



21 Griffin Rd. North
Windsor, CT 06095

T 860.298.9692
TRCcompanies.com

June 8, 2022

Mr. Jason Coite, P.E.
Principal Engineer
Division of Environmental Compliance
Bureau of Engineering and Construction
State of Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, CT 06131-7546

Attention: Amie Maines, P.E. / Michael Bedson, P.E.

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance
Agreement No. 8.07-01 (18)
HazMat Inspection – Replacements of Bridge Nos. 06896 & 02713, Old Lyme &
East Lyme, CT
ConnDOT Assignment No. 519-6541
ConnDOT Project No. 104-175
TRC Project No. 289951.6541.0710

Dear Mr. Coite:

TRC performed a limited hazardous materials site investigation associated with the planned replacements of Bridge Nos. 06896 & 02713 in Old Lyme & East Lyme, CT, Connecticut. No painted surfaces were identified at Bridge Nos. 06896 & 02713, therefore no lead paint was identified at either bridge. Suspect asbestos asphalt coatings inside the corrugated metal pipes at both Bridge Nos. 06896 & 02713 were sampled and found to contain no detectable amounts of asbestos. No other hazmat/regulated items were identified at Bridge Nos. 06896 & 02713. Laboratory results, TRC Mobile Data Solutions reports, and site maps are attached.

If you have any questions, please call TRC at (860) 298-9692.

Very Truly Yours,

TRC

Stephen R. Arienti, CHMM
Senior Project Manager – Engineer in Charge

Erik R. Plimpton, P.E., CHMM, CMC
Vice President – Engineer in Charge



BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0058310
 Project #: 289951.6541.0710
 Date Received: 01/19/2022
 Date Analyzed: 01/20/2022

Site: Bridge/Culvert #06896

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type
1	South end (outlet) of culvert	Black TC1 - shiny tar coating on inside of culvert	---	ND	None
2	North end (inlet) of culvert	Black TC1 - shiny tar coating on inside of culvert	---	ND	None

ND - asbestos was not detected
 Trace - asbestos was observed at level of 1% or less - This is the reporting limit
 NA/PS - Not Analyzed / Positive Stop
 SNA - Sample Not Analyzed- See Chain of Custody for details
 Notes: Asbestos-Containing Material (ACM) is any material containing more than 1% asbestos

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2022. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2022. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by: Joel Corso
 Joel Corso, Laboratory Analyst

Reviewed by: Kathleen Williamson
 Kathleen Williamson, Laboratory Manager

Date Issued
 01/21/2022

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0 AIHA-LAP, LLC #100122 CT #PH-0426 ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV #000622
 RI #PLM0007 TX #300354 VT #AL910359 LA#05011 VA #3333 000283 AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907
 CO# AL-15020 PHIL# 461 PA#68-03387



BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0058309
 Project #: 289951.6541.0710
 Date Received: 01/19/2022
 Date Analyzed: 01/20/2022

Site: Bridge/Culvert #02713

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116


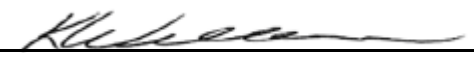
Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type
1	West side (inlet)	Black TC1 - shiny tar coating on inside of culvert	---	ND	None
2	East side (outlet)	Black TC1 - shiny tar coating on inside of culvert	---	ND	None

ND - asbestos was not detected
 Trace - asbestos was observed at level of 1% or less - This is the reporting limit
 NA/PS - Not Analyzed / Positive Stop
 SNA - Sample Not Analyzed- See Chain of Custody for details
 Notes: Asbestos-Containing Material (ACM) is any material containing more than 1% asbestos

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2022. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2022. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

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Analyzed by:  Reviewed by:  Date Issued: 01/21/2022
 Joel Corso, Laboratory Analyst Kathleen Williamson, Laboratory Manager

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0 AIHA-LAP,LLC #100122 CT #PH-0426 ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV #000622
 RI #PLM0007 TX #300354 VT #AL910359 LA#05011 VA #3333 000283 AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907
 CO# AL-15020 PHIL# 461 PA#68-03387



21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #. 58309

PROJECT NUMBER 279951.6541.0710		PROJECT NAME ConnDOT - Bridge/Culvert #02713,		PARAMETERS					TURNAROUND TIME			
		INSPECTOR Alan Fortin							PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)
SIGNATURE 		TYPE		SAMPLE LOCATION					PLM: 24hr	48hr	3day	5day
DATE		TIME	GRAB						PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)
FIELD SAMPLE NUMBER	DATE	TIME	GRAB	SAMPLE LOCATION					MATERIAL			
01	1/19/2022	14:21	X									
02	1/19/2022	14:22	X	East side (outlet)				TC1 - Black shiny tar coating on inside of culvert				

Relinquished by: (Signature) 	Date: 1/19/22	Received by: (Signature) 	Date: 1/19/22	Received by: (Signature)
	Time: 14:46	(Printed) Joel Corso	Time: 1500	(Printed)
Remarks: Alan Fortin		Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
		Comments:		

January 27, 2022

Erik Plimpton
TRC Companies, Inc. (CT)
21 Griffin Road North
Windsor, CT 06095

Dear Erik Plimpton,

Results of samples you described and submitted to Aerobiology Laboratory Associates, Inc. are shown on the enclosed data sheets. The analytical results in this report apply to the items tested only. The listed samples were prepared and analyzed in compliance with the New York State Transmission Electron Microscope Method for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples. This method is used for the determination of weight percent of asbestos in non-friable materials. The sample is processed to remove non-asbestos interference. The remaining residue is examined using a Philips transmission electron microscope equipped with selected area electron diffraction (SAED) and an Evex energy dispersive x-ray analyzer.

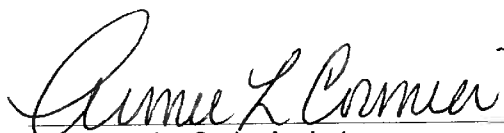
The following are reported: identification numbers, type of material, initial weight of the sample, weight percent of organic material lost by ashing, weight percent of carbonates lost by acid dissolution, weight percent of non-fibrous/non asbestos inorganic material, total weight percent of asbestos in the original sample, and the type(s) of asbestos, if any.

The EPA recognizes asbestos as the following: actinolite, amosite, anthophyllite, chrysotile, crocidolite, and tremolite. To be considered asbestos containing, a material must be determined to contain greater than one percent asbestos. Samples are retained for a period of 2 months.

The quality control data related to the samples analyzed are available for review upon the written request of the client. Aerobiology Laboratory Associates, Inc. and its personnel assume no responsibility for potential sample contamination, misuse, misinformation, or misrepresentation by the client. The enclosed results may not be used under any circumstances as product endorsement by any US government agency including NIST/NVLAP. This report may not be reproduced, except in its entirety, without permission of the Aerobiology Laboratory Associates, Inc. Laboratory Manager.

Please contact me if you have any questions regarding this report or related information.

Sincerely,



Mark Derosier, Senior Analyst
Aimee Cormier, Laboratory Manager

Enclosure:

BATCH NUMBER : NT 18964 CLIENT PROJECT ID: 289951.6541.0710
Client Ref: CT DOT - Bridge/Culvert #06896
CT ID# PH-0209; MA ID# AA000156; ME ID# LB-055; ME ID# LA-056; VT ID# AL016876; RI ID# 186.

Aerobiology Laboratory Associates, In

22 Cummings Park, Woburn, Massachusetts 01801
 781-935-3212 ~ Fax: 781-932-4857 ~ E-Mail boston@aerobiology.net

Laboratory Report

Client Project #: 289951.6541.0710
 Client Reference: CT DOT - Bridge/Culvert #06896
 PO #: C289951
 Client #: 297
 Client Name: TRC Companies, Inc. (CT)

Batch: NT 18964
 Method: NOB
 Date Received: 1/24/2022
 Date Analyzed: 1/27/2022
 Date of Report: 1/27/2022

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types							% Other Non-asp.	% Organic	% Carb.	Total % Asbestos	Analyzed / Charged	Prepped / Charged
					CHR	AMO	ACT	CRO	ANT	TRE							
NT143029	1	Black Shiny Tar Coating		2029	.00	.00	.00	.00	.00	.00	.98	97.34	1.68	ND	Yes	No	

Comments:

Key: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite TR = Trace = < 1% ND = None Detected

Aimee Cormier
 Aimee Cormier, Analyst

Aerobiology Laboratory Associates, Inc.
 22 Cummings Park, Woburn, MA 01801 Ph. 781-935-3212 Fax 781-932-4857

NT 18964

TEM Bulk Chain of Custody Record

Date: 01/21/2022

PO#: **C289951**

Analysis Type: Chatfield **EPA N.O.B** Qualitative

Client: TRC

Client Job#: 289951.6541.0710

Client Job Ref./Loc.: CT DOT - Bridge/Culvert #06896

Relinquished by: I Corso - icorso@trccompanies.com

Received by: *Paola Lavett Cole 1/24/22 9:00 AM*

Report to: S. Arienti - Sarienti@trccompanies.com & E. Plimpton - Eplimpton@trccompanies.com

Samplers Name: A. Fortin

Turnaround Time: <12 Hour <24 Hour <48 Hour <3 Day 5 Day Other:

Client ID #	Lab ID#	Description	Location	Acceptable on Receipt	For Lab Use Only	
					Comments	
1	58310	Tar coating	See COC			
For Lab Use Only	# Spies	Total	Client #	Batch #	Results Reported	Comments

January 27, 2022

Erik Plimpton
TRC Companies, Inc. (CT)
21 Griffin Road North
Windsor, CT 06095

Dear Erik Plimpton,

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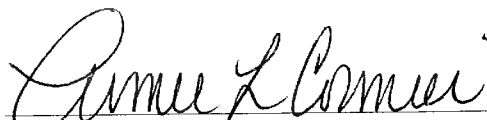
The following are reported: identification numbers, type of material, initial weight of the sample, weight percent of organic material lost by ashing, weight percent of carbonates lost by acid dissolution, weight percent of non-fibrous/non asbestos inorganic material, total weight percent of asbestos in the original sample, and the type(s) of asbestos, if any.

The EPA recognizes asbestos as the following: actinolite, amosite, anthophyllite, chrysotile, crocidolite, and tremolite. To be considered asbestos containing, a material must be determined to contain greater than one percent asbestos. Samples are retained for a period of 2 months.

The quality control data related to the samples analyzed are available for review upon the written request of the client. Aerobiology Laboratory Associates, Inc. and its personnel assume no responsibility for potential sample contamination, misuse, misinformation, or misrepresentation by the client. The enclosed results may not be used under any circumstances as product endorsement by any US government agency including NIST/NVLAP. This report may not be reproduced, except in its entirety, without permission of the Aerobiology Laboratory Associates, Inc. Laboratory Manager.

Please contact me if you have any questions regarding this report or related information.

Sincerely,



Mark Derosier, Senior Analyst
Aimee Cormier, Laboratory Manager

Enclosure:

BATCH NUMBER : NT 18963 CLIENT PROJECT ID: 289951.6541.0710
Client Ref: CT DOT - Bridge/Culvert #02713
CT ID# PH-0209; MA ID# AA000156; ME ID# LB-055; ME ID# LA-056; VT ID# AL016876; RI ID# 186.

Aerobiology Laboratory Associates, In

22 Cummings Park, Woburn, Massachusetts 01801
 781-935-3212 ~ Fax: 781-932-4857 ~ E-Mail boston@aerobiology.net

Laboratory Report

Client Project #: 289951.6541.0710
 Client Reference: CT DOT - Bridge/Culvert #02713
 PO #: C289951
 Client #: 297
 Client Name: TRC Companies, Inc. (CT)

Batch: NT 18963
 Method: NOB
 Date Received: 1/24/2022
 Date Analyzed: 1/27/2022
 Date of Report: 1/27/2022

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types							% Other Non-asp.	% Organic	% Carb.	Total % Asbestos	Analyzed / Charged	Prepped / Charged
					CHR	AMO	ACT	CRO	ANT	TRE							
NT143028	1	Black Shiny Tar Coating		.1147	.00	.00	.00	.00	.00	.00	.96	98.52	.52	ND	Yes	No	

Comments:

Key: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthrophyllite TR = Trace = < 1% ND = None Detected

Aimee Cormier
 Aimee Cormier, Analyst

WinBSI HBM Survey

ConnDOT, Bridge/Culvert #06896

6/2/2022, 9:38:34 AM EDT

CREATED

🕒 1/19/2022, 11:42:51 AM EST

👤 by Alan Fortin

UPDATED

🕒 6/2/2022, 9:38:34 AM EDT

👤 by Stephen Arienti

STATUS

🟠 Complete

ASSIGNED TO

👤 No Assignment



NOTE: No site sketch detected!
Please be sure to add at least one.

JOB INFORMATION

Site Name	Bridge/Culvert #06896
Address	
TRC Project Number	289951.6541.0710
Project Manager	Erik Plimpton, Stephen Arienti
Inspector(s)	Alan Fortin
Client	ConnDOT
Type of Asbestos Survey	Reno/Demo
Site Sketch Diagrams	
Additional Analysis for NOB Materials (Calc)	TEM NY NOB 198.4
PLM Turnaround Time (TAT)	
TEM Turnaround Time (TAT)	3-day
Date	January 19, 2022
General Notes	No painted materials. Culvert pipe is rusted throughout. No visible caulking. No guano present. Black shiny tar present in culvert pipe.



Overview Photo



Options & Other Settings

Use auto-numbering?	No
Auto-fill gaps?	Yes
Alert user about missing site sketch?	Yes

SURVEYS PERFORMED | Asbestos

Asbestos Survey

Materials & Samples (1 Item)

Materials & Samples - 1. (2) Samples #01–02: TC1–Black shiny tar coating on inside of culvert

Sample Information

Asbestos Samples (2 Items)

Asbestos Samples - 1. Sample #01: TC1...South end (outlet) of culvert

Sample Number	01
Sample Location	South end (outlet) of culvert
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	January 19, 2022
Time	11:45

Sample Location Photo

Asbestos Samples - 2. Sample #02: TC1...North end (inlet) of culvert

Sample Number	02
Sample Location	North end (inlet) of culvert



Asbestos Bulk Analysis | PLM EPA 600/R93/116

Grab or Composite | Grab

Date | January 19, 2022

Time | 11:45

Sample Location Photo

Material Information

Sampled or Assumed? | Sampled

Material Acronym | TC ▶ 1

Material Description | Black shiny tar coating on inside of culvert

Material Color | Black

Representative Photos



Analyze by layer? | No

Is material non-friable organically bound (NOB)? | Yes

Homogeneous Area | Entirety of culvert

Total Approximate Quantity

Notes



LAB & SAMPLE SUBMISSION INFO

Signature



Signed 1/19/2022, 11:46:05 AM EST

Asbestos Bulk Samples

Remarks to be added to the CoC

Asbestos samples submitted to TRC lab? Yes

Date Submitted to Lab January 19, 2022

Asbestos bulk sample CoC data electronically sent to lab yet? Yes

Asbestos bulk sample results reviewed? No

REPORT CREATION

Select one or more documents below to be generated. Once completed in the cloud, they will be sent to the listed email address.

NOTE: Asbestos bulk sample CoC data must now be sent electronically to the lab by selecting "Asbestos chain-of-custody - Send to Lab" from the list below.

What documents should be generated? Asbestos chain-of-custody - Send to Lab

Generate Documents

PROJECT STATUS TRACKING

Has this survey been completed? Yes

Has the report been written? No

Has the report been reviewed? No



WinBSI HBM Survey

ConnDOT, Bridge/Culvert #02713

6/2/2022, 9:38:54 AM EDT

CREATED

🕒 1/19/2022, 11:46:12 AM EST

👤 by Alan Fortin

UPDATED

🕒 6/2/2022, 9:38:54 AM EDT

👤 by Stephen Arienti

STATUS

🟠 Complete

ASSIGNED TO

👤 No Assignment



NOTE: No site sketch detected!
Please be sure to add at least one.

JOB INFORMATION

Site Name	Bridge/Culvert #02713
Address	
TRC Project Number	279951.6541.0710
Project Manager	Erik Plimpton, Stephen Arienti
Inspector(s)	Alan Fortin
Client	ConnDOT
Type of Asbestos Survey	Reno/Demo
Site Sketch Diagrams	
Additional Analysis for NOB Materials (Calc)	TEM NY NOB 198.4
PLM Turnaround Time (TAT)	
TEM Turnaround Time (TAT)	3-day
Date	January 19, 2022
General Notes	No guano or caulking present. Rusting throughout culvert pipe. No paint present. Rubber impact dampeners on guardrails. No tar on inside of flashing.



Overview Photo



Options & Other Settings

Use auto-numbering? | No

Auto-fill gaps? | Yes

Alert user about missing site sketch? | Yes

SURVEYS PERFORMED | Asbestos

Asbestos Survey

Materials & Samples (1 Item)

Materials & Samples - 1. (2) Samples #01–02: TC1–Black shiny tar coating on inside of culvert

Sample Information

Asbestos Samples (2 Items)

Asbestos Samples - 1. Sample #01: TC1...West side (inlet)

Sample Number	01
Sample Location	West side (inlet)
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	January 19, 2022
Time	14:21



Sample Location Photo



Asbestos Samples - 2. Sample #02: TC1...East side (outlet)

Sample Number	02
Sample Location	East side (outlet)
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	January 19, 2022
Time	14:22

Sample Location Photo



Material Information

Sampled or Assumed?	Sampled
Material Acronym	TC ▶ 1
Material Description	Black shiny tar coating on inside of culvert
Material Color	Black

Representative Photos



Analyze by layer?	No
Is material non-friable organically bound (NOB)?	Yes
Homogeneous Area	
Total Approximate Quantity	
Notes	

LAB & SAMPLE SUBMISSION INFO

Signature

Signed 1/19/2022, 2:44:06 PM EST

Asbestos Bulk Samples

Remarks to be added to the CoC	
Asbestos samples submitted to TRC lab?	Yes
Date Submitted to Lab	January 19, 2022
Asbestos bulk sample CoC data electronically sent to lab yet?	Yes
Asbestos bulk sample results reviewed?	No



REPORT CREATION

Select one or more documents below to be generated. Once completed in the cloud, they will be sent to the listed email address.

NOTE: Asbestos bulk sample CoC data must now be sent electronically to the lab by selecting "Asbestos chain-of-custody - Send to Lab" from the list below.

What documents should be generated?

Asbestos chain-of-custody - Send to Lab

Generate Documents

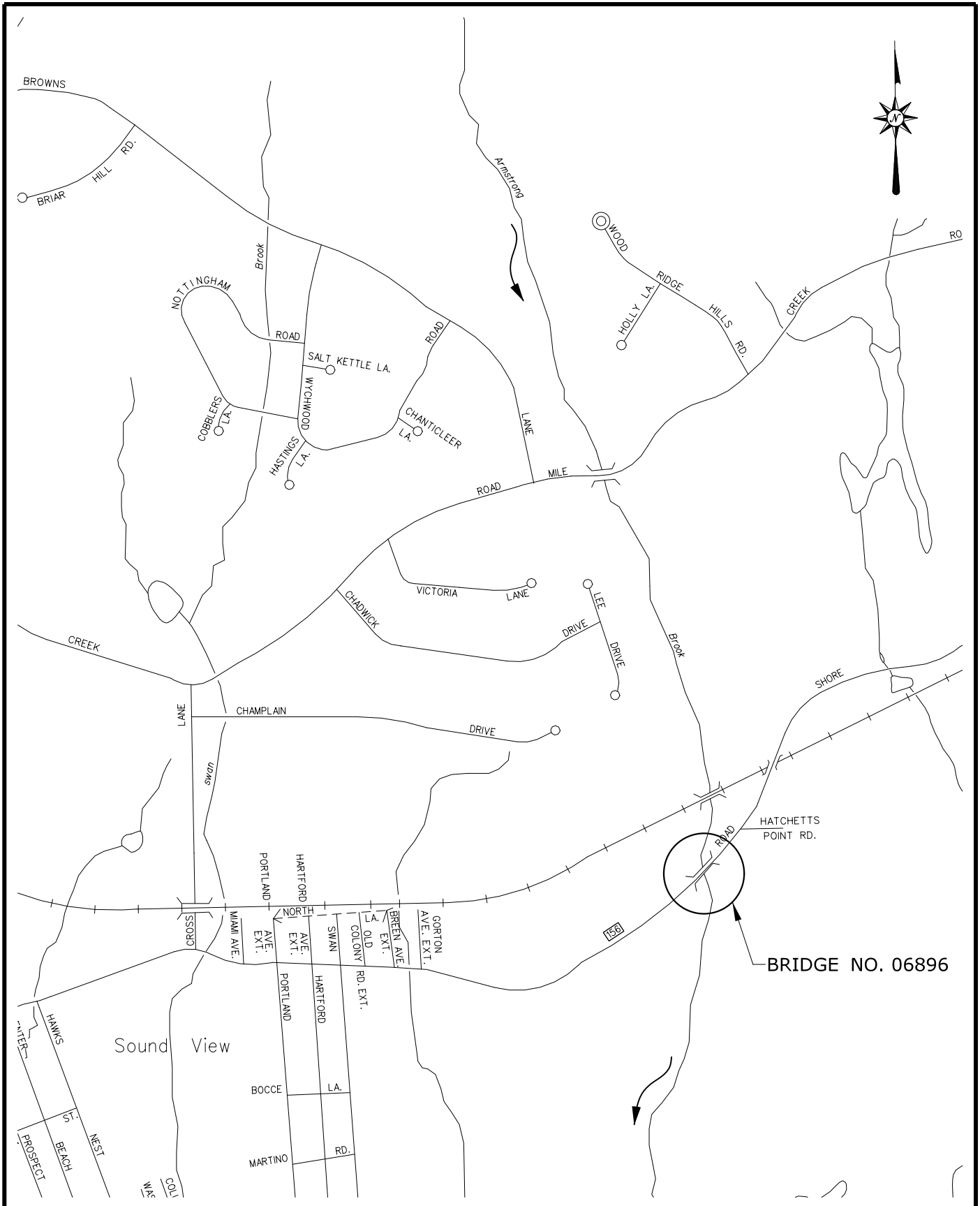
PROJECT STATUS TRACKING

Has this survey been completed? | Yes

Has the report been written? | No

Has the report been reviewed? | No

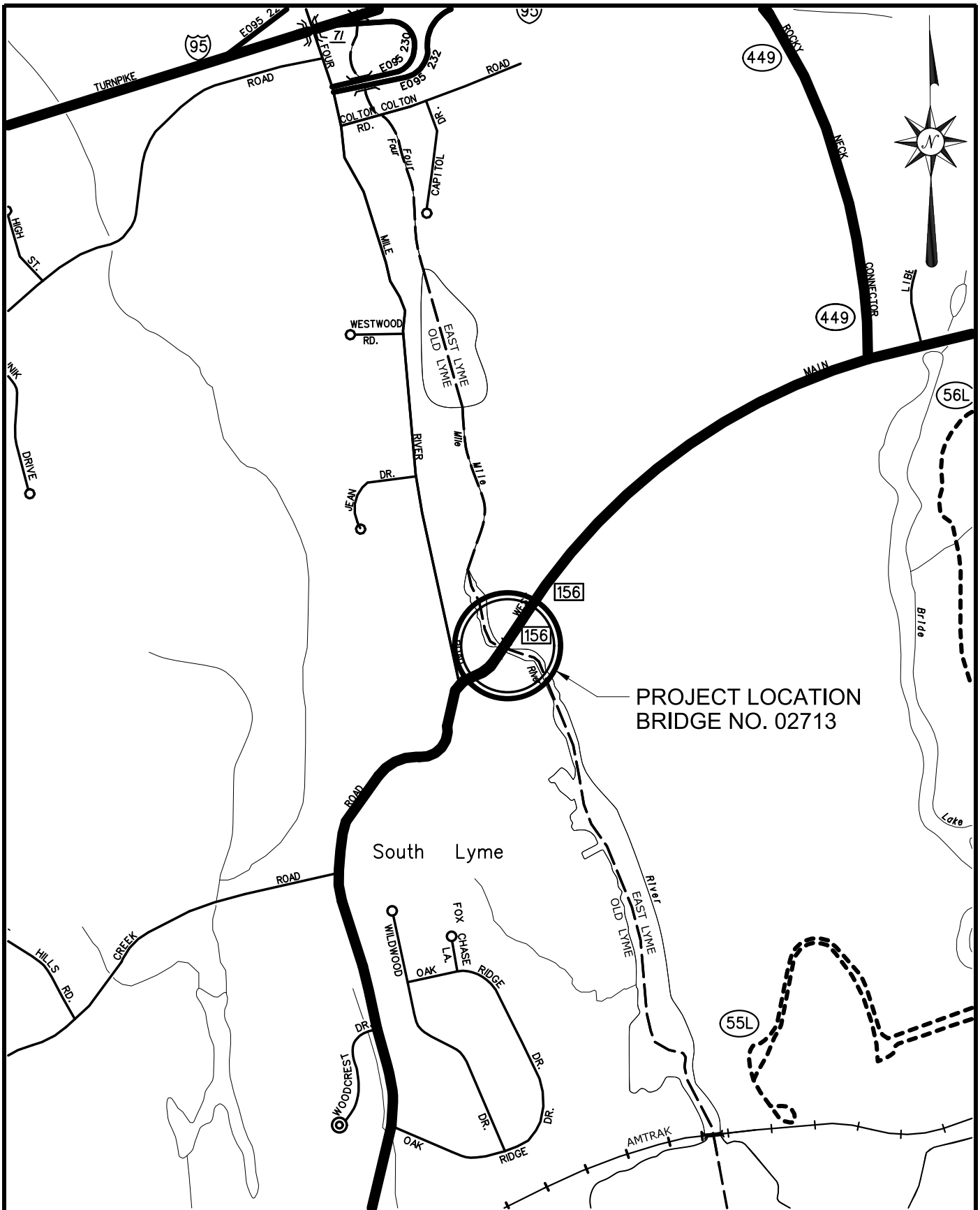




ROUTE 156
 OVER ARMSTRONG BROOK
 OLD LYME, CONNECTICUT

LOCATION
 MAP

BR. NO.: 06896
 PROJ. NO.: 0104-0175
 SCALE: 1" = 1,000'



REHABILITATION STUDY REPORT
 ROUTE 156
 OVER FOUR MILE RIVER
 OLD LYME & EAST LYME,
 CONNECTICUT

LOCATION MAP
 SCALE: 1" = 1000'

BR. NO.: 02713

PROJ. NO.: 0104-0175

FIGURE NO.: 1