TENNESSEE DEPARTMENT OF TRANSPORTATION
ASBESTOS SURVEY REPORT

Bridge 80I00400035 (80-I0040-17.13R)
I-40 East Bound Over Caney Fork River, LM 17.16
Smith County
TDOT Project No.: 80I040-S1-006, PIN: 131552.01

TriAD Project No. PROJ-042759 TDOT W021

Prepared by

ENVIRONMENTAL CONSULTANTS

08/16/24

David Espy
Tennessee Asbestos Inspector Accreditation No: A-I-55949-159521

TABLE OF CONTENTS

Page

TABLE OF CONTENTS CONTINUED

TABLE

FIGURES

APPENDICES

1.0 INTRODUCTION

This report presents the findings of an inspection for asbestos-containing materials (ACM) completed on the bridge identified in Section 1.1. The inspection was completed by TriAD Environmental Consultants, Inc., (TriAD) in accordance with the requirements of the State of Tennessee, Department of Transportation Environmental Division (TDOT), Hazardous Materials Section.

1.1 TDOT Bridge Identification

The bridge is identified in the TDOT Project Management System as:

Bridge Number: 80I00400035
Route/Crossing: I-40 Crossing Caney Fork River
County: Smith
TDOT Const.: 80I040-S1-006
TDOT PIN: 131552.01
Termini: I-40 Truck Parking and Bridges Replacement over the Caney Fork River

1.2 Bridge Description

Bridge Number 80I00400035 is located on I-40 east bound over Caney Fork River at LM 17.16 in Smith County, Tennessee. The bridge is a 320-foot, two-lane, four-span bridge, constructed of pre-stressed concrete box girders with a concrete deck and asphalt wearing surface. The bridge was constructed in 1971 and rehabilitated in 1991. The location of the bridge is provided on the Bridge Vicinity Map in Figure 1.

2.0 ACM ASSESSMENT

Observed suspect ACM were categorized by homogeneous areas (HA), which are materials that appear similar throughout in terms of color, texture, and application date. Suspect ACM for each HA were physically assessed for friability and condition of material. Random samples of suspect ACM were collected from designated HAs and submitted to

an accredited laboratory for analysis. The laboratory results of the ACM sampling are included in Appendix A. Photographs showing the locations of the HAs are provided in Figure 2. Photographs of the HAs that were sampled are included in Appendix B.

2.1 Inspection Personnel

The sampling and field activities were performed on August 5, 2024, by Mr. David Espy an Accredited State of Tennessee Asbestos Inspector and Ms. Jaclyn Nix an Environmental Consultant, both with TriAD. Copies of Mr. Espy's and TriAD's current accreditation from the State of Tennessee are included in Appendix C. This work was completed in accordance with TriAD's Health and Safety Plan and Job Safety Analysis (JSA). A copy of the JSA and the cover page for the Health and Safety Plan is included in Appendix D.

2.2 Visual Survey

The inspection began with a walk-through and visual survey of the bridge. The visual survey consisted of:

- Locating and confirming the structure to be sampled
- Sketching the structure and/or verifying the plans provided
- Taking general photos of the structure
- Locating and identifying suspect ACM to be sampled
- Determining accessible locations to collect samples

2.3 ACM Sampling of Bridge Components

Suspect ACM was sampled in accordance with United States Environmental Protection Agency (USEPA) regulation 40 CFR 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP) and in general conformance with the protocols as outlined in USEPA regulation 40 CFR 763 Asbestos Hazard Emergency Response Act (AHERA). TriAD personnel made reasonable effort during the performance of this survey

to identify suspect ACM which may be encountered during future demolition or renovation activities. Suspect ACM samples collected for analysis were obtained by minimal destructive sampling techniques. Possible suspect ACM located in voids or concealed areas which were not accessible during the survey process are not included as part of this report. Should suspect materials other than those identified in this report be discovered during demolition or renovation activities, these materials should be assumed asbestos containing until laboratory confirmation of the presence or absence of asbestos content is made. Bridge components identified and sampled as homogenous areas are detailed below. Photographs of each HA are provided in Appendix B.

2.3.1 HA-01 Retaining Wall

The retaining wall is made of concrete. Three samples were collected from this HA. A hammer and chisel were used to collect these samples.

2.3.2 HA-02 Retaining Wall Coating

The retaining wall is coated with a thin gray textured material. Three samples of the coating were collected from this HA. A utility knife was used to collect these samples.

2.3.3 HA-03 Sloping Wall

The sloping wall is made of concrete. Three samples were collected from this HA. A hammer and chisel were used to collect these samples.

2.3.4 HA-04 Abutment Base

The abutment base is made of concrete. Three samples were collected from this HA. A hammer and chisel were used to collect these samples.

2.3.5 HA-05 Abutment

The abutments are made of concrete. Three samples were collected from this HA. A hammer and chisel were used to collect these samples.

2.3.6 HA-06 Bottom of Decking

The bottom of the decking is made of concrete. Three samples were collected from this HA. A hammer and chisel were used to collect these samples.

2.3.7 HA-07 Abutment Coating

The abutments are coated with a thin gray textured material. Three samples of the coating were collected from this HA. A utility knife was used to collect these samples.

2.3.8 HA-08 Outer Longitudinal Girder

The outer longitudinal girders are made of concrete. Three samples were collected from this HA. A hammer and chisel were used to collect these samples.

2.3.9 HA-09 Bearing Pad

Flexible bearing pads are present between the longitudinal girders and the abutment. Three samples were collected from this HA. A utility knife was used to collect these samples.

2.3.10 HA-10 Bottom of Decking Outer Strip

The bottom of the decking outer strips are made of concrete. Three samples were collected from this HA. A hammer and chisel were used to collect these samples.

2.3.11 HA-11 Outer Longitudinal Girder Coating

The outer longitudinal girders are coated with a thin gray textured material. Three samples of the coating were collected from this HA. A utility knife was used to collect these samples.

2.3.12 HA-12 Padding Between End Wall and Decking

Padding is present between the end walls and the decking. Three samples were collected from this HA. A utility knife was used to collect these samples.

2.3.13 HA-13 End Wall

The end walls are made of concrete. Three samples were collected from this HA. A hammer and chisel were used to collect these samples.

2.3.14 HA-14 Parapet

The parapets are made of concrete. Three samples were collected from this HA. A hammer and chisel were used to collect these samples.

2.3.15 HA-15 Parapet Coating

The parapets are coated with a thin gray textured material. Three samples of the coating were collected from this HA. A utility knife was used to collect these samples.

2.3.16 HA-16 Pier

The piers are made of concrete. Three samples were collected from this HA. A hammer and chisel were used to collect these samples.

2.3.17 HA-17 Concrete at Pier Base

Concrete was present at the base of the piers. Three samples were collected from this HA. A hammer and chisel were used to collect these samples.

2.3.18 Utility Components

There is one 2-inch diameter metal utility conduit attached to the west abutment of the bridge. The conduit is held in place to the bridge by metal conduit clamps.

2.3.19 Bridge Drainage System

There is one approximately 3-foot by 4-foot rectangular stormwater drain that has been installed on the southwest side of the bridge. There were no suspected ACM associated with the drainage structure.

3.0 ANALYTICAL PROCEDURES

The bulk samples were analyzed in the laboratory using Polarized Light Microscopy (PLM) coupled with dispersion staining (USEPA Method 600/R-93/116). PLM is an asbestos analytical method which identifies the specific asbestos minerals by their unique optical properties. The optical properties are a result of the mineral's chemical composition, physical atomic structure, and visual morphology. This is the USEPA-recommended method of analysis for asbestos identification in bulk samples.

The bulk samples collected for this inspection were analyzed by Frost Environmental Services, LLC, a laboratory that has received certification from the American Industrial Hygiene Association Laboratory Accreditation Program (Laboratory identification number 198214).

4.0 REGULATORY OVERVIEW

4.1 National Emission Standards for Hazardous Air Pollutants

The EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos regulations (40 CFR 61, Subpart M) requires that all regulated asbestos-containing materials (RACM) be properly removed prior to any renovation or demolition activities that will disturb them. These regulations define RACM as:

(a) Friable asbestos material,

(b) Category I non-friable ACM that has become friable,

(c) Category I non-friable ACM that will be or has been subject to sanding, grinding, cutting, or abrading, or

(d) Category II non-friable ACM that has a high probability of becoming, or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

4.2 Definitions

Significant definitions related to regulation of asbestos under NESHAPS regulations (40 CFR Part 61, Subpart M, Section 61.141) include:

Friable asbestos material means any material containing more than one percent asbestos as determined using the method specified in Appendix E, Subpart E, 40 CFR Part 763, Section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

Nonfriable asbestos-containing material means any material containing more than one percent asbestos as determined using the method specified in Appendix E, Subpart E, 40 CFR Part 763, Section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. EPA also defines two categories of non-friable ACM, Category I and Category II nonfriable ACM, which are described as follows:

> **Category I nonfriable ACM** means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent asbestos as determined using methods specified in Appendix E, Subpart E, 40 CFR Part 763, Section 1, Polarized Light Microscopy.
>
> **Category II nonfriable ACM** means any material, excluding Category I nonfriable ACM, containing more than one percent asbestos as determined using methods specified in Appendix E, Subpart E, 40 CFR Part 763, Section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

"Regulated Asbestos-Containing Material" (RACM) is (a) friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations by this subpart.

5.0 RESULTS OF ASBESTOS BULK SAMPLE ANALYSIS

A total of 51 samples were obtained from the bridge. Multiple samples of each HA were collected in accordance with TDOT requirements and delivered to the laboratory for visual observation and microscopic analysis. The samples were selected based on HAs of suspect materials, as described in Section 2.0.

Based on the analytical results, none of the sampled materials contained asbestos. The analytical results of all the samples collected, along with the chain-of-custody records, are included in Appendix A. Photographs of examples of the HAs are included in Appendix B. A Bridge Vicinity Map is provided as Figure 1. A profile of the bridge with homogenous area sample locations is depicted on Figure 2.

6.0 QUALIFICATIONS

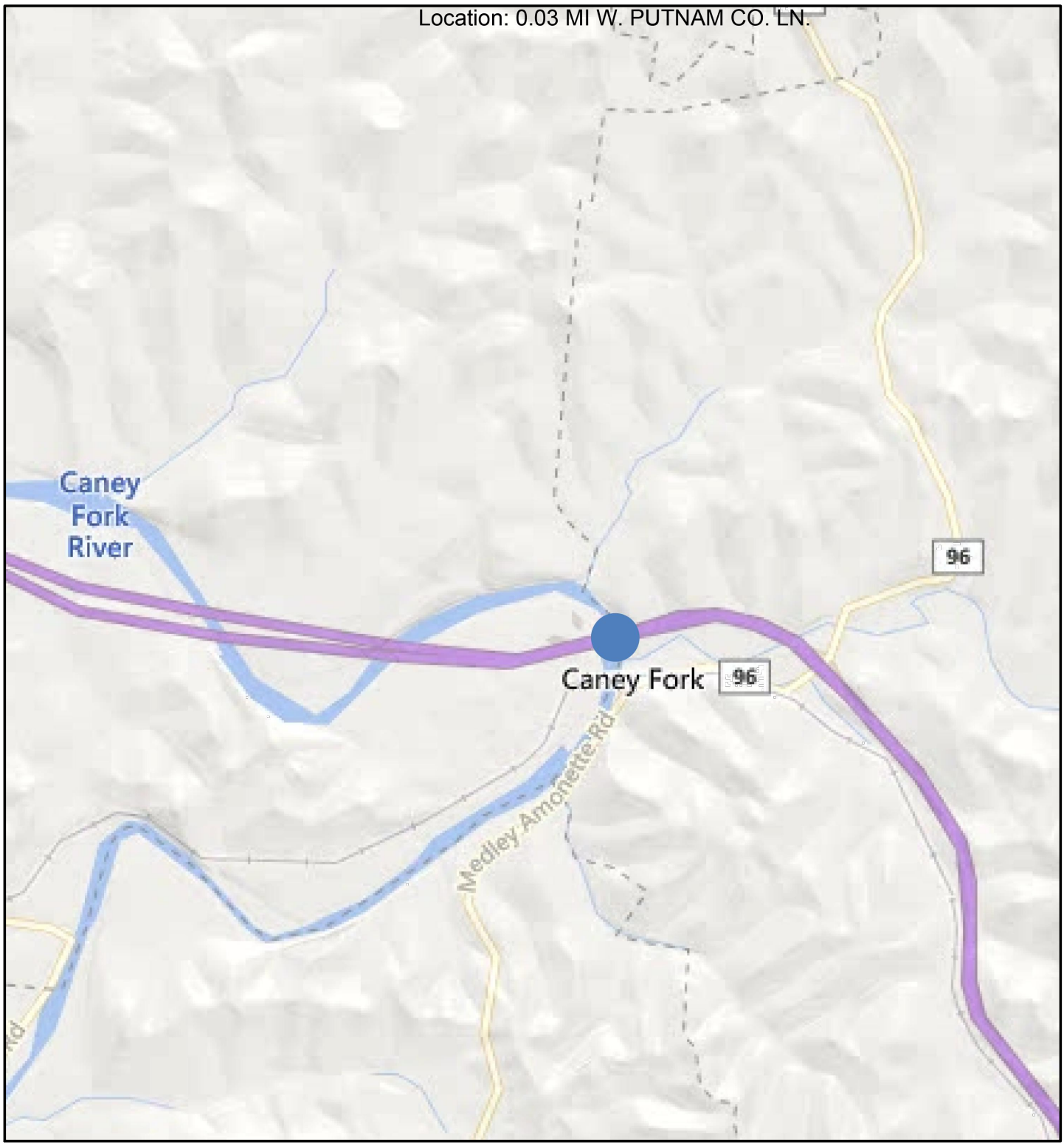
This report has been prepared on behalf of and exclusively for TDOT. The information presented in this report is based on information obtained during the site visit and from previous experience. If additional information becomes available which might impact our conclusions or recommendations, TriAD requests the opportunity to review the information, reassess the potential concerns, and modify opinions, if warranted. Use of this report or reliance upon information contained in this report by any other party implies an agreement by that party to the same terms and conditions under which service was provided. Any party, other than TDOT, relying on this document is cautioned that all conclusions made, or decisions arrived at based on their review of this document are

those solely of the third party, without warranty, guarantee, or promise by the author. These findings are relevant to the dates of our services and should not be relied upon to represent conditions at substantially earlier or later dates.

Table

Table 1: Homogeneous Areas	
HA-01	Retaining Wall
HA-02	Retaining Wall Coating
HA-03	Sloping Wall
HA-04	Abutment Base
HA-05	Abutment
HA-06	Bottom of Decking
HA-07	Abutment Coating
HA-08	Outer Longitudinal Girder
HA-09	Bearing Pad
HA-10	Bottom of Decking Outer Strip
HA-11	Outer Longitudinal Girder Coating
HA-12	Padding Between End Wall and Decking
HA-13	End Wall
HA-14	Parapet
HA-15	Parapet Coating
HA-16	Pier
HA-17	Concrete at Pier Base

Figures



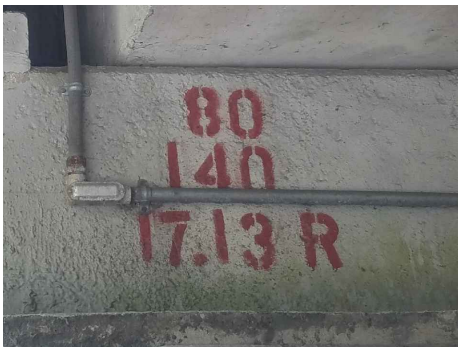


FIGURE 1
BRIDGE VICINITY MAP

PIN NO.: 131552.01
INTERSTATE 40 EB OVER CANEY FORK RIVER
LM 17.16
BRIDGE NO.: 80100400035
SMITH COUNTY, TENNESSEE

SCALE: N.T.S.	DR ALW	CHK DME	REV JMP

PREPARED BY:

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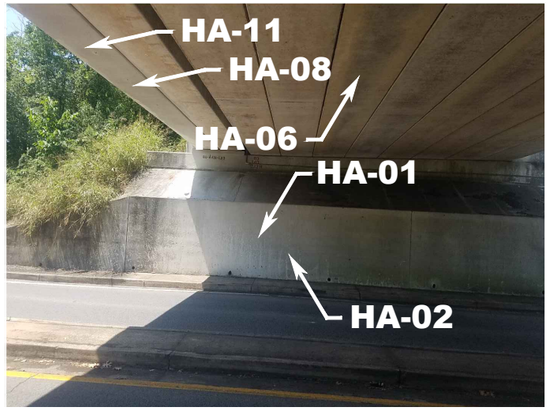
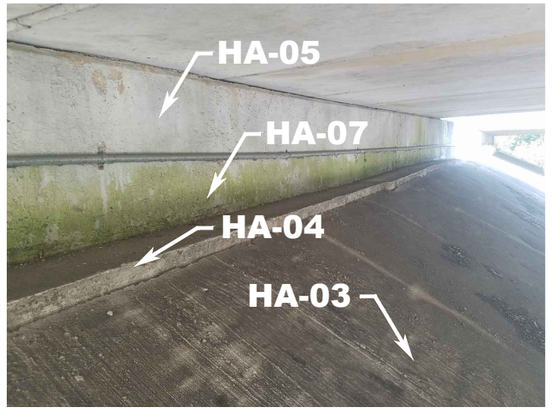
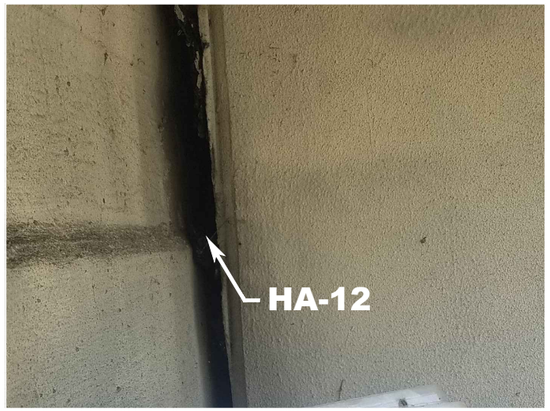
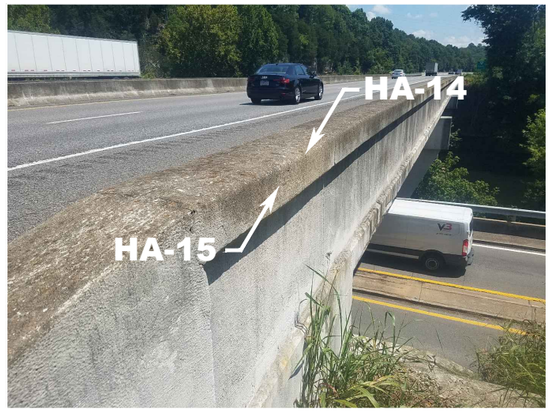
615-889-6888 fax 615-889-4004

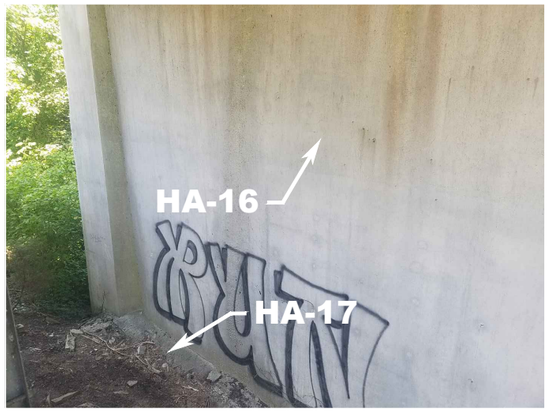
PROJ-042759 TDOT W021	DATE: 08/14/24	SHEET 1 OF 1











HOMOGENEOUS AREAS

HA–01 – RETAINING WALL

HA–02 – RETAINING WALL COATING

HA–03 – SLOPING WALL

HA–04 – ABUTMENT BASE

HA–05 – ABUTMENT

HA–06 – BOTTOM OF DECKING

HA–07 – ABUTMENT COATING

HA–08 – OUTER LONGITUDINAL GIRDER

HA–09 – BEARING PAD

HA–10 – BOTTOM OF DECKING OUTER STRIP

HA–11 – OUTER LONGITUDINAL GIRDER COATING

HA–12 – PADDING BETWEEN END WALL AND DECKING

HA–13 – END WALL

HA–14 – PARAPET

HA–15 – PARAPET COATING

HA–16 – PIER

HA–17 – CONCRETE AT PIER BASE

NOTE

HOMOGENEOUS AREA SAMPLE LOCATIONS ARE GENERALIZED; ACTUAL SAMPLES WERE COLLECTED FROM RANDOM LOCATIONS ACROSS THE STRUCTURE.

FIGURE 2
HOMOGENEOUS AREAS

PIN NO.: 131552.01
INTERSTATE 40 EB OVER CANEY FORK RIVER
LM 17.16
BRIDGE NO.: 80100400035
SMITH COUNTY, TENNESSEE

SCALE: N.T.S.	DR ALW	CHK DME	REV JMP

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Appendix A:
Laboratory Analysis Report

FROST ENVIRONMENTAL SERVICES, LLC
339 ROCKLAND ROAD, SUITE E, HENDERSONVILLE, TENNESSEE 37075
(615) 562-2669 office - (615) 473-9047 cell - email: lab@frostenvironmental.com

POLARIZED LIGHT MICROSCOPY (PLM)
LABORATORY ANALYSIS REPORT
(EPA/600/R-93/116 (JUNE 1993))

CLIENT: Montrose Environmental
PROJECT: Proj-042759 Smith County Bridge
LOCATION: Bridge No.80I00400035
Smith County

Date Received: 8/7/2024
Date Analyzed: 8/12/2024
Date Reported: 8/12/2024

ANALYST: Codi Maddox

Codi Maddox

Sample Number	Location	Material Description	Binder (Non-Fibrous) Material	Non-Asbestos Fiber	Asbestos Type & Percent
HA-01-01	Retaining Wall	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-01-02	Retaining Wall	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-01-03	Retaining Wall	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-02-04	Retaining Wall Coating	Grey Coating	98	2 Cellulose	None Detected
HA-02-05	Retaining Wall Coating	Grey Coating	98	2 Cellulose	None Detected
HA-02-06	Retaining Wall Coating	Grey Coating	98	2 Cellulose	None Detected
HA-03-07	Sloping Wall	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-03-08	Sloping Wall	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-03-09	Sloping Wall	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-04-10	Abutment Base	Tan & Grey Cementitious Material	100	None Detected	None Detected

Asbestos Containing Material (ACM) is defined as any material containing more than one percent asbestos.
Analysis was performed using EPA/600/R-93/116 (June 1993)), Test Method for the Determination of Asebstos in Bulk Building Materials.

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ANALYST: Codi Maddox

Codi Maddox

Sample Number	Location	Material Description	Binder (Non-Fibrous) Material	Non-Asbestos Fiber	Asbestos Type & Percent
HA-04-11	Abutment Base	Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-04-12	Abutment Base	Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-05-13	Abutment	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-05-14	Abutment	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-05-15	Abutment	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-06-16	Bottom of Decking	Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-06-17	Bottom of Decking	Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-06-18	Bottom of Decking	Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-07-19	Abutment Coating	Grey Coating	98	2 Cellulose	None Detected
HA-07-20	Abutment Coating	Grey Coating	98	2 Cellulose	None Detected
HA-07-21	Abutment Coating	Grey Coating	98	2 Cellulose	None Detected
HA-08-22	Outer Longitudinal Girder	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected

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ANALYST: Codi Maddox *Codi Maddox*

Sample Number	Location	Material Description	Binder (Non-Fibrous) Material	Non-Asbestos Fiber	Asbestos Type & Percent
HA-08-23	Outer Longitudinal Girder	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-08-24	Outer Longitudinal Girder	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-09-25	Bearing Pad	Black Rubber Material	100	None Detected	None Detected
HA-09-26	Bearing Pad	Black Rubber Material	100	None Detected	None Detected
HA-09-27	Bearing Pad	Black Rubber Material	100	None Detected	None Detected
HA-10-28	Bottom of Decking Outer Strip	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-10-29	Bottom of Decking Outer Strip	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-10-30	Bottom of Decking Outer Strip	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-11-31	Outer Longitudinal Girder Coating	Grey Coating	98	2 Cellulose	None Detected
HA-11-32	Outer Longitudinal Girder Coating	Grey Coating	98	2 Cellulose	None Detected
HA-11-33	Outer Longitudinal Girder Coating	Grey Coating	98	2 Cellulose	None Detected

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Sample Number	Location	Material Description	Binder (Non-Fibrous) Material	Non-Asbestos Fiber	Asbestos Type & Percent
HA-12-34	Padding Between End Wall and Decking	Black Tar & Fibrous Material	20	80 Cellulose	None Detected
HA-12-35	Padding Between End Wall and Decking	Black Tar & Fibrous Material	20	80 Cellulose	None Detected
HA-12-36	Padding Between End Wall and Decking	Black Tar & Fibrous Material	20	80 Cellulose	None Detected
HA-13-37	End Wall	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-13-38	End Wall	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-13-39	End Wall	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-14-40	Parapet	Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-14-41	Parapet	Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-14-42	Parapet	Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-15-43	Parapet Coating	Grey Coating	98	2 Cellulose	None Detected
HA-15-44	Parapet Coating	Grey Coating	98	2 Cellulose	None Detected
HA-15-45	Parapet Coating	Grey Coating	98	2 Cellulose	None Detected

Asbestos Containing Material (ACM) is defined as any material containing more than one percent asbestos.
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ANALYST: Codi Maddox *Codi Maddox*

Sample Number	Location	Material Description	Binder (Non-Fibrous) Material	Non-Asbestos Fiber	Asbestos Type & Percent
HA-16-46	Pier	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-16-47	Pier	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-16-48	Pier	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-17-49	Concrete at Pier Base	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-17-50	Concrete at Pier Base	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected
HA-17-51	Concrete at Pier Base	Grey Coating	98	2 Cellulose	None Detected
		Tan & Grey Cementitious Material	100	None Detected	None Detected

Asbestos Containing Material (ACM) is defined as any material containing more than one percent asbestos.
Analysis was performed using EPA/600/R-93/116 (June 1993)), Test Method for the Determination of Asebstos in Bulk Building Materials.

FROST ENVIRONMENTAL SERVICES, LLC
339 Rockland Road Suite E, Hendersonville, Tennessee 37075
(615) 562-2669 office • (615)-473-9047 cell • email info@frostenvironmental.com

CHAIN OF CUSTODY

PROJECT: PROJ-042759 Smith County Bridge
Bridge No.: 80I00400035
PROJECT LOCATION: Smith County

Report To: David Espy
Company: Montrose Environmental
Address: 207 Donelson Pike
Nashville, TN 37214
Phone: (615) 889-6888
Email: daespy@montrose-env.com

Turnaround Time Requested: ____ 2-3 Hour ____ Same Day ____ 24 Hour ✓ 2-3 Day

Sample Number	Date Collected	Location	Analysis Requested	Volume
HA-01-01	8/5/24	retaining wall	PLM	
HA-01-02	"	"	"	
HA-01-03	"	"	"	
HA-02-04	"	retaining wall coating	"	
HA-02-05	"	"	"	
HA-02-06	"	"	"	
HA-03-07	"	sloping wall	"	
HA-03-08	"	"	"	
HA-03-09	"	"	"	
HA-04-10	"	abutment base	"	
HA-04-11	"	"	"	
HA-04-12	"	"	"	
HA-05-13	"	abutment	"	
HA-05-14	"	"	"	
HA-05-15	"	"	"	

RELINQUISHED BY David Espy
DATE: 8/7/24

RECEIVED AT LAB BY: Cecili Medlock
DATE: 8-7-24

FROST ENVIRONMENTAL SERVICES, LLC
339 Rockland Road Suite E, Hendersonville, Tennessee 37075
(615) 562-2669 office • (615)-473-9047 cell • email info@frostenvironmental.com

CHAIN OF CUSTODY

PROJECT: PROJ-042759 Smith County Bridge

Bridge No.: 80I00400035

PROJECT LOCATION: Smith County

Report To: David Espy
Company: Montrose Environmental
Address: 207 Donelson Pike, Nashville, TN 37214
Phone: (615) 889-6888
Email: daespy@montrose-env.com

Turnaround Time Requested: ____ 2-3 Hour ____ Same Day ____ 24 Hour ✓ 2-3 Day

Sample Number	Date Collected	Location	Analysis Requested	Volume
HA-06-16	8/5/24	bottom of decking	PLM	
HA-06-17	"	"	"	
HA-06-18	"	"	"	
HA-07-19	"	abutment coating	"	
HA-07-20	"	"	"	
HA-07-21	"	"	"	
HA-08-22	"	outer longitudinal girder	"	
HA-08-23	"	"	"	
HA-08-24	"	"	"	
HA-09-25	"	bearing pad	"	
HA-09-26	"	"	"	
HA-09-27	"	"	"	
HA-10-28	"	bottom of decking outer strip	"	
HA-10-29	"	"	"	
HA-10-30	"	"	"	

RELINQUISHED BY: David Espy
DATE: 8/7/24

RECEIVED AT LAB BY: Cadi Medeiros
DATE: 8.7.24

FROST ENVIRONMENTAL SERVICES, LLC
339 Rockland Road Suite E, Hendersonville, Tennessee 37075
(615) 562-2669 office • (615)-473-9047 cell • email info@frostenvironmental.com

CHAIN OF CUSTODY

PROJECT: PROJ-042759 Smith County Bridge

Bridge No.: 80I00400035

PROJECT LOCATION: Smith County

Report To: David Espy
Company: Montrose Environmental
Address: 207 Donelson Pike
Nashville, TN 37214
Phone: (615) 889-6888
Email: daespy@montrose-env.com

Turnaround Time Requested: ____ 2-3 Hour ____ Same Day ____ 24 Hour ✓ 2-3 Day

Sample Number	Date Collected	Location	Analysis Requested	Volume
HA-11-31	8/5/24	outer longitudinal girder coating	PLM	
HA-11-32	"	"	"	
HA-11-33	"	"	"	
HA-12-34	"	padding between end wall and decking	"	
HA-12-35	"	"	"	
HA-12-36	"	"	"	
HA-13-37	"	end wall	"	
HA-13-38	"	"	"	
HA-13-39	"	"	"	
HA-14-40	"	parapet	"	
HA-14-41	"	"	"	
HA-14-42	"	"	"	
HA-15-43	"	parapet coating	"	
HA-15-44	"	"	"	
HA-15-45	"	"	"	

RELINQUISHED BY: David Espy
DATE: 8/7/24

RECEIVED AT LAB BY: Cassi Medders
DATE: 8-7-24

FROST ENVIRONMENTAL SERVICES, LLC
339 Rockland Road Suite E, Hendersonville, Tennessee 37075
(615) 562-2669 office • (615)-473-9047 cell • email info@frostenvironmental.com

CHAIN OF CUSTODY

PROJECT: PROJ-042759 Smith County Bridge

Bridge No.: 80I00400035

PROJECT LOCATION: Smith County

Report To: David Espy
Company: Montrose Environmental
Address: 207 Donelson Pike
Nashville, TN 37214
Phone: (615) 889-6888
Email: daespy@montrose-env.com

Turnaround Time Requested: ____ 2-3 Hour ____ Same Day ____ 24 Hour ✓ 2-3 Day

Sample Number	Date Collected	Location	Analysis Requested	Volume
HA-16-46	8/5/24	pier	PLM	
HA-16-47	"	"	"	
HA-16-48	"	"	"	
HA-17-49	"	concrete at pier base	"	
HA-17-50	"	"	"	
HA-17-51	"	"	"	
HA	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—

RELINQUISHED BY: David Espy
DATE: 8/7/24

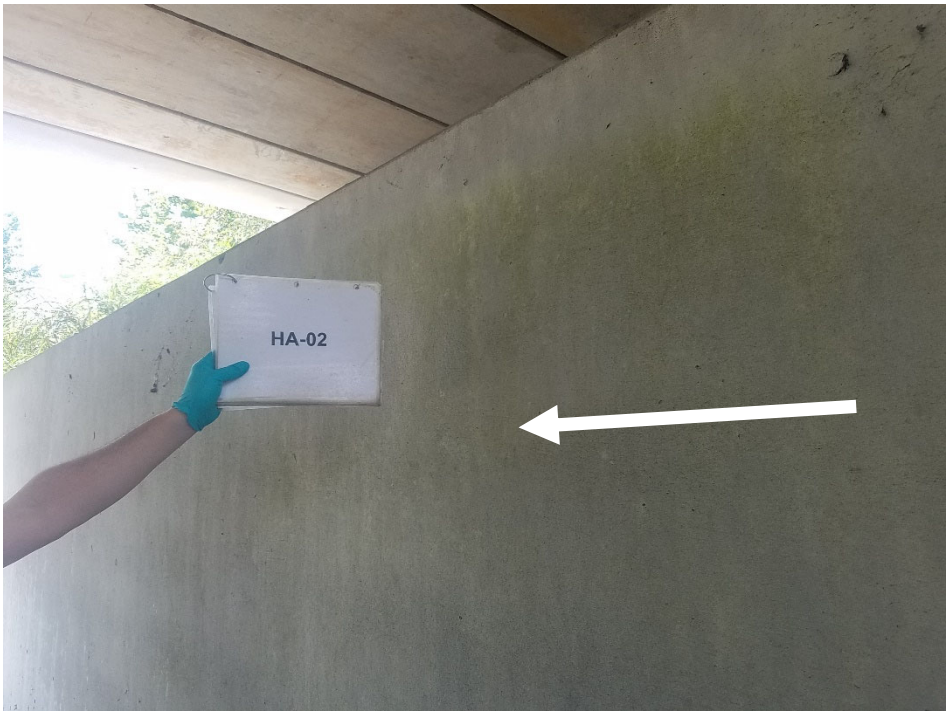
RECEIVED AT LAB BY: Cassie Medlin
DATE: 8-7-24

Appendix B:
Asbestos Sampling Photographs

Photographer: Jaclyn Nix	
Date: 08/05/2024	
Description: Photograph 1 – Top of Bridge Facing Southwest	

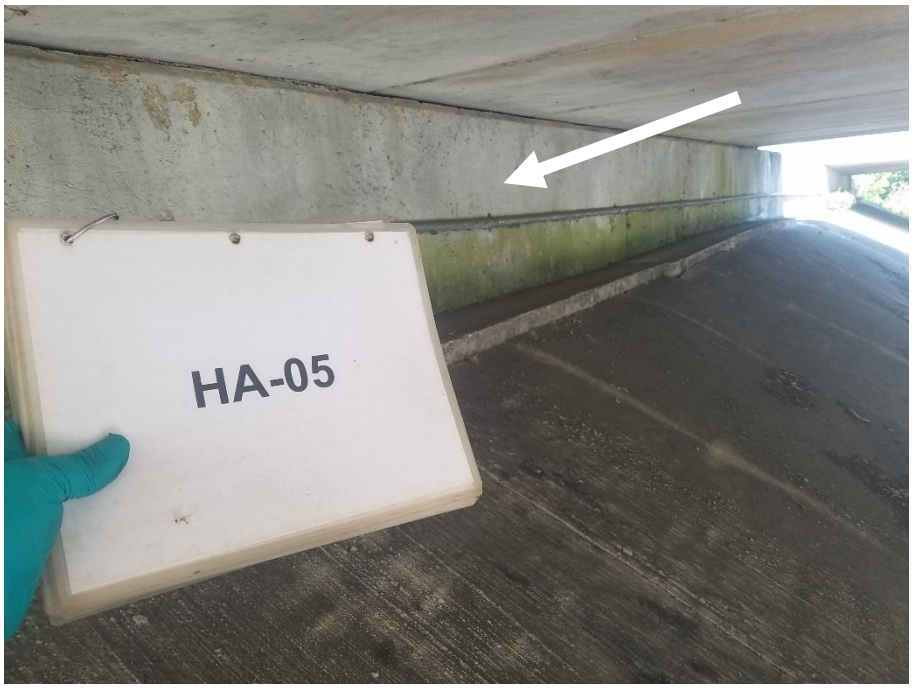
Photographer: Jaclyn Nix	
Date: 08/05/2024	
Description: Photograph 2 – South Side of Bridge Facing Northeast	

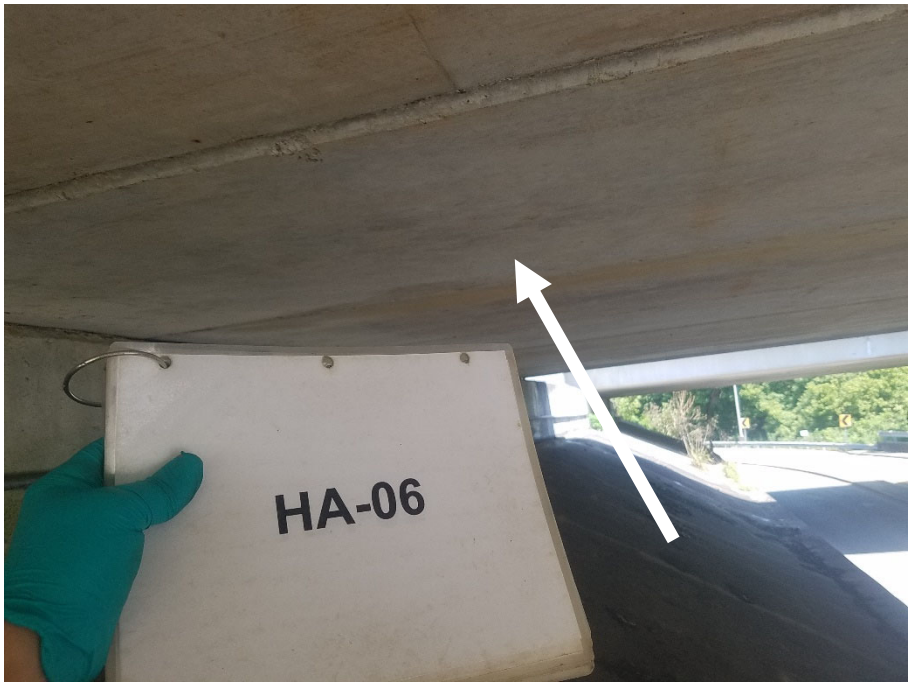
Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 3 – HA-01 Retaining Wall	

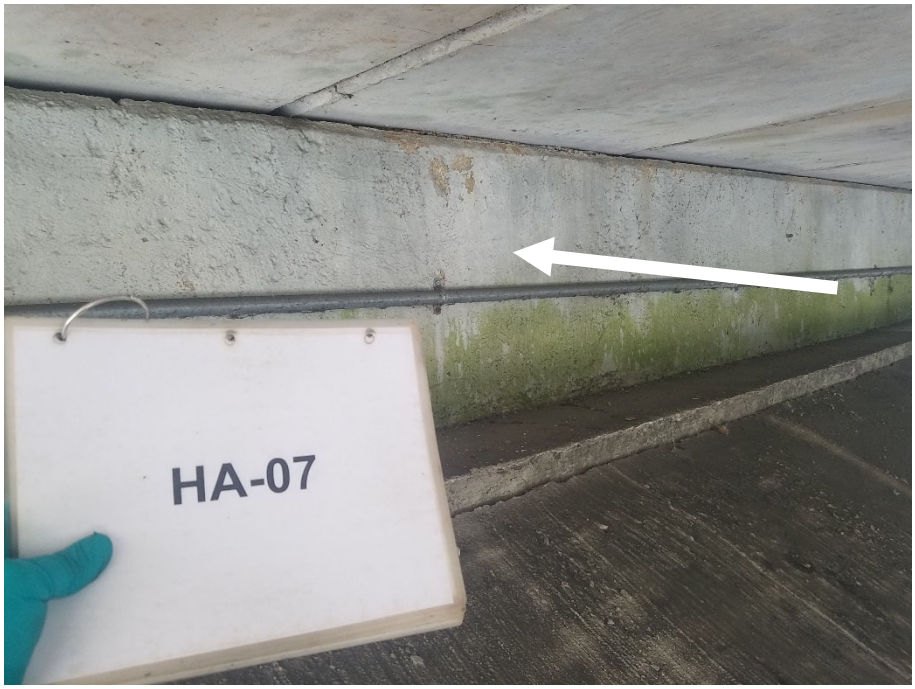
Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 4 – HA-02 Retaining Wall Coating	

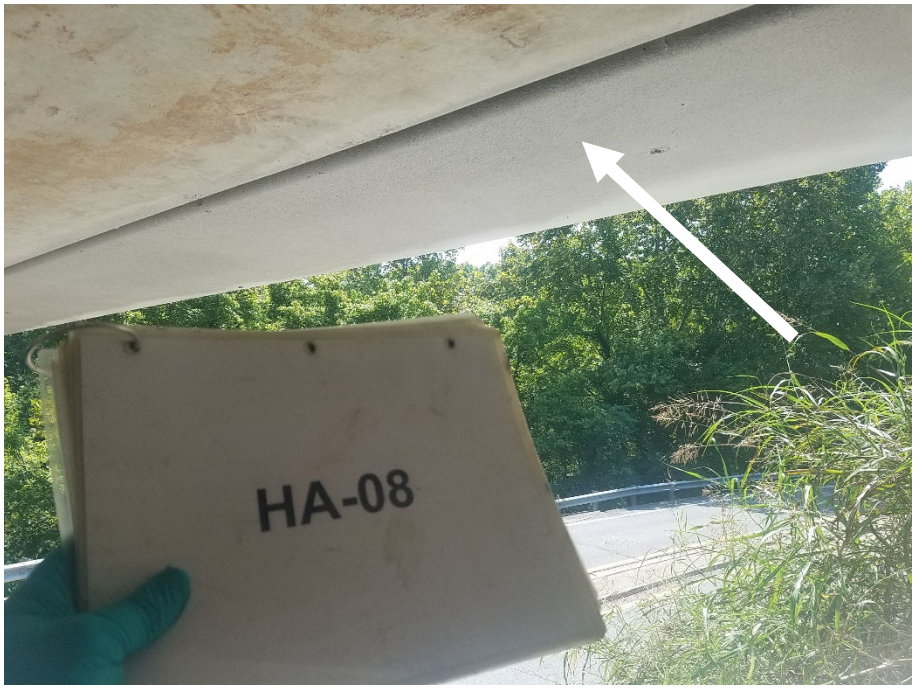
Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 5 – HA-03 Sloping Wall	

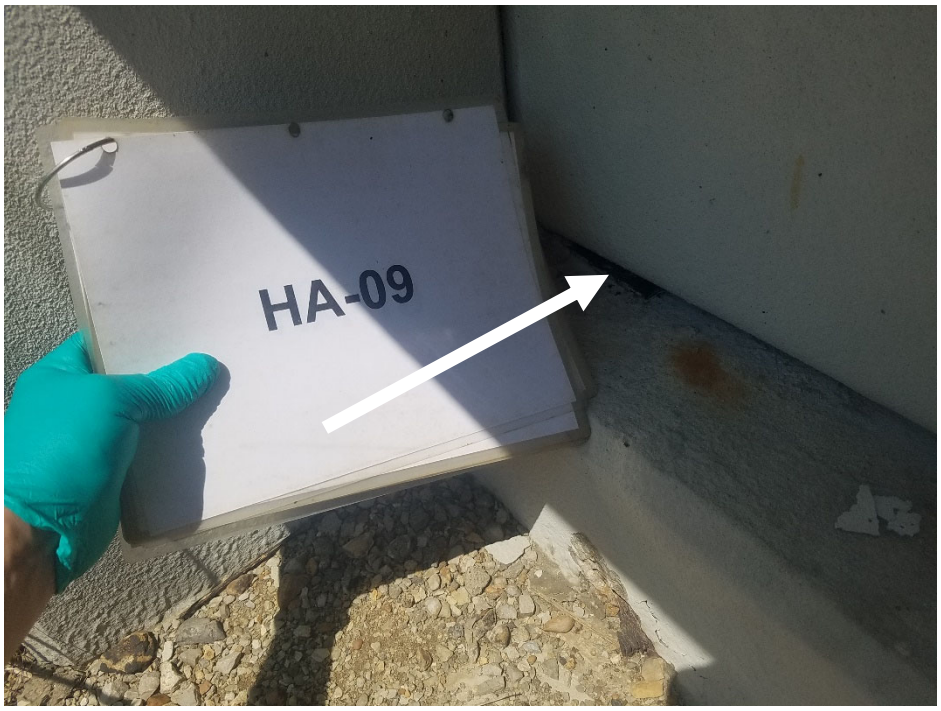
Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 6 – HA-04 Abutment Base	

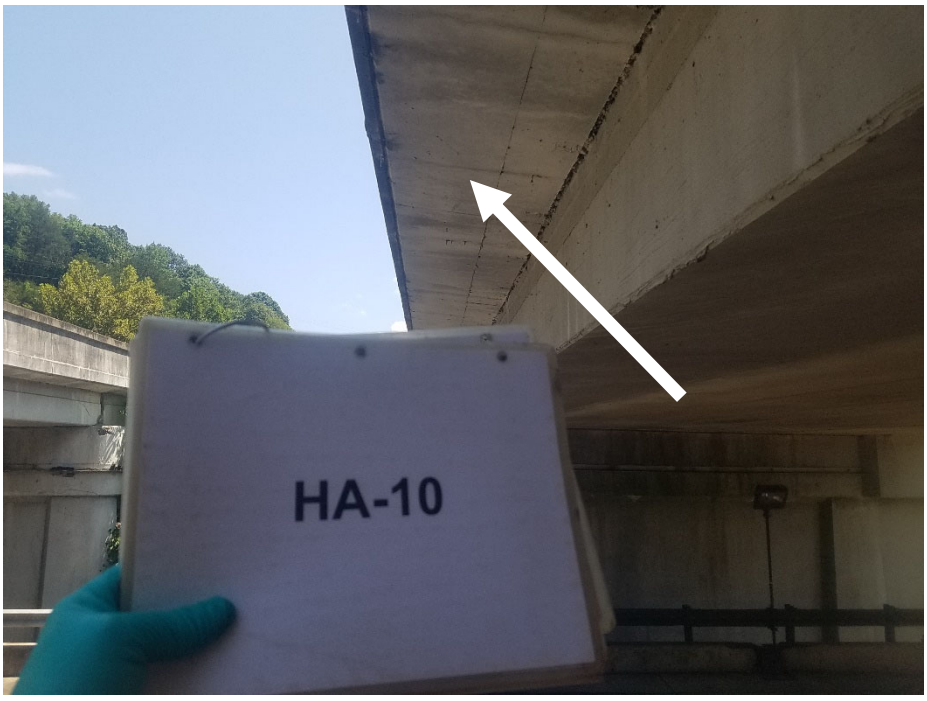
Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 7 – HA-05 Abutment	

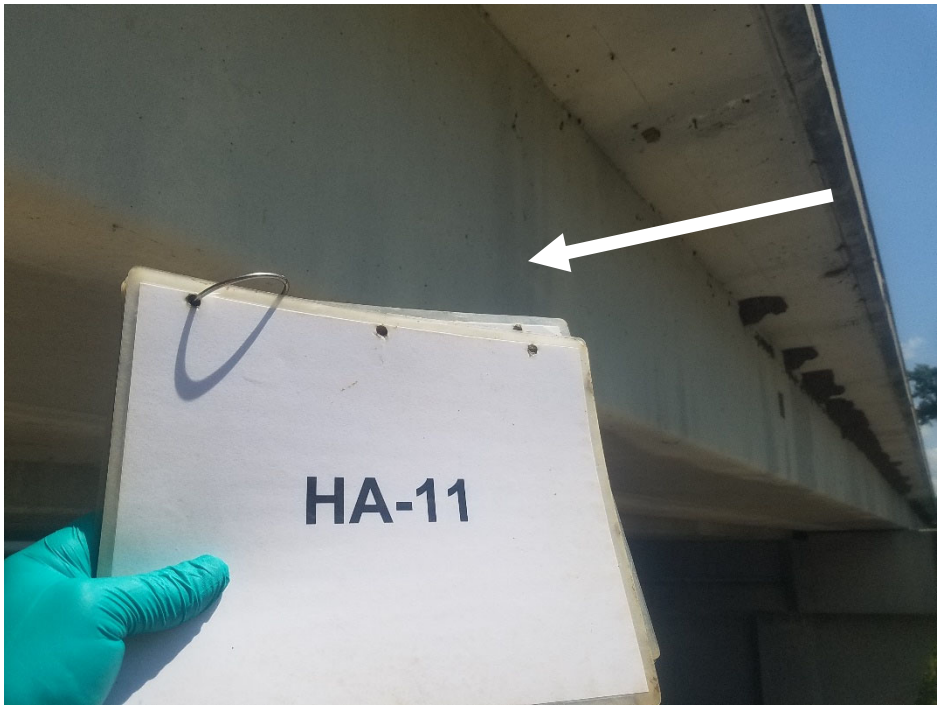
Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 8 – HA-06 Bottom of Decking	

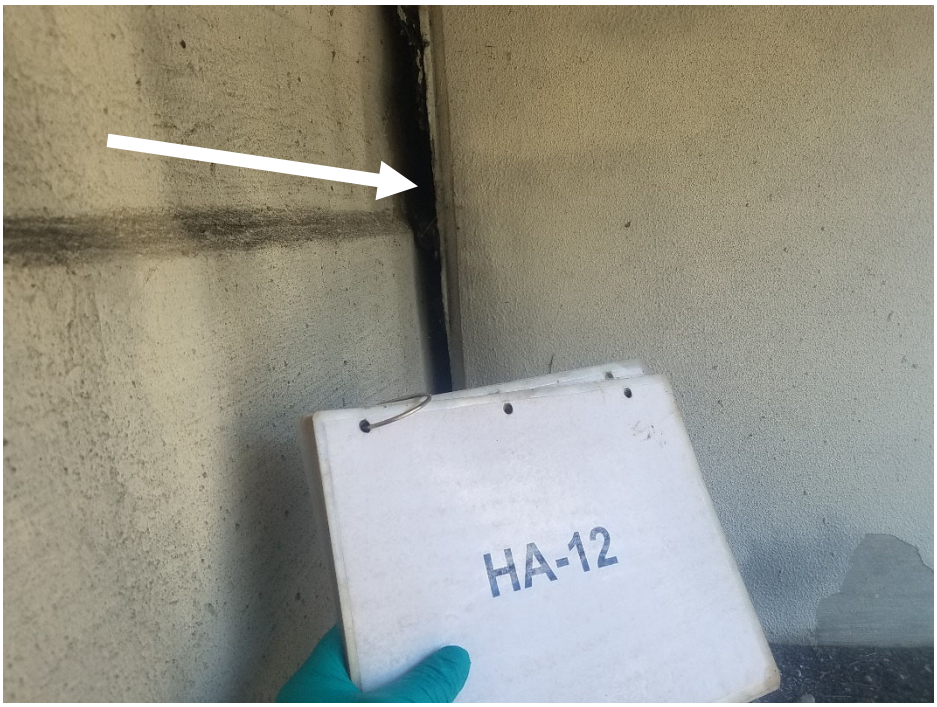
Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 9 – HA-07 Abutment Coating	

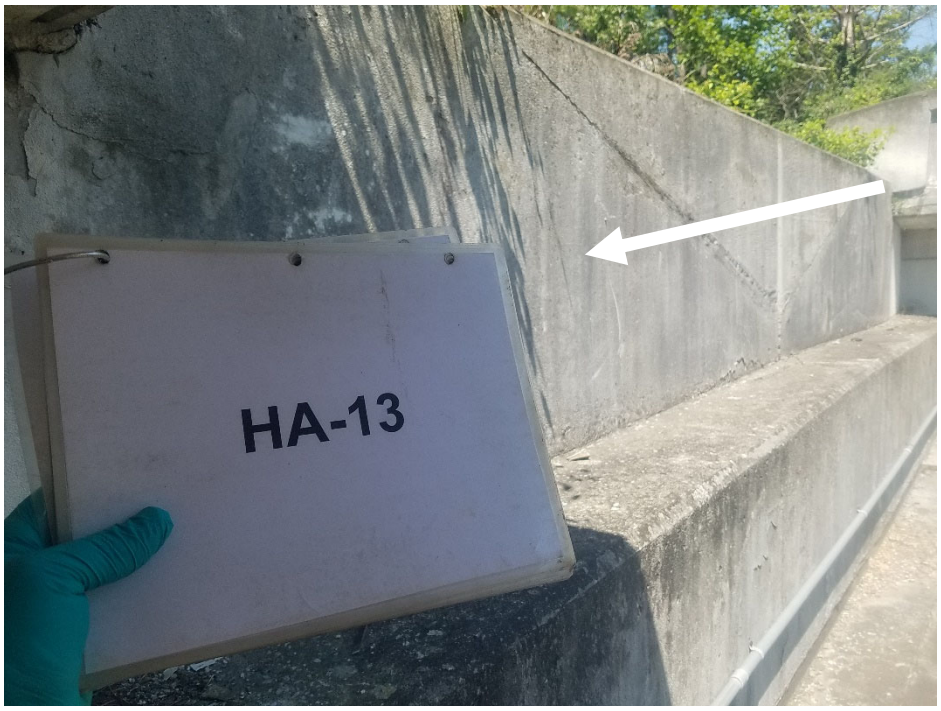
Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 10 – HA-08 Outer Longitudinal Girder	

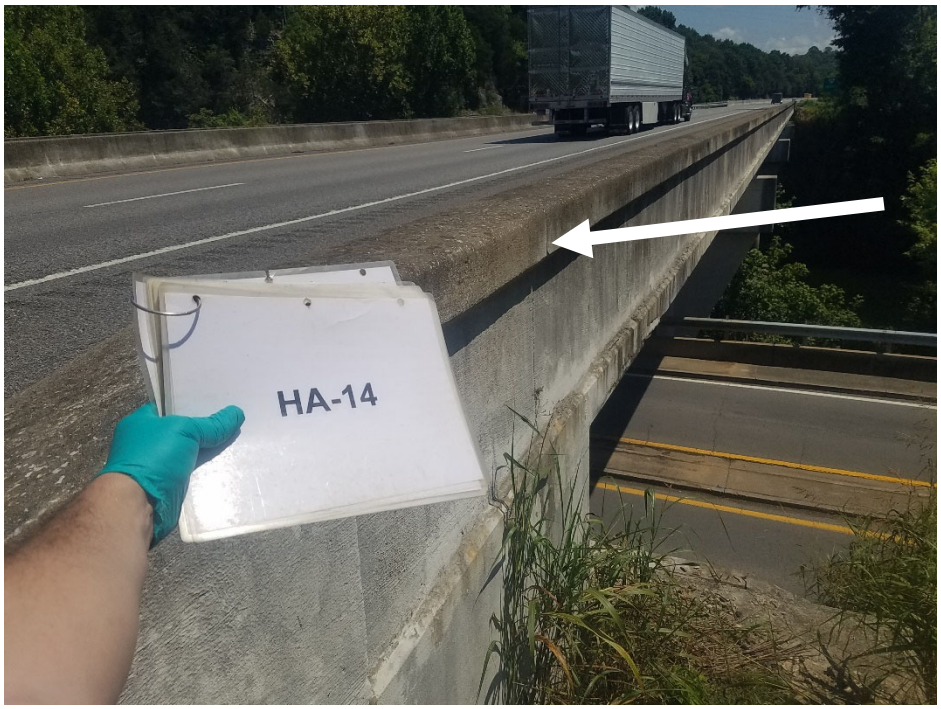
Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 11 – HA-09 Bearing Pad	

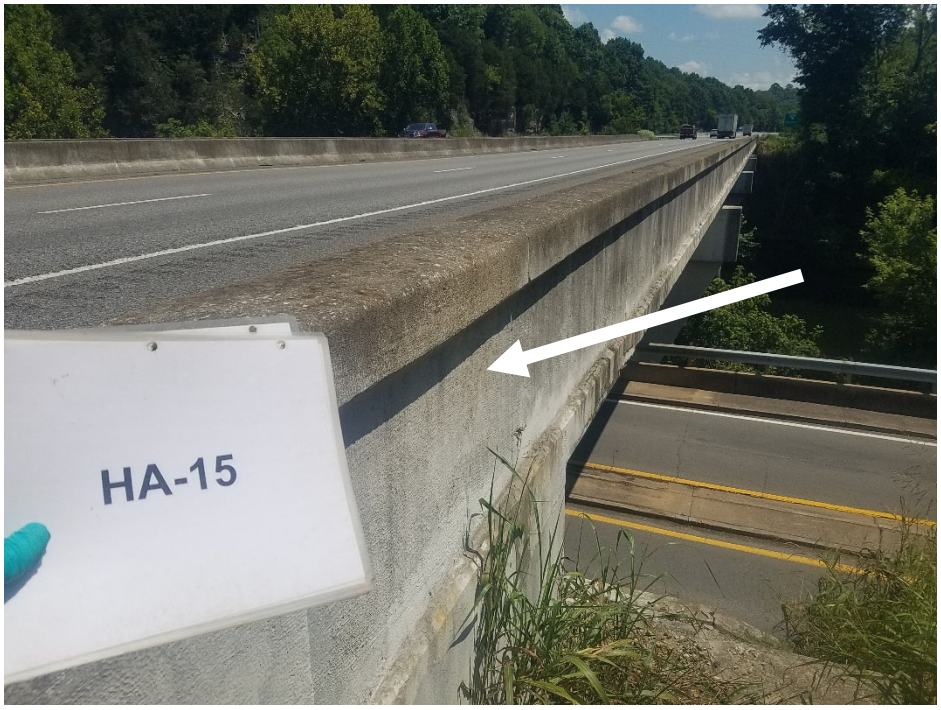
Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 12 – HA-10 Bottom of Decking Outer Strip	

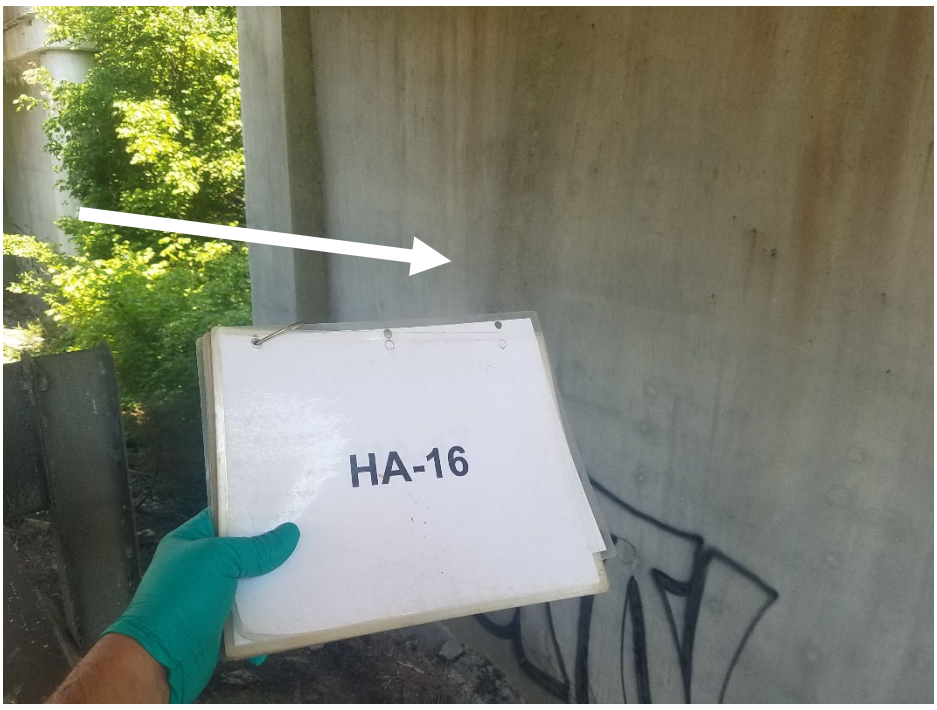
Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 13 – HA-11 Outer Longitudinal Girder Coating	

Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 14 – HA-12 Padding Between End Wall and Decking	

Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 15 – HA-13 End Wall	

Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 16 – HA-14 Parapet	

Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 17 – HA-15 Parapet Coating	

Photographer: Jaclyn Nix **Date:** 08/05/2024 **Description:** Photograph 18 – HA-16 Pier	

Photographer: Jaclyn Nix	
Date: 08/05/2024	
Description: Photograph 19 – HA-17 Concrete at Pier Base	

Photographer: Jaclyn Nix	
Date: 08/05/2024	
Description: Photograph 20 – Stormwater Drain	

Appendix C:
Asbestos Inspection Credentials

THE STATE OF TENNESSEE

Department of Environment and Conservation Division of Solid Waste Management
Toxic Substances Program
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 14th Floor Nashville TN 37243

By virtue of the authority vested by the Division of Solid Waste Management, the Company named below is hereby accreditted to offer and/or conduct Asbestos activities pursuant to Rule 1200-01-20:

TriAD Environmental Consultants

207 Donelson Pike Ste. 200 Nashville TN, 37214

To conduct ASBESTOS ACTIVITIES in schools or public and commercial buildings in Tennessee. This firm is responsible for compliance with the applicable requirements of Rule 1200-01-20.

Discipline	Type	Accreditation Number	Effective Date	Expiration Date
Accreditation	Re-Accreditation	A-F-5195-160930	July 01, 2024	July 31, 2025

Given under the Seal of the State of Tennessee in Nashville.

This **11th** Day of **June 2024**

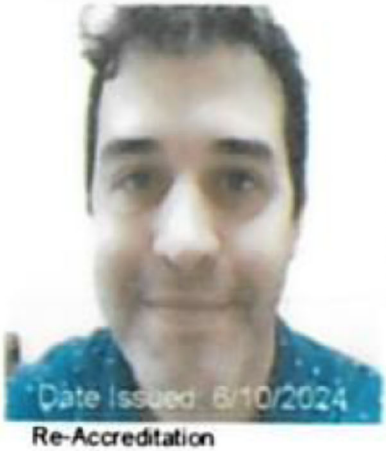
Division of Solid Waste Management
Toxic Substance Program

CN-1324 **(Rev 6/13)** **RDA-3020**

THE STATE OF TENNESSEE

Department of Environment and Conservation
Division of Solid Waste Management

Toxic Substances Program



Re-Accreditation

David M Espy

DOB	Sex	HGT	WGT
18-Sep-1985	M	6' 0"	210

Discipline	Accreditation	Expiration
Inspector	A-I-55949-159521	May-31-2025
Management Planner	A-MP-55949-135644	Nov-30-2024
Project Monitor	A-PM-55949-132343	Sep-30-2024

Asbestos Accreditation

Appendix D:
Health and Safety Plan and JSA

HEALTH AND SAFETY PLAN
TDOT PROJECT No. 80I040-S1-006

Project Location: Bridge No.: 80I00400035

Project Description: Asbestos Survey and Sampling

Project Date: 08/05/24

TDOT PIN: 131552.01

Project Personnel:

Title	Organization	Name	Phone Number
Project Manager – TDOT (TDOT PM)	Tennessee Dept. of Transportation	Kyle Kirschenmann	615-598-1522
Project Manager – TriAD (TriAD PM)	TriAD Environmental Consultants, Inc.	Jeff Postell	615-889-6888 615-417-8050
Project Safety and Health Manager (SHM)	TriAD Environmental Consultants, Inc.	Mark Hobbs	615-889-6888 615-417-5081
Site Safety and Health Officer (SSO)	TriAD Environmental Consultants, Inc.	David Espy	615-889-6888 229-347-0516
Emergency Coordinator (EC)	TriAD Environmental Consultants, Inc.	David Espy	615-889-6888 229-347-0516
OSHA Hotline			(800) 321-OSHA

Nearest Hospital: Highpoint Health - Riverview Emergency Room

Hospital Phone Number: (615) 735-1560

Map to Hospital: See Attached Page

Health and Safety Plan: See Following Pages

SAFE WORK PERMIT- JSA AND DAILY FIELD REPORT

Site Name/ Work: Smith County- Bridge No.: 80I00400035		Date: 8/5/24
Time Permit Issued/Work Started: 10:45 AM / PM	Permit Expires/work stopped: 2:30 AM/PM	Issued To: David Espy
Job Description: Asbestos Survey		Weather: Sunny 90°F

Section: 2 EMERGENCY PLANNING: DISCUSSION AT JOB SITE OR SAFETY TAILGATE MEETING

☑ Site Contact:	☑ Emergency Phone: **911**
☑ Evacuation Routes	☑ Alt. Site Emergency Phone: (615) 735-1560
☑ Staging Area	☑ First Aid/ CPR Trained
☑ Emergency Equipment Needed (Retrieval; SCBA; Radio; etc)	☑ Rescue Procedures Discussion

Additional Comments: **See Map to Hospital and Health and Safety Plan**

Section: 3 JOB SAFETY ANALYSIS

JOB STEPS / WORK ACTIVITIES	HAZARDS (LIST)
1. Asbestos Survey	3,5,6,8,11,12,13,15, 17,18
2.	
3.	
4	
5	
6	
7	
8	

SUPERVISOR SIGNATURE: David Espy

POTENTIAL HAZARDS

1. Fire / Explosion	5. Strain / Sprain	9. Thermal Burn	13. Chemical Contact
2. Pinch Points / Caught In	6. Struck By/Traffic Hazards	10. Overhead Work	14. Asphyxiation
3. Slip / Trip / Fall	7. Noise	11. Temperature Extremes	15. Biological Contact
4. Electric Shock	8. Cut / Laceration	12. Inhalation (Dust/ Vapor/ Fumes)	16. Key Procedure Applies
17. Asbestos Exposure	18. Other: Water Hazards	19. Other: (Specify)	

HAZARD MITIGATION For Corresponding Job Step

1. Wear proper PPE	6. Ensure good footing and **clear egress/ingress**
2. Understand the work plan	7. Practice good housekeeping
3. No solo lifting of greater than 50 pounds	8. Use proper tools for the task
4. Maintain awareness of surroundings	9. No smoking
5. Place Warning Signs	10. Other: (Specify)

JOB HAZARD REMINDERS (Check All That Apply)

Equipment Operation	Ergonomics/Exposures	Conditions	Other
☒ Motor Vehicle Operation	☒ Body Positioning	☒ Walking Surfaces	☐ Extension Cords / GFCI
☒ Ladders	☒ Cramped Conditions	☒ Water Hazards	☐ Housekeeping
☐ Heavy Equipment	☐ Elevated Work	☒ Sharp Edges	☐ Barricades
☐ Overhead Obstructions mark	☒ Heavy Lifting	☐ Lighting	☒ Adverse Weather
☐ Underground Utilities mark	☒ Heat Stress/Cold Stress	☐ Overhead Work	☐ Other
☒ Site Conditions (Slope, Stability)	☒ Physical Exertion	☒ Hand & Power Tools	☐
☐ Equipment Fueling	☒ Repetitive Motion	☐ Hot / Cold Liquids / Surfaces	☐
☒ Road Hazards use spotters	☒ Suitability for Work	☐ Other	☐
☐ Man Lifts	☒ Communications	☐	☐
☐ Other (Specify)	☒ Training	☐	☐
☐	☐ Other	☐	☐

PPE REQUIREMENTS		HES EQUIPMENT			
Minimum: Hard Hat, Safety Vest, Safety Glasses, Steel Toed Shoes, Long Pants, Sleeved Shirt		Fire Extinguisher:	Y / N / N/R	Spill Response Mat'l.	Y / N / N/R
Other PPE Req'd: : **Gloves, Resp.**		Eyewash/Shower	Y / N / N/R	Air Monitoring:	Y / N / N/R
		First Aid Kit	Y / N / N/R	Other:	

SECTION 4	KEY PROCEDURES

CONTROL OF HAZARDOUS ENERGY (LOCKOUT/ TAGOUT) Needed ☐ Not Needed X

Individual Lockout ☐ Group Lockout ☐	Group Primary Authorized Employee: _____ Attach Lockout List or Machine Specific Procedure

HOT WORK PERMIT Needed ☐ Not Needed X

Type of Hot Work: Burning ☐ Welding ☐ Grinding ☐	**Fire Watch Req'd.?** ☐ YES ☑ NO
Hot Work Permit Used: Client Permit ☐ Contractor Permit ☐	

ELEVATED WORK OR EXCAVATION / TRENCH WORK

Personnel Working <3 Ft below ground level or > 6 Ft. Above Lower Level? ☐ YES ☑ NO	
Protected By: Guardrail System: ☐ Personal Fall Arrest System: ☐ Other (Specify): ☐	

Section: 5 **PERMIT-APPROVALS / EMPLOYEE SIGNATURES**

Signatures approve only work conducted under the requirements of this permit

Supervisor: David Espy Date: 8/5/24

Employee(s) /Contractor(s) Names (print): I have reviewed and understand and will follow all conditions of this completed permit and its attachments. I will report hazardous conditions identified on this job site to my supervisor and/or designee for necessary corrections.

1) David Espy	6)
2) Jaclyn Nix	7)
3)	8)
4)	9)
5)	10)

Section: 6 **MEET and GREET Job Site Awareness**

Visitors and Additional Personnel) Names (print): All employees, visitors and contractors entering the area affected by this permit must meet and exchange information on the scope of work, hazards involved and intentions for the day. All persons on job sites must be aware of all work and the presence of all other persons on the site. Those not authorized on this permit above must list their name below acknowledging awareness of the task authorized by this permit. A representative, such as a contractor foreman, may acknowledge for the group.

Print Name and Company/Organization

1)
2)
3)
4)
5)
6)
7)
8)
9)
10)

Section: 7 **JOB COMPLETE OR PERMIT CLOSED**

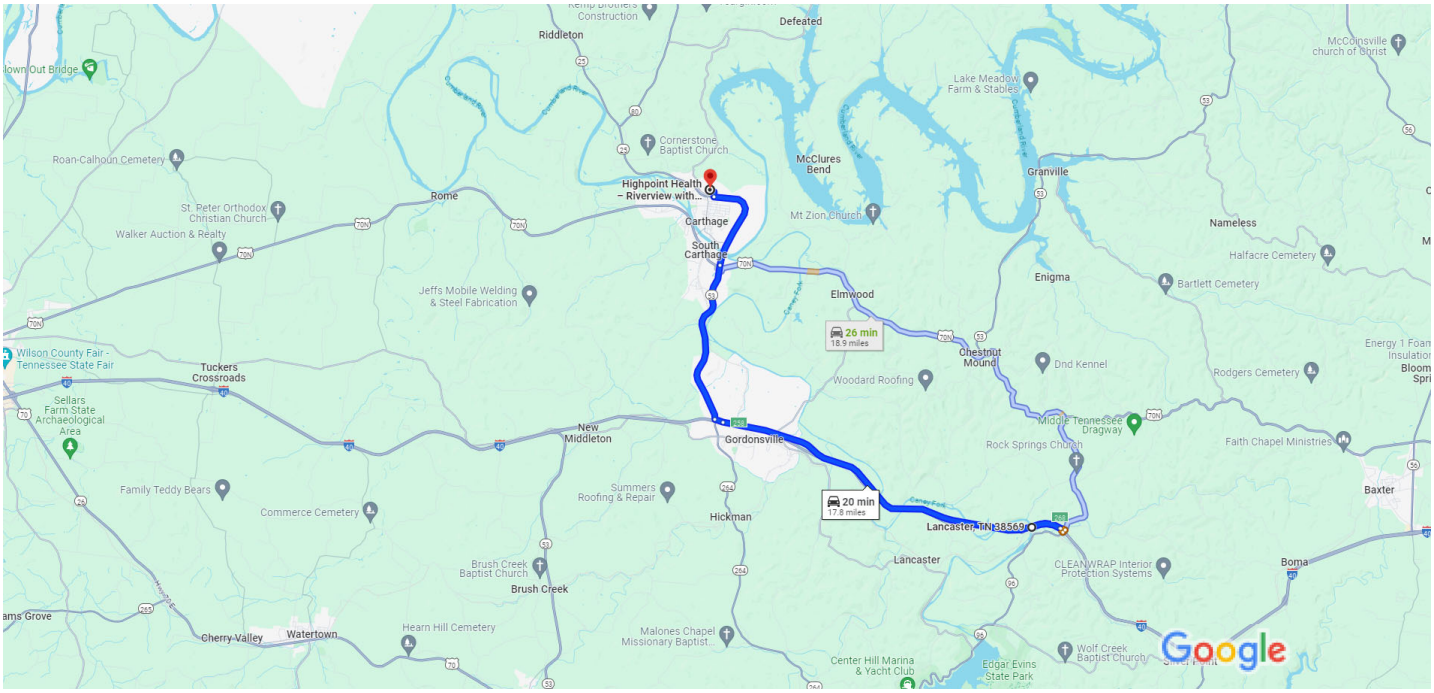
Signature verifies closure of permit and completion of items checked below.

☑ Job Complete	☐ Job Not Complete
☑ Review work area to verify job site clean-up and safe condition	
Supervisor: David Espy	Time: 2:30 PM

Google Maps

Lancaster, Tennessee 38569 to Highpoint Health – Riverview with Ascension Saint Thomas Emergency Room, 158 Hospital Dr, Carthage, TN 37030

Drive 17.8 miles, 20 min



Map data ©2024 Google 2 km

Lancaster
Tennessee 38569

Drive from I-40 to Gordonsville. Take exit 258 from I-40

10 min (10.8 mi)

1. Head east on I-40 E

0.8 mi

2. Take exit 268 for TN-96 toward Buffalo Valley Rd

0.1 mi

3. Turn left onto TN-96 N

436 ft

4. Turn left onto the I-40 W ramp to Nashville

0.1 mi

5. Merge onto I-40

9.4 mi

6. Take exit 258 for TN-53 toward Carthage/Gordonsville

0.2 mi

Follow Gordonsville Hwy and TN-25 E/TN-25 Bypass to your destination in Carthage

10 min (7.1 mi)

7. Turn right onto TN-53 N/Gordonsville Hwy
Continue to follow Gordonsville Hwy
Pass by McDonald's (on the right)

4.2 mi

8. Continue onto TN-25 E/TN-25 Bypass

2.6 mi

9. Turn right onto Hospital Dr

0.2 mi

10. Turn right

341 ft

11. Turn right
Destination will be on the right

79 ft

Highpoint Health – Riverview with Ascension Saint Thomas Emergency Room
158 Hospital Dr, Carthage, TN 37030