

# **ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT**

**S-40-80 BRIDGE OVER I-26  
SCDOT #4070008000100  
RICHLAND COUNTY, SOUTH CAROLINA**

**REPORT PREPARED FOR:**



**SOUTH CAROLINA DEPARTMENT OF  
TRANSPORTATION  
C/O Mark Hunter  
955 Park Street  
Columbia, SC 29202**

**BY:**

**F&ME CONSULTANTS  
3112 Devine Street  
Columbia, South Carolina 29205  
(803) 254-4540**

**March 1, 2013**

☒ Yes, asbestos was found.  
☐ No, asbestos was not found.

**E5350.02**

March 1, 2013

Mr. Mark Hunter  
South Carolina Department of Transportation  
955 Park Street  
Columbia, South Carolina 29202

Re.: Asbestos Containing Materials Investigation Report  
S-40-80 Bridge over I-26  
SCDOT #4070008000100  
Richland County, South Carolina  
F&ME Project No.: E5350.02

Dear Mr. Hunter:

As requested, F&ME Consultants has completed an Asbestos Containing Materials (ACM) Investigation for the above-referenced bridge. The investigation of the subject bridge identified the following four (4) suspect materials: end bent felt pads; expansion joint material; Transite pipes; and interior bent cap pads. Laboratory results indicate that the expansion joint material and the Transite pipes contain asbestos. Attached is the report of our findings.

All ACM associated with the bridge structure must be removed, handled and disposed of per SCDHEC regulations pertaining to asbestos waste. Removal of the transite pipes and the asbestos-containing debris on top of the interior bent caps must be performed by a licensed and certified asbestos contractor prior to bridge demolition. However, removal of the expansion joint compound located within the expansion joints prior to demolition and/or renovation activities is not practical. Therefore, these activities will require coordination with a licensed abatement contractor. Based on the quantities of ACM identified, no abatement project design will be required.

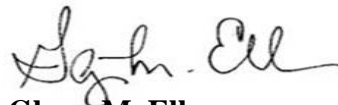
We appreciate the opportunity to assist you in this matter. If you have any questions or require additional information, please feel free to contact our office at (803) 254-4540.

Sincerely,

F&ME CONSULTANTS



**Michael S. Mincey**  
Environmental Professional  
Asbestos Consultant/Mngmnt. Planner  
SCDHEC License No: MP-00161  
Expiration Date 02/15/2014



**Glynn M. Ellen**  
Senior Environmental Professional  
Asbestos Consultant/Mngmnt. Planner  
SCDHEC License No: ASB-22641  
Expiration Date 02/15/2014

MSM/GME/jls

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## **I. INTRODUCTION**

As requested, F&ME Consultants has completed an Asbestos Containing Materials (ACM) investigation on the S-40-80 Bridge over I-26 (SCDOT #4070008000100) located in Richland County, South Carolina. Performed on February 21, 2013, this investigation was conducted pursuant to SCDHEC, USEPA, NESHAP, and OSHA regulations requiring an ACM investigation prior to any demolition and/ or renovation activities.

The purpose of this investigation is to determine if asbestos is present on the existing bridge structure. This task includes identifying and sampling suspect ACM; obtaining analytical results to determine whether or not asbestos is present; quantifying confirmed ACM; and assessing the physical condition of the ACM, where possible.

During the inspection, all bridge components (i.e. concrete bent caps, piles, columns, and expansion joints) were visually inspected for suspect ACM. The results, conclusions, and recommendations of this investigation are representative of the conditions observed at the site on the date of the field inspection. F&ME does not assume responsibility for any changes in conditions or circumstances that occur after the inspection.

This report has been prepared exclusively for the South Carolina Department of Transportation and shall not be disseminated in whole or part to other parties without prior consent from the South Carolina Department of Transportation or F&ME Consultants, Inc. No other environmental issues were addressed as part of this report.

## **II. EXISTING BRIDGE STRUCTURE**

The subject bridge is a two (2) lane SCDOT bridge structure (~210'L x 26'W, measured from inside curb edge to inside curb edge). According to a stamped date on the bridge's guardrail, it was originally built in 1958. The structural components of the subject bridge are concrete (i.e. deck sections/spans, curbing, guardrails, drilled shafts, and beams and diaphragms). There are a total of five (5) bents, with two (2) end bents and three (3) interior bents. Each bent has a concrete cap, and each interior bent cap is supported by two (2) concrete drilled shafts. The end bent cap supports are covered with soil. Additionally, pipe runs are attached to the underside of the structure and extend along the entire length of the east portion of the bridge. These pipes appear to serve as utility conduits.

## **III. INVESTIGATION RESULTS**

During the investigation, the following suspect materials were observed on the subject bridge:

- End Bent Felt Pad
- Expansion Joint Material
- Transite Pipe(s)
- Interior Bent Cap Pad

Random samples of the suspect materials were collected for laboratory analysis and their physical characteristics were recorded. The remaining structural materials (i.e. concrete, etc.) are not considered suspect and were not sampled.

The samples of the suspect material were analyzed by polarized light microscopy (PLM) in accordance with EPA 600/R-93/116. A “first positive stop” protocol was requested, meaning that if the first sample of a material was positive for asbestos content, subsequent samples were not to be analyzed. Also, confirmation transmission electron microscopy (TEM) analysis was required for non-friable, organically-bound materials that were found to be negative for asbestos (as per SCDHEC regulations effective June 27, 2008). Appropriate sampling and chain-of-custody protocols were followed to ensure proper handling and delivery of samples to the analytical laboratory.

A total of twelve (12) samples were collected from the subject bridge. Due to activation of the “first positive stop” protocol, seven (7) samples were analyzed by PLM and three (3) were TEM-confirmed. The following two (2) suspect materials were found to contain asbestos: the expansion joint material and the Transite pipes (also see Table II, Summary of Asbestos Containing Materials). For more information regarding the location of these materials, refer to the Homogeneous Area Plan (Figure 3) located in the appendix.

The Appendices include a Site Vicinity Map (Figure 1), a Sample Location Plan (Figure 2), a Homogeneous Area Plan (Figure 3), a Summary of Samples (Table I), a Summary of Asbestos Containing Materials (Table II), Physical Assessment Data Sheets, Bulk Sample Analysis Reports, the Chain of Custody, Photographs, Personnel Certifications, a SCDHEC Regulation Summary and SCDHEC Abatement Project Forms.

#### **IV. ASBESTOS CONTAINING MATERIALS DESCRIPTION & ASSESSMENT**

The following items are descriptions and quantities of the asbestos containing materials identified within the interior of the subject bridge structure (See Homogeneous Area Plan, Figure 3):

- HA-1 – Expansion Joint Material (~150 L.F.)

Asbestos-containing expansion joint material is located in each of the five (5) bridge deck expansion joints. This material fills each expansion joint from the top of the bridge deck to the underside of the bridge deck. This type of material is typically encapsulated between adjacent concrete spans, and assessment of its overall condition is not possible. However, this material was found exposed, hanging from the underside of the bridge and debris from this material was observed lying on top of some of the interior bent caps. Based on these observations, this material is considered to be in a significantly damaged condition. Since demolition and/or renovation activities will impact this material, it must be removed and disposed of as ACM by a licensed abatement contractor.

- HA-2 – Transite Pipes (~300 L.F.)

The asbestos-containing Transite pipes are suspended from the underside of the bridge. The pipes extend the length of the bridge and serve as utility conduits. This material is intact with localized damage noted where it appears that the pipes were partially cut. Since demolition and/or renovation activities will impact the pipes, they must be removed and disposed of as ACM by a licensed abatement contractor. This work will also require coordination with the owner of the utility lines encased in these pipes.

Asbestos containing materials are categorized by SCDHEC as friable (a.k.a. regulated asbestos containing materials, or RACM), Category I non-friable ACM (packing, gaskets, floor coverings, asphalt roofing products, etc.) and Category II non-friable ACM (other non-friable materials not covered in Category I). SCDHEC regulates any disturbances of friable/RACM, requiring its removal prior to renovation or demolition activities.

SCDHEC also legally tracks the dumping of all ACM into landfills. Therefore, SCDHEC must be notified prior to abatement and demolition projects in order to arrange for the proper disposal of ACM and associated contaminated debris. Most landfills will not accept ACM or asbestos-contaminated debris. This is an important consideration for the owner because it is more expensive to dispose of ACM than normal debris. If the abatement/ demolition contractor selects a landfill that accepts ACM, the entire load of abatement/ demolition debris could be transported to the permitted landfill. However, since the ACM would be mixed in with the total demolition debris, all of the debris would be considered to be ACM resulting in higher disposal costs. Therefore, it is recommended that removal of all asbestos is conducted prior to and separate from building demolition activities.

Unlike SCDHEC, OSHA does not distinguish between friable and non-friable ACM, regulated and non-regulated ACM, and/or ACM in good condition versus ACM in poor/damaged condition. Instead, OSHA regulates all worker contact with asbestos.

This report has been prepared exclusively for the South Carolina Department of Transportation, and shall not be disseminated in whole or part to other parties without prior consent from the South Carolina Department of Transportation or F&ME Consultants, Inc. No other environmental issues are addressed in this report.

## **V. RECOMMENDATIONS**

It is our understanding that the results of this investigation are intended to aide in planning for the demolition and/or renovation of the subject bridge structure. As a function of demolition and/or renovation activities, the identified ACM associated with the bridge structure must be removed, handled and disposed of per SCDHEC regulations pertaining to asbestos waste. Removal of the transite pipes and the asbestos-containing debris on top of the interior bent caps must be performed by a licensed and certified asbestos contractor prior to bridge demolition and/or renovation. However, removal of the expansion joint compound located within the expansion joints prior to demolition and/or renovation activities is not practical. Therefore, these activities will require coordination with a licensed abatement contractor. Based on the quantities of ACM identified, no abatement project design will be required.

All asbestos waste must be deposited in a landfill permitted by the SCDHEC for receiving ACM. If any concealed and/or inaccessible ACM is encountered during asbestos abatement or renovation activities, the affected contractor(s) must stop work, take appropriate actions, and notify the Owner/ Abatement Contractor/ Asbestos Consultant for an appropriate response action. The SCDHEC must be notified in the event that any additional ACM is discovered, as well as changes in the condition of identified ACM.

The SCDHEC's Standards of Performance for Asbestos Projects (R 61-86.1) includes requirements for abatement projects regarding notifications, project design, air sampling and analysis, etc. For informational purposes, some of these requirements are summarized below:

*Notifications.* Written notification (SCDHEC Form 3430) must be submitted to SCDHEC at least two (2) calendar weeks prior to initiation of abatement activities for renovation/demolition projects. A copy of this inspection report and applicable fee payment must be attached to the notification. Additional fees may be required. Copies of all notifications and documents pertinent to the abatement operations must be posted on the job site during abatement work. The Owner/Operators must notify all parties involved with this project of the nature of the work as well as the locations and quantities of asbestos materials to be disturbed or those located near demolition/removal work areas. This notification requirement is also extended to any persons/employees who work near the demolition/removal work areas.

*Project Design.* Furthermore, abatement projects that will remove more than 3,000 square, 1,500 linear or 656 cubic feet of asbestos-containing materials are required to have a licensed and certified Abatement Project Designer develop a project design prior to the commencement of any abatement activities. The Abatement Contractor is required to adhere to the design, which must address all information as directed by the regulations.

*Air Monitoring.* The Abatement Contractor is responsible for daily personal air sampling for Abatement Workers in compliance with current OSHA standard 29 CFR 1926.1101. All remaining air monitoring services required for a renovation project (i.e. backgrounds, areas, and clearances) will be provided by the Owner or the Owner's Representative, as required by SCDHEC.

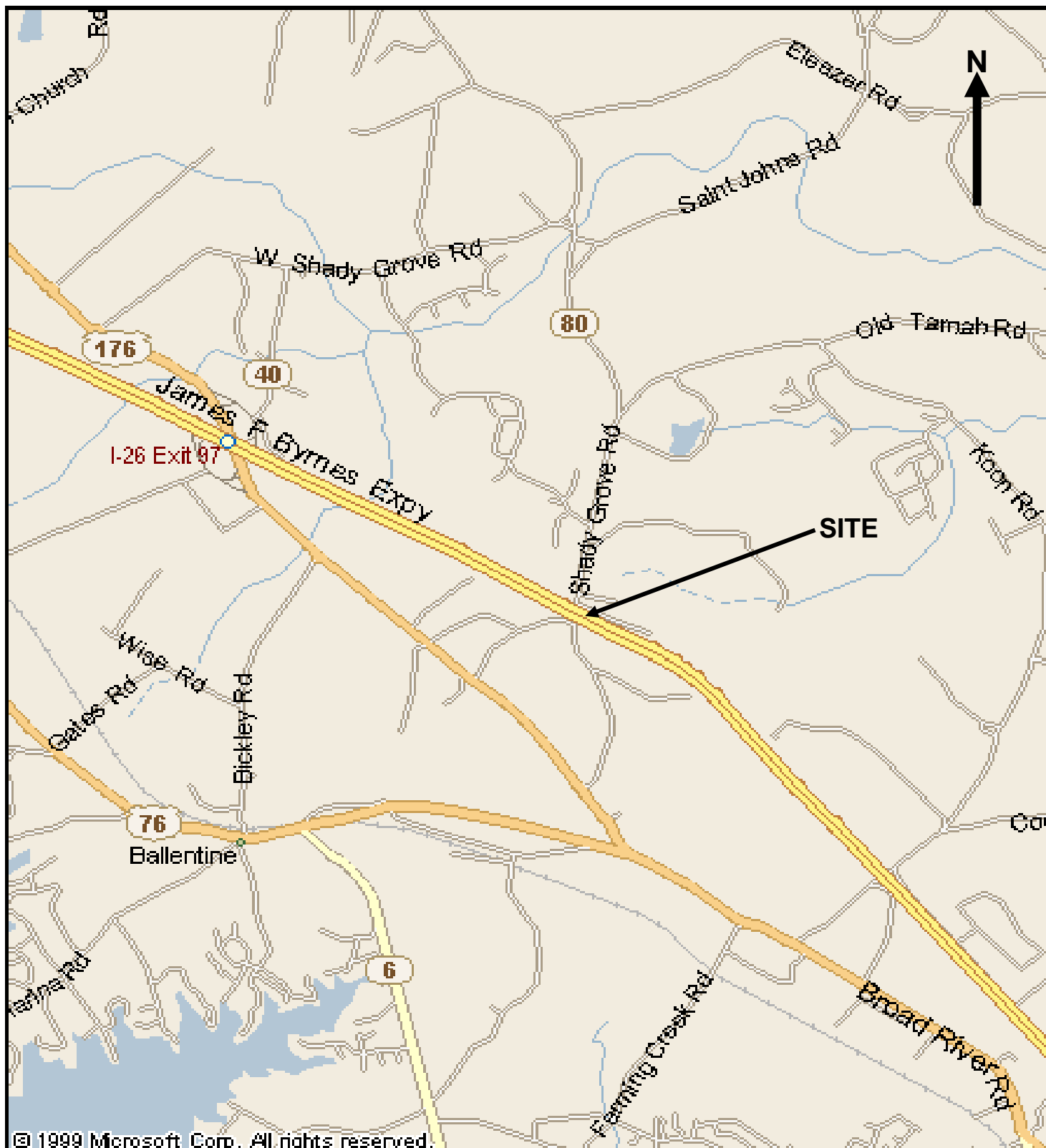
## **APPENDIX A**

Site Vicinity Map (Figure 1)

ACM Sample Location Plan (Figure 2)

Homogeneous Area Plan (Figure 3)





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**F&ME**  
CONSULTANTS

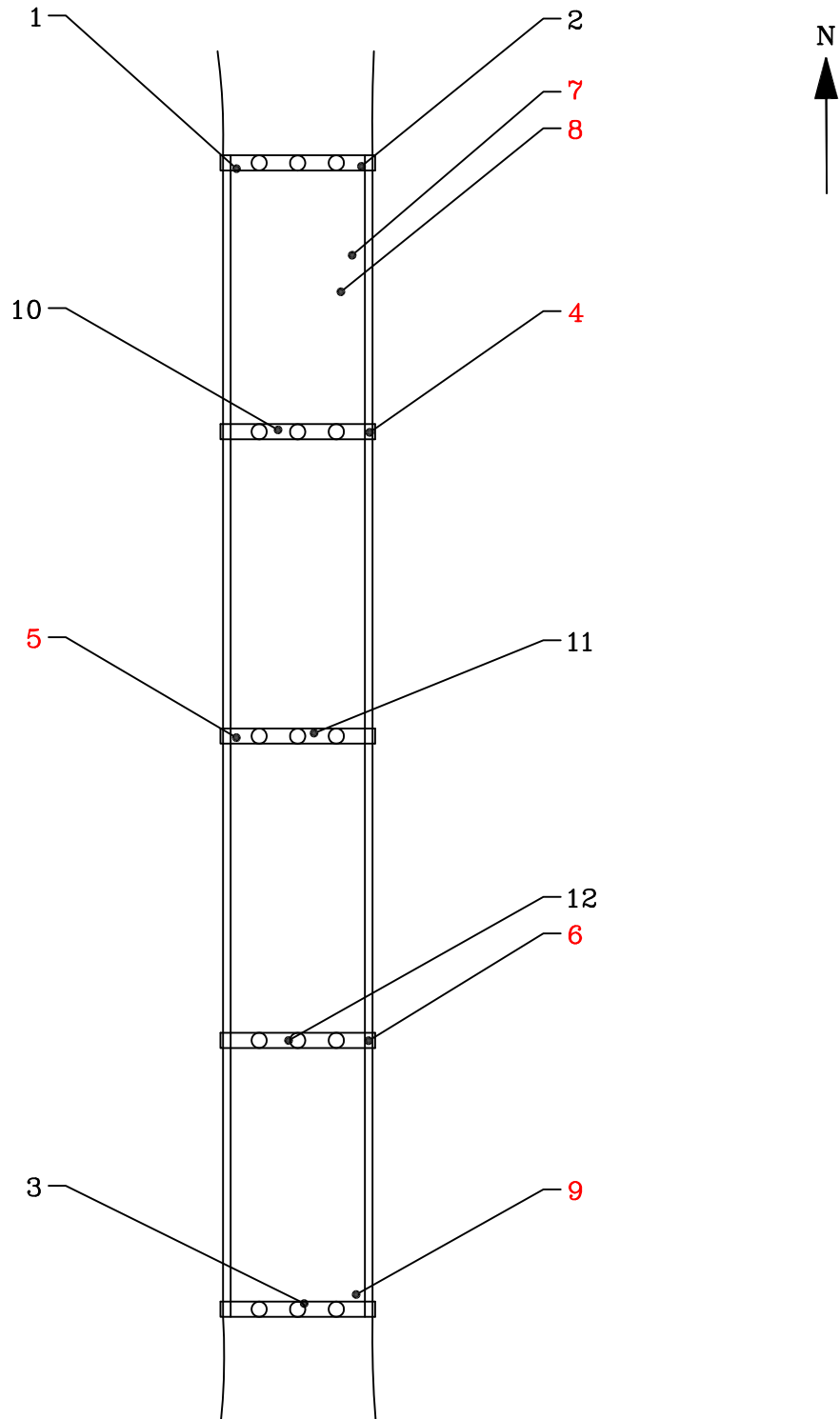
**SITE VICINITY MAP**

SCDOT Bridge #407008000100 (S-40-80 over I-26)  
Richland County, South Carolina

SC DEPARTMENT OF TRANSPORTATION

Prepared By: JSL  
Checked By: JLS  
Approved By: GME

Scale: N.T.S.  
Project: E5350.02  
Figure: 1



**F&ME**  
CONSULTANTS

SAMPLE LOCATION PLAN  
S-40-80 BRIDGE OVER I-26  
RICHLAND COUNTY, SOUTH CAROLINA

S.C. DEPARTMENT OF TRANSPORTATION

DRAWN BY: MSM  
CHECKED BY: JLS  
APPROVED BY: GME

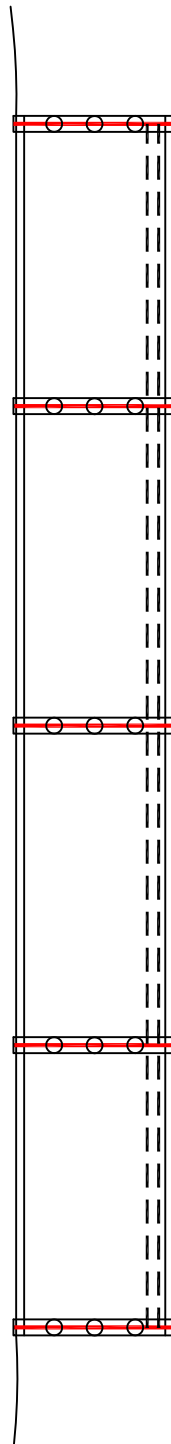
SCALE: N.T.S  
PROJECT: E5350.02  
FIGURE NO.: 2



HA-1 - Expansion Joint Material



HA-2 - Transite Utility Pipe



**F&ME**  
CONSULTANTS

HOMOGENEOUS AREA PLAN  
S-40-80 BRIDGE OVER I-26  
RICHLAND COUNTY, SOUTH CAROLINA

S.C. DEPARTMENT OF TRANSPORTATION

DRAWN BY: MSM  
CHECKED BY: JLS  
APPROVED BY: GME

SCALE: N.T.S  
PROJECT: E5350.02  
FIGURE NO.: 3

## **APPENDIX B**

Summary of Samples (Table I)

Summary of Asbestos Containing Materials (Table II)

Summary of Inspection

Physical Assessment Data Sheets

Bulk Asbestos Analytical Reports

Chain of Custody

**TABLE I. SUMMARY OF SAMPLES**

Sample ID	Sample Description
1	End Bent Felt Pad
2	End Bent Felt Pad
3	End Bent Felt Pad
4	Expansion Joint Material
5	Expansion Joint Material
6	Expansion Joint Material
7	Transite Pipe
8	Transite Pipe
9	Transite Pipe
10	Interior Bent Cap Pad
11	Interior Bent Cap Pad
12	Interior Bent Cap Pad

**TABLE I**

**TABLE II. SUMMARY OF ASBESTOS CONTAINING MATERIALS**

Sample ID	Sample Description	ACM Layer(s)	% Asbestos
4	Black Expansion Joint Material	--	Non Detected
5	Black Expansion Joint Material	--	Non Detected
6	Black Expansion Joint Material	--	2.1% Chrysotile (TEM)
7	Transite Pipe	--	15% Chrysotile
			1% Crocidolite
8	Transite Pipe	--	First Positive Stop
9	Transite Pipe	--	First Positive Stop

**TABLE II**

## **SUMMARY OF INSPECTION**

The following tables summarize the physical assessment data, sampling and assessment results.

As exhibited on these tables, coding is used to abbreviate the asbestos containing materials' (ACM) locations, characteristics and results. These codes are as follows:

### **TYPES OF ACM:**

Misc. = Miscellaneous

Sur. = Surfacing

TSI = Thermal System Insulation

### **ACM LOCATIONS:**

Homogeneous areas = Indicated by Roman Numerals, Room Number or Area Designation

#### Functional Space No.:

#### Functional Space Type:

1.

D = Decking

2.

UD = Underside of Decking

### **ACM CHARACTERISTICS:**

F = Friable

NF = Non-Friable

### **ASSESSMENT RESULTS:**

(Refer to Physical Assessment Data)

### **POTENTIAL FOR DISTURBANCE:**

(Refer to Physical Assessment Data)

**PHYSICAL ASSESSMENT CATAGORIES:**

1. Damaged or significantly damaged friable thermal system insulation ACM.
2. Damaged friable surfacing ACM.
3. Significantly damaged friable surfacing ACM.
4. Damaged or significantly damaged friable miscellaneous ACM.
5. ACM with potential for significant damage.
6. ACM with potential for damage.
7. Any remaining friable ACM or friable suspect ACM.
8. Non-friable ACM.

**CLASSIFICATION FOR HAZARD POTENTIAL:**

(Tabular Display)

<b><u>Hazard Rank</u></b>	<b><u>ACM Condition</u></b>	<b><u>ACM Disturbance Potential</u></b>
7	Significantly Damaged	Any
6	Damaged	Potential for Significant Damage
5	Damaged	Potential for Damage
4	Damaged	Low
3	Good	Potential for Significant Damage
2	Good	Potential for Damage
1	Good	Low



# PHYSICAL ASSESSMENT DATA SHEET

**Building:** S-40-80 Bridge Over I-26

**Functional Space No:** 1 **Type:** D **Location:** (See Homogeneous Area Plan)

**Type of Suspect Material:** TSI **Surfacing** X **Misc.**

**Description:** HA-1, Expansion Joint Material

**Approximate Amount of Material (SF or LF):** ~150 L.F.

## Condition:

**Percent Damage:** \_\_\_\_\_ >0% \_\_\_\_\_ <10% \_\_\_\_\_ >10% **X** <25% \_\_\_\_\_ >25%

**Extent of Damage :** \_\_\_\_\_ Localized **X** Distributed

**Type of Damage:** **X** Deterioration **X** Water **X** Physical

## Description:

Asbestos-containing expansion joint material is located in each of the five (5) bridge deck expansion joints. This material fills each expansion joint from the top of the bridge deck to the underside of the bridge deck. This type of material is typically encapsulated between adjacent concrete spans, and assessment of its overall condition is not possible. However, this material was found exposed, hanging from the underside of the bridge and debris from this material was observed lying on top of some of the interior bent caps. Based on these observations, this material is considered to be in a significantly damaged condition.

**Overall Condition Rating:** Sig. Damaged **X** Damaged \_\_\_\_\_ Good \_\_\_\_\_

## Potential for Disturbance:

	High	Moderate	Low	Friable ACM
Frequency of Potential Contact:	_____	_____	<b>X</b>	_____
Influence of Vibration	_____	<b>X</b>	_____	_____
Frequency of Air Erosion	_____	_____	<b>X</b>	_____
Potential of Water Erosion	_____	<b>X</b>	_____	_____

## Overall Potential Disturbance Rating:

Potential for Sig. Damage	Potential for Damage	Low Potential for Damage
_____	_____	<b>8</b>

## Overall Hazard Rank #:

Sig. Damaged	Pot. Sig. Damage	Potential Damage	Low Pot. Damage
<b>7</b>	_____	_____	_____

**Comments:** Potential for Disturbance and Hazard Ranking assessed is based on current usage of the structure.

**Signed:**

*Mike Mearcy*

**Date:** 2/28/13

# PHYSICAL ASSESSMENT DATA SHEET

**Building:** S-40-80 Bridge Over I-26

**Functional Space Number:** 2 **Type:** UD **Location:** (See Homogeneous Area Plan)

**Type of Suspect Material:** TSI **Surfacing** X **Misc.**

**Description:** HA-2, Transite Pipes

**Approximate Amount of Material (SF or LF):** ~420 L.F.

**Condition:**

**Percent Damage:** X >0%        <10%        >10%        <25%        >25%

**Extent of Damage :** X Localized        Distributed

**Type of Damage:** X Deterioration X Water        Physical

**Description:**

The asbestos-containing transite pipes are suspended from the underside of the bridge. The pipes extend the length of the bridge and serve as utility conduits. This material is intact with localized damage noted where it appears that the pipes were partially cut.

**Overall Condition Rating:** Sig. Damaged        Damaged        Good X

**Potential for Disturbance:**

	High	Moderate	Low	Friable ACM
Frequency of Potential Contact:	<u>      </u>	<u>      </u>	<u>X</u>	<u>X</u>
Influence of Vibration	<u>      </u>	<u>      </u>	<u>X</u>	<u>X</u>
Frequency of Air Erosion	<u>      </u>	<u>      </u>	<u>X</u>	<u>X</u>
Potential of Water Erosion	<u>      </u>	<u>      </u>	<u>X</u>	<u>X</u>

**Overall Potential Disturbance Rating:**

Potential for Sig. Damage	Potential for Damage	Low Potential for Damage
<u>      </u>	<u>      </u>	<u>7</u>

**Overall Hazard Rank #:**

Sig. Damaged	Pot. Sig. Damage	Potential Damage	Low Pot. Damage
<u>      </u>	<u>      </u>	<u>      </u>	<u>1</u>

**Comments:** Potential for Disturbance and Hazard Ranking assessed is based on current usage of the structure.

**Signed:** Mike M. May **Date:** 2/28/13

**EMSL Analytical, Inc.**

706 Gralin Street, Kernersville, NC 27284

Phone/Fax: (336) 992-1025 / (336) 992-4175

[greensborolab@emsl.com](mailto:greensborolab@emsl.com)

EMSL Order: 021301187

CustomerID: FMEC62

CustomerPO: E5350.02

ProjectID:

Attn: **Glynn Ellen**  
**F & ME Consultants**  
**3112 Divine Street**

**Columbia, SC 29205**Project: **E5350.02 Bridge 5-40-80-ACM Investigation**

Phone: (803) 254-4540  
Fax: (803) 254-4542  
Received: 02/25/13 10:00 AM  
Analysis Date: 2/26/2013  
Collected:

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
SM-01 021301187-0001	End Bent Felt Pad	Brown/Black Non-Fibrous Heterogeneous	3% Cellulose	97% Non-fibrous (other)	None Detected
SM-02 021301187-0002	End Bent Felt Pad	Brown/Black Fibrous Heterogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
SM-04 021301187-0003	Expansion Joint Material	Brown/Black Non-Fibrous Heterogeneous	<1% Cellulose	100% Non-fibrous (other)	None Detected
SM-05 021301187-0004	Expansion Joint Material	Brown/Black Non-Fibrous Heterogeneous	1% Cellulose	99% Non-fibrous (other)	None Detected
SM-07 021301187-0005	Transite Pipe	Gray/Tan Fibrous Heterogeneous		84% Non-fibrous (other)	15% Chrysotile 1% Crocidolite
SM-08 021301187-0006	Transite Pipe				Stop Positive (Not Analyzed)
SM-09 021301187-0007	Transite Pipe				Stop Positive (Not Analyzed)
SM-10 021301187-0008	Interior Bent Cap Pad	Black/Silver/Orange Fibrous Heterogeneous	30% Synthetic 1% Cellulose	69% Non-fibrous (other)	None Detected

Analyst(s)

Nicole Shutts (3)

Scott Combs (4)

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 02/26/2013 15:53:15

**EMSL Analytical, Inc.**

706 Gralin Street, Kernersville, NC 27284

Phone/Fax: (336) 992-1025 / (336) 992-4175

[greensborolab@emsl.com](mailto:greensborolab@emsl.com)

EMSL Order: 021301187

CustomerID: FMEC62

CustomerPO: E5350.02

ProjectID:

Attn: **Glynn Ellen**  
**F & ME Consultants**  
**3112 Divine Street**

**Columbia, SC 29205**Project: **E5350.02 Bridge 5-40-80-ACM Investigation**

Phone: (803) 254-4540  
Fax: (803) 254-4542  
Received: 02/25/13 10:00 AM  
Analysis Date: 2/26/2013  
Collected:

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy**

Sample	Description	Appearance	<u>Non-Asbestos</u>		<u>Asbestos</u>
			% Fibrous	% Non-Fibrous	% Type
SM-11	Interior Bent Cap Pad	Brown/Black	30% Synthetic	68% Non-fibrous (other)	<b>None Detected</b>
021301187-0009		Fibrous	2% Cellulose		
		Heterogeneous			

Analyst(s)

Nicole Shutts (3)

Scott Combs (4)

Stephen Bennett, Laboratory Manager  
or other approved signatory

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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 02/26/2013 15:53:15

**EMSL Analytical, Inc.**

706 Gralin Street, Kernersville, NC 27284

Phone/Fax: (336) 992-1025 / (336) 992-4175

[greensborolab@emsl.com](mailto:greensborolab@emsl.com)

EMSL Order: 021301187

CustomerID: FMEC62

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ProjectID:

Attn: **Glynn Ellen**  
**F & ME Consultants**  
**3112 Divine Street**

**Columbia, SC 29205**Project: **E5350.02 Bridge 5-40-80-ACM Investigation**

Phone: (803) 254-4540  
Fax: (803) 254-4542  
Received: 02/25/13 10:00 AM  
Analysis Date: 2/28/2013  
Collected:

### Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
SM-03 021301187-0010	End Bent Felt Pad	Brown /Black Fibrous Heterogeneous	100	None	No Asbestos Detected
SM-06 021301187-0011	Expansion Joint Material	Black Fibrous Heterogeneous	97.9	None	2.1% Chrysotile
SM-12 021301187-0012	Interior Bent Cap Pad	Brown /Tan /Black Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)

Stephen Bennett (3)

Stephen Bennett, Laboratory Manager  
or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC

Initial report from 02/28/2013 11:11:28

## Chain of Custody

1187

EMSL Analytical, Inc.  
706 Gralin Street  
Kernersville, NC 27284

## Asbestos Lab Services

Phone: (336) 992-1025  
Fax: (336) 992-4175  
<http://www.emsl.com>

Please print all information legibly.

<b>Company:</b>	F&ME Consultants	<b>Bill To:</b>	F&ME Consultants
<b>Address1:</b>	3112 Devine Street	<b>Address1:</b>	P.O. Box 5855
<b>Address2:</b>		<b>Address2:</b>	
<b>City, State:</b>	Columbia, South Carolina	<b>City, State:</b>	Columbia, South Carolina
<b>Zip/Post Code:</b>	29205	<b>Zip/Post Code:</b>	29205
<b>Country:</b>	USA	<b>Country:</b>	USA
<b>Contact Name:</b>	Glynn Ellen	<b>Attn:</b>	Jim Kelleher
<b>Phone:</b>	803 254-4540	<b>Phone:</b>	803 777-1208
<b>Fax:</b>	803 254-4542	<b>Fax:</b>	803 777-1028
<b>Email:</b>	glynn@fmecol.com	<b>Email:</b>	jkelleher@fmecol.com
<b>EMSL Rep:</b>	Jason McDonald	<b>P.O. Number:</b>	
<b>Project Name/Number:</b>	E5350.02 Bridge 5-40-80 - ACM Investigation		

MATRIX			TURNAROUND			
<input type="checkbox"/> Air	<input type="checkbox"/> Soil	<input type="checkbox"/> Micro-Vac	<input type="checkbox"/> 3 Hours	<input checked="" type="checkbox"/> <del>6 Hours</del>	<input type="checkbox"/> Same Day or 12 Hours*	<input checked="" type="checkbox"/> <del>24 Hours (1 day)</del>
<input checked="" type="checkbox"/> Bulk	<input type="checkbox"/> Drinking Water		<input type="checkbox"/> 48 Hours (2 days)	<input checked="" type="checkbox"/> 72 Hours (3 days)	<input checked="" type="checkbox"/> 96 Hours (4 days)	<input type="checkbox"/> 120 Hours (5 days)
<input type="checkbox"/> Wipe	<input type="checkbox"/> Wastewater		<input type="checkbox"/> 144+ hours (6-10 days)			

TEM AIR, 3 hours, 6 hours, Please call ahead to schedule. There is a premium charge for 3-hour tat, please call 1-800-220-3675 for price prior to sending samples. You will be asked to sign an authorization form for this service.

\*12 hours (must arrive by 11:00a.m. Mon -Fri.), Please Refer to Price Quote

PCM - Air	TEM Air	TEM WATER
<input type="checkbox"/> NIOSH 7400(A) Issue 2: August 1994	<input type="checkbox"/> AHERA 40 CFR, Part 763 Subpart E	<input type="checkbox"/> EPA 100.1
<input type="checkbox"/> OSHA w/TWA	<input type="checkbox"/> NIOSH 7402	<input type="checkbox"/> EPA 100.2
<input type="checkbox"/> Other:	<input type="checkbox"/> EPA Level II	<input type="checkbox"/> NYS 198.2
PLM - Bulk	TEM BULK	TEM Microvac/Wipe
<input checked="" type="checkbox"/> EPA 600/R-93/116 <i>m</i>	<input type="checkbox"/> Drop Mount (Qualitative)	<input type="checkbox"/> ASTM D 5755-95 (quantative method)
<input type="checkbox"/> EPA Point Count	<input type="checkbox"/> Chatfield SOP - 1988-02	<input type="checkbox"/> Wipe Qualitative
<input type="checkbox"/> NY Stratified Point Count	<input checked="" type="checkbox"/> TEM NOB (Gravimetric) NYS 198.4	
<input type="checkbox"/> PLM NOB (Gravimetric) NYS 198.1	<input type="checkbox"/> EMSL Standard Addition:	<b>XRD</b>
<input type="checkbox"/> NIOSH 9002:		<input type="checkbox"/> Asbestos
<input type="checkbox"/> EMSL Standard Addition:	<b>PLM Soil</b>	<input type="checkbox"/> Silica NIOSH 7500
<b>SEM Air or Bulk</b>	<input type="checkbox"/> EPA Protocol Qualitative	
<input type="checkbox"/> Qualitative	<input type="checkbox"/> EPA Protocol Quantitative	<b>OTHER</b>
<input type="checkbox"/> Quantitative	<input type="checkbox"/> EMSL MSD 9000 Method fibers/gram	<input type="checkbox"/>





**EMSL Analytical, Inc.**  
706 Gralin Street  
Kernersville, NC 27284

**Phone: (336) 992-1025**  
**Fax: (336) 992-4175**  
**<http://www.emsl.com>**

**Client Sample # SM-01 thru SM-12**

**Date:** 02/22/13

**Total Samples #:** 12

**Time: 16:00**

Received:

**Date:****Time:**

### Relinquished:

Date:

**Time:**

Received:

Date: \_\_\_\_\_

Time:

[illegible]

## **APPENDIX C**

### Photographs





**S-40-80 Bridge over I-26**



**S-40-80 Bridge over I-26**





**Expansion Joint Material**



**Expansion Joint Material**



**Transite Utility Pipes**



**Transite Utility Pipes**

## **APPENDIX D**

### Personnel Certifications



**SCDHEC ISSUED**  
**Asbestos ID Card**

Michael Mincey

Expires



CONSULTMP

MP-00161 02/15/14

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## SCDHEC ISSUED

### Asbestos ID Card

---

Glynn M Ellen

Expires



CONSULTMP	ASB-22641 02/15/14
AIRAMPLER	AS-00079 02/25/14
SUPERAHERA	SA-00455 02/25/14
CONSULTPD	PD-00098 06/08/13

## **APPENDIX E**

SCDHEC Regulation Summary  
SCDHEC Abatement Project Forms

## **Air Quality**

### **Asbestos - Regulatory Information**

#### **RENOVATIONS & DEMOLITIONS**

Note: This information should serve as a guide only and is not intended to replace the regulations. For additional information concerning DHEC and EPA regulations, contact DHEC's Asbestos Section at (803) 898-4289. Information regarding the OSHA asbestos standards may be obtained from the South Carolina Department of Labor, Licensing and Regulation at (803) 734-9669.

#### **APPLICABILITY**

Renovation and demolition of most facilities, including buildings, structures, and other installations, are subject to State and Federal asbestos regulations. Certain residential buildings may be exempt unless the property was used in the past for non-residential purposes (contact the Asbestos Section for additional information) or is part of a larger development such as highway right-of-way, mall development, urban renewal or other type of similar development. The facility owner and the renovation or demolition contractor are both responsible for ensuring compliance with these regulations.

#### **DEFINITIONS**

**Renovation** means altering a facility or one or more facility components in any way, including the stripping or removal of regulated asbestos-containing material (RACM) from a facility component. "Remodeling" is considered renovation.

**Demolition** is the wrecking or taking out of any load-supporting structural member of a facility and any related handling operations. Structural burns are prohibited by State Open Burning Regulations.

#### **INSPECTION FOR ASBESTOS**

Before a facility or a portion of a facility is renovated or demolished, the owner/operator of the facility or renovation or demolition activity must ensure that the facility or portion of the facility being renovated or demolished has been thoroughly inspected for the presence of asbestos. The inspection must be performed by a person who has been trained and licensed as an Asbestos Building Inspector or management planner in accordance with State training and licensing requirements.

The inspector must identify, quantify, and assess the condition of all suspect asbestos-containing materials, either friable or non-friable, on interior and exterior portions of the facility. The inspector must also comply with the procedures specified in 40 CFR 763.86 in determining sampling locations and the number of representative samples to be collected. In addition, the



inspector is required to prepare a written report detailing the findings of the inspection. At a minimum, the report must include information required in 40 CFR 763.85 (a)(4)(vi)(A)-(E), as well as the date of inspection and the name, license number, and signature of the licensed Asbestos Building Inspector or Management Planner who performed the inspection and completed the report. A legible copy of the building inspection report must be provided to the Department prior to each demolition, and upon request for renovations. (Note: **"BUILDING INSPECTIONS"** can be consulted for a detailed explanation of the aforementioned sampling and reporting protocols.)

A building inspection will only be acceptable if performed **within three years** prior to the demolition or renovation. If an inspection report is more than three years old, then it must be confirmed and verified by a licensed Asbestos Building Inspector or Management Planner.-

### **FRIABLE ASBESTOS-CONTAINING MATERIALS**

If friable asbestos-containing materials (e.g., pipe insulation) are present, they must be removed prior to being disturbed during renovation or demolition activities. Removal (abatement) must be performed by trained, licensed persons using procedures detailed in State and Federal regulations.

A project design must be prepared for each asbestos abatement project involving the abatement of greater than 3,000 square feet, 1,500 linear feet and/or 656 cubic feet of RACM in a facility to be reoccupied. Such designs must be prepared by a person licensed by the Department as an Asbestos Project Designer.

### **NON-FRIABLE ASBESTOS-CONTAINING MATERIALS**

During renovations, removal of non-friable materials (e.g., vinyl-asbestos floor tiles and sheet flooring, mastics, asphaltic roofing, and asbestos-cement siding and roofing tiles) may be regulated. Applicability is dependent upon the removal methods to be used. If it can be anticipated that non-friable materials will be ground, crumbled, sanded, abraded, chipped or pulverized, the removal is subject to the same rules as removal of friable materials.

Prior to any demolition, non-friable asbestos-cement products (e.g., transite siding, exterior siding and roofing shingles) must be removed. Asbestos-containing sheet flooring and floor tiles, as well as asphaltic roofing products, need not be removed if they are in good condition and have not become brittle and are not peeling, cracking, or crumbling. Otherwise, they must also be removed prior to demolition. If it can be anticipated that non-friable materials will be ground, crumbled, sanded, abraded, chipped or pulverized, the materials must be removed and the removal is subject to the same rules as removal of friable materials. The amount of any non-friable asbestos that will remain in place during demolition must also be indicated on the written notification form.

***All asbestos-containing materials must be removed if the facility will be demolished by non-standard demolition techniques such as implosion, explosion, or intentional burning.***

## NOTIFICATION FOR RENOVATIONS AND DEMOLITIONS

Prior to removing regulated asbestos-containing materials, written notification must be submitted to the Department (up to 10 working days in advance, depending on the amount of asbestos to be removed). The notification must include certain required items of information about the owner, the contractor, the facility, and the asbestos removal project. Required fees must be submitted along with the notification. You must obtain a permit from the Department prior to the renovation activity.

Prior to the demolition of any regulated facility, written notification must be submitted to the Department *at least 10 working days* in advance **even if a building inspector determines that asbestos is not present at the facility**. The notification must include certain required items of information about the owner, the contractor, the facility, and the demolition project. Required fees and a copy of the building inspector's report must be submitted along with the notification of demolition. You must obtain a permit from the Department prior to the demolition activity.

## DISPOSAL

*Never burn any asbestos-containing waste material.*

Non-asbestos-containing demolition debris and debris which contains only non-regulated roofing or flooring may be disposed of at a DHEC-approved disposal site for cellulosic or inert waste. Waste consolidation activities involving grinding, cutting, or compacting of non-friable asbestos-containing materials will subject these materials to more stringent State and Federal asbestos disposal regulations.

Regulated asbestos waste must be handled by properly licensed asbestos abatement personnel and disposed of at a landfill permitted to accept regulated asbestos waste. A list of approved landfills may be obtained from the Asbestos Section.

## REGULATORY REQUIREMENTS FOR BUILDING INSPECTION

As required by the National Emission Standard for Hazardous Air Pollutants (NESHAP) and SCDHEC Regulation 61-86.1, an owner/operator shall ensure that a building inspection to detect the presence of asbestos-containing materials (ACM) has been performed prior to any renovation or demolition activity at a regulated facility.

Under SCDHEC Regulation 61-86.1, Section VI.A.6., an inspection cannot have been performed more than three years prior to a renovation or demolition activity. If more than three years have elapsed since the most recent inspection, the previous inspection shall be confirmed and verified by a licensed building inspector and/or management planner.

SCDHEC Regulation 61-86.1 requires that all inspections be performed by persons trained and licensed as either a building inspector and/or management planner. In order to be licensed in these disciplines, persons must have successfully completed a Department approved initial training course specific to inspecting for ACM in a building and/or a course specific to

management planning for ACM in a building. Persons must also have taken and passed an examination at the end of the course with a score of 70 percent or above.

In performing inspections, SCDHEC Regulation 61-86.1 requires that a building inspector and/or management planner comply with the requirements of Section VI, Asbestos Building Inspection Requirements. An inspection shall include samples from suspect friable and non-friable ACM on interior and exterior portions of a facility or its facility components.

In performing inspections, SCDHEC Regulation 61-86.1 requires that a building inspector and/or management planner follow specific sampling procedures. According to Section IV.B.3.a of the regulation, a building inspector and/or management planner shall comply with the procedures specified in **40 CFR 763.86** in determining sampling locations and the number of representative samples to be collected. An inspection shall include samples from suspect friable and non-friable ACM on interior and exterior portions of a facility or its facility components.

Under 40 CFR Part 763.86, suspect ACM are divided into three categories: surfacing materials, thermal system insulation (commonly referred to as TSI), and miscellaneous materials. SCDHEC Regulation 61-86.1, Section VI contains sampling procedures specific to each category of material.

**Surfacing material** includes, but is not limited to, joint compound, plaster, and painted, troweled on, or spray-applied textured material. To remain in compliance with SCDHEC Regulation 61-86.1, surfacing materials on exterior and interior portions of a facility shall be sampled according to procedures outlined in SCDHEC Regulation 61-86.1, Section VI.D.1. (a)-(c):

- A licensed asbestos inspector shall collect, in a statistically random manner, a minimum of three bulk samples from each homogeneous area of any surfacing that is not assumed to be ACM, and shall collect the samples as follows:
  - At least three bulk samples shall be collected from each homogeneous area that is 1,000 or fewer square feet (sf) or linear feet (Lf) in size.
  - At least five bulk samples shall be collected from each homogeneous area that is greater than 1,000 but fewer than or equal to 5,000 sf or Lf.
  - At least seven bulk samples shall be collected from each homogeneous area that is greater than 5,000 sf or Lf.

**Thermal system insulation (TSI)** is any material that is applied to pipes, fittings, boilers, breeching, tanks, ducts, or other facility components for the purpose of preventing heat loss or gain, water condensation, or for other purposes. **Miscellaneous Material** is any material that is not considered a surfacing material or thermal system insulation and includes, but is not limited to, flooring, roofing, mastics, gaskets, cementitious materials, caulking, ceiling tiles, fire doors, wall boards, and flexible duct connections. To remain in compliance with SCDHEC Regulation 61-86.1, TSI and miscellaneous materials on exterior and interior portions of a facility shall be sampled in accordance with procedures outlined in SCDHEC Regulation 61-86.1, Section VI.D.2:

- A licensed asbestos inspector shall collect, in a statistically random manner, at least three bulk samples from each homogeneous area of TSI and any miscellaneous material that is not assumed to be ACM.
- In accordance with ASTM E2356, and any subsequent amendments and editions, negative results for non-friable organically bound materials (NOB) shall be verified with at least one TEM analysis.
- NOBs include flooring, roofing, mastics, adhesives, caulks, and glazing.
- If an accredited inspector has determined the thermal system insulation to be fiberglass, foam glass, rubber, or other non-suspect material, then bulk samples are not required.

**SCDHEC Regulation 61-86.1, Section VI.C requires that a building inspector and/or management planner prepare a written asbestos building inspection report to include the following:**

- A title page denoting: (1) The client's name, company, address, and telephone number, and the name and exact location of the facility inspected; (2) the date the inspection was performed; (3) the date the inspection report was written; and (4) the printed name and telephone number of the inspector(s), and his or her affiliated company name, address, and telephone number.
- A cover letter to the building owner or owner's representative that describes the purpose of the inspection; a general synopsis of the inspection and results; and the name, title, and signature of the inspector(s) and report writer, if different.
- A detailed narrative of the physical description of the building or part of the building affected by the renovation or demolition operation that includes: (1) The square footage of the building or part of the building affected by the renovation or demolition operation; (2) The building materials used in the construction of the exterior, roof, interior, and basement or crawlspace of the building affected by the demolition or affected by the renovation materials operation; (3) An estimated or exact quantity (square or linear feet) for all suspect materials whether sampled for or assumed to be asbestos that may be affected by the renovation or demolition operation; (4) Also include a description of non-suspect materials excluding: glass, metals, kiln brick, cement, fiberglass, concrete, pressed wood, cinder block, and rubber.
- An executive summary that details: (1) The type of suspect ACM (e.g., TSI, floor tile, mastic), total square or linear footage, and the total number of samples collected for each separate homogenous area affected by the renovation or demolition operation; (2) The date of the inspection, type, condition, quantity, sample results, and exact location of ACM positively identified or assumed to be ACM in the part of the building affected by the renovation or demolition operation; (3) A list of the homogeneous areas identified; (4) Whether the material is accessible for the building or part of the building affected by the renovation or demolition operation; and (5) The material's potential for disturbance for the building or part of the building affected by the renovation or demolition operation.
- For renovation and demolition operations, the inspector's determination that ACM is friable or non-friable.
- Except when suspect ACM materials are assumed to be asbestos, include a complete, clear, legible copy of all laboratory bulk sample results.

- Clear, legible drawings and/or photographs to clarify the scope of the renovation or demolition operation. Illustrate the exact location of each sample collected. For facilities that involve a trade secret or confidential component or an affected area process, a request for a variance may be submitted.
- The printed name and signature of each accredited inspector who collected the samples, and a clear legible copy of his or her Department issued asbestos building inspector or management planner license



## ASBESTOS ABATEMENT PROJECT LICENSE APPLICATION

BUREAU OF AIR QUALITY • ASBESTOS SECTION • 2600 BULL STREET • COLUMBIA • SC • 29201

TYPE OF OPERATION: ☐ Standard Removal ☐ Emergency Removal ☐ Enclosure ☐ Encapsulation ☐ Cleanup ☐ Disposal

FOR OFFICE USE

Postmark/Received: \_\_\_\_\_

Original ☐ / Revised ☐ / Cancellation ☐ (check one)

Project License I.D. (For Revisions/Cancellations): \_\_\_\_\_

I. FACILITY OWNER: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

II. REMOVAL CONTRACTOR: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

E-MAIL ADDRESS: \_\_\_\_\_ E-MAIL PERMIT ☐ OR MAIL PERMIT ☐

FEDERAL I.D. NUMBER: \_\_\_\_\_

DHEC CONTRACTOR LICENSE NO. (If applicable): \_\_\_\_\_ EXPIRATION DATE: \_\_\_\_\_

III. FACILITY NAME: \_\_\_\_\_

STREET ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ COUNTY: \_\_\_\_\_

SITE (ROOM, FLOOR, WING, UNIT, MACHINE, ETC.): \_\_\_\_\_

BUILDING SIZE: \_\_\_\_\_ NO. OF FLOORS: \_\_\_\_\_ AGE IN YEARS: \_\_\_\_\_

PRESENT USE: \_\_\_\_\_ PRIOR USE: \_\_\_\_\_ FUTURE USE: \_\_\_\_\_

IV. PROCEDURES, INCLUDING ANALYTICAL METHOD IF APPROPRIATE, USED TO DETECT THE PRESENCE OF ASBESTOS MATERIAL:

FACILITY OR FACILITY COMPONENT SURVEYED BY (INSPECTOR NAME): \_\_\_\_\_

COMPANY: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

DHEC LICENSE NUMBER: \_\_\_\_\_ EXPIRATION DATE: \_\_\_\_\_

V. PROJECT DESIGN PERFORMED BY (IF APPLICABLE): \_\_\_\_\_

COMPANY: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

DHEC LICENSE NUMBER: \_\_\_\_\_ EXPIRATION DATE: \_\_\_\_\_

VI. ASBESTOS-CONTAINING MATERIALS (ACM) **TO BE REMOVED ONLY:**

TYPE (TSI, SURFACING, FLOORING, ROOFING, ETC.)	AMOUNT (SQUARE FEET, LINEAR FEET, CUBIC FEET)	CONDITION (CIRCLE ONE)
		<input type="checkbox"/> FRIABLE <input type="checkbox"/> NON-FRIABLE
		<input type="checkbox"/> FRIABLE <input type="checkbox"/> NON-FRIABLE
		<input type="checkbox"/> FRIABLE <input type="checkbox"/> NON-FRIABLE
		<input type="checkbox"/> FRIABLE <input type="checkbox"/> NON-FRIABLE

VII. SCHEDULED DATES OF REMOVAL: START DATE: \_\_\_\_\_ COMPLETION DATE: \_\_\_\_\_

WORK DAYS: \_\_\_\_\_ WORK HOURS: \_\_\_\_\_

**APPLICATIONS MUST BE SUBMITTED WITH FEES  
PRIOR TO THE SCHEDULED START DATE AS FOLLOWS:**

NESHAP PROJECTS: 10 WORKING DAYS

SMALL PROJECTS: 4 WORKING DAYS

MINOR PROJECTS: 2 WORKING DAYS

**FEE SCHEDULE FOR FRIABLE ASBESTOS-CONTAINING  
MATERIALS:**

10 CENTS PER SQUARE FOOT OR LINEAR FOOT

MINIMUM FEE OF \$25.00

MAXIMUM FEE OF \$1000.00

Non-Friable (NESAP-sized) Projects: 4 working days. No fee for non-friable ACM.

For additional information concerning regulatory requirements call or visit our Web site at <http://www.scdhec.gov/environment/baq/asbestos.aspx>

VIII. DESCRIPTION OF PLANNED ABATEMENT WORK & METHOD(S) TO BE USED:

IX. DESCRIPTION OF WORK PRACTICES & ENGINEERING CONTROLS TO BE USED TO PREVENT EMISSIONS OF ASBESTOS AT THE RENOVATION SITE:

X. WASTE TRANSPORTER #1: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

WASTE TRANSPORTER #2: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

XI. WASTE DISPOSAL SITE: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

TEMPORARY ASBESTOS STORAGE CONTAINMENT AREA LICENSE NUMBER (IF APPLICABLE): \_\_\_\_\_

XII. DESCRIPTION OF EMERGENCY REMOVAL (PLEASE ATTACH A LETTER FROM THE FACILITY OWNER EXPLAINING THE NATURE OF THE EMERGENCY)

DATE & HOUR OF EMERGENCY (MM/DD/YY): \_\_\_\_\_

DESCRIPTION OF SUDDEN, UNEXPECTED EVENT:

EXPLANATION OF HOW THE EVENT CAUSED UNSAFE CONDITIONS AND/OR WOULD CAUSE EQUIPMENT DAMAGE AND/OR AN UNREASONABLE FINANCIAL BURDEN:

XIII. DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NON-FRIABLE ASBESTOS MATERIAL BECOMES CRUMBLED, PULVERIZED OR REDUCED TO POWDER:

XIV. I CERTIFY THAT AN INDIVIDUAL TRAINED IN THE PROVISIONS OF REGULATION (40 CFR PART 61, SUBPART M) WILL BE ON-SITE DURING THE RENOVATION AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE FOR INSPECTION DURING NORMAL BUSINESS HOURS.

\_\_\_\_\_  
(SIGNATURE OF OWNER/OPERATOR)

\_\_\_\_\_  
(DATE)

XIV. I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT.

\_\_\_\_\_  
(SIGNATURE OF OWNER/OPERATOR)

\_\_\_\_\_  
(DATE)



# DEMOLITION LICENSE APPLICATION

BUREAU OF AIR QUALITY • ASBESTOS SECTION • 2600 BULL STREET • COLUMBIA • SC • 29201

TYPE OF OPERATION: ☐ Total Demolition ☐ Partial Demolition ☐ Ordered Demolition

## FOR OFFICE USE

Postmark/Received: \_\_\_\_\_

Original/Revised/Cancellation (circle one)

Project License I.D. (For Revisions/Cancellations): \_\_\_\_\_

I. FACILITY OWNER: \_\_\_\_\_  
 MAILING ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 CONTACT PERSON: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

II. IS ASBESTOS PRESENT IN THE FACILITY?: YES ☐ / NO ☐ (check one)

III. DEMOLITION CONTRACTOR: \_\_\_\_\_ FEDERAL ID NO.: \_\_\_\_\_  
 MAILING ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 CONTACT PERSON: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_  
 E-MAIL ADDRESS: \_\_\_\_\_ E-MAIL PERMIT ☐ OR MAIL PERMIT ☐  
 FEDERAL I.D. NUMBER: \_\_\_\_\_  
 ASBESTOS REMOVAL CONTRACTOR (If applicable): \_\_\_\_\_  
 MAILING ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 CONTACT PERSON: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

IV. FACILITY NAME: \_\_\_\_\_  
 STREET ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ COUNTY: \_\_\_\_\_  
 SITE (ROOM, FLOOR, WING, UNIT, MACHINE, ETC.): \_\_\_\_\_  
 BUILDING SIZE: \_\_\_\_\_ NO. OF FLOORS: \_\_\_\_\_ AGE IN YEARS: \_\_\_\_\_  
 PRESENT USE: \_\_\_\_\_ PRIOR USE: \_\_\_\_\_ FUTURE USE: \_\_\_\_\_

V. PROCEDURES, INCLUDING ANALYTICAL METHOD IF APPROPRIATE, USED TO DETECT THE PRESENCE OF ASBESTOS MATERIAL:  
 FACILITY OR FACILITY COMPONENT SURVEYED BY (INSPECTOR NAME): \_\_\_\_\_  
 COMPANY: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_  
 DHEC LICENSE NUMBER: \_\_\_\_\_ EXPIRATION DATE: \_\_\_\_\_

## VI. NON-FRIABLE MASTIC, GLUE, AND ADHESIVE ASBESTOS-CONTAINING MATERIALS **REMAINING IN PLACE DURING DEMOLITION** (IF APPLICABLE):

TYPE (MASTIC, GLUE, AND ADHESIVE)	AMOUNT (SQUARE FEET)

VII. SCHEDULED DATES OF DEMOLITION (YOU MUST SPECIFY DATES):  
 START DATE: \_\_\_\_\_ COMPLETION DATE: \_\_\_\_\_  
 WORK DAYS: \_\_\_\_\_ WORK HOURS: \_\_\_\_\_

- **Applications must be mailed along with a \$50.00 fee (payable to SCDHEC) at least 10 working days prior to the scheduled start date. Faxes will not be accepted.**
- **A copy of an asbestos survey report (no older than 3 years) must accompany the application.**

For additional information concerning regulatory requirements call or visit our Web site at <http://www.scdhec.gov/environment/baq/asbestos.aspx>



VIII. DESCRIPTION OF PLANNED DEMOLITION METHOD(S) TO BE USED:

☐ BULLDOZER      ☐ LOADER      ☐ WRECKING BALL      ☐ MANUAL      ☐ BURNING      ☐ IMPLOSION/EXPLOSION

IF OTHER PLEASE DESCRIBE:

IX. DESCRIPTION OF WORK PRACTICES & ENGINEERING CONTROLS TO BE USED TO PREVENT EMISSIONS OF ASBESTOS AT THE DEMOLITION SITE:

X. WASTE TRANSPORTER #1: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

WASTE TRANSPORTER #2: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

XI. WASTE DISPOSAL SITE: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_ PHONE: (\_\_\_\_) \_\_\_\_\_

XII. IF DEMOLITION ORDERED BY GOVERNMENT AGENCY, PLEASE IDENTIFY THE AGENCY BELOW: (PLEASE ATTACH A COPY OF THE ORDER)

NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

AUTHORITY: \_\_\_\_\_

DATE OF ORDER (MM/DD/YY): \_\_\_\_\_ DATE ORDERED TO BEGIN(MM/DD/YY): \_\_\_\_\_

XIII. DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NONFRIABLE ASBESTOS MATERIAL BECOMES CRUMBLED, PULVERIZED, OR REDUCED TO POWDER:

XIV. I CERTIFY THAT AN INDIVIDUAL TRAINED IN THE PROVISIONS OF REGULATION (40 CFR PART 61, SUBPART M) WILL BE ON-SITE DURING THE DEMOLITION INVOLVING RACM AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE FOR INSPECTION DURING NORMAL BUSINESS HOURS.

\_\_\_\_\_  
(SIGNATURE OF OWNER/OPERATOR)

\_\_\_\_\_  
(DATE)

XV. I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT.

\_\_\_\_\_  
(SIGNATURE OF OWNER/OPERATOR)

\_\_\_\_\_  
(DATE)

- **Applications must be mailed along with a \$50.00 fee (payable to SCDHEC) at least 10 working days prior to the scheduled start date. Faxes will not be accepted.**
- **A copy of an asbestos survey report (no older than 3 years) must accompany the application.**

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## Generator Information