from each homogeneous area (three samples of each miscellaneous material, three samples of each type of thermal system insulation, and the sample requirements for surfacing are based on square footage). Following completion of the on-site inspection/sampling, samples were submitted to an accredited laboratory for analysis.

As of June 27, 2008, SC-DHEC requires that any non-friable organically bound (NOB) material that is suspect to contain asbestos, such as floor tile, mastics, roofing material, and caulking must be analyzed by transmission electron microscopy (TEM) if polarized light microscopy (PLM) analyses of that material indicate that no asbestos was detected.

### **Asbestos**

EPA recognizes a material as Asbestos Containing Material (ACM) if an asbestos content of greater than one percent asbestos is detected in a representative sample analyzed by polarized light microscopy.

**Results indicated that no asbestos was detected in any of the roofing materials sampled.**

### **Closing Statements and Limitations**

Every effort was made to identify and sample all suspect materials associated with the roofing system. There is the possibility that suspect materials were not identified in inaccessible areas. If any suspect material is discovered that is not included within this report, it should be sampled before it is physically disturbed.


This document has been prepared by Crossroads Environmental, LLC at the request of and for the exclusive use of the University of South Carolina Upstate. This report represents the findings from the date that it was inspected, and is limited in scope to that indicated above.

Crossroads Environmental, LLC appreciates the opportunity to provide the University of South Carolina Upstate with our consultative services. Should you have any questions or need additional information, please do not hesitate to contact us.

Sincerely,



Travis Williams  
Licensed Inspector



Evans Harris  
Licensed Inspector



Kay H. Horton  
President

eh

Attachments – (4)

**ATTACHMENT I**  
**ASBESTOS SUMMARY TABLE**



CROSSROADS ENVIRONMENTAL, LLC ASBESTOS INSPECTION REPORT								CRE JOB #: 14325-IN	
Location:		Health Education Complex (HEC) Roof							
Client:		University of South Carolina Upstate						DATE: 7/12/2016	
<b>Key: A=Amosite, C=Chrysotile, Cr=Crocidolite, Tr=Tremolite, Ac=Actinolite Asbestos, Misc.=Miscellaneous, HA#=Homogeneous Area #, PLM=Polarized Light Microscopy, TEM=Transmission Electron Microscopy, /=PLM and/or TEM Analysis Not Required</b> <b>sq.ft.=Square Feet, cu.ft.=Cubic Feet, In.ft.=Linear Feet, HJI=Hard Joint Insulation, TSI=Thermal System Insulation, BUR=Built-up Roofing, Surf=Surfacing</b> <b>NAD=No Asbestos Detected, SP=Stop Positive</b>									
HA#	Type of Material TSI, Surf, Misc.	Material Type	Sample Number	Asbestos Content (PLM)	Asbestos Content (TEM)	Location of Sample	Approx. Quantity	Physical Condition	Location/ Comments
01	Misc	Built-Up Roof Field	076 BUR 076 Insulation	NAD NAD	/ /	Outside South penthouse roof entryway	N/A	Good; Non- Friable	Located throughout all fields of the HEC roof system.
			77 BUR 077 Insulation	NAD NAD	/ /	SE elevated penthouse roof			
			78 BUR 078 Insulation	/ NAD	NAD /	Adjacent to MAINT 4100 penthouse			
02	Misc	Equipment & Perimeter Flashing	079	NAD	/	At skylight outside South penthouse roof entryway	N/A	Good; Non- Friable	Located on all roofing perimeter and roof equipment. (Excluding those areas addressed in HA05.)
			080	NAD	/	Flashing between RTU-3-2 & RTU-2- 4			
			081	/	NAD	MAINT 4100 penthouse			

CROSSROADS ENVIRONMENTAL, LLC ASBESTOS INSPECTION REPORT							CRE JOB #: 14325-IN		
Location:	Health Education Complex (HEC) Roof								
Client:	University of South Carolina Upstate						DATE: 7/12/2016		
<b>Key: A=Amosite, C=Chrysotile, Cr=Crocidolite, Tr=Tremolite, Ac=Actinolite Asbestos, Misc.=Miscellaneous, HA#=Homogeneous Area #, PLM=Polarized Light Microscopy, TEM=Transmission Electron Microscopy, /=PLM and/or TEM Analysis Not Required</b> <b>sq.ft.=Square Feet, cu.ft.=Cubic Feet, In.ft.=Linear Feet, HJI=Hard Joint Insulation, TSI=Thermal System Insulation, BUR=Built-up Roofing, Surf=Surfacing</b> <b>NAD=No Asbestos Detected, SP=Stop Positive</b>									
HA#	Type of Material TSI, Surf, Misc.	Material Type	Sample Number	Asbestos Content (PLM)	Asbestos Content (TEM)	Location of Sample	Approx. Quantity	Physical Condition	Location/ Comments
03	Misc	Brown HVAC Sealant	082	NAD	/	RTU-2-4	N/A	Good; Non-Friable	Located on various HVAC equipment.
			083	NAD	/	RTU-2-2			
			084	/	NAD	RTU-1-6B			
04	Misc	Silver Equipment Paint	085	NAD	/	RTU-2-3	N/A	Good; Non-Friable	Located on various HVAC equipment.
			086	NAD	/	RTU-2-4			
			087	/	NAD	RTU-2-5			

CROSSROADS ENVIRONMENTAL, LLC ASBESTOS INSPECTION REPORT							CRE JOB #: 14325-IN		
Location:		Health Education Complex (HEC) Roof							
Client:		University of South Carolina Upstate					DATE: 7/12/2016		
<b>Key: A=Amosite, C=Chrysotile, Cr=Crocidolite, Tr=Tremolite, Ac=Actinolite Asbestos, Misc.=Miscellaneous, HA#=Homogeneous Area #, PLM=Polarized Light Microscopy, TEM=Transmission Electron Microscopy, /=PLM and/or TEM Analysis Not Required</b> <b>sq.ft.=Square Feet, cu.ft.=Cubic Feet, In.ft.=Linear Feet, HJI=Hard Joint Insulation, TSI=Thermal System Insulation, BUR=Built-up Roofing, Surf=Surfacing</b> <b>NAD=No Asbestos Detected, SP=Stop Positive</b>									
HA#	Type of Material TSI, Surf, Misc.	Material Type	Sample Number	Asbestos Content (PLM)	Asbestos Content (TEM)	Location of Sample	Approx. Quantity	Physical Condition	Location/ Comments
05	Misc	Equipment & Perimeter Flashing	088	NAD	/	Perimeter flashing of lower level roof that houses RTU-2- 7	N/A	Good; Non- Friable	Located on the two (2) north side, lower level roofs.
			089	NAD	/	Perimeter flashing of lower level roof that houses RTU-2- 7			
			090	/	NAD	Perimeter flashing of lower level roof that houses RTU-2- 6			

**ATTACHMENT II**  
**LABORATORY REPORT(S)**



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**Customer:** Crossroads Environmental LLC  
1258 Boiling Springs Rd  
Spartanburg, SC 29303

**Attn:** Evans Harris

**Lab Order ID:** 1613673  
**Analysis ID:** 1613673\_PLM  
**Date Received:** 7/13/2016  
**Date Reported:** 7/14/2016

**Project:** 14325-IN HEC

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
076 - A	Roof field core	None Detected	20% Fiber Glass	80% Other	Black Non Fibrous Heterogeneous
1613673PLM_1	built up roofing				Dissolved
076 - B	Roof field core	None Detected	85% Cellulose	15% Other	Tan Fibrous Heterogeneous
1613673PLM_16	insulation				Teased
077 - A	Roof field core	None Detected	20% Fiber Glass	80% Other	Black Non Fibrous Heterogeneous
1613673PLM_2	built up roofing				Dissolved
077 - B	Roof field core	None Detected	85% Cellulose	15% Other	Tan Fibrous Heterogeneous
1613673PLM_17	insulation				Teased
078 - A	Roof field core	Not Analyzed			
1613673PLM_3	built up roofing - TEM				
078 - B	Roof field core	None Detected	85% Cellulose	15% Other	Tan Fibrous Heterogeneous
1613673PLM_18	insulation				Teased
079	Roof flashing	None Detected	20% Fiber Glass 5% Cellulose	75% Other	Black Non Fibrous Heterogeneous
1613673PLM_4					Dissolved
080	Roof flashing	None Detected	20% Fiber Glass 5% Cellulose	75% Other	Black Non Fibrous Heterogeneous
1613673PLM_5					Dissolved

**Disclaimer:** Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Bart Huber (18)

Analyst

Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**Customer:** Crossroads Environmental LLC  
1258 Boiling Springs Rd  
Spartanburg, SC 29303

**Attn:** Evans Harris

**Lab Order ID:** 1613673  
**Analysis ID:** 1613673\_PLM  
**Date Received:** 7/13/2016  
**Date Reported:** 7/14/2016

**Project:** 14325-IN HEC

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
081	Roof flashing	Not Analyzed			
1613673PLM_6	TEM				
082	Brown HVAC sealant	None Detected		100% Other	Brown Non Fibrous Heterogeneous
1613673PLM_7					Dissolved
083	Brown HVAC sealant	None Detected		100% Other	Brown Non Fibrous Heterogeneous
1613673PLM_8					Dissolved
084	Brown HVAC sealant	Not Analyzed			
1613673PLM_9	TEM				
085	Silver paint	None Detected	5% Cellulose	95% Other	Silver Non Fibrous Heterogeneous
1613673PLM_10					Dissolved
086	Silver paint	None Detected	5% Cellulose	95% Other	Silver Non Fibrous Heterogeneous
1613673PLM_11					Dissolved
087	Silver paint	Not Analyzed			
1613673PLM_12	TEM				
088	Roof flashing	None Detected	15% Fiber Glass 5% Cellulose	80% Other	Black, Silver Non Fibrous Heterogeneous
1613673PLM_13					Dissolved

**Disclaimer:** Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Bart Huber (18)

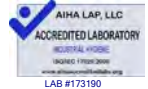
Analyst

Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**Customer:** Crossroads Environmental LLC  
1258 Boiling Springs Rd  
Spartanburg, SC 29303

**Attn:** Evans Harris

**Lab Order ID:** 1613673  
**Analysis ID:** 1613673\_PLM  
**Date Received:** 7/13/2016  
**Date Reported:** 7/14/2016

**Project:** 14325-IN HEC

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
089	Roof flashing	None Detected	15% Fiber Glass 5% Cellulose	80% Other	Black, Silver Non Fibrous Heterogeneous
1613673PLM_14					Dissolved
090	Roof flashing	Not Analyzed			
1613673PLM_15	TEM				

**Disclaimer:** Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Bart Huber (18)

Analyst

Approved Signatory

11013673

<b>Client:</b>	Crossroads Environmental, LLC	Relinquished By:  Fed EX 8099 2174 5084	<b>Scientific Analytical Institute, Inc.</b>  4604 Dundas Dr. Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313  Email: lab@sailab.com
<b>Contact:</b>	Evans Harris		
<b>Address:</b>	1258 Boiling Springs Road		
<b>Phone:</b>	864-541-8736		
<b>Fax:</b>	864-541-8776		
<b>Email:</b>	results@crossroadsenv.net		
<b>Project:</b>	14325-IN HEC		
<b>Client Notes:</b>	Stop Positive, excluding Surfacing.		
<b>P.O. #:</b>			
<b>Date Submitted:</b>	7/12/2016 1700pm		
<b>Analysis:</b>	PLM Bulk/TEM Bulk		
<b>TurnAroundTime:</b>	24 hour/24 hour		

Sample Number	HA Number	Sample Description	Data 2
<<			
076 ✓	1	Roof field core	PLM
077 ✓	1	Roof field core	PLM
078 ✓	1	Roof field core	TEM
079 ✓	2	Roof flashing	PLM
080 ✓	2	Roof flashing	PLM
081 ✓	2	Roof flashing	TEM
082 ✓	3	Brown HVAC sealant	PLM
083 ✓	3	Brown HVAC sealant	PLM
084 ✓	3	Brown HVAC sealant	TEM
085 ✓	4	Silver paint	PLM
086 ✓	4	Silver paint	PLM
087 ✓	4	Silver paint	TEM
088 ✓	5	Roof flashing	PLM
089 ✓	5	Roof flashing	PLM
090 ✓	5	Roof flashing	TEM

Accepted

Rejected

*H. Scump*

*7/13 9:30am*





# Bulk Asbestos Analysis by Transmission Electron Microscopy

Semi-Quantitative  
Chatfield SOP 1988-02 Rev. 1

**Customer:** Crossroads Environmental LLC  
1258 Boiling Springs Rd  
Spartanburg, SC 29303

**Attn:** Evans Harris

**Lab Order ID:** 1613742

**Analysis ID:** 1613742\_TBS

**Date Received:** 7/14/2016

**Date Reported:** 7/15/2016

**Project:** 14325-IN HEC

Sample ID	Description	Organic (Wt. %)	Acid Sol. (Wt. %)	Asbestos (Wt. %)	LCL-UCL (Wt. %)
<i>Lab Sample ID</i>	<i>Lab Notes</i>				
078-A	Roof field core	90.0%	-	None Detected	
1613742TBS_1	<i>built up roofing</i>				
081	Roof flashing	64%	-	None Detected	
1613742TBS_2					
084	Brown HVAC sealant	56%	-	None Detected	
1613742TBS_3					
087	Silver paint	65%	-	None Detected	
1613742TBS_4					
090	Roof flashing	92%	-	None Detected	
1613742TBS_5					

Disclaimer: This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government.

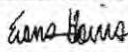
Russell Shelton (5)

**Analyst**

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888

**Approved Signatory**

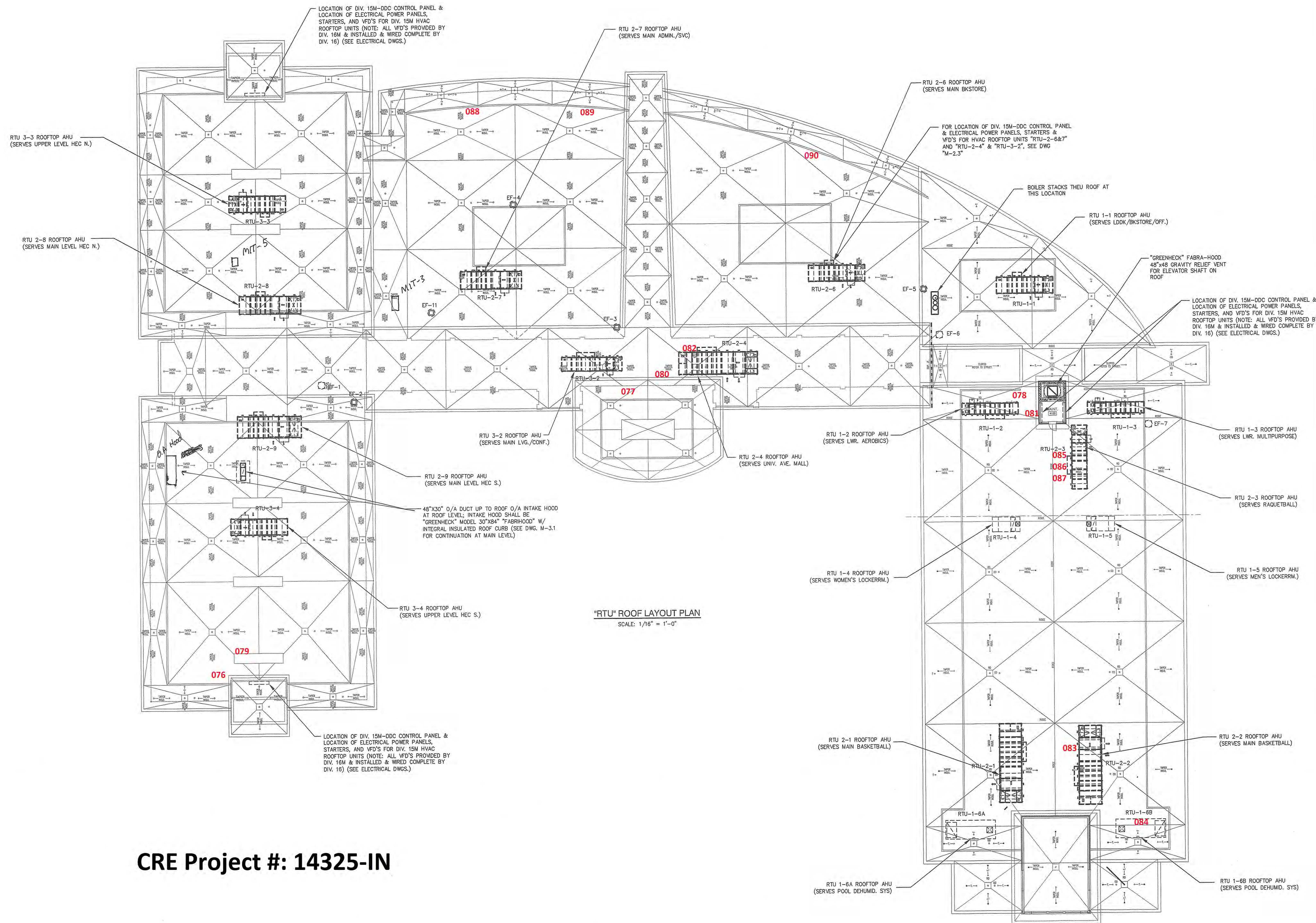
1613742  
 10/30/73

<b>Client:</b>	Crossroads Environmental, LLC	Relinquished By:  Fed EX 8099 2174 5084	<b>Scientific Analytical          Institute, Inc.</b>  4604 Dundas Dr. Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313  Email: lab@sailab.com
<b>Contact:</b>	Evans Harris		
<b>Address:</b>	1258 Boiling Springs Road		
<b>Phone:</b>	864-541-8736		
<b>Fax:</b>	864-541-8776		
<b>Email:</b>	results@crossroadsenv.net		
<b>Project:</b>	14325-IN HEC		
<b>Client Notes:</b>	Stop Positive, excluding Surfacing.		
<b>P.O. #:</b>			
<b>Date Submitted:</b>	7/12/2016 1700pm		
<b>Analysis:</b>	PLM Bulk/TEM Bulk		
<b>TurnAroundTime:</b>	24 hour/24 hour		

Sample Number	HA Number	Sample Description	Data 2
<<			
076 ✓	1	Roof field core	PLM
077 ✓	1	Roof field core	PLM
078 ✓	1	Roof field core	TEM
079 ✓	2	Roof flashing	PLM
080 ✓	2	Roof flashing	PLM
081 ✓	2	Roof flashing	TEM
082 ✓	3	Brown HVAC sealant	PLM
083 ✓	3	Brown HVAC sealant	PLM
084 ✓	3	Brown HVAC sealant	TEM
085 ✓	4	Silver paint	PLM
086 ✓	4	Silver paint	PLM
087 ✓	4	Silver paint	TEM
088 ✓	5	Roof flashing	PLM
089 ✓	5	Roof flashing	PLM
090 ✓	5	Roof flashing	TEM

Accepted   
 Rejected   
 MSB  
 7/13 9:30AM

**ATTACHMENT III**  
**SAMPLE LOCATION SKETCH**



"RTU" ROOF LAYOUT PLAN  
SCALE: 1/16" = 1'-0"

CRE Project #: 14325-IN

**McMillan Smith & Partners**  
Architects, PLLC

Post Office Box 5331  
Spartanburg, SC 29304  
864.565.6678 Fax 864.542.9451



PROJECT NAME:  
USC UPSTATE  
HEALTH EDUCATION  
COMPLEX  
Spartanburg, SC  
STATE PROJECT # H34-9532-GW-B

REVISIONS:

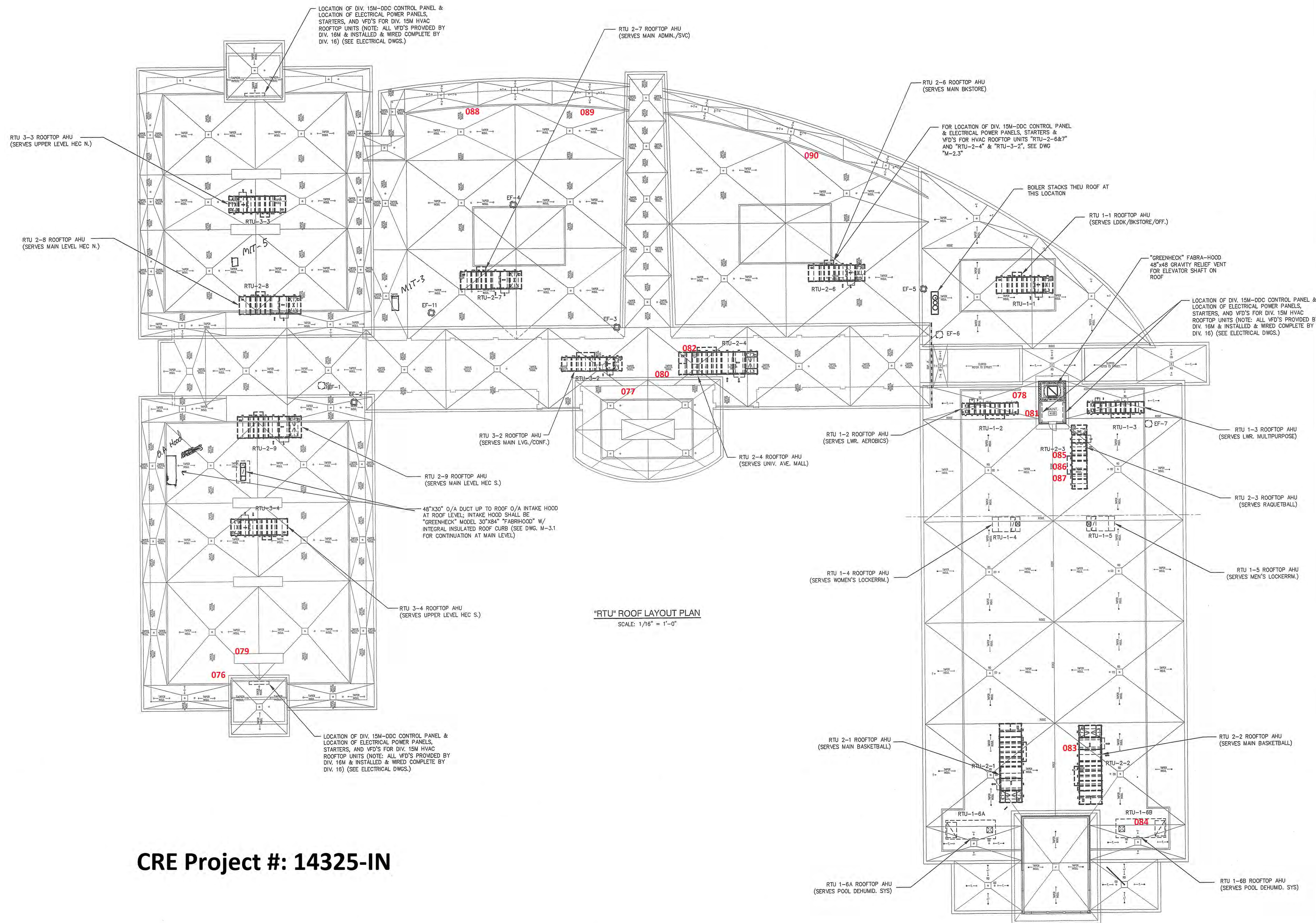
NO.	DATE	DESCRIPTION	BY
0	06/22/06	BID SET	

BID SET SUBMITTAL 06/22/06

PRINCIPAL IN CHARGE: JAB  
PROJECT ARCHITECT: LPA  
DRAWN BY: JCC/JTP/JDG/LJS

SHEET TITLE:

SHEET NO. <b>M-4.0</b>	PROJ NO. 04024
SHT ____ OF ____	DATE: 03/04/05



"RTU" ROOF LAYOUT PLAN  
SCALE: 1/16" = 1'-0"

CRE Project #: 14325-IN



PROJECT NAME:  
**USC UPSTATE HEALTH EDUCATION COMPLEX**  
Spartanburg, SC  
STATE PROJECT # H34-9532-GW-B

REVISIONS:

NO.	DATE	DESCRIPTION	BY
0	06/22/06	BID SET	

BID SET SUBMITTAL 06/22/06

PRINCIPAL IN CHARGE: JAB  
PROJECT ARCHITECT: LPA  
DRAWN BY: JCC/JTP/JDG/LJS

SHEET TITLE:

SHEET NO. <b>M-4.0</b>	PROJ. NO. 04024
SHT ____ OF ____	DATE: 03/04/05

**ATTACHMENT IV  
ACCREDITATION(S)**

# SCDHEC ISSUED

## Asbestos ID Card

**Evans Harris**



Expiration Date

<b>AIRSAMPLER</b>	<b>AS-00383</b>	<b>11/15/16</b>
<b>CONSULTPD</b>	<b>PD-00149</b>	<b>01/05/17</b>
<b>CONSULTBI</b>	<b>BI-01224</b>	<b>11/16/16</b>

# SCDHEC ISSUED

## Asbestos ID Card

**Travis Williams**

Expiration Date

<b>CONSULTBI</b>	<b>BI-00713</b>	<b>11/02/16</b>
<b>AIRSAMPLER</b>	<b>AS-00171</b>	<b>01/03/17</b>







**ASBESTOS INSPECTION REPORT**

**FOR**

**University of South Carolina Upstate**  
**800 University Way**  
**Spartanburg, South Carolina 29303**

**LOCATION**

**University Readiness Center (URC) Roof System**  
**800 University Way**  
**Spartanburg, South Carolina**

**INSPECTION DATE: July 12, 2016**

**REPORT DATE: June 15, 2016**

**INSPECTORS**

**Travis Williams – SC-DHEC License #BI-00713, Exp. 11/02/16**  
**(864) 640-7744**

**Evans Harris – SC-DHEC License #BI-01224, Exp. 11/15/16**  
**(864) 680-1233**

**For**

**Crossroads Environmental, LLC**  
**1258 Boiling Springs Road**  
**Spartanburg, South Carolina 29303**  
**(864) 541-8736**  
**CRE Project # 14325-IN**

## TABLE OF CONTENTS

### INSPECTION REPORT/LETTER

- BACKGROUND INFORMATION
- BUILDING/AREA DESCRIPTION
- INSPECTION STRATEGY/SAMPLING PROTOCOL
- RESULTS
- CLOSING STATEMENTS AND LIMITATIONS

### ATTACHMENTS

- ATTACHMENT I: ASBESTOS SUMMARY TABLE RESULTS
- ATTACHMENT II: LABORATORY REPORT(S)
- ATTACHMENT III: SAMPLE LOCATION SKETCH
- ATTACHMENT IV: INSPECTOR'S LICENSE/ACCREDITATION

July 15, 2016

Mr. Cody Godfrey  
University of South Carolina Upstate  
800 University Way  
Spartanburg, South Carolina 29303

Re: Asbestos Inspection Report  
University Readiness Center (URC) Roof system  
800 University Way, Spartanburg, SC 29303  
CRE Project Number: 14325-IN

Dear Mr. Godfrey:

Crossroads Environmental, LLC (CRE) a comprehensive asbestos inspection of the University Readiness Center (URC) roof system, located on the campus of the University of South Carolina Upstate in Spartanburg, South Carolina on July 12, 2016. The scope of work included sampling all suspect asbestos-containing roofing materials prior to scheduled repairs. The inspection was performed by SC-DHEC Licensed Asbestos Inspectors, and in accordance with South Carolina Department of Health and Environmental Control (SC-DHEC) and Environmental Protection Agency (EPA) Requirements. **A detailed summary table of the sampling is included in Attachment I; however, this report should be read in its entirety.**

#### **Building Description**

The URC roof system is a ballasted, built-up roofing system. The perimeter flashing, equipment flashing, expansion divider flashing, etc. are homogeneous in nature and were sampled accordingly. Additionally, concrete parapet expansion caulk was identified as a suspect asbestos-containing material and sampled.

#### **Inspection Strategy/Sampling Protocol**

The inspection consisted of grouping suspect asbestos containing materials into homogeneous areas based on the color and texture of the material, and then performing representative sampling of the materials included in those homogeneous areas. SC-DHEC has requirements for the minimum number of samples that can be collected from each homogeneous area (three samples of each miscellaneous material,

three samples of each type of thermal system insulation, and the sample requirements for surfacing are based on square footage).

Following completion of the on-site inspection/sampling, samples were submitted to an accredited laboratory for analysis. Stop positive analysis was requested on all materials except for surfacing (sprayed-on or troweled-on materials such as joint compound and fireproofing). Stop positive analysis means that if one sample of a material in a homogeneous area is found to contain asbestos, then the other samples of that material are not analyzed, but are assumed to contain asbestos based on the results from the first sample analyzed.

As of June 27, 2008, SC-DHEC requires that any non-friable organically bound (NOB) material that is suspect to contain asbestos, such as floor tile, mastics, roofing material, and caulking must be analyzed by transmission electron microscopy (TEM) if polarized light microscopy (PLM) analyses of that material indicate that no asbestos was detected.

### **Asbestos**

EPA recognizes a material as Asbestos Containing Material (ACM) if an asbestos content of greater than one percent asbestos is detected in a representative sample analyzed by polarized light microscopy. **None of the materials sampled contain greater than one percent asbestos; therefore, the materials are not considered ACM according to EPA and SC-DHEC Regulations.**

**TEM results indicated that less than one percent asbestos was detected in the materials sampled. It should be noted that items containing <1% asbestos are covered to some extent by the OSHA's Asbestos Standard for the Construction Industry (29 CFR 1926.1101).**

### **Closing Statements and Limitations**

Every effort was made to identify and sample all suspect materials associated with the roofing system. There is the possibility that suspect materials were not identified in inaccessible areas. If any suspect material is discovered that is not included within this report, it should be sampled before it is physically disturbed.

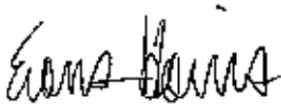
This document has been prepared by Crossroads Environmental, LLC at the request of and for the exclusive use of the University of South Carolina Upstate. This report represents the findings from the date that it was inspected, and is limited in scope to that indicated above.

Crossroads Environmental, LLC appreciates the opportunity to provide the University of South Carolina Upstate with our consultative services. Should you have any questions or need additional information, please do not hesitate to contact us.

Sincerely,



Travis Williams  
Licensed Inspector



Evans Harris  
Licensed Inspector



Kay H. Horton  
President

eh

Attachments – (4)

**ATTACHMENT I**  
**ASBESTOS SUMMARY TABLE**

CROSSROADS ENVIRONMENTAL, LLC ASBESTOS INSPECTION REPORT								CRE JOB #: 14325-IN	
Location:		University Readiness Center (URC) Roof							
Client:		University of South Carolina Upstate						DATE: 7/12/2016	
<p><b>Key:</b> A=Amosite, C=Chrysotile, Cr=Crocidolite, Tr=Tremolite, Ac=Actinolite Asbestos, Misc.=Miscellaneous, HA#=Homogeneous Area #, PLM=Polarized Light Microscopy, TEM=Transmission Electron Microscopy, /=PLM and/or TEM Analysis Not Required  sq.ft.=Square Feet, cu.ft.=Cubic Feet, In.ft.=Linear Feet, HJI=Hard Joint Insulation, TSI=Thermal System Insulation, BUR=Built-up Roofing, Surf=Surfacing  NAD=No Asbestos Detected, SP=Stop Positive</p>									
HA#	Type of Material TSI, Surf, Misc.	Material Type	Sample Number	Asbestos Content (PLM)	Asbestos Content (TEM)	Location of Sample	Approx. Quantity	Physical Condition	Location/ Comments
06	Misc	Built-Up Roof Field	091 BUR	NAD	/	NW section of roof	N/A	Good; Non-Friable	Located throughout flat roof field.
			091 Insulation	NAD	/				
			091 Foam	NAD	/				
			092 BUR	NAD	/	NE section of roof			
			092 Insulation	NAD	/				
			092 Foam	NAD	/				
093 BUR	/	.47% C	SE section of roof						
093 Insulation	NAD	/							
093 Foam	NAD	/							
07	Misc	Equipment & Perimeter Flashing	094	NAD	/	West parapet wall	N/A	Good; Non-Friable	Located on perimeter parapet walls, expansion dividers and rooftop equipment.
			095	NAD	/	North expansion divider			
			096	/	.82% C	NE corner parapet wall			

CROSSROADS ENVIRONMENTAL, LLC ASBESTOS INSPECTION REPORT							CRE JOB #: 14325-IN		
Location:	University Readiness Center (URC) Roof								
Client:	University of South Carolina Upstate						DATE: 7/12/2016		
<b>Key: A=Amosite, C=Chrysotile, Cr=Crocidolite, Tr=Tremolite, Ac=Actinolite Asbestos, Misc.=Miscellaneous, HA#=Homogeneous Area #, PLM=Polarized Light Microscopy, TEM=Transmission Electron Microscopy, /=PLM and/or TEM Analysis Not Required</b> <b>sq.ft.=Square Feet, cu.ft.=Cubic Feet, In.ft.=Linear Feet, HJI=Hard Joint Insulation, TSI=Thermal System Insulation, BUR=Built-up Roofing, Surf=Surfacing</b> <b>NAD=No Asbestos Detected, SP=Stop Positive</b>									
HA#	Type of Material TSI, Surf, Misc.	Material Type	Sample Number	Asbestos Content (PLM)	Asbestos Content (TEM)	Location of Sample	Approx. Quantity	Physical Condition	Location/ Comments
08	Misc	Expansion Caulk	097	NAD	/	West parapet wall	N/A	Good; Non-Friable	Located on perimeter parapet walls at concrete expansion seams.
			098	NAD	/	North parapet wall			
			099	/	.77% C	SE corner parapet wall			



**ATTACHMENT II**  
**LABORATORY REPORT(S)**



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**Customer:** Crossroads Environmental LLC  
1258 Boiling Springs Rd  
Spartanburg, SC 29303

**Attn:** Evans Harris

**Lab Order ID:** 1613680  
**Analysis ID:** 1613680\_PLM  
**Date Received:** 7/13/2016  
**Date Reported:** 7/13/2016

**Project:** 14325-IN URC

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
091 - A	Roof field	None Detected	20% Fiber Glass	80% Other	Black Fibrous Heterogeneous
1613680PLM_1	flashing				Dissolved
091 - B	Roof field	None Detected	60% Cellulose 10% Mineral Wool	20% Perlite 10% Other	Tan Fibrous Homogeneous
1613680PLM_10	insulation				Ashed
091 - C	Roof field	None Detected		100% Other	Yellow Non Fibrous Homogeneous
1613680PLM_11	foam				Ashed
092 - A	Roof field	None Detected	20% Fiber Glass	80% Other	Black Fibrous Heterogeneous
1613680PLM_2	flashing				Dissolved
092 - B	Roof field	None Detected	60% Cellulose 10% Mineral Wool	20% Perlite 10% Other	Tan Fibrous Homogeneous
1613680PLM_12	insulation				Ashed
092 - C	Roof field	None Detected		100% Other	Yellow Non Fibrous Homogeneous
1613680PLM_13	foam				Ashed
093 - A	Roof field	Not Analyzed			
1613680PLM_3	flashing - TEM				
093 - B	Roof field	None Detected	60% Cellulose 10% Mineral Wool	20% Perlite 10% Other	Tan Fibrous Homogeneous
1613680PLM_14	insulation				Ashed

**Disclaimer:** Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Megan Javonovich (15)

Analyst

Approved Signatory



# Bulk Asbestos Analysis

By Polarized Light Microscopy  
EPA Method: 600/R-93/116 and 600/M4-82-020



**Customer:** Crossroads Environmental LLC  
1258 Boiling Springs Rd  
Spartanburg, SC 29303

**Attn:** Evans Harris

**Lab Order ID:** 1613680  
**Analysis ID:** 1613680\_PLM  
**Date Received:** 7/13/2016  
**Date Reported:** 7/13/2016

**Project:** 14325-IN URC

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
093 - C	Roof field	None Detected		100% Other	Yellow Non Fibrous Homogeneous
1613680PLM_15	foam				Ashed
094	Roof flashing	None Detected	10% Fiber Glass 10% Cellulose	80% Other	Black, Silver Fibrous Heterogeneous
1613680PLM_4					Dissolved
095	Roof flashing	None Detected	10% Fiber Glass 10% Cellulose	80% Other	Black, Silver Fibrous Heterogeneous
1613680PLM_5					Dissolved
096	Roof flashing	Not Analyzed			
1613680PLM_6	TEM				
097	Expansion caulk	None Detected		100% Other	Cream Non Fibrous Homogeneous
1613680PLM_7					Ashed
098	Expansion caulk	None Detected		100% Other	Cream Non Fibrous Homogeneous
1613680PLM_8					Ashed
099	Expansion caulk	Not Analyzed			
1613680PLM_9	TEM				

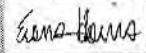
**Disclaimer:** Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Megan Javonovich (15)

Analyst

Approved Signatory

1613680

<b>Client:</b>	Crossroads Environmental, LLC	Relinquished By:  Fed EX 8099 2174 5084	<b>Scientific Analytical Institute, Inc.</b>  4604 Dundas Dr. Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313  Email: lab@sailab.com
<b>Contact:</b>	Evans Harris		
<b>Address:</b>	1258 Boiling Springs Road		
<b>Phone:</b>	864-541-8736		
<b>Fax:</b>	864-541-8776		
<b>Email:</b>	results@crossroadsenv.net		
<b>Project:</b>	14325-IN URC		
<b>Client Notes:</b>	Stop Positive, excluding Surfacing.		
<b>P.O. #:</b>			
<b>Date Submitted:</b>	7/12/2016 1700pm		
<b>Analysis:</b>	PLM Bulk/TEM Bulk		
<b>TurnAroundTime:</b>	24 hour/24 hour		

Sample Number	HA Number	Sample Description	Data 2
<<			
091 ✓	6	Roof field	PLM
092 ✓	6	Roof field	PLM
093 ✓	6	Roof field	TEM
094 ✓	7	Roof flashing	PLM
095 ✓	7	Roof flashing	PLM
096 ✓	7	Roof flashing	TEM
097 ✓	8	Expansion caulk	PLM
098 ✓	8	Expansion caulk	PLM
099 ✓	8	Expansion caulk	TEM

Accepted

Rejected

*Shelton 7/13 930A*



# Bulk Asbestos Analysis by Transmission Electron Microscopy

Semi-Quantitative  
Chatfield SOP 1988-02 Rev. 1

**Customer:** Crossroads Environmental LLC  
1258 Boiling Springs Rd  
Spartanburg, SC 29303

**Attn:**

**Lab Order ID:** 1613735

**Analysis ID:** 1613735\_TBS

**Date Received:** 7/14/2016

**Date Reported:** 7/14/2016

**Project:** 14325--IN URC

Sample ID	Description	Organic	Acid Sol.	Asbestos		LCL-UCL
Lab Sample ID	Lab Notes	(Wt. %)	(Wt. %)	(Wt. %)		(Wt. %)
093	Roof field	97%	-	0.47 %	Chrysotile	0.42% - 0.51%
1613735TBS_1						
096	Roof flashing	84%	-	0.82 %	Chrysotile	0.73% - 0.90%
1613735TBS_2						
099	Expansion caulk	23%	-	0.77 %	Chrysotile	0.69% - 0.84%
1613735TBS_3						

Disclaimer: This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government.

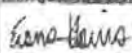
Russell Shelton (3)

Analyst

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888

Approved Signatory

1613735  
~~1613680~~

Client:	Crossroads Environmental, LLC	Relinquished By  Fax: 800 217 8084	<b>Scientific Analytica</b>  <b>Institute, Inc.</b>  4604 Dundas Dr. Greensboro, NC 27407 Phone: 336.292.3588 Fax: 336.292.3313  Email: lab@salab.com
Contact:	Evans Harris		
Address:	1258 Boiling Springs Road		
Phone:	864-541-8738		
Fax:	864-541-8776		
Email:	results@crossroadsenv.net		
Project:	14325-IN URC		
Client Notes:	Stop Positive, excluding Surfacing.		
P.O. #:			
Date Submitted:	7/12/2016 1700pm		
Analysis:	PLM Bulk/TEM Bulk		
Turnaround Time:	24 hour/24 hour		

Sample Number	HA Number	Sample Description	Data 2
<<			
091 /	6	Roof field	PLM
092 /	6	Roof field	PLM
093 /	8	Roof field	TEM
094 /	7	Roof flashing	PLM
095 /	7	Roof flashing	PLM
096 /	7	Roof flashing	TEM
097 /	8	Expansion caulk	PLM
098 /	8	Expansion caulk	PLM
099 /	8	Expansion caulk	TEM

Accepted   
 Rejected

Shelton 7/13 930A

**ATTACHMENT III**  
**SAMPLE LOCATION SKETCH**

USC-Upstate  
University Readiness Center  
CRE Project #: 14325-IN



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Google earth

1994

35°00'11.33" N 81°58'17.68" W elev 864 ft eye alt 1074 ft



**ATTACHMENT IV  
ACCREDITATION(S)**

# SCDHEC ISSUED

## Asbestos ID Card

**Evans Harris**



Expiration Date

<b>AIRSAMPLER</b>	<b>AS-00383</b>	<b>11/15/16</b>
<b>CONSULTPD</b>	<b>PD-00149</b>	<b>01/05/17</b>
<b>CONSULTBI</b>	<b>BI-01224</b>	<b>11/16/16</b>

# SCDHEC ISSUED

## Asbestos ID Card

**Travis Williams**

Expiration Date

<b>CONSULTBI</b>	<b>BI-00713</b>	<b>11/02/16</b>
<b>AIRSAMPLER</b>	<b>AS-00171</b>	<b>01/03/17</b>





**Columbia Area Office**  
512 Limestone Point  
Chapin, SC 29036  
(803) 260-4532

**Greenville Area Office**  
702 Regency Circle  
Anderson, SC 29625  
(864) 965-8668

wmbeconsultants.com

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## Questions and Answers

1. Question: Can the bid date be extended in order to request sub bids from roofers and window contractors?

Answer: Yes. The Bid Receipt date is changed from Tuesday, August 23, 2016 to Tuesday, August 30, 2016. The time and place of receipt remain unchanged.

2. Question: When is the work to start?

Answer: The Owner would like to start as soon as possible. Most likely mid to late September is anticipated.

3. Question: Can the time of completion be extended?

Answer: Yes. See attachment Number 1 to Addenda Number 1.

4. Question Will chain link fencing be required around staging areas and work areas?

Answer: Yes. Fencing is to be 6 foot high chain link with green screening.

5. Question: What interior egress protection is required over the entrance in the ERC where the windows are being removed?

Answer: Scaffolding with minimum  $\frac{3}{4}$  inch plywood overhead protection.

6. Question: Will the notice to proceed be issued after mock up approvals or from contract issue date?

Answer: From the Contract issue date.

7. Question: Will work occur during normal work hours?

Answer: Yes.

8. Question: Do you want to re-use existing brick?

Answer: Yes, to the greatest extent possible.

9. Question: Will electricity and water be provided by the Owner?

Answer: Yes to the extent that you do not disturb their service. Any upgrades or modifications needed will be provided by the Contractor.

10. Question: Will laydown and storage areas be within normal working conditions?

Answer: Yes.

11. Question: Who would you contact after hours or for emergencies?

Answer: Security @ 803-503-7777.