B-14-0116_oth

List of Attachments

Attachment 1 – WDNR Initial Review Letter (7/24/2019)

Attachment 2 – B-14-116 Bridge Asbestos Inspection Report

Attachment 3 – B-14-116 Inspection Report (8/14/2018)

Attachment 4 – Field Information Joint Measurements

Attachment 5 – B-14-116 Deficiency Sketches

Attachment 1
WDNR Initial Review Letter
(7/24/2019)

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
3911 Fish Hatchery Road
Fitchburg, WI 53711

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

July 24, 2019

James Buschkopf
WisDOT Southwest Region
111 Interstate Blvd.
Edgerton, WI 53534

Subject: DNR Initial Project Review
Project I.D. 1170-00-30/60
IH 41
STH 28 B-14-0110 & Soo Road B-14-0116
(Allenton – Fond Du Lac)
Dodge County

Dear Mr. Buschkopf:

The Wisconsin Department of Natural Resources (DNR) has received the information you provided for the above-referenced project. According to your proposal, the purpose of this project is to rehabilitate two bridges over Interstate Highway 41 in northeastern Dodge County. The project will include polymer overlay, concrete surface repair, replacement of expansion joints and beam guard replacement. Minor grading and shoulder widening will be required for the beam guard updates.

Preliminary information has been reviewed by DNR staff for the project under the DNR/DOT (Wisconsin Department of Transportation) Cooperative Agreement. Initial comments on the project as proposed are included below, and we assume that additional information will be provided that addresses all resource concerns identified. To ensure compliance with resource protections, we are recommending that Special Provisions be developed for specific resource protections described below. DNR expects that the full range of DOT roadway standards will be applied throughout the design and construction process.

A. Project-Specific Resource Concerns

Public Lands:

Public lands are present in the vicinity of this project. The Theresa Marsh wildlife Area is located adjacent to these bridges. This 5,860-acre property is managed for wildlife production, as a migration stopover area for waterfowl and other birds and for a variety of recreational opportunities including hunting, trapping, fishing, bird watching, hiking and snowmobiling. The property is dominated by wetlands, including emergent marsh, floodplain forest and open water habitat. There is a public access driveway in the SW quadrant of the Soo Road bridge and a public parking lot and access in the northwest quadrant of the STH 28 bridge. Based on the scope of the project, it appears that the project will not require right-of-way taking or easement from the wildlife area. Public access to these facilities

should remain open and available to the public during construction. If there is potential for impacts to these lands, including disruption to users, please begin coordination with us as soon as possible. *First and foremost, every effort should be taken to avoid impacts to these lands*.

Wetlands:
There are wetlands located adjacent to the structures. Wetlands are located at the toe-of-slope of the B-14-0110 structure in all quadrants and in the northwestern and southwestern quadrants of the B-14-0116 structure. The wetlands appear to be outside of likely beam guard disturbance area and should not be impacted by this project. We request information regarding wetland impacts if it is determined that there will be grading outside of the existing road shoulders or within wetland areas.

Fisheries/Stream Work:
The project does not include work in any waterways or water bodies.

Endangered Resources:
Based upon a review of the Natural Heritage Inventory (NHI) dated July 22, 2019, there are no known Endangered Resources or suitable habitat that could be impacted by this project. With this review the following has also been determined:

- There are no known Northern Long-eared Bat (NLEB) maternity roost trees within 150 feet of the project, or known hibernacula within 0.25 miles of the proposed project area.
- This project is located outside of any High Potential Zones (HPZ) for the Rusty Patched Bumblebee (RPBB), and therefore should have no impact on this federally endangered species.

Floodplains:
A determination must be made as to whether the project lies within a mapped/zoned floodplain. Any proposed temporary or permanent changes to the road or waterway geometry in mapped floodplain areas requires that DOT coordinate with the Dodge County Zoning Administrator to ensure compliance with the local zoning ordinance and NR116. Examples of floodplain development activity includes, but not limited to, the following: changes to waterway crossings; culvert extensions; changes to road surface elevations and/or side-slopes; temporary causeways; temporary structures; general fill.

- A preliminary review of the Surface Water Data Viewer (SWDV) indicates that floodplain conditions exist within or near the project limits.

Storm Water Management & Erosion Control:
- For projects disturbing an acre or more of land, erosion control and storm water measures must adhere to the Wisconsin Pollutant Discharge Elimination System Transportation Construction General Permit (TCGP) for Storm Water Discharges. Coverage under TCGP is required prior to construction. DOT should apply for permit coverage just before the project goes to final PS&E. Permit coverage will be issued by the DNR after design is complete and documentation shows that the project will meet construction and post-construction performance standards. For more information regarding the TCGP you can go to the following link, and click on the "Transportation" tab: https://dnr.wi.gov/topic/Sectors/Transportation.html.

- All projects require an Erosion Control Plan (ECP) that describes best management practices that will be implemented before, during and after construction to minimize pollution from storm water discharges. Additionally, the plan should address how post-construction storm water performance standards will be met for the specific site. The project design and Erosion Control

Implementation Plan (ECIP) must comply with the TCGP in order to receive "permit-coverage" from the DNR.

- Once the project contract has been awarded, the contractor will be required to outline their construction methods in the ECIP. An adequate ECIP for the project must be developed by the contractor and submitted to this office for review at least 14 days prior to the preconstruction conference. For projects regulated under the TCGP, submit the ECIP as an amendment to the ECP.

Selected Site & Commercial Non-Metallic Mines:

- The DOT Select Site process must be adhered to for clean fill or any other material that leaves the work site. The DNR liaison will review all proposed select sites and a site visit may be required. Filling of wetlands, waterways or floodplain is not allowed under the select site process, unless the site owner obtains required permits. No new impermeable surfaces can be left at a select site (including gravel roads or pads), unless the site owner obtains required permits. Contaminated materials leaving the site need to adhere to the Hazardous Material Management Plan.

- Use of Commercial Non-Metallic Mines must accompany documentation that such mines have received all applicable local, state and federal permits before being used on the project, including local non-metallic mining reclamation permits and applicable WPDES permits as issued by the DNR.

The above comments represent the DNR's initial concerns for the proposed project and do not constitute final concurrence. Final concurrence will be granted after further review of refined project plans, and additional consultation if necessary. If any of the concerns or information provided in this letter requires further clarification, please contact this office at (608) 228-7927, or email at eric.heggelund@wisconsin.gov.

Sincerely,

Eric Heggelund

Eric Heggelund
Environmental Analysis & Review Specialist

cc: Jennifer Grimes, WisDOT REC
Brad Groh, JT Engineering, Inc.
Eric Kilburg, WDNR

Attachment 2
B-14-116 Bridge Asbestos
Inspection Report

JT ENGINEERING, INC
Consultant Services

GEI Consultants
3159 Voyager Drive
Green Bay, WI 54311
920.455.8200 Phone

Bridge Asbestos Inspection Report

WisDOT Project ID: 1107-00-30
Structure Number: B-14-0116
Structure Name: Soo Road over IH 41
City/County: Town of Lomira, Dodge County, Wisconsin
GEI project Number: 1903083 & 1903615
Date Inspected: June 12, 2019 and June 27, 2019 (coating testing)
Inspected by: Paul M. Garvey
Asbestos Inspector License Number: All-117079
Consultant Company: GEI Consultants, Inc.

Summary:

An asbestos inspection of Structure B-14-0116 was conducted on June 12, 2019 by Paul M. Garvey, Asbestos Inspector License No. AII-117079. Based on initial analytical results, confirmatory re-testing was completed on the bridge coating material on June 27, 2019 by Garvey. Asbestos-containing material (ACM) **IS** present on this structure.

The inspection to identify and collect samples of potential asbestos-containing material (ACM) was completed following WisDOT standard sampling procedures for bridge inspections found in FDM 21-35-45. The ACM was detected in the grey caulk material on the walls. In addition, the white coating on the grey caulk was also determined to be ACM. Subsequent resampling of the white coating material (Samples 5A thru 5D) which was sprayed on other substrates has not indicated that the coating is ACM. Based on these results, it is reasonable to conclude that the spray-on white coating collected from the grey caulk substrate (Sample 1A) was contaminated by ACM from the grey caulk material. Because the grey caulk is category II non-friable ACM, it may remain in place if not disturbed during renovation activities. If the grey wall caulk is to be disturbed during renovation, it should be abated prior to disturbance.

Asbestos-containing material is present on Structure B-14-0116. Standard Special Provision (STSP) 203-005 shall be included in the plans. The contractor will be responsible for completion of the Notification of Demolition and/or Renovation (DNR form 4500-113) if required. A copy of the inspection report is available from the region office.

Sample #	Sample Description	Sample Location	Method and Analytical Results	Category I or II non-friable or No ACM	Total Amount of Material on Structure
B-14-116-1A (split samples)	Grey caulk/and white coating (split sample)	Caulk on wall seam	PLM: 2% Chrysotile asbestos – grey caulk / PLM: 2% Chrysotile asbestos - white coating	Category II non-friable	20 LF

B-14-116-1B (split samples)	Grey caulk/and white coating (split sample)	Caulk on wall seam	See -1A Positive stop	See -1A	See -1A
B-14-116-1C (split samples)	Grey caulk/and white coating (split sample)	Caulk on wall seam	See -1A Positive stop	See -1A	See -1A
B-14-116-2A	Black tar	Abutment base	PLM, non-detect	No ACM	N/A
B-14-116-2B	Black tar	Deck seams	PLM, non-detect	No ACM	N/A
B-14-116-2C	Black tar	Deck seams	PLM, non-detect	No ACM	N/A
B-14-116-5A	White spray on coating	Deck steel expansion joint plate on wall	PLM, non-detect	No ACM	N/A
B-14-116-5B	White spray on coating	Drips on edge of north concrete span	PLM, non-detect	No ACM	N/A
B-14-116-5C	White spray on coating	North and south span composite	PLM, non-detect	No ACM	N/A
B-14-116-5D	White spray on coating	East abutment	PLM, non-detect	No ACM	N/A

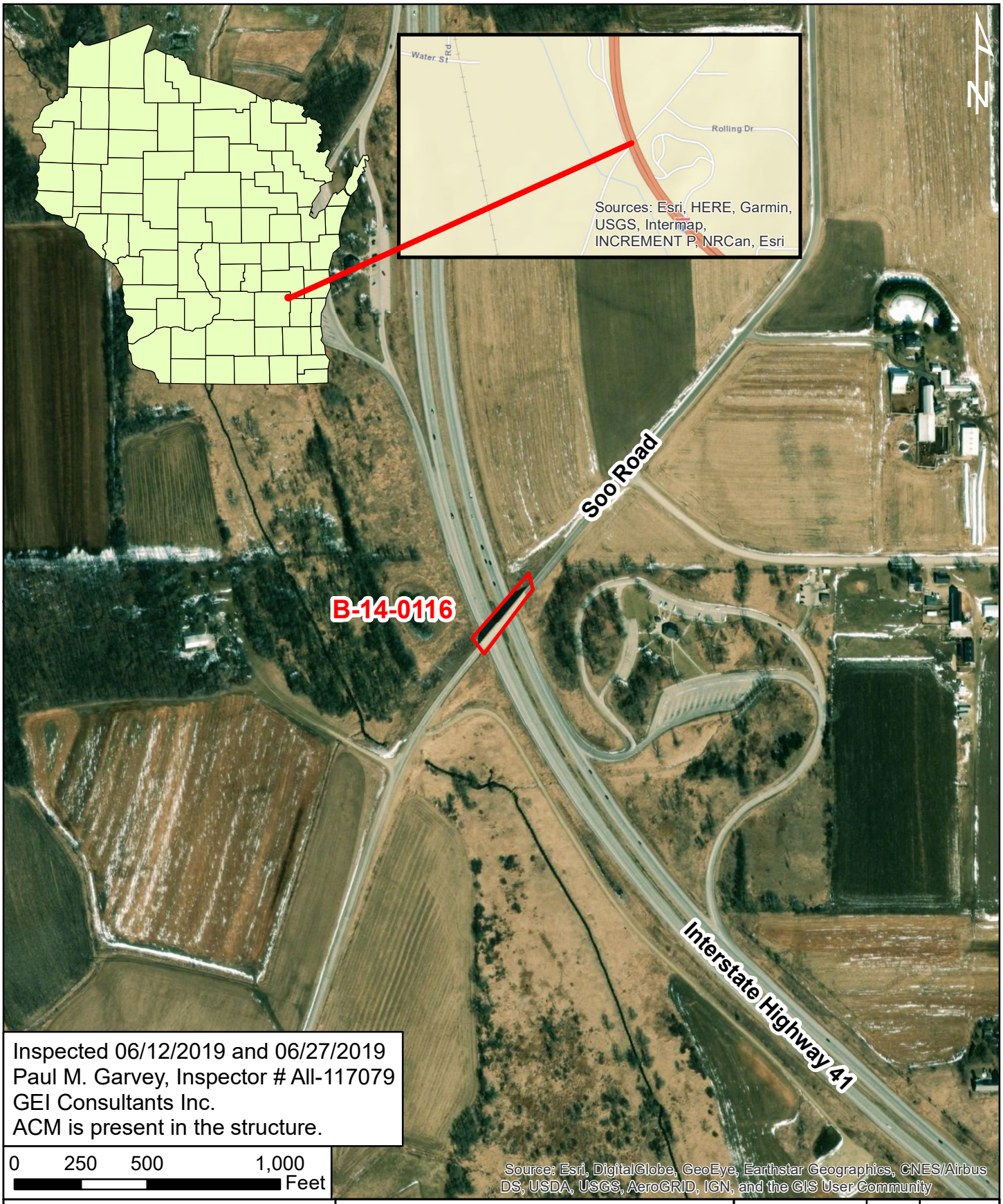
If you have any questions, please contact us at (920) 455-8200.

GEI CONSULTANTS, INC.

Kyle C. Sandmire
Environmental Scientist

Paul M. Garvey
Senior Scientist

Attachments:
P-14-0116 Report Table
P-14-0116 Map
P-14-0116 Photo Log
P-14-0116 Bulk Asbestos Sample Analysis Summaries (2)
P-14-0116 Bulk Asbestos Sample Chains of Custody (2)



Inspected 06/12/2019 and 06/27/2019
Paul M. Garvey, Inspector # All-117079
GEI Consultants Inc.
ACM is present in the structure.

0 250 500 1,000 Feet

GEI Consultants
3159 Voyager Drive
Green Bay, WI 54311
920.455.8200

WisDOT Project 1107-00-30
Structure B-14-0116
Soo Road
over Interstate Highway 41
Dodge County

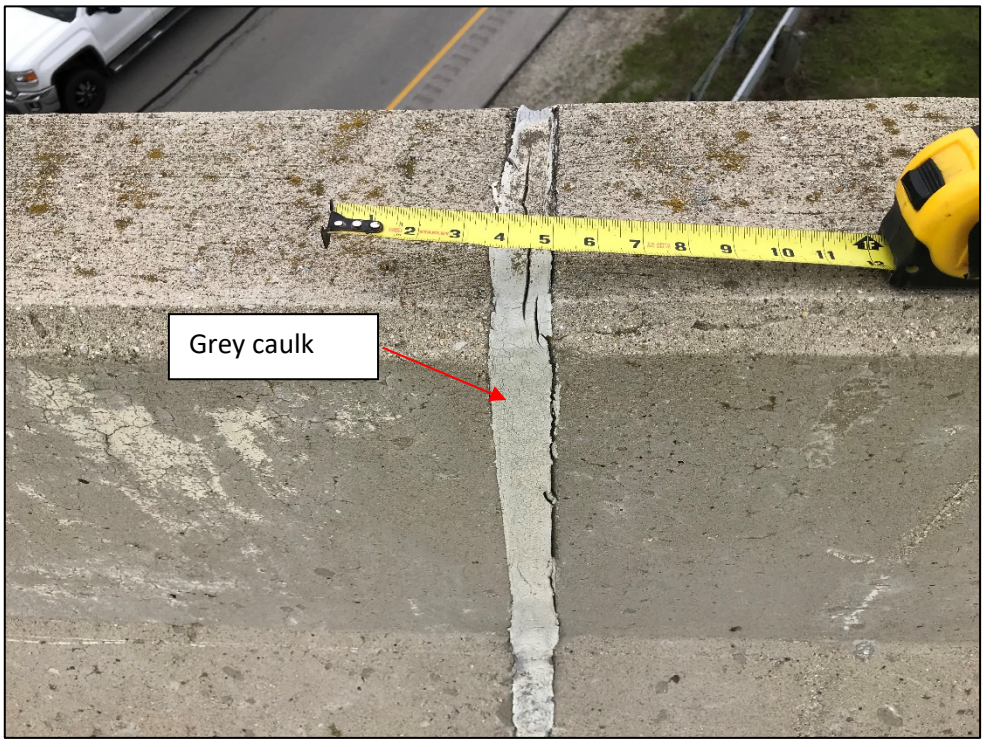
DESIGNED BY	KCS	07/17/2019
DRAWN BY	KCS	07/17/2019
APPROVED BY	PMG	07/17/2019
SCALE	1 inch = 500 feet	
FIGURE NO.	B-14-0116	

PHOTOGRAPHIC LOG

PHOTOGRAPH NO: 1	
DIRECTION: S	
DESCRIPTION: Looking south at the Structure ID plate.	

PHOTOGRAPH NO: 2	
DIRECTION: W	
DESCRIPTION: Looking at the deck of the structure.	

PHOTOGRAPH NO: 3 **DIRECTION**: W **DESCRIPTION:** Looking at the north side of the structure. White coating material has been sprayed on structure.	

PHOTOGRAPH NO: 4 **DIRECTION**: N **DESCRIPTION:** Looking at the grey caulk on the wall joint. **The grey caulk is ACM (2% chrysotile asbestos).**	

PHOTOGRAPH NO: 5	
DIRECTION: Down	
DESCRIPTION: Looking at the black tar found on the deck joints. The black tar is not ACM.	

PHOTOGRAPH NO: 6	
DIRECTION: E	
DESCRIPTION: Looking at the black tar found on the abutment base. The black tar is not ACM.	

PHOTOGRAPH NO: 7	
DIRECTION: Down	
DESCRIPTION: Looking at white spray on coating on a steel expansion joint plate. The coating is not ACM.	

PHOTOGRAPH NO: 8	
DIRECTION: S	
DESCRIPTION: Looking at the white spray-on coating from the concrete spans. The coating is not ACM.	

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Asbestos Bulk Analysis Report

Report Number: 19-06-02720

Client: GEI Consultants Inc
3159 Voyager Dr.
Green Bay, WI 54311

Received Date: 06/18/2019
Analyzed Date: 06/21/2019
Reported Date: 06/21/2019

Project/Test Address: Paul M. Garvey; B-14-0116; T. Lomira; Dodge Co., WI

Client Number: 200598

Fax Number:

Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
19-06-02720-001A	B-14-116-1A	Caulk	Gray Rubbery Adhesive; Homogeneous	2% Chrysotile	98% Non-Fibrous
			Total Asbestos:	2%	
19-06-02720-001B	B-14-116-1A	Covering/ Jacket	Gray Adhesive; Homogeneous	2% Chrysotile	98% Non-Fibrous
			Total Asbestos:	2%	
19-06-02720-002A	B-14-116-1B	Caulk		Did Not Analyze (Positive Stop)	
19-06-02720-002B	B-14-116-1B	Covering/ Jacket		Did Not Analyze (Positive Stop)	
19-06-02720-003A	B-14-116-1C	Caulk		Did Not Analyze (Positive Stop)	
19-06-02720-003B	B-14-116-1C	Covering/ Jacket		Did Not Analyze (Positive Stop)	

Environmental Hazards Services, L.L.C

Client Number: 200598 Report Number: 19-06-02720

Project/Test Address: Paul M. Garvey; B-14-0116; T. Lomira; Dodge Co., WI

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
19-06-02720-004	B-14-116-2A		Black Tar like; Homogeneous	NAD	100% Non-Fibrous
19-06-02720-005	B-14-116-2B		Black Tar like; Homogeneous	NAD	100% Non-Fibrous
19-06-02720-006	B-14-116-2C		Black Tar like; Homogeneous	NAD	100% Non-Fibrous

QC Sample: 38-M22009-1

QC Blank: SRM 1866 Fiberglass

Reporting Limit: 1% Asbestos

Method: EPA Method 600/R-93/116, EPA Method 600/M4-82-020

Analyst: Sami Hosn

Reviewed By Authorized Signatory: Tasha Eaddy

Tasha Eaddy
QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0 VELAP 460172. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND: NAD = no asbestos detected

EHS Laboratories™
Environmental Hazards Services, LLC

Asbestos Chain-of-Custody Form

SHIP TO: 7469 Whitepine Rd. Richmond, VA 23237
Phone: (800) 347-4010 FAX: (804) 275-4907
ONLINE CLIENT PORTAL AVAILABLE FOR ANALYSIS RESULTS AT:
www.leadlab.com

19-06-02720

Due Date:
06/21/2019 S
(Friday)
AE

Company Name: GEI Consultants, Inc. Account Number: _____
Address: 3159 Voyager Drive City/State/Zip: Green Bay, Wisconsin 54311
Phone #: 920.883.1710 Email: pgarvey@geiconsultants.com Fax: 920.455.8225
Project Name / Testing Address: B-14-0116, T-Lomira City/State (Required): Dodge Co., Wisconsin
Collected by: Paul M. Garvey, AIL-117079 P.O. #: 1903083

TURN AROUND TIMES: IF NO TAT IS SPECIFIED, SAMPLE(S) WILL BE PROCESSED AND CHARGED AS 3 - DAY TAT.

1 Day	2 Day	3 Day	* Same Day – Must Call Ahead	* Weekend – Must Call Ahead

No.	Client Sample ID	HA Area #	Collection Date	Collection Time	PLM	PLM Point Count 400	PLM Point Count 1000	PLM NY Protocol	TEM - Bulk	* Positive stop Comments on all "A" thru "C" series
1	B-14-116-1A thru 1C		6-12-19	1400 AM / PM	X					test both caulk and coating layer
2	B-14-116-2A thru 2C		6-12-19	1400 AM / PM	X					for
3				AM / PM						
4				AM / PM						
5				AM / PM						
6				AM / PM						
7				AM / PM						
8				AM / PM						
9				AM / PM						
10				AM / PM						

Released by: Paul M. Garvey Signature: _____ Date/Time: 6/14/19 1400
Received by: Erika Glanda Signature: _____ Date/Time: 6-17-19 @ 11 Bam

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Asbestos Bulk Analysis Report

Report Number: 19-07-00065

Client: GEI Consultants Inc
3159 Voyager Dr.
Green Bay, WI 54311

Received Date: 07/01/2019
Analyzed Date: 07/03/2019
Reported Date: 07/05/2019

Project/Test Address: Paul M Garvey; B-14-116, Dodge County; T-Lomira, Wisconsin

Client Number: 200598

Fax Number:

Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
19-07-00065-001	B-14-116-5A		Off-White Paint-Like; Homogeneous	NAD	100% Non-Fibrous
19-07-00065-002	B-14-116-5B		Off-White Paint-Like; Homogeneous	NAD	100% Non-Fibrous
19-07-00065-003	B-14-116-5C		Off-White Paint-Like; Homogeneous	NAD	100% Non-Fibrous
19-07-00065-004	B-14-116-5D		Off-White Paint-Like; Homogeneous	NAD	100% Non-Fibrous

Environmental Hazards Services, L.L.C

Client Number: 200598 Report Number: 19-07-00065

Project/Test Address: Paul M Garvey; B-14-116, Dodge County; T-Lomira, Wisconsin

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials

QC Sample: 37-M22013-2

QC Blank: SRM 1866 Fiberglass

Reporting Limit: 1% Asbestos

Method: EPA Method 600/R-93/116, EPA Method 600/M4-82-020

Analyst: Michelle Swift

Reviewed By Authorized Signatory: Melissa Kanode

Missy Kanode
QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0 VELAP 460172. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND: NAD = no asbestos detected

EHS Laboratories™
Environmental Hazards Services, LLC

Asbestos Chain-of-Custody Form

SHIP TO: 7469 Whitepine Rd. Richmond, VA 23237
Phone: (800) 347-4010 FAX: (804) 275-4907
ONLINE CLIENT PORTAL AVAILABLE FOR ANALYSIS RESULTS AT:
www.leadlab.com

19-07-00065

Due Date:
07/05/2019 MS
(Friday)
AE 4 PLM

Company Name: GEI Consultants, Inc Account Number:
Address: 3159 Voyager Drive City/State/Zip: Green Bay, WI 54311
Phone #: 920.455.8430 Email: pgarvey@geiconsultants.com Fax: 920.455.8225
Project Name / Testing Address: B-14-0116, Dodge County City/State (Required): T-Lomira, Wisconsin
Collected by: Paul M. Garvey, AII-117079 P.O. # B-14-0116

TURN AROUND TIMES: IF NO TAT IS SPECIFIED, SAMPLE(S) WILL BE PROCESSED AND CHARGED AS 3 - DAY TAT.

1 Day | 2 Day | 3 Day | * Same Day – Must Call Ahead | * Weekend – Must Call Ahead

No.	Client Sample ID	HA Area #	Collection Date	Collection Time	PLM	PLM Point Count 400	PLM Point Count 1000	PLM NY Protocol	TEM - Bulk	Comments
1	B-14-116-5A		6-12-19	11:00 AM / PM	X					*: ALL – test coating only – do not test concrete fragments Deck Exp. Joint Plate
2	B-14-116-5B		↓	↓ AM / PM						N. Beam – drips on edge
3	B-14-116-5C			AM / PM						N+S Beam
4	B-14-116-5D			AM / PM						Abutment
5				AM / PM						
6				AM / PM						
7				AM / PM						
8				AM / PM						
9				AM / PM						
10				AM / PM						

Released by: Paul M. Garvey Signature: Date/Time: 6/27/19 1300
Received by: Edita Bi'ggs Signature: Date/Time: 7/1/19 1049am

Attachment 3
B-14-116 Inspection Report
(8/14/2018)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Inspection Report for B-14-116

SOO ROAD over IH 41

Aug 14,2018

Type	Prior	Frequency (mos)	Performed
Routine	08-31-16	24	X
SIA Review	08-31-16	48	

Start Coordinates		End Coordinates (optional)	
Latitude	43°33'26.25"N	Latitude	
Longitude	88°25'47.85"W	Longitude	

Owner		Maintainer	
	STATE HIGHWAY DEPT		STATE HIGHWAY DEPT

Time Log

Hours	Minutes
1	10

Team members

	Name	Number	Signature	Signature Date
Inspector	Lammert, Terry	1018	Terry Lammert E-signed by Terry Lammert(dottyl)	09-17-18

BRIDGE INSPECTION REPORT
Wisconsin Department of Transportation
DT2007 2003 s.84.17 Wis. Stats.

Identification & Location

Feature On: SOO ROAD	Section Town Range: S35 T13N R17E	Structure Number: **B-14-116**
Feature Under: IH 41	County: DODGE	
Location: 1.0M E JCT STH 67	Municipality: LOMIRA	Structure Name:

Geometry

measurements in feet, except where noted

Approach Roadway Width: 34	Bridge Roadway Width: 28.0	Total Length: 259.1
Approach Pavement Width: 22	Deck Width: 31.0	Deck Area (sq ft): 8032

Traffic

	Lanes	ADT	ADT year	Traffic Pattern
On	2	156	2008	TWO WAY TRAFFIC
Under	6	29600	2008	TWO WAY TRAFFIC

Capacity

Load Rating

Inventory rating: HS23	Overburden depth (in): 0.0	Last rating date: 06-17-13	Controlling: INTERIOR DECK GIRDER Fatigue
Operating rating: HS37	Deck surface material: CONCRETE	Re-rate for capacity (Y/N):	Control location: SPAN 1
Posting:	Re-rate notes:		

Hydraulic

Classification

Scour Critical Code(113): (N) NO WATERWAY	Q100 (ft3/sec): 0	
High water elevation (ft): 0.0	Velocity (ft/sec): 0.0	Sufficiency #: 94.0

Span(s)

Span #	Material	Configuration	Depth (in)	Length (ft)	Main
1	CONT PREST CONC	DECK GIRDER	70	120.0	Y

Expansion joint(s)

Temperature: File:73 New:

Clearance

Item	File Measurement (ft)	File Date	New Measurement (ft)
Highway Min Vertical Under Cardinal	17.68	05-Mar-2017	
Highway Min Vertical Under Non-Cardinal	15.97	05-Mar-2017	
Horizontal Under Cardinal	85.8		
Horizontal Under Non-Cardinal	81.2		
Highway Min Vertical On Cardinal			
Horizontal On Cardinal			

Construction History

Year	Work Performed	FOS id
1995	NEW STRUCTURE	1107-03-81

Maintenance Items

Item	Priority	Recommended by	Status	Status change
IMP-Thin Epoxy Overlay	HIGH	Tripoli, Bonnie (1012)	IDENTIFIED	08/21/14
Program epoxy-type overlay to protect deck from snowmobiles.				
IMP-Thin Epoxy Overlay	HIGH	Katzner, Steven D (1011)	IDENTIFIED	09/14/16
Place polymer overlay.				
Drainage - Repair Washouts / Erosion	MEDIUM	Tripoli, Bonnie (1012)	IDENTIFIED	08/21/14
Repair washout at NW corner. Again 2018				
Deck - Clean and Sweep Deck/Drains	MEDIUM	Lammert, Terry (1018)	IDENTIFIED	09/11/18
Sweep deck				
Expansion Joints - Clean	MEDIUM	Lammert, Terry (1018)	IDENTIFIED	09/11/18
Remove debris from strip seals.				

Elements

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State 1	2	3	4
X	**12**		**Reinforced Concrete Deck**	SF	4,552	4,552	0	0	0
	8000		Wearing Surface (Bare)	SF	7,214	3,585	3,629	0	0
		8911	Abrasion, Wear, or Rutting (Wear. Surf.)	SF		0	3,607	0	0
			Snow mobile damage to surface.						
		3220	Crack (Wearing Surface)	SF		0	22	0	0
			Cracks are in end blocks.						
X	**109**		**Prestressed Concrete Open Girder**	LF	1,249	1,249	0	0	0
		1080	Delamination - Spall - Patched Area	LF		0	0	0	0
X	**205**		**Reinforced Concrete Column**	EA	3	3	0	0	0
		1080	Delamination - Spall - Patched Area	EA		0	0	0	0
		1130	Cracking (RC)	EA		3	0	0	0
			Hairline map cracking with apparent salt infiltration in **all** columns**.**						
X	**215**		**Reinforced Concrete Abutment**	LF	62	53	9	0	0
			Rust stains. **High steel/failing finishing work water staining on both.**						
		1080	Delamination - Spall - Patched Area	LF		0	2	0	0
			one small spall, 1 delam.						
		1130	Cracking (RC)	LF		0	7	0	0
			Several **HL to light** vertical cracks in abut bodies **and back walls.**						
X	**234**		**Reinforced Concrete Cap**	LF	29	28	1	0	0
			High rusty chairs at bottom.						
		1130	Cracking (RC)	LF		0	1	0	0
			Light crack between C1 and 2, W face						
X	**300**		**Strip Seal Expansion Joint**	LF	55	0	0	55	0
			Both seals completely impacted with debris and vegetation.						
		2310	Leakage, Seal Adhesion, Damage,Cracking	LF		0	0	0	0
		2350	Debris Impaction	LF		0	0	55	0
			Both seals completely impacted with debris and vegetation.						
X	**310**		**Elastomeric Bearing**	EA	10	0	10	0	0
			Minor rust on all sole plates - not painted.						
		1000	Corrosion	EA		0	10	0	0
			Minor rust on all sole plates - not painted						
		2220	Alignment	EA		0	0	0	0
			1/4-inch gap under front edge of all at W. abut (expanded position). E. abut in contracted position.						
		2230	Bulging, Splitting or Tearing	EA		0	0	0	0
			Minor cracking in all.						

X	331		**Reinforced Concrete Bridge Rail**	LF	518	475	43	0	0
			+/- 5' solid patch S side near pier.						
		1080	Delamination - Spall - Patched Area	LF		0	3	0	0
			Small spall **S rail @ bottom, W end S1. Small spall @ SE corner. Several areas on both sides @ bottom have exposed steel in shallow spalls/failing finishing patches(?).**						
		1130	Cracking (RC)	LF		0	40	0	0
			Several vertical cracks. Map cracking throughout.						
X	8400		**Integral Wingwall**	EA	4	2	2	0	0
		8902	Wall Movement	EA		0	0	0	0
		8903	Wall Deterioration	EA		0	2	0	0
			NE & SE have map cracking. **Several small spots of delam due to finishing work/failing patches.**						

Assessments

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State 1	2	3	4
X	9001		**Drainage - Ends of Structure**	EA	4	3	1	0	0
			Surface drains at west end. Bare slopes at East. minor erosion at SE corner.						
X	9030		**Signs - Object Markers**	EA	4	4	0	0	0
			4						
X	9043		**Slope Protection- Crushed Aggregate with Bit.**	EA	2	1	1	0	0
			Some sliding in the both slopes. Both settled. W **is weedy. Fading mostly at bottom.**						
X	9167		**Steel Diaphragm**	EA	16	16	0	0	0
X	9168		**Concrete Diaphragm**	EA	4	2	1	1	0
			Crack in corner of diaphragm **B3, S1 W face. B1 E face, B1 large corner spall no exposed steel.**						
X	9323		**Approach Roadway - Asphalt**	EA	2	1	1	0	0
			East has been wedged. West has cracked. **Slight rutting @ ends.**						

NBI Ratings

	File	New
Deck	7	7
Superstructure	7	7
Substructure	7	7
Culvert	N	N
Channel	N	N
Waterway	N	N

Structure Specific Notes

ON THE WEST ABUTMENT, ALL 5 OF THE ELASTIC BEARINGS ARE TIPPED BACK, SO THAT THE FRONT EDGE IS ABOUT 0.5' OFF THE BEARING SEAT. ALSO, SOME VERTICAL CRACKS ARE PRESENT IN THE RUBBER MATERIAL.

Inspection Specific Notes

In program epoxy-type overlay to protect deck from snowmobiles.

Inspector Site-Specific Safety Considerations

Structure Inspection Procedures

Special Requirements

Chk	Hours	Cost	Comments

Routine

Document Comment/Description

deck view

Routine

Document Comment/Description

rust stain mid deck

Routine

Document Comment/Description

E strip seal (W is similar) impacted w/ debris

Routine

Document Comment/Description

elevation view

Routine

Document Comment/Description

E face B1 large corner spall in conc. diag. bearing rubber slippage

Attachment 4
Field Information
Joint Measurements

Project ID 1107-00-30/60
IH 41
Allenton - Fond Du Lac
Soo Road Structure B-14-0116

Field Information Required #8 - Structure Measurements

8.) Record measurement, temperature of the structure, and date taken for each of the following;

Date:	**10-Apr-19**
Site Time:	**8:30A - 9:30A**
Air Temp:	**35**
Weather:	**Cloudy**

8a.) Joint opening measured normal to joing at centerline of roadway and both curb lines.

At East Abutment;	**(in)**	**At West Abutment;**	**(in)**
S. Flow Line	**2.625**	**S. Flow Line**	**2**
Centerline	**2.375**	**Centerline**	**2.25**
N. Flow Line	**2.25**	**N. Flow Line**	**2.25**

8b.) Clearance between girder ends at piers.

This is not applicable as the girders are continuous over the central pier.

8c.) Distance from the front face of abutment backwall to closest point of girder end measured parallel to girder.

At East Abutment;

Girder #	**(in)**
1	**4.5**
2	**5.5**
3	**6**
4	**5.5**
5	**5.5**

At West Abutment;

Girder #	**(in)**
1	**4.5**
2	**4.5**
3	**5**
4	**5**
5	**5.25**

8d.) Temperature of structure determined by averaging top and under deck readings

At East Abutment;	
Top	**35**
Bottom	**32**
Average	**33.5**

At West Abutment;	
Top	**34**
Bottom	**32**
Average	**33**

Attachment 5
B-14-116 Deficiency Sketches

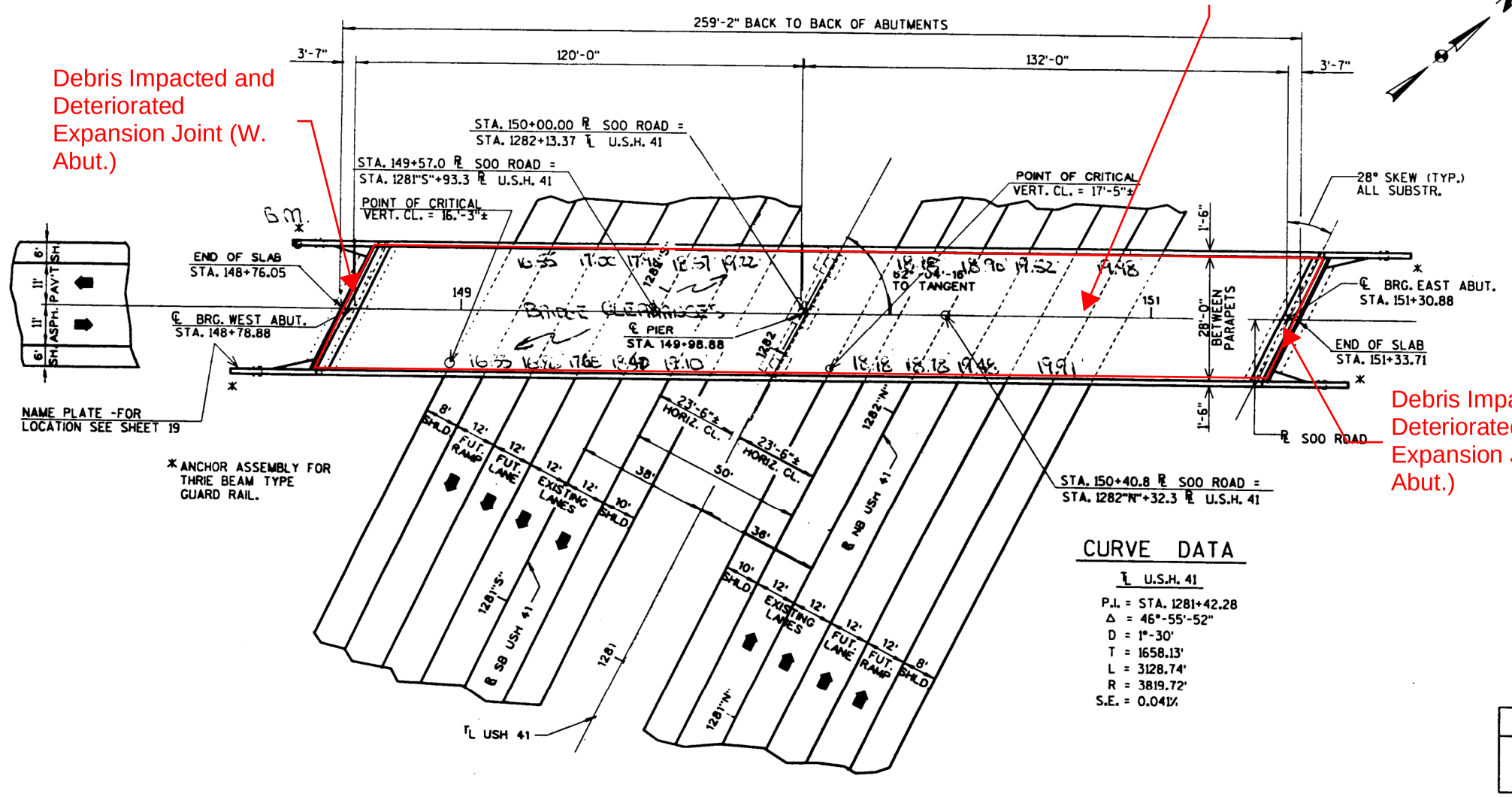
TYPE CODE = X781

STATE PROJECT NUMBER	SHEET NO.
1107-03-81	85

B.M. PLUG ON TOP OF NW PARAPET CORNER; 142+65 ; 15' LT ELE. = 976.67

Heavily Abraided Deck Surface (All)

Debris Impacted and Deteriorated Expansion Joint (W. Abut.)



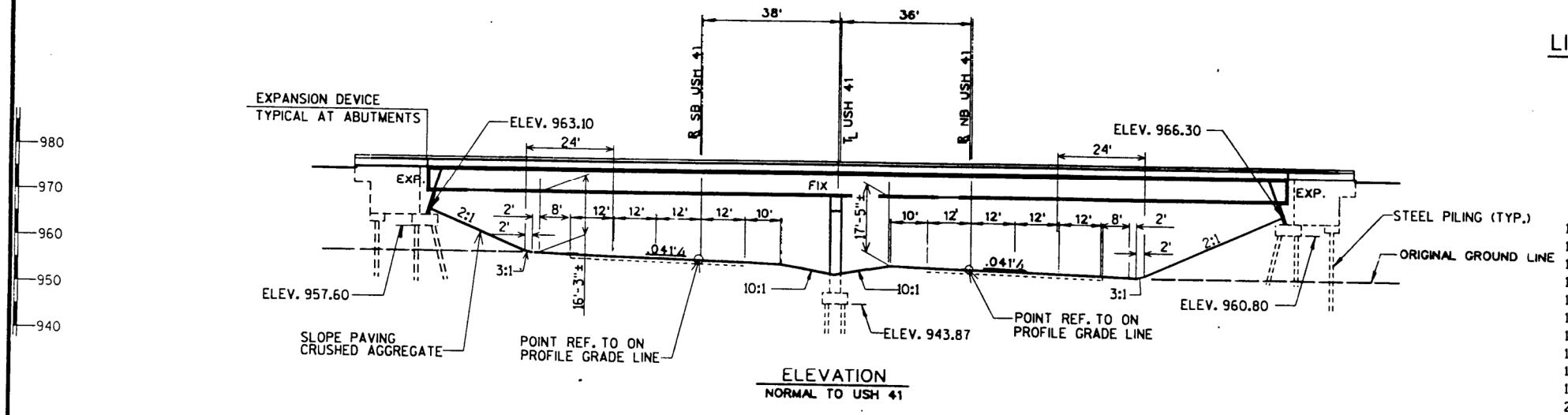
Debris Impacted and Deteriorated Expansion Joint (E. Abut.)

CURVE DATA

℄ U.S.H. 41

P.I. = STA. 1281+42.28
Δ = 46°-55'-52"
D = 1°-30'
T = 1658.13'
L = 3128.74'
R = 3819.72'
S.E. = 0.041%

PLAN B-14-116
(70" PRESTRESSED GIRDERS)



ELEVATION
NORMAL TO USH 41

DESIGN DATA

LIVE LOAD:

DESIGN RATING; HS-20
INVENTORY RATING; HS-23
OPERATIONAL RATING; HS-36
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 KIPS.

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I. ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.
PARAPET AND TOP SLAB STEEL SHALL BE EPOXY COATED.
70" PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 6,000 P.S.I.
STRANDS-½" ϕ WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS AND PIER TO BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 55 TONS PER PILE. ESTIMATED 30'-0" LONG AT ABUTMENTS AND 20'-0" LONG AT PIER.

TRAFFIC DATA

SOO RD.
A.D.T. = 600 (2020)
R.D.S. = 60 M.P.H.

USH 41
A.D.T. = 36200 (2020)
R.D.S. = 70 M.P.H.

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
79	1283+40	CHISELED SQUARE ON EAST CENTER OF INLET APPROX. 100' NORTH OF INTERSECTION OF U.S.H. 41 AND SOO ROAD	947.18

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT - R.L. REESE (608)266-8488
DAVID R. GENSON (608)266-8491

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-14-116

SOO ROAD OVER USH 41

County DODGE	Town TN : LOMIRA		
Design Spec. AASHTO 1992	Load HS 20	Const. Spec. 1989	
Designed By SDR	Design Checked WCD	Drawn By RIES	Plans Ck'd J.C.K.
Approved Robert J. Reese State Bridge Engineer	1/25/94 Date		

GENERAL PLAN

SHEET 1 OF 20

OCT. '93

I.D. 1105-01-04