

B-14-0110_oth

List of Attachments

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



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-14-110 Bridge Asbestos
Inspection Report



3159 VOYAGER DRIVE
GREEN BAY, WI 54311
920.455.8200 PHONE

Bridge Asbestos Inspection Report

WisDOT Project ID: 1107-00-30
Structure Number: B-14-0110
Structure Name: STH 28 over IH 41
City/County: Town of Theresa, Dodge County, Wisconsin
GEI project Number: 1903083
Date Inspected: June 12, 2019
Inspected by: Paul Garvey
Asbestos Inspector License Number: All-117079
Consultant Company: GEI Consultants, Inc.

Summary:

An asbestos inspection of Structure B-14-0110 was conducted on June 12, 2019 by Paul M. Garvey, Asbestos Inspector License No. All-117079. Asbestos-containing material (ACM) **IS NOT** 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.

No Asbestos-containing material has been found in Structure B-14-0110. Standard Special Provision (STSP) 107-127 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-14-110-1A	Brown paint	Steel girder system	PLM, non-detect	No ACM	N/A
B-14-110-1B	Brown paint	Steel girder system	PLM, non-detect	No ACM	N/A
B-14-110-1C	Brown paint	Steel girder system	PLM, non-detect	No ACM	N/A
B-14-110-2A	Black tar	Deck joints and median	PLM, non-detect	No ACM	N/A
B-14-110-2B	Black tar	Deck joints and median	PLM, non-detect	No ACM	N/A
B-14-110-2C	Black tar	Deck joints and median	PLM, non-detect	No ACM	N/A

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

GEI CONSULTANTS, INC.



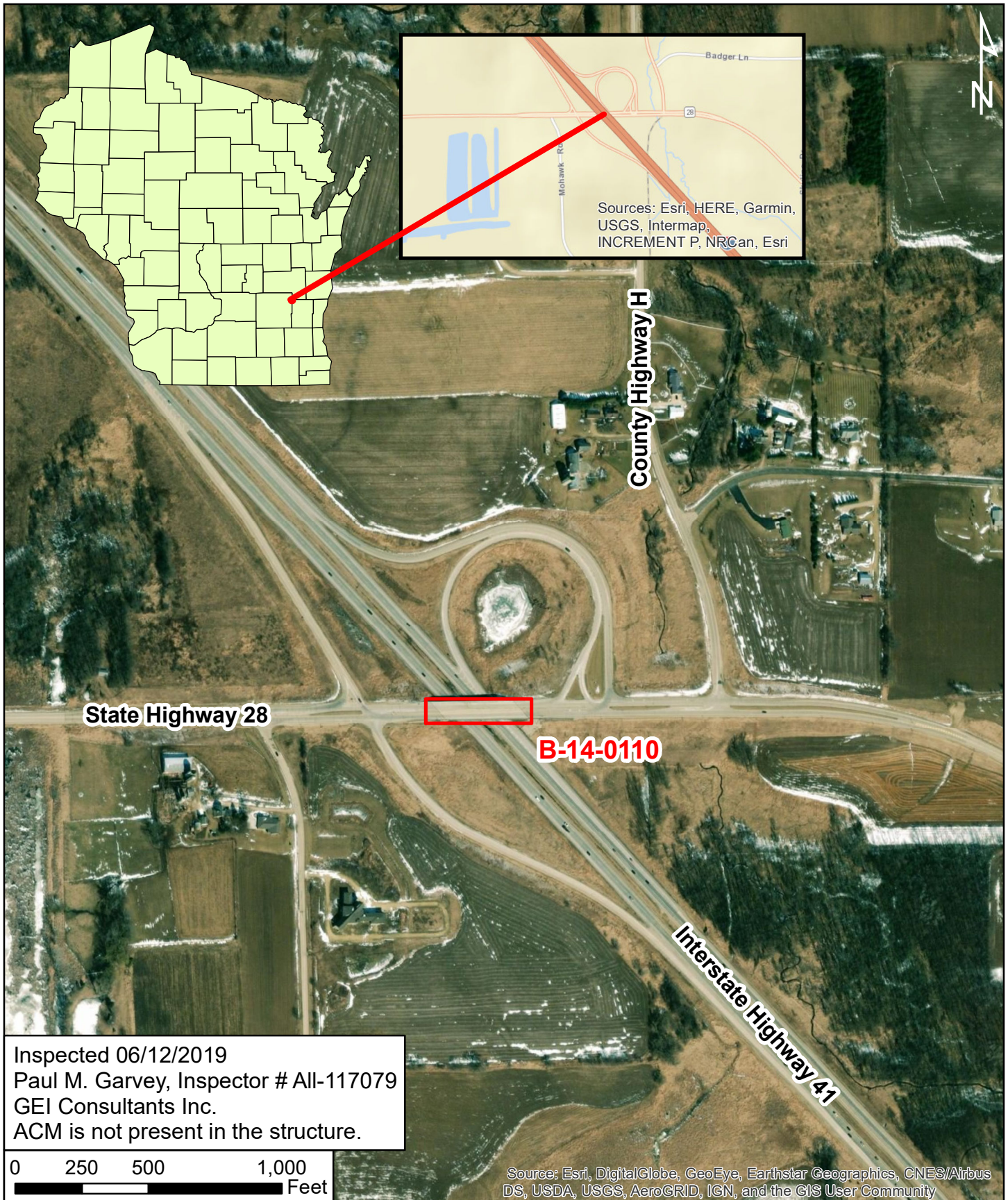
Kyle C. Sandmire
Environmental Scientist



Paul M. Garvey
Senior Scientist

Attachments:

- B-14-0110 Report Table
- B-14-0110 Map
- B-14-0110 Photo Log
- B-14-0110 Bulk Asbestos Sample Analysis Summary
- B-14-0110 Bulk Asbestos Sample Chain of Custody



GEI
 Consultants
 3159 Voyager Drive
 Green Bay, WI 54311
 920.455.8200

WisDOT Project 1107-00-30
 Structure B-14-0110
 State Highway 28
 over Interstate Highway 41
 Dodge County

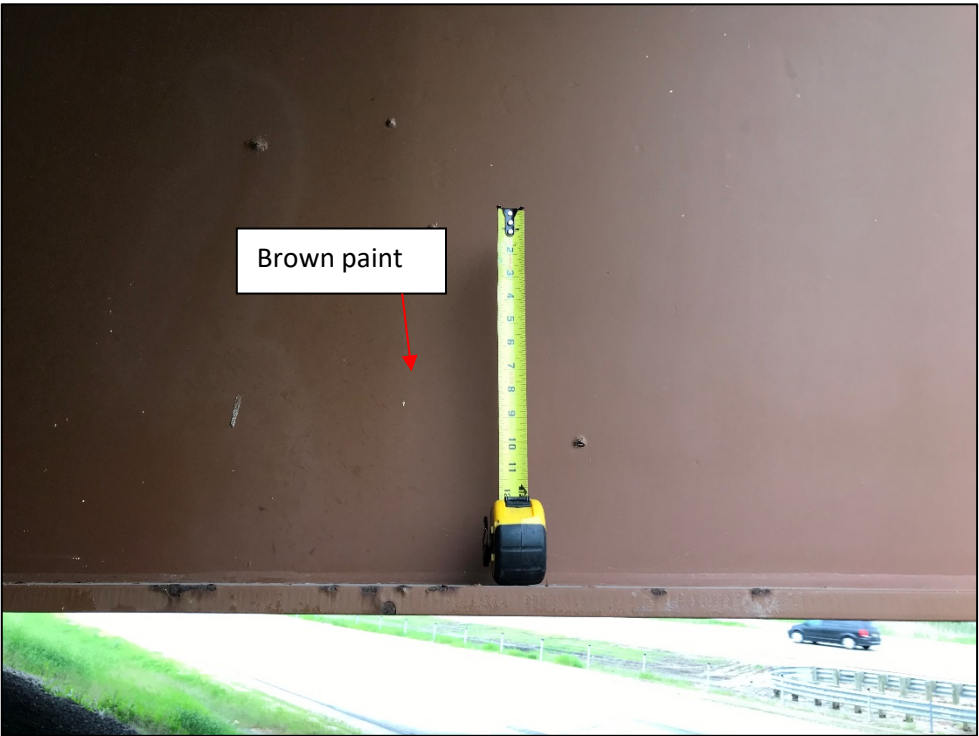
DESIGNED BY	KCS	06/03/2019
DRAWN BY	KCS	06/03/2019
APPROVED BY	PMG	06/03/2019
SCALE	1 inch = 500 feet	
FIGURE NO.	B-14-0110	

PHOTOGRAPHIC LOG

PHOTOGRAPH NO: 1	
DIRECTION: N	
DESCRIPTION: Looking north at the Structure ID plate.	

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

PHOTOGRAPH NO: 3	
DIRECTION: W	
DESCRIPTION: Looking at the north side of the structure.	

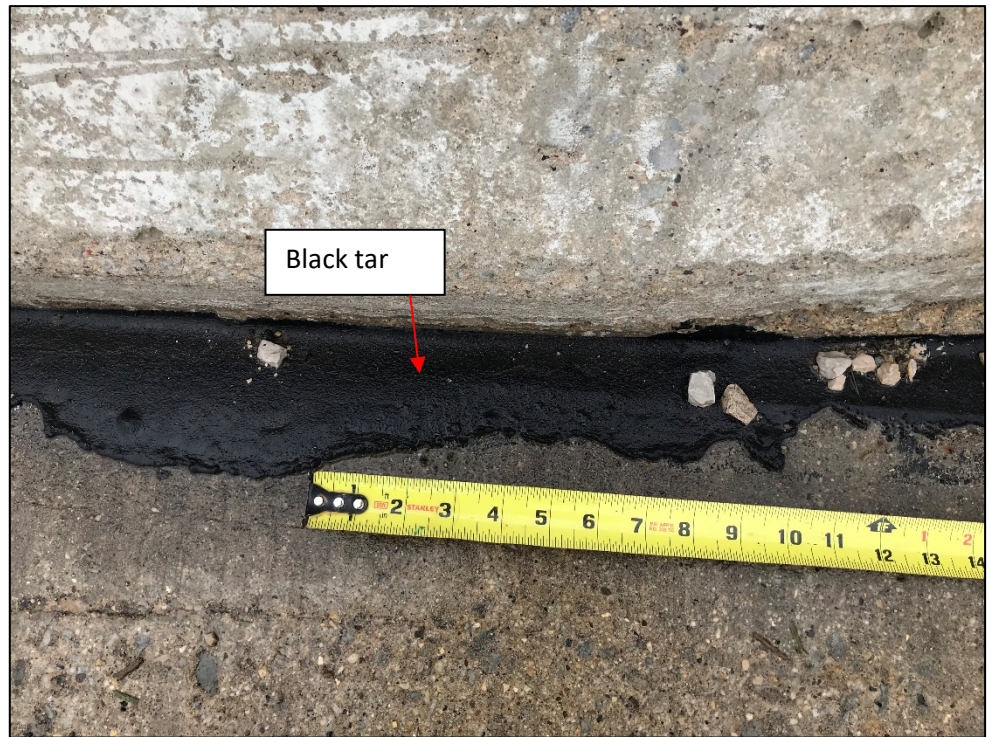
PHOTOGRAPH NO: 4	
DIRECTION: S	
DESCRIPTION: Looking at the brown paint on the steel girder system. The brown paint is not ACM.	

PHOTOGRAPH NO: 5

DIRECTION: Down

DESCRIPTION:

Looking at the black tar found on the deck joints and median. The black tar 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: 19-06-02710

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-14-0110; T. Theresa; Dodge Co., WI

Client Number:

200598

Fax Number:

Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
19-06-02710-001	B-14-110-1A		Brown Paint; Homogeneous	NAD	100% Non-Fibrous
19-06-02710-002	B-14-110-1B		Brown Paint; Homogeneous	NAD	100% Non-Fibrous
19-06-02710-003	B-14-110-1C		Brown Paint; Homogeneous	NAD	100% Non-Fibrous
19-06-02710-004	B-14-110-2A		Black Adhesive; Homogeneous	NAD	100% Non-Fibrous
19-06-02710-005	B-14-110-2B		Black Adhesive; Homogeneous	NAD	100% Non-Fibrous

Environmental Hazards Services, L.L.C

Client Number: 200598

Report Number: 19-06-02710

Project/Test Address: Paul M. Garvey; B-14-0110; T. Theresa;
Dodge Co., WI

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
19-06-02710-006	B-14-110-2C		Black Adhesive; 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: Christian H. Schaible

Reviewed By Authorized Signatory:



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



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

19-06-02710



Due Date:

06/21/2019

(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-14-0110, T-Theresa 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 Time	PLM	PLM Point Count 400	PLM Point Count 1000	PLM NY Protocol	TEM - Bulk	Comments
1	B-14-110-1A thru 1C		6-12-19 1300 AM / PM	X					* Positive stop on all "A" thru "C" series
2	B-14-110-2A thru 2C		6-12-19 1300 AM / PM	X					(test paint only)
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: <u>Paul M. Garvey</u>				Signature: <u>[Signature]</u>				Date/Time: <u>6/14/19 1400</u>	
Received by: <u>Erika Glendon</u>				Signature: <u>[Signature]</u>				Date/Time: <u>6-18-19 @ 1111am</u>	

Attachment 3
B-14-110 Inspection Report
(8/14/2018)



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Inspection Report for
B-14-110

STH 28 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°32'12.45"N	Latitude	
Longitude	88°24'12.00"W	Longitude	
Owner	STATE HIGHWAY DEPT	Maintainer	STATE HIGHWAY DEPT

Time Log

Team members

Hours	Minutes	
2	0	

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

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Identification & Location

Feature On: STH 28	Section Town Range: S01 T12N R17E	Structure Number:
Feature Under: IH 41	County: DODGE	B-14-110
Location 2.2M E JCT STH 175	Municipality: THERESA	Structure Name:

Geometry

measurements in feet, except where noted

Approach Roadway Width: 48	Bridge Roadway Width: 52.0	Total Length: 311.1
Approach Pavement Width: 28	Deck Width: 71.0	Deck Area (sq ft): 22088

Traffic

	Lanes	ADT	ADT year	Traffic Pattern
On	2	2740	2012	TWO WAY TRAFFIC
Under	6	28100	2008	TWO WAY TRAFFIC

Capacity

Load Rating

Inventory rating: HS26	Overburden depth (in): 0.0	Last rating date: 02-15-94	Controlling: INTERIOR DECK GIRDER Moment
Operating rating: HS44	Deck surface material: CONCRETE	Re-rate for capacity (Y/N):	Control location: 8.2 SPAN 2, 135.0
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 #: 99.0

Span(s)

Span #	Material	Configuration	Depth (in)	Length (ft)	Main
1	CONT STEEL	DECK GIRDER		140.0	
2	CONT STEEL	DECK GIRDER		165.0	Y

Expansion joint(s)

Temperature:

File:71	New:
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Clearance

Item	File Measurement (ft)	File Date	New Measurement (ft)
Highway Min Vertical Under Cardinal	16.87	05-Mar-2017	
Highway Min Vertical Under Non-Cardinal	16.01	05-Mar-2017	
Horizontal Under Cardinal	83.5		
Horizontal Under Non-Cardinal	83.5		
Highway Min Vertical On Cardinal			
Horizontal On Cardinal			

Construction History

Year	Work Performed	FOS id
1994	NEW STRUCTURE	1107-02-71

Maintenance Items

Item	Priority	Recommended by	Status	Status change
Approach - Seal Approach to Paving Block	HIGH	Tripoli, Bonnie (1012)	IDENTIFIED	08/21/14
Touch up hot rubber at deck ends. Again 2018				
Drainage - Repair Washouts / Erosion	MEDIUM	Tripoli, Bonnie (1012)	IDENTIFIED	08/21/14
Fill gap between NW curb and wing wall - fill back in the washout. Again 2018 . Also, repair erosion along NE wing and add asphalt flume.				
Deck - Seal Surface Cracks	MEDIUM	Tripoli, Bonnie (1012)	IDENTIFIED	08/21/14
Reseal deck cracks. Again 2018				
Expansion Joints - Clean	MEDIUM	Lammert, Terry (1018)	IDENTIFIED	09/17/18
IMP-Paint Structure	LOW	Tripoli, Bonnie (1012)	IDENTIFIED	08/21/14
Program BPP 3 years.				

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Structure No.: **B-14-110**

Elements

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State			
						1	2	3	4
X	12		Reinforced Concrete Deck-Coated Reinforcing	SF	18,204	15,738	2,466	0	0
			Survey type cap in deck for weather/deck monitoring.						
		1080	Delamination - Spall - Patched Area	SF		0	0	0	0
		1130	Cracking (RC) Transverse leaching cracks. Diagonal cracks at the corners.	SF		0	2,466	0	0
		8000	Wearing Surface (Bare)	SF	16,636	14,503	2,132	1	0
		8911	Abrasion, Wear, or Rutting (Wear. Surf.) Plow damage at SB lane east end.	SF		0	10	0	0
		3210	Debonding/Spall/Patched Area/Pothole Spall at strip seal with exposed tie 2018(?) unable to find, Repaired? Several small spalls @ ends near joints and end blocks.	SF		0	0	1	0
X	107	3220	Crack (Wearing Surface) Most cracks are sealed some opening up and there are some new.	SF		0	2,122	0	0
			Steel Open Girder	LF	2,240	1,984	240	16	0
		1000	Corrosion Rust developing on bottom flanges throughout. pack rust at ends by stiffeners.	LF		0	240	16	0
		8516	Painted Steel Rust developing on bottom flanges and diaphragms throughout. Pack rust at ends by stiffeners.	SF	26,939	26,443	480	16	0
		3440	Effectiveness (Steel Protective Coatings) Rust developing on bottom flanges throughout. pack rust at ends by stiffeners.	SF		0	480	16	0
X	205		Reinforced Concrete Column	EA	6	5	1	0	0
			pop outs						
		1080	Delamination - Spall - Patched Area Impact spall and delam. Delam at top Col 6 and has impact damage near bottom.	EA		0	1	0	0
X	215	1130	Cracking (RC)	EA		0	0	0	0
			Reinforced Concrete Abutment	LF	183	143	34	6	0
			Vertical cracks with moderate leaching in E. backwall. Vertical cracks with no leaching in west backwall. Spall in east abutment north end. Back wall all rust stains. SW corner has high rusty steel. NW has electrical box.						
		1080	Delamination - Spall - Patched Area One small spall east abutment N end. E abut couple spalls no exp. steel, (1) has rust staining. SE corner large spall @ abut/backwall/wing area. Cracking, rust staining w/ heavy effl.	LF		0	0	4	0
X	215	1130	Cracking (RC) Couple light vertical cracks in both abut bodies. N abut vertical cracks w/ no leaching in back wall. S abut vertical cracks w/ moderate to heavy leaching in the back wall also long. cracking near top of abut body.	LF		0	34	2	0

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X	234		Reinforced Concrete Cap	LF	91	90	1	0	0
		1080	Delamination - Spall - Patched Area Small spall at S end.	LF		0	1	0	0
		1130	Cracking (RC) one HL vertical crack.	LF		1	0	0	0
X	302		Compression Joint Seal	LF	150	0	149	1	0
			Both leak full-width.						
		2310	Leakage, Seal Adhesion, Damage, Cracking Both leak full-width.	LF		0	149	0	0
		2360	Adjacent Deck or Header Damage Spall at strip seal with exposed tie. Unable to find in 2018, repaired? under hot rubber?	LF		0	0	1	0
X	311		Moveable Bearing	EA	16	8	0	8	0
			Bolts starting to bend NW abutment. Some heavy rust forming.						
		1000	Corrosion Some heavy rust forming.	EA		0	0	8	0
		1020	Connection Bolts starting to bend NW abutment.	EA		0	0	0	0
X	313		Fixed Bearing	EA	8	8	0	0	0
			@ pier						
		1000	Corrosion	EA		0	0	0	0
X	331		Reinforced Concrete Bridge Rail	LF	662	503	159	0	0
			Some plow scrapes						
		1080	Delamination - Spall - Patched Area Shallow spall N side, near pier. Spall bottom face, N rail S2, Spall top of S rail near pier.	LF		0	3	0	0
		1130	Cracking (RC) Light vertical cracks. Most tops have been sealed.	LF		0	156	0	0
X	8400		Integral Wingwall	EA	4	0	3	1	0
			Erosion along NE-Flume w/ asphalt repair.						
		8902	Wall Movement NE tipped 3/4", NW tipped 1/2"	EA		0	2	0	0
		8903	Wall Deterioration NE map cracking with leaching and rust/ water stains. NW vertical cracking with leaching and rust stains, cracking finishing work . SE random cracking minor to heavy leaching w/ eff., Large spall, no exp. rebar . SW Minor map cracking, rust stains.	EA		0	1	1	0

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Structure No.: **B-14-110**

Assessments

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State			
						1	2	3	4
X	9001		Drainage - Ends of Structure 2 inlets at East end in median. West end 2 surface drain inlets, c&g to 2 inlets in median. Erosion at NE corner.	EA	6	5	1	0	0
X	9007		Median Several transverse cracks - most sealed.	EA	1	1	0	0	0
X	9011		Utilities Weather reporting-deck temps. Electrical placed at SW corner. Survey type cap in deck.	EA	1	1	0	0	0
X	9030		Signs - Object Markers 2 (At approach ends only.)	EA	2	2	0	0	0
X	9043		Slope Protection- Crushed Aggregate with Bit. Moderate erosion damage at NE corner. Fading - settling at top of east. West 1/2 is coated, 1/2 is bare.	EA	2	1	1	0	0
X	9167		Steel Diaphragm Corrosion on several at the abuts. Rust spots throughout.	EA	107	50	41	16	0
X	9323		Approach Roadway - Asphalt Void under approach at SW corner and a large spalling crack and crack at inlet. NW - Spalls and cracking in concrete shoulder, asphalt shoulder cracked. East end asphalt alligating and settling where large washout occurred. WB lane cracked - some sealed. EB has weather sensor in pavement.	EA	2	0	2	0	0

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

WISDOT survey marker located in median, S!. 2018 Weather sta @ SW corner, electrical box attached to abut, sensor placed in EB driving lane and also EB roadway approach.

Inspection Specific Notes

Program BPP 1+ years. Touch up hot rubber at deck ends. Fill gap between NW curb and wing wall - fill back in the washout. Reseal deck cracks. **Form flume to protect NW corner.**

Inspector Site-Specific Safety Considerations

Structure Inspection Procedures

Special Requirements

Chk Hours Cost Comments

Routine
Document Comment/Description
deck view



Routine

Document Comment/Description

spall S top of parapet wall



Routine

Document Comment/Description

E abut spalls w/ rust staining



Routine

Document Comment/Description

Diag. steel, pack rust failing paint.



Routine

Document Comment/Description

Mod. leaching light crack E abut mid span



Routine

Document Comment/Description

Rust staining entire E abut back wall



Routine

Document Comment/Description

SE corner spall @ abut, cracking w/ mod effl., rust staining, map cracking w light eff.



Routine
Document Comment/Description
Elevation view



Routine
Document Comment/Description

Painted steel failure @ pack rust are @ flange bottoms and ends



Routine

Document Comment/Description

Electrical W abut/weather station.



Routine

Document Comment/Description

Girder end rusting, flaking, pack rust, rusting on bearings, E end appears worse.



Attachment 4
Field Information
Joint Measurements

Project ID 1107-00-30/60
IH 41
Allenton - Fond Du Lac
STH 28 Structure B-14-0110

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: 7A-8A
Air Temp: 34
Weather: Cloudy

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

At East Abutment;

	(in)
S. Flow Line	1.625
CL EB	2
EB Median Flow Line	2
WB Median Flow Line	2
CL WB	2.125
N. Flow Line	2.375

At West Abutment;

	(in)
S. Flow Line	2
CL EB	2.125
EB Median Flow Line	2
WB Median Flow Line	2
CL WB	2.125
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	9
2	8.25
3	9
4	9
5	9
6	8.5
7	8.5
8	8.5

At West Abutment;

Girder #	(in)
1	7.5
2	8
3	8
4	7
5	6.5
6	6.5
7	6.5
8	6.5

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

At East Abutment;

Top	31
Bottom	33
Average	32

At West Abutment;

Top	34
Bottom	32
Average	33

Attachment 5
B-14-110 Deficiency Sketches

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR LESS OTHERWISE SHOWN OR NOTED.

ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" DIA. FRICTION & HIGH-TENSILE STRENGTH BOLTS UNLESS SHOWN OR NOTED OTHERWISE.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING TO THE EXTENT SHOWN ON THIS SHEET AND IN THE ABUTMENT DETAILS.

THE FINISHED GRADED SECTION SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

SEE SHEET NUMBER 2 FOR UPPER LIMITS OF EXCAVATION AT THE ABUTMENTS.

DESIGN DATA

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 LBS/S.F.

LIVE LOAD:

DESIGN RATING	HS20
INVENTORY RATING	HS27
OPERATING RATING	HS45
MAX. STD. PERMIT VEHICLE LOAD	250 K

ULTIMATE DESIGN STRESSES

CONCRETE MASONRY SLAB	$f_c = 4,000$ p.s.i.
ALL OTHER	$f_c = 3,500$ p.s.i.
HIGH STRENGTH BAR	
STEEL REINFORCEMENT	$f_y = 60,000$ p.s.i.
HIGH STRENGTH LOW ALLOY STEEL (A709 GRADE 50)	$f_y = 50,000$ p.s.i.
SECONDARY MEMBERS A36	$f_y = 36,000$ p.s.i.

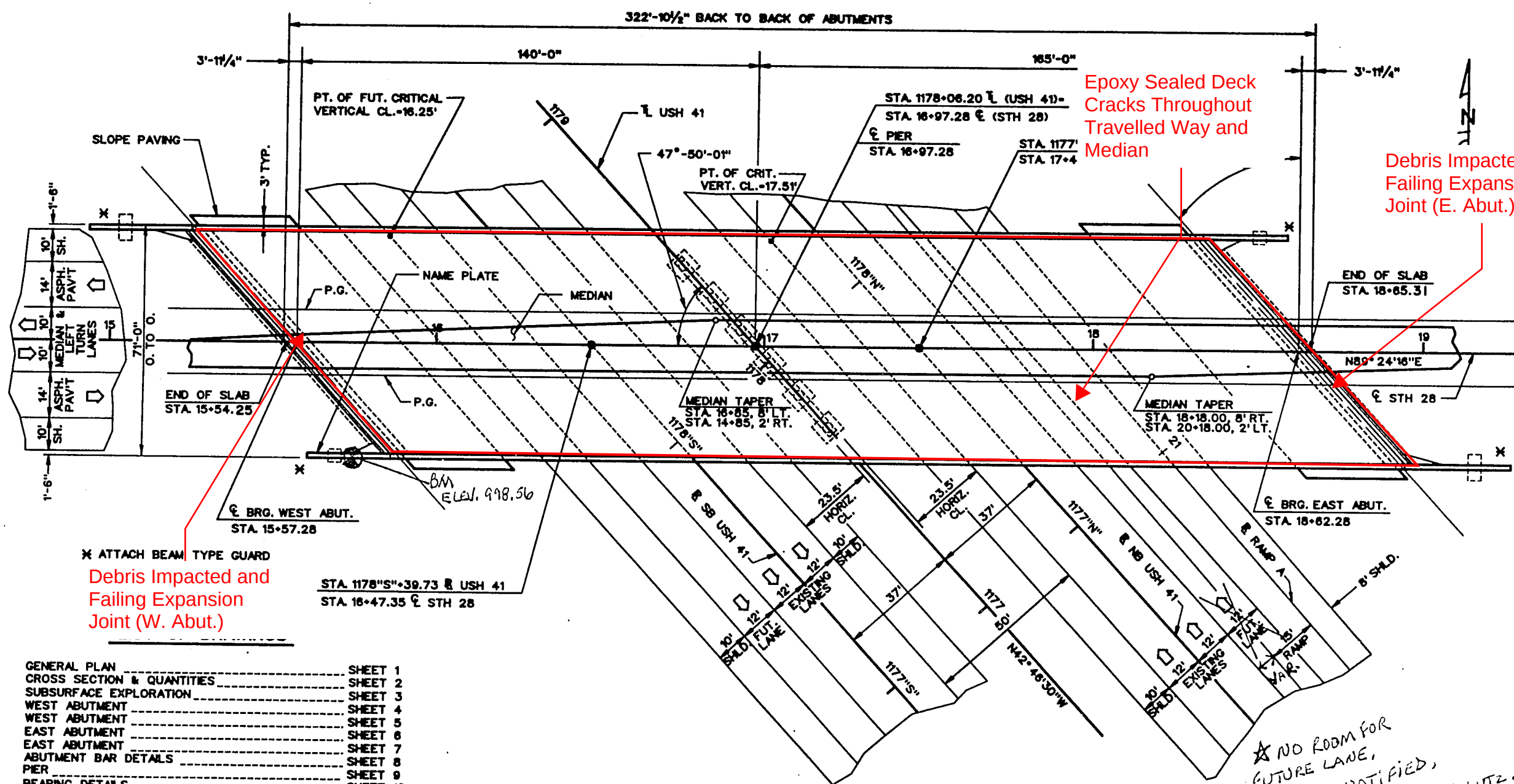
FOUNDATION DATA:

PLACE ABUTMENTS ON HP 10x42 STEEL PILING DRIVEN TO 55 TONS/PILE MINIMUM BEARING. EST. PILE LENGTH 55'-0" W.A., 65'-0" E.A.

PLACE PIER ON HP 10x42 STEEL PILING DRIVEN TO 55 TONS/PILE MINIMUM BEARING. EST. PILE LENGTH 40'-0"

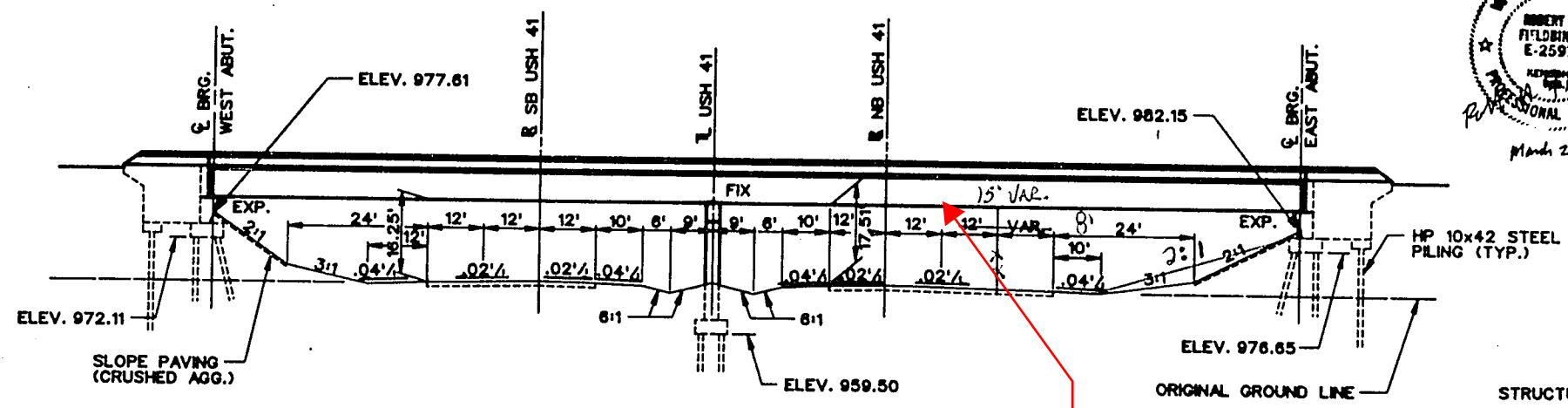
TRAFFIC DATA:

STH 28	USH 41
A.D.T. - 2,220 (2014)	A.D.T. - 31,000 (2014)
R.D.S. - 45 M.P.H.	R.D.S. - 70 M.P.H.

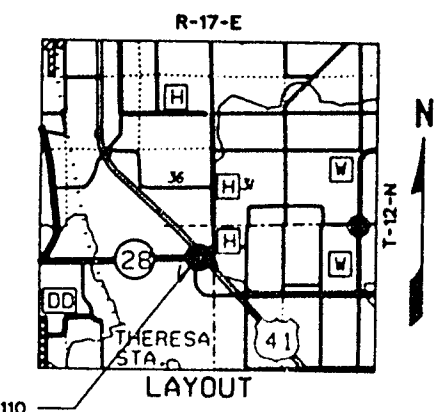


GENERAL PLAN	SHEET 1
CROSS SECTION & QUANTITIES	SHEET 2
SUBSURFACE EXPLORATION	SHEET 3
WEST ABUTMENT	SHEET 4
WEST ABUTMENT	SHEET 5
EAST ABUTMENT	SHEET 6
EAST ABUTMENT	SHEET 7
ABUTMENT BAR DETAILS	SHEET 8
PIER	SHEET 9
BEARING DETAILS	SHEET 10
FRAMING PLAN	SHEET 11
STRUCTURAL STEEL DETAILS	SHEET 12
DECK ELEVATIONS & DEFLECTIONS	SHEET 13
SUPERSTRUCTURE	SHEET 14
SUPERSTRUCTURE	SHEET 15
NEOPRENE SEAL & EXPANSION JOINT DETAILS	SHEET 16
PARAPET DETAILS	SHEET 17

PLAN B-14-110
2 SPAN - STEEL PLATE GIRDERS



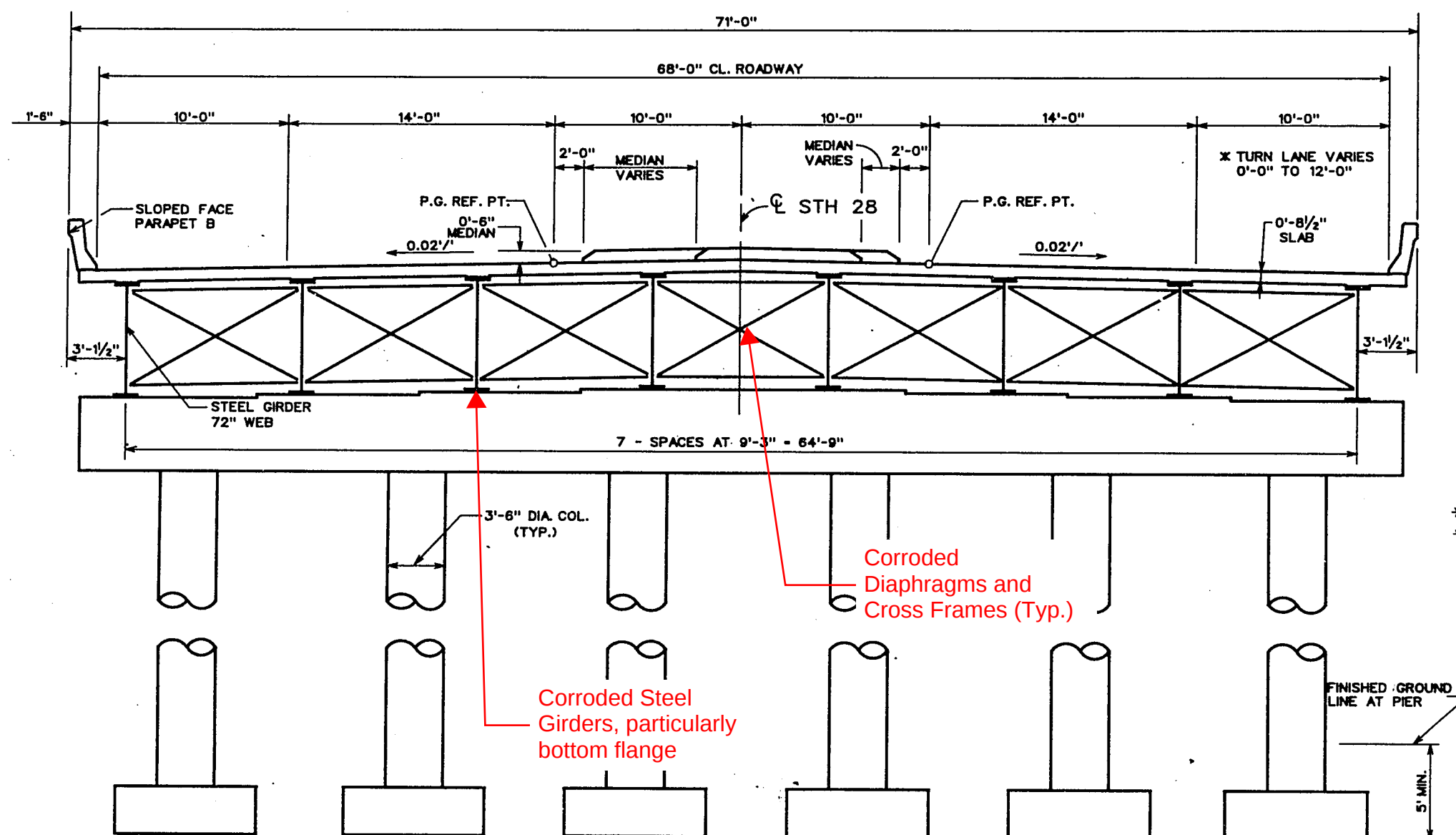
ELEVATION
NORMAL TO USH 41
(LOOKING NORTH)



BRIDGE OFFICE CONTACT:
DAVE BABLER (608) 264-9425

alfred benesch & company
CONSULTING ENGINEERS
4833 WASHINGTON ROAD
KENOSHA, WISCONSIN
414/652-6677

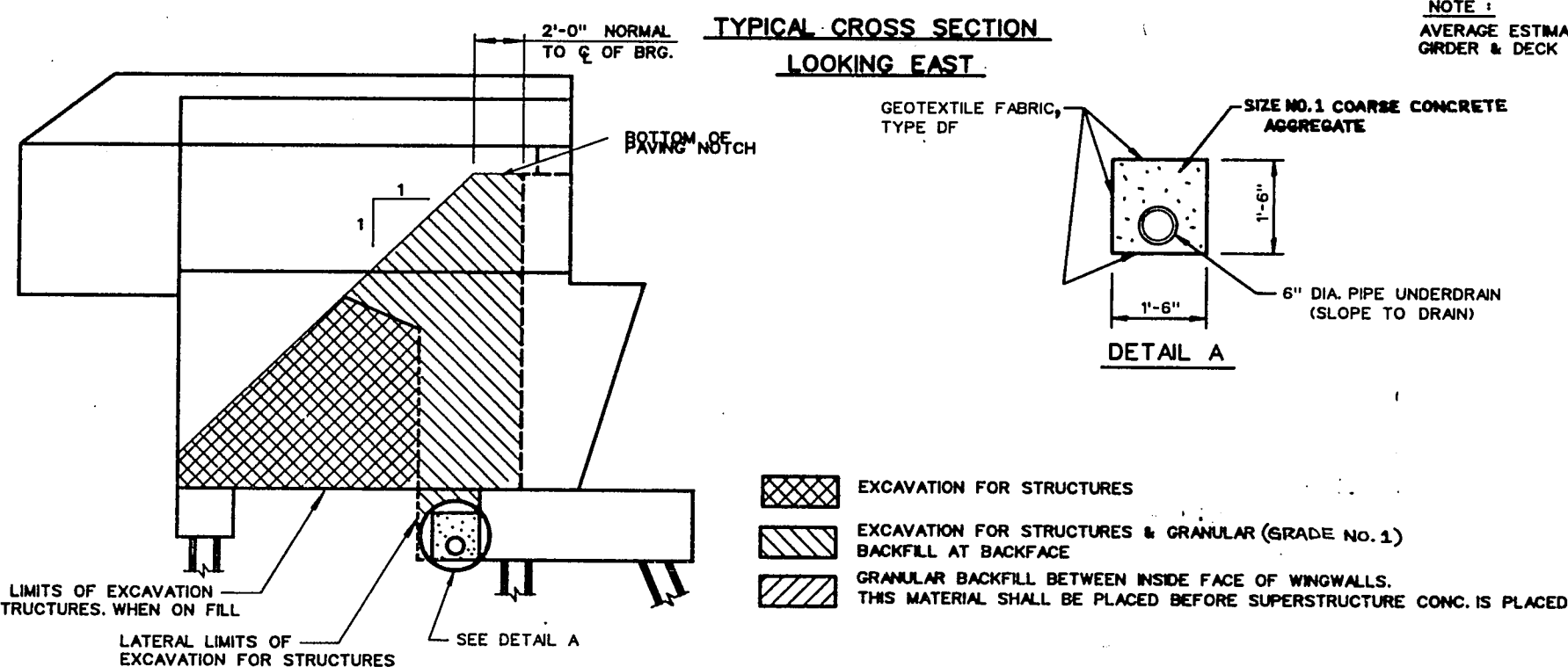
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-14-110			
STH 28 OVER USH 41			
County	DODGE	Town/City/Village	THeresa
Design Spec.	AASHTO 1992	Load	HS 20
Design	SB	Checked	BC
Drawn	JB	Phone	BC
Approved	[Signature] 5-20-93		
Bridge Engineer			Date



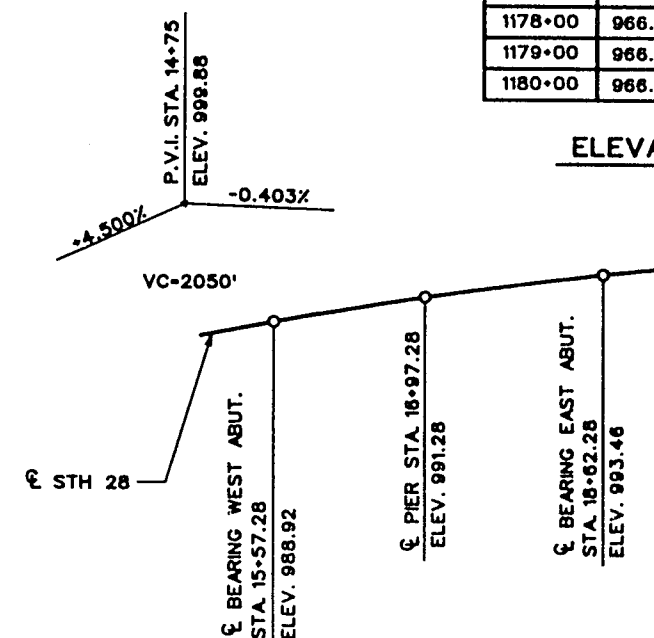
TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	W. ABUT.	PIER 1	E. ABUT.	SUPER	TOTAL
EXCAVATION FOR STRUCTURES, BRIDGES B-14-110	L.S.	—	—	—	—	1
CONCRETE MASONRY, BRIDGES	C.Y.	222	160	223	742	1,347
PROTECTIVE SURFACE TREATMENT	GAL.	—	—	—	75	75
EXPANSION DEVICE, STRUCTURE B-14-110	L.S.	—	—	—	1	1
HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	L.B.	11,020	2,580	11,010	—	24,610
COATED HIGH STRENGTH BAR STEEL REINF, BRIDGES	L.B.	9,490	29,610	9,420	157,780	206,300
HIGH STRENGTH STRUCTURAL STEEL	L.B.	—	—	—	707,266	707,266
STRUCTURAL CARBON STEEL	L.B.	—	—	—	62,424	62,424
WELDED STUD SHEAR CONNECTORS, 3/8" x 4-INCH	EACH	—	—	—	3,384	3,384
FIXED BEARING ASSEMBLIES, STRUCTURE B-14-110	EACH	—	8	—	—	8
EXPANSION BEARING ASSEMBLIES, STRUCT. B-14-110	EACH	8	—	8	—	16
STEEL PILING, DELIVERED AND DRIVEN, HP 10-INCH 42 POUND	L.F.	1,650	1,920	1,950	—	5,520
PAINTING, EPOXY SYSTEM, STRUCTURE B-14-110	L.S.	—	—	—	1	1
TEMPORARY PRECAST CONCRETE BARRIER, DELIVERED	L.F.	—	—	—	305	305 *
TEMPORARY PRECAST CONCRETE BARRIER, INSTALLED	L.F.	—	—	—	305	305
SLOPE PAVING, CRUSHED AGGREGATE	S.Y.	148	—	194	—	342
ANCHOR ASSEMBLYS FOR STEEL PLATE BEAM GUARD	EACH	—	—	—	4	4
PIPE UNDERDRAIN, 6-INCH	L.F.	110	—	110	—	220
GEOTEXTILE FABRIC, TYPE DF	S.Y.	55	—	55	—	110
NON-BID ITEMS						
POLYVINYL CHLORIDE WATERSTOP	L.F.	95	—	95	—	190

* 2 END SECTIONS REQ'D.
** FOR PIER PROTECTION IN MEDIAN OF USH 41



LIMITS FOR EXCAVATION FOR
STRUCTURES & GRANULAR BACKFILL (GRADE NO.1)

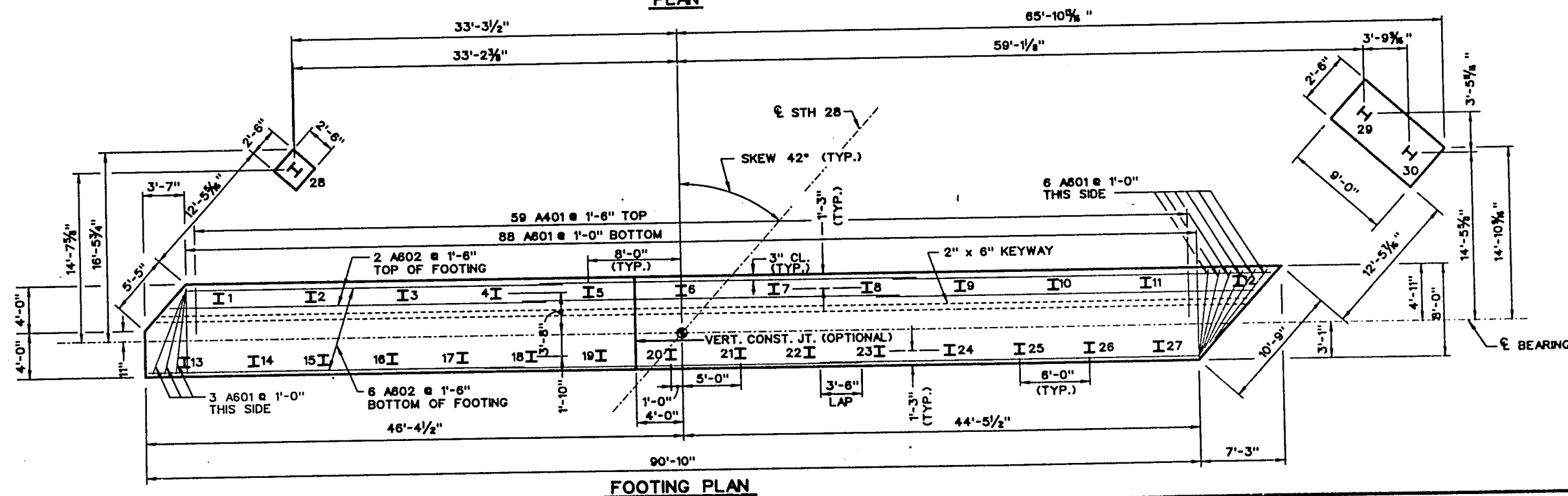
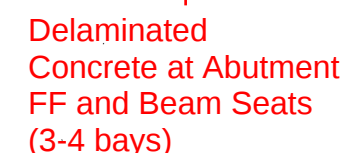


PROFILE GRADE LINE STH 28

STA.	S.B.			N.B.		
	12' LT.	℄	12' RT.	12' LT.	℄	12' RT.
1176+00	966.14	966.27	966.12	966.33	966.51	966.21
1177+00	966.12	966.22	966.09	966.33	966.49	966.21
1178+00	966.05	966.18	966.04	966.31	966.50	966.21
1179+00	966.03	966.18	966.02	966.24	966.47	966.22
1180+00	966.02	966.17	966.01	966.33	966.50	966.22

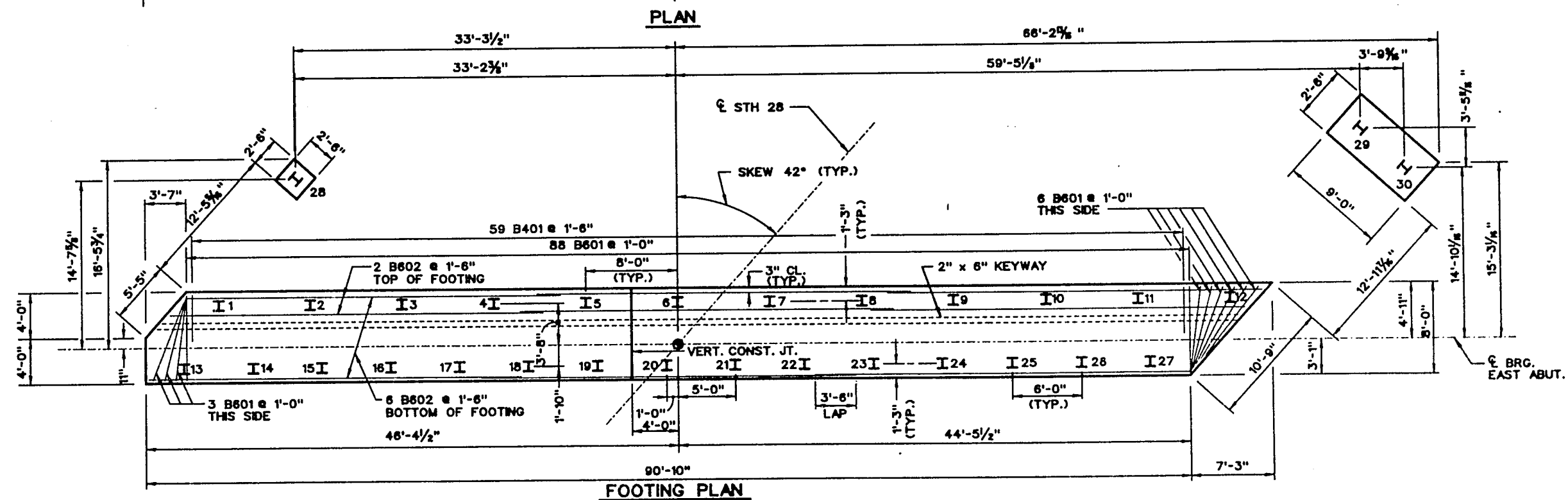
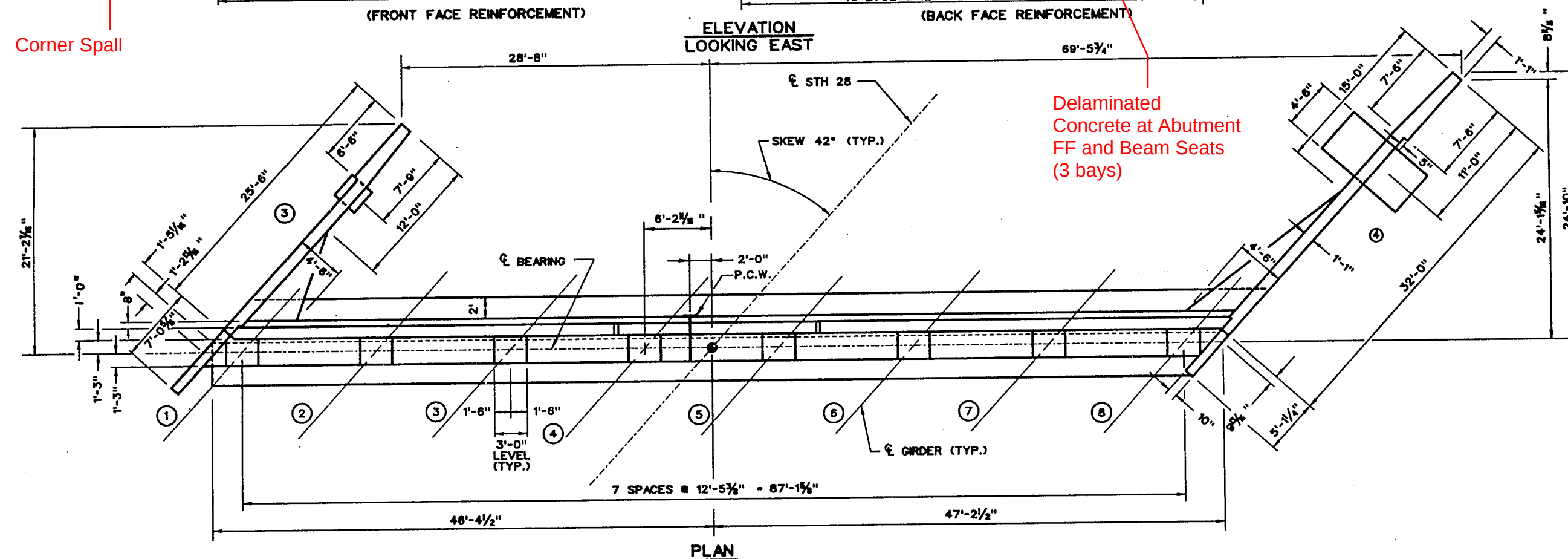
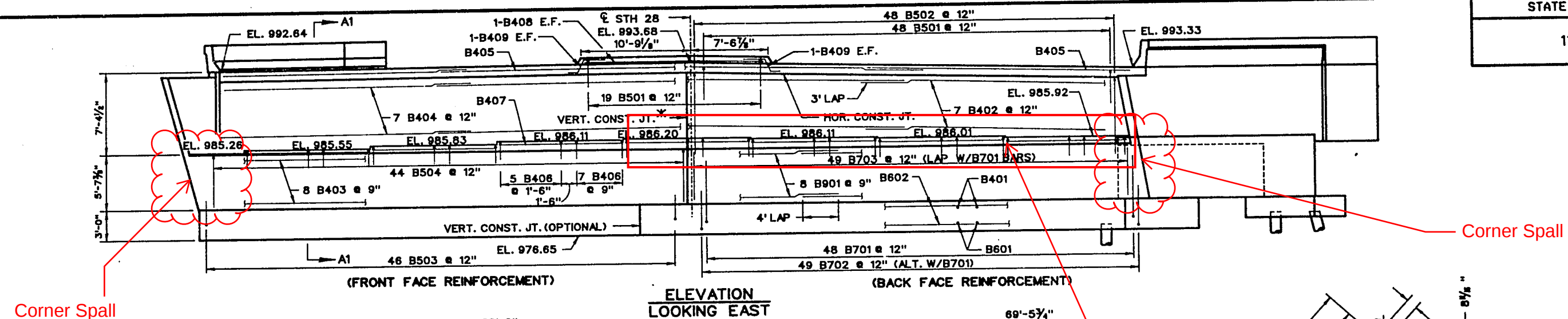
ELEVATIONS FOR EXISTING USH 41

NO.	DATE	REVISION	BY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS				
STRUCTURE B-14-110				
CONST. SPEC.	1989	DRAWN BY	JB	PLANS CKD. KM
CROSS SECTION AND QUANTITIES			SHEET 2 OF 1	
			183877	



* VERT. CONST. JT. FORMED BY SURFACED
BEVELED 2" x 8" KEYWAY. RUN BAR STEEL
THRU JOINT. BEVEL EXPOSED EDGES 1".

NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS				
STRUCTURE B-14-110				
CONST. SPEC. 1989	DESIGN BY SB	DRAWN BY JB	PLANS KID. KM	
WEST ABUTMENT			SHEET 4 OF 17 X 83877	



* VERT. CONST. JT. FORMED BY SURFACED
BEVELED 2" x 8" KEYWAY. RUN BAR STEEL
THRU JOINT. BEVEL EXPOSED EDGES 1".

NO.	DATE	REVISION		BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS				
STRUCTURE B-14-110				
CONST. SPEC.	1989	DESIGN BY	SB	DRAWN BY JB PLANS EXTD. KM
EAST ABUTMENT			SHEET 6 OF 17	
			X 83877	