REHABILITATION STRUCTURE SURVEY REPORT

Wisconsin Department of Transportation

DT1696 6/2012

☒ **Grade Separation** ☐ **Stream Crossing** ☐ **Culvert**

☐ **Railroad** ☐ **Retaining Wall** ☐ **Noise Barrier**

☐ **Sign Structure** ☐ **Other:** _____

For guidance see: **http://dotnet/dtid_bos/extranet/structures/reports-checklists.htm**

Design Project ID 1190-02-34	Construction Project ID 1190-02-64	Highway (Project Name) EAU CLAIRE - CHIPPEWA FALLS			
Final Plan Due Date 05/01/2018	Preliminary Plan Due Date 05/01/2018	☒ Town ☐ Village ☐ City WASHINGTON			
PS&E Date 08/01/2018	Letting Date 02/12/2019	County EAU CLAIRE			
Structure Number B-18-37		Section 35	Town 27N	Range 09W	
Station 62+62.51 - 63+60.17	Latitude: 444619.03 Longitude: 912540.6	☒ YES ☐ NO Structure Located on National Highway System			
For Survey and CADD Files Horizontal Coordinate System: Vertical Datum:		**Traffic Forecast Data**			
		Design Year	Average Daily Traffic (ADT)	Roadway Design Speed	Functional Class
Feature On USH 53 SB		Feature On 2014	14200	70 MPH	Principal Arterial
Feature Under KEYSTONE CROSSING		Feature Under			Collector
Region Contact: Adam Hetrick (Area Code) Telephone Number(s): 715-836-2855 Email: adam.hetrick@dot.wi.gov		Consultant Contact: (Area Code) Telephone Number(s): Email:			

Work To Be Performed

Field Information Required
Item Number *(see Pages 2–4)*

- ☐ A. Structural Repair 1–3, 22
- ☒ B. Overlay 1–3, 10–22, 26–28, 32, 34
  - ☐ Concrete Overlay ☐ Asphalt Overlay
  - ☐ Polymer Modified Asphalt Overlay ☒ Thin Bonded Polymer Overlay
  - ☐ Other: _____
- ☐ C. New Bearings 3, 8, 9, 22
- ☐ D. New Railings 15–17, 20–23
- ☐ E. Curb and Sidewalk Repair 2, 3, 16, 22, 23
- ☐ F. Abutment Repair 2, 3, 12, 16
- ☐ G. Pier Repair 2, 3, 12, 16
- ☐ H. New Deck 1–6, 9, 10, 13–28, 32–34
- ☐ I. Widening 1–28, 30, 32–35
- ☐ J. Joint Repair 2, 3, 8, 16, 19, 22
- ☐ K. Surface Repair 2, 3, 22
- ☐ L. Raising Bridge 3, 6, 9, 16, 20–24
- ☐ M. Slope Stabilization 1–3, 30
- ☐ N. Scour Repair ..... 1, 2 or 3, 16, 19, 21, 27, 29, 31–35
- ☐ O. Painting 16, 22, 24
- ☐ P. Other: _____

Field Information Required

If no structure number exists provide the following: Small County Map on which the location of proposed structure is shown in red and any highway relocation in green. In addition, provide Location Map of scale not less than 1" = 2000' showing the structure location and number.

☒ 1. Most recent inspection report, brief history of bridge construction date, and description of repairs with dates.

☒ 2. Outline deficient areas on existing structure plan or drawing.

☒ 3. Photographs of details requiring repairs or modifications, such as: bearings, x-frames, joints, etc. Photograph all deficient areas. Clearly label all photographs.

☐ 4. Provide proposed typical section for roadway and structure showing dimensions and cross slopes.

☐ 5. Survey beam seat or girder elevations at both sides of bridge at all substructure units.

☐ 6. Provide cross-section elevations at 10 foot intervals extending across the structure and a minimum of 100 feet beyond each end. Sections should be normal to centerline and show elevations at centerline roadway and gutter line. Take elevations along joints and at floor drains.

☐ 7. Show and identify starting stationing on bridge.

☐ 8. Record measurement, temperature of the structure, and date taken for each of the following:
(a) Joint opening measured normal to joint at centerline of roadway and both curb lines.
(b) Clearance between girder ends at piers.
(c) Distance from front face of abutment backwall to closest point of girder end measured parallel to girder.
(d) Temperature of structure determined by averaging top and under deck (if accessible) readings.

☐ 9. Fixed and expansion bearings - condition and orientation.

☒10. Number and width of proposed pours including construction staging sequence.

☒11. Location of existing construction joints in the deck.

☒12. Estimated Quantities:

Preparation, Decks, Type 1	Sq. Yd. 0	
Preparation, Decks, Type 2	Sq. Yd. 0	
Full Depth Deck Repair	Sq. Yd. 0	Galvanic Anodes? NO
Concrete Surface Repair Superstructure	Sq. Ft. 0	Galvanic Anodes? NO
Concrete Surface Repair Substructure	Sq. Ft. 0	Galvanic Anodes? NO
Curb Repair	LF. 0	Galvanic Anodes? NO

☒13. Sufficiency number: 98.0 (obtain from HSI Bridge Inventory System)

☒14. Appraisal and Condition Rating

	Deck Condition	Superstructure Condition	Substructure Condition	Load Capacity Appraisal	Structural EVAL Appraisal
Current	6	6	7	5	6

☒ 15. Load Ratings

	Inventory	Operational
Current Calculated Date: 07/11/2013	HS23	HS39
After Completed by Bridge Designer		

☒ 16. Utilities on/near Structure. (WisDOT policy is to avoid placing utilities on the structure.)
☐ Yes ☒ No

Type	Owner and Contact Information	Size	Opening at Abutment	Weight	Pressure

☒ 17. Is existing bridge railing deficient?
☐ Yes ☒ No If Yes – Replacement Rail Type:

☐ 18. Drains to be:
☐ Raised ☐ Closed ☐ Downspouted ☐ New

☒ 19. Traffic maintained on bridge during work?
☒ Yes ☐ No If Yes – Include sketches

☒ 20. Will guard rail be attached?
☐ Yes ☒ No If Yes – Which corners? Existing guardrail to remain at all corners.

☒ 21. Will work to be performed eliminate all deficiencies?
☒ Yes ☐ No If No – Explain:

☒ 22. Hazardous waste (asbestos) to be removed?
☐ Yes ☒ No If Yes – Explain:

☐ 23. Wing location(s) for surface drain anchors:

☒ 24. Painting?
☐ Yes ☒ No If Yes – Explain on Page 4
(all, part, railing, color system, containment, bid items)

☐ 25. Desired roadway width: *(new deck / widening)* _____ Ft.
Desired sidewalk clear width: Left: _____ Ft. Right: _____ Ft.

☒ 26. Maximum increase in grade line elevation 3/8 In.

☒ 27. Benchmark description to be shown

☒ 28. Desired final cross slopes on bridge 0.015 Ft./Ft.

☐ 29. Underwater Inspection Report including:
- Streambed Cross Section With Pier, Footing and Seal Elevations
- Pier Elevation Drawings
- Pier Layout
- Hydrographic Survey

☐ 30. Slope stabilization, provide:
Type: _____ Quantity: _____ CY.
Slope: _____ Ft./Ft. Fill: _____ CY.

☐ 31. Preliminary layout of grout bags or proposed scour repair.
C.I.P. Articulated Mats (for Scour) _____ CY.
Grout Bags (for Scour) _____ CY.
Heavy Riprap _____ CY.
Extra Heavy Riprap _____ CY.

☒ 32. Report submitted with Preliminary Plan requires **no** CADD file submittal *(See ESubmittal instructions)*.

☐ 33. Report submitted for development of Preliminary Plan to structure design engineer requires CADD file (if available) submittal and Report submittal to Soils Engineer if project involves foundation modifications.

☐ 34. Coordinate with structure design engineer **before** going into the field if existing structure has no available plans, if staged construction is planned, or if there are adjoining/adjacent structures that will remain in place.

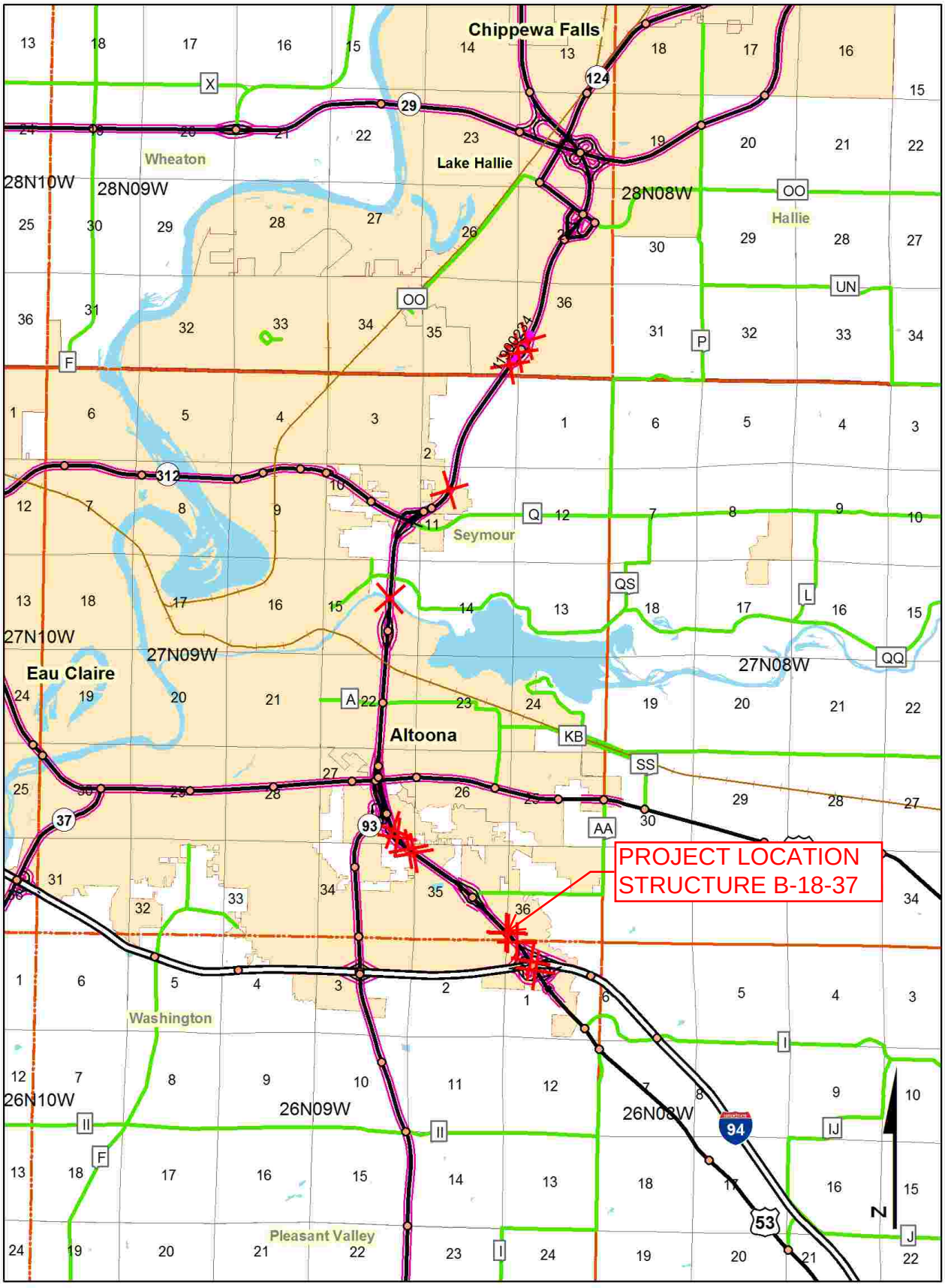
☐ 35. If project involves substructure widening coordinate with structure and/or hydraulic design engineer to determine if information on the separation and/or stream crossing SSR will be required.

Additional Information

Elaborate on other concerns such as: DNR, Local, Utility Conflicts, Aesthetics, Railing Type and Staged Construction.
Please be as detailed and specific as possible.

1.) Structure built in 1966. Concrete Masonry Deck Overlay was completed in 1989 and in 2008. See attached Bridge Inspection Report.
2.) Deficient areas to be determined in the field by the engineer. See attached Bridge Inspection Report. A Polymer Overlay is proposed because of deficiency over the entire structure due to poor bridge deck surface. The deck has numerous hairline longitudinal/mapping cracks in the turn lane to I-94 WB and in the mainline bridge. The deck has numerous longitudinal and transverse cracks at the abutments. The bridge deck was scanned with Infrared Thermography in 2009 and showed 1.2% delamination.
3.) See attached photographs.
10.) This work will be constructed half at a time under traffic using single lane closures during non-peak hours with night work. Nighttime ramp closures are anticipated at some structures. All lanes and ramps will be opened to traffic daily.
11.) See asbuilt plans.
16.) No utilities on or near structure. No conflicts anticipated.
19.) This work will be constructed half at a time under traffic using single lane closures during non-peak hours with night work. Nighttime ramp closures are anticipated at some structures. All lanes and ramps will be opened to traffic daily.
22.) See attached Asbestos Inspection Report. Asbestos-containing material was found in the gasket under the railing attachment plates on the concrete parapet. If the asbestos-containing material is not disturbed during construction, the asbestos-containing material can remain.
27.) To be determined.
32.) See preliminary plans.

CDR Map


Chippewa Falls
Wheaton
Lake Hallie
Hallie
Seymour
Eau Claire
Altoona
Washington
Pleasant Valley
28N10W
28N09W
28N08W
27N10W
27N09W
27N08W
26N10W
26N09W
26N08W
PROJECT LOCATION
STRUCTURE B-18-37
N

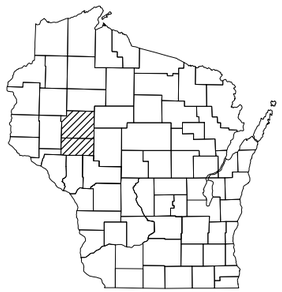
PROJECT ID: 1190-02-64

WITH:

COUNTY: EAU CLAIRE / CHIPPEWA

ORDER OF SHEETS

TOTAL SHEETS =



N

DESIGN DESIGNATION

A.A.D.T.	=
A.A.D.T.	=
D.H.V.	=
D.D.	=
T.	=
DESIGN SPEED	=
ESALS	=

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

EAU CLAIRE - CHIPPEWA FALLS

IH 94 TO 40TH AVENUE (11 BRIDGES)

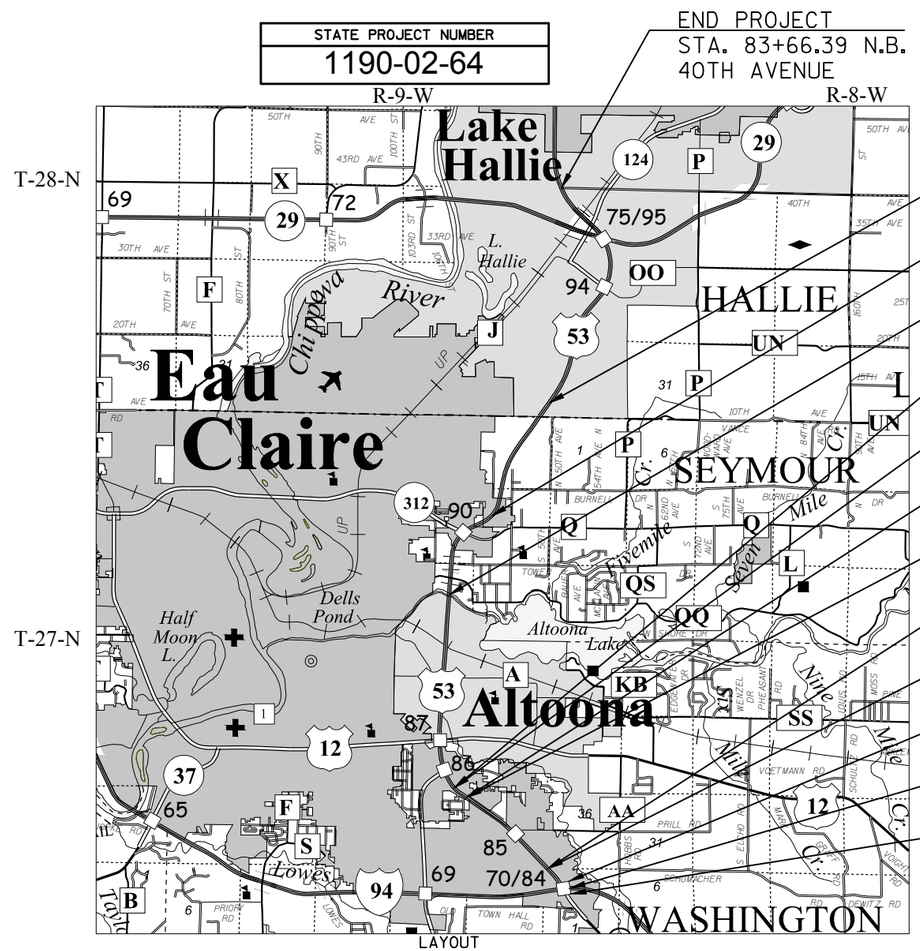
USH 53

EAU CLAIRE AND CHIPPEWA COUNTIES

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1190-02-64		

STATE PROJECT NUMBER
1190-02-64

END PROJECT
STA. 83+66.39 N.B.
40TH AVENUE



LAYOUT

SCALE 0 2 MILES

TOTAL NET LENGTH OF CENTERLINE = 11.26 MILES

STRUCTURE B-09-262
STRUCTURE B-18-190
STRUCTURE B-18-168
STRUCTURE B-18-178
STRUCTURE B-18-182
STRUCTURE B-18-183
STRUCTURE B-18-184
STRUCTURE B-18-37
STRUCTURE B-18-38
STRUCTURE B-18-35
STRUCTURE B-18-36

BEGIN PROJECT
STA. 38+66.40 N.B.
IH 94
X = 359529.44
Y = 262430.72

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, EAU CLAIRE COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	ADAM HETRICK
Project Manager	DAVID KOEPP
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	TMOTHY MASON

APPROVED FOR THE DEPARTMENT

DATE: _____ _____ (Signature)

E

FILE NAME : N:\PDS\C3D\11900264\SHEETSPLAN\010101_TI.DWG
LAYOUT NAME - ****

PLOT DATE : 6/17/2015 3:44 PM

PLOT BY : HETRICK, ADAM M PLOT NAME :

route: 053S county: EAU CLAIRE date: 08/14/2013 plm: 140.043

Lat: 44.77255593 Long: -91.42868141 Elev: 835.27 ft.

\\doteauplog1p\photolog\Rg5\053S_R5_2013\\Front\Dir_142\F_14232.jpg

route: 053S county: EAU CLAIRE date: 08/14/2013 plm: 140.053

Lat: 44.77245365 Long: -91.42853794 Elev: 835.07 ft.

\\doteauplog1p\photolog\Rg5\053S_R5_2013\\Front\Dir_142\F_14233.jpg

route: 053S county: EAU CLAIRE date: 08/14/2013 plm: 140.063

Lat: 44.77235086 Long: -91.42839319 Elev: 834.65 ft.

\\doteauplog1p\photolog\Rg5\053S_R5_2013\\Front\Dir_142\F_14234.jpg

route: 053S county: EAU CLAIRE date: 08/14/2013 plm: 140.073

Lat: 44.7722493 Long: -91.42824979 Elev: 834.17 ft.

\\doteauplog1p\photolog\Rg5\053S_R5_2013\\Front\Dir_142\F_14235.jpg

route: 053S county: EAU CLAIRE date: 08/14/2013 plm: 140.083

Lat: 44.77214724 Long: -91.42810593 Elev: 833.84 ft.

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route: 053S county: EAU CLAIRE date: 08/14/2013 plm: 140.093

Lat: 44.77204485 Long: -91.42796185 Elev: 833.21 ft.

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route: 053S county: EAU CLAIRE date: 08/14/2013 plm: 140.103

Lat: 44.7719419 Long: -91.42781745 Elev: 832.63 ft.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Inspection Report for B-18-037

USH 53 SB over TOWN RD

Jul 14,2015

Type	Prior	Frequency (mos)	Performed
Routine	07-14-15	24	X
Interim	12-06-11	0	
SI&A	07-11-13	48	

Latitude	44°46'19.03"N	Owner	STATE HIGHWAY DEPT
Longitude	91°25'40.60"W	Maintainer	STATE HIGHWAY DEPT

Time Log

Hours	Minutes
1	41

Team members

	Name	Number	Signature	Date
Inspector	Frueh, Rick J	1003	Completed by HSI System Account(HSI)	
Reviewer				

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

Identification & Location

Feature On: USH 53 SB	Section Town Range: S35 T27N R09W	Structure Number: **B-18-037**
Feature Under: TOWN RD	County: EAU CLAIRE(18)	
Location: 2.1M S JCT STH 93 TO S	Municipality: TOWN-WASHINGTON(18024)	Structure Name:

Geometry

measurements in feet, except where noted

Approach Roadway Width: 40	Bridge Roadway Width: 64.0	Total Length: 97.7
Approach Pavement Width: 24	Deck Width: 79.0	Deck Area (sq ft): 7718

Traffic

	Lanes	ADT	ADT year	Traffic Pattern
On	3	16200	1993	ONE WAY TRAFFIC
Under	2	35	1981	TWO WAY TRAFFIC

Capacity

Load Rating

Inventory rating: HS23	Overburden depth (in): 1.5	Last rating date:	Controlling: SLAB Positive Moment
Operating rating: HS39	Deck surface material: CONCRETE	Re-rate for capacity (Y/N):	Control location: 0.4 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	Sufficieny #: 98.0

Span(s)

Span #	Material	Configuration	Depth (in)	Length (ft)	Main
1	CONT CONCRETE	FLAT SLAB		30.5	
2	CONT CONCRETE	FLAT SLAB		36.5	Y
3	CONT CONCRETE	FLAT SLAB		30.5	

Expansion joint(s)

Temperature: File: | New:

Vertical Clearance

	Measurement file (ft)	File Date	Measurement new (ft)
Highway Minimum Under Cardinal	14.5		
Highway Minimum Under Non-Cardinal			
Highway Minimum On			
Railroad Minimum Under			

Elements

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State 1	2	3	4
X	**38**		**Reinforced Concrete Slab** Mill and overlay in 2008. **West side of** Bridge deck has turn lane to WB I-94. Deck was scanned with Infrared Thermography in 2009 and showed 1.2% delam.	SF	7,718	7,680	38	0	0
		1130	Cracking (RC) **Few hairline leaching Longitudinal/transverse cracks at abutments.**	SF		116	38	0	0
	8514		Concrete Overlay Mill and overlay in 2008. **West side of** Bridge deck has turn lane to WB I-94. Deck was scanned with Infrared Thermography in 2009 and showed 1.2% delam.	SF	7,718	6,000	1,718	0	0
		3220	Crack (Wearing Surface) **Numerous hairline to medium longitudinal cracks at abutments.**	SF		4,112	1,718	0	0
X	**205**		**Reinforced Concrete Column** OK	EA	14	10	4	0	0
		1130	Cracking (RC) **Couple hairline vertical cracks.**	EA		0	4	0	0
X	**215**		**Reinforced Concrete Abutment**	LF	159	139	14	6	0
		1080	Delamination - Spall - Patched Area **3 ft X 2 ft spall in Southwest corner behind wingwall with expose rebar.**	LF		0	0	6	0
		1130	Cracking (RC) **Few hairline vertical cracks.**	LF		26	14	0	0
X	**331**		**Reinforced Concrete Bridge Rail** **Concrete parapet railing has a Aluminum tubing on top.**	LF	236	210	26	0	0
		1080	Delamination - Spall - Patched Area **Few concrete patched spalls.**	LF		0	26	0	0
		1130	Cracking (RC) **Few hairline vertical cracks**	LF		44	26	0	0
X	**8400**		**Integral Wingwall**	EA	4	0	3	1	0
		8902	Wingwall Movement **All the wings have tipped outward little bit.** **Northeast wingwall tipped outward about 3 1/2".**	EA		0	3	1	0

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

Structure No.:**B-18-037**

Assessments

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State 1	2	3	4
X	**9007**		**Median**	EA	98	98	0	0	0
			Bridge Median between I-94 off ramp and South bound 53 (mainline)**.**						
X	**9030**		**Signs - Object Markers**	EA	4	4	0	0	0
			2 North End.						
X	**9043**		**Slope Protection- Crushed Aggregate with Bit.**	EA	2	2	0	0	0
			New in 1996. South slope bottom half reoil in 2008. South slope has 4 **ft** block retaining wall a**nd sidewallk a**t toe.						
X	**9322**		**Approach Roadway - Concrete (non-structural)**	EA	2	2	0	0	0
X	**9335**		**Decorative Rail**	EA	2	0	2	0	0
			West Alum tube 6th mounting bracket from north is broken away from Alum tube. **West Alum rail is bent.** **Cut in Alum on East rail at 4th mounting bracket.**						

NBI Ratings

	File	New
Deck	6	6
Superstructure	6	6
Substructure	7	7
Culvert	N	N
Channel	N	N
Waterway	N	N

Structure Specific Notes

The spalls at the transv. saw cut are getting worse and need to be addressed either with county repair or new o-lay.

Inspection Specific Notes

Inspector Site-Specific Safety Considerations

Structure Inspection Procedures

Walk around.

Special Requirements

	Chk	Comments
Traffic Control		
Access Equipment		
Other		

Special Components

Component	Year	Work Performed	Note
DECK - IOWA MIX	1989	OVERLAY - CONCRETE	

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

Structure No.:**B-18-037**

Construction History

Year	Work Performed	FOS id
2008	OVERLAY - CONCRETE	1191-06-61
1989	OVERLAY - CONCRETE	0018-94-10
1966	NEW STRUCTURE	

Maintenance Items History

Item	Recommended by	Status	Status change	Year completed

Maintenance Items

Item	Priority	Recommended by	Status	Status change

Routine

Document Comment/Description

Routine
Document Comment/Description

Routine
Document Comment/Description

708 Heartland Trail, Suite 3000
Madison, WI 53717

608.826.3600 PHONE
608.826.3941 FAX

www.TRCsolutions.com

Bridge Asbestos Inspection Report

WisDOT Project ID: 1190-02-34
Structure Number: B-18-0037, B-18-0038
Structure Name: USH 53 over Town Road
City/County: Town of Washington, Eau Claire County
Lat/Long Coordinates: 444619.03/ 912540.6, 444619.34/ 912537.97
TRC Project Number: 235777.0000.0000
Date Inspected: October 14, 2015
Inspected By/License Number: John Roelke, AII-119523

Findings:

The inspection to identify and collect samples of potential asbestos-containing material (ACM) was completed following WisDOT standard sampling procedure for bridge inspections found in FDM 21-35-45.

On both of the bridges, the gaskets located under the railing attachment plates on the parapet tested positive for asbestos greater than 1% and is therefore regulated ACM. If the ACM will be disturbed during the planned overlays, the ACM must be removed prior to any work. Standard Special Provision (STSP) 203-005 should be incorporated into the specifications. If the ACM will not be disturbed during the planned overlays, STSP 107-120 should be included in the specifications.

Sample Number	Sample Description	Sample Location	Analytical Results and Method	Friable/ Non-friable or No ACM	Quantity of ACM Material
B-18-0037					
1	Gasket	Under railing attachment plate	PLM, 3%	Friable	30x7”x7” + 4x20”x8” = 15 sq ft
2	Gasket	Under railing attachment plate	Not analyzed, positive stop	--	
3	Gasket	Under railing attachment plate	Not analyzed, positive stop	--	
4	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	0
5	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
6	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	

Sample Number	Sample Description	Sample Location	Analytical Results and Method	Friable/ Non-friable or No ACM	Quantity of ACM Material
7	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	0
8	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
9	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
10	Caulk	Abutment joint	PLM, non-detect	No ACM	0
11	Caulk	Abutment joint	PLM, non-detect	No ACM	
12	Caulk	Abutment joint	PLM, non-detect	No ACM	
B-18-0038					
1	Gasket	Under railing attachment plate	PLM, 10%	Friable	30x7”x7” + 4x20”x8” = 15 sq ft
2	Gasket	Under railing attachment plate	Not analyzed, positive stop	--	
3	Gasket	Under railing attachment plate	Not analyzed, positive stop	--	
4	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	0
5	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
6	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
7	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	0
8	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
9	Caulk	Parapet expansion joint	PLM, non-detect	No ACM	
10	Caulk	Abutment joint	PLM, non-detect	No ACM	0
11	Caulk	Abutment joint	PLM, non-detect	No ACM	
12	Caulk	Abutment joint	PLM, non-detect	No ACM	

If you have any questions, please contact me, at (608) 826-3628.

TRC Environmental Corporation

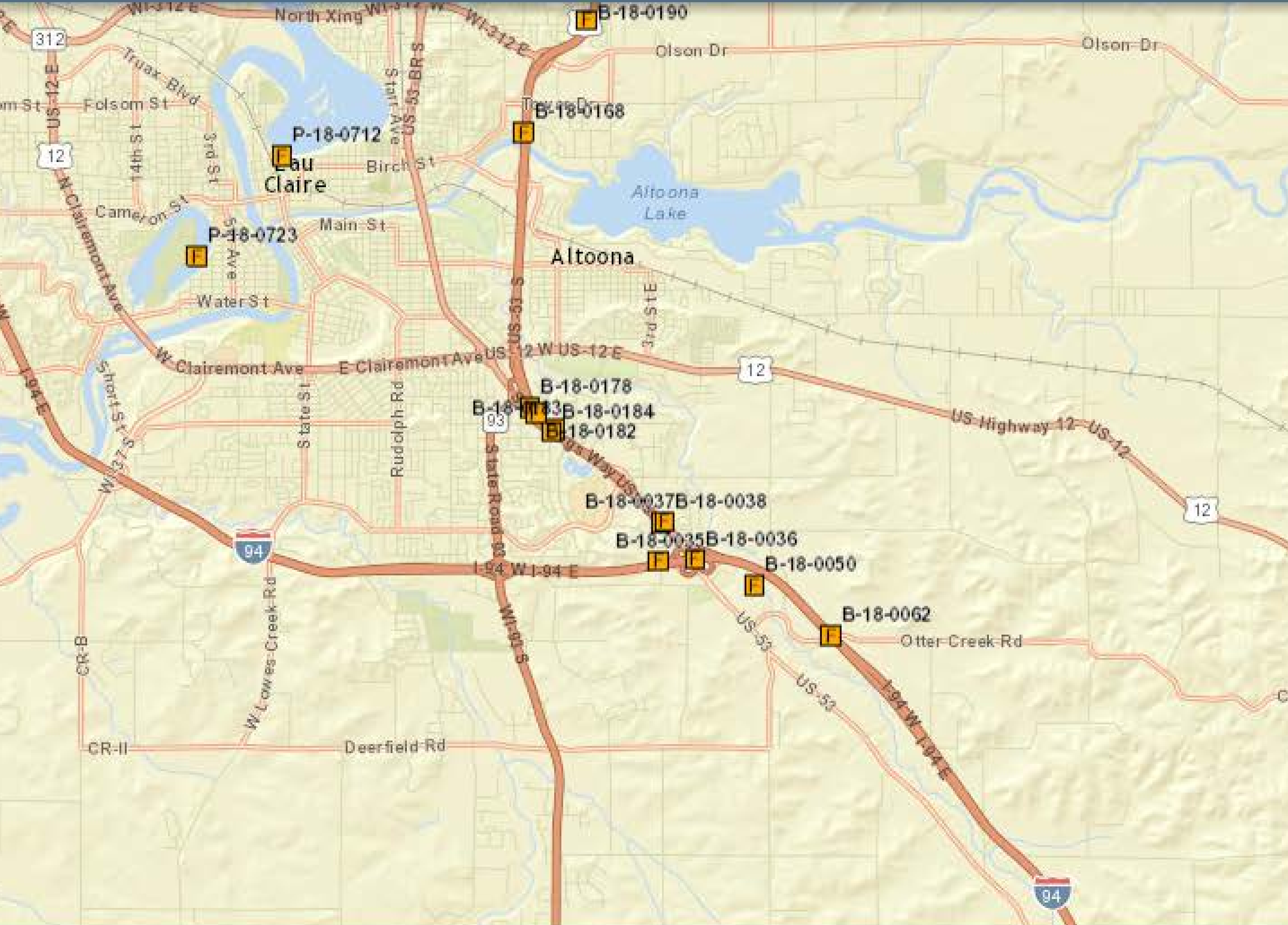
Daniel Haak
Project Manager

John Roelke
Asbestos Inspector

Attachments: Location Map, Photos, and Laboratory Reports

Report Distribution:

Recipient	Electronic (PDF) Copy	Paper Copy
BTS-ESS sharlene.tebeest@dot.wi.gov	X (via email)	X
REC amy.adrihan@dot.wi.gov; nicholasA.schaff@dot.wi.gov	X (via email)	
Project Manager david.koepp@dot.wi.gov	X (via email)	
Other		



North Xing
WI-312 E
312
B-18-0190
Olson Dr
Olson Dr
Truax Blvd
Folsom St
US-12 E
12
14th St
3rd St
P-18-0712
Eau
Claire
Birch St
Starr Ave
US-53-BR-S
B-18-0168
Altoona
Lake
Cameron St
P-18-0723
Main St
Altoona
3rd St E
Water St
N Clairemont Ave
W Clairemont Ave
E Clairemont Ave
US-12 W
US-12 E
12
US-53 S
B-18-0178
B-18-0184
B-18-0182
93
State St
Rudolph Rd
Short St
WI-37 S
US Highway 12
US-12
12
B-18-0037
B-18-0038
B-18-0035
B-18-0036
B-18-0050
B-18-0062
94
I-94 W
I-94 E
State Road 93
WI-93 S
Otter Creek Rd
US-53
US-53
W Lowes Creek Rd
CR-B
CR-II
Deerfield Rd
I-94 W
I-94 E
94

B-18-0037

Gasket under railing attachment plate

Caulk in parapet expansion joint

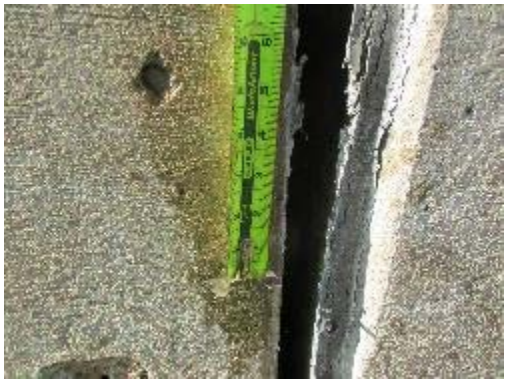
Caulk in parapet expansion joint

Caulk in abutment joint

B-18-0038

Gasket under railing attachment plate

Caulk in parapet expansion joint



Caulk in abutment joint

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: Wisconsin Department of Transportation

Lab Log #:	0047021
Project #:	235777.0000.0000
Date Received:	10/16/2015
Date Analyzed:	10/19/2015

Site: DOT Bridge Inspection, B-18-37

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
B-18-37 (1)	Grey	Yes	No	- -	- - -	3%	Chrysotile
B-18-37 (2)	- -	- -	- -	- -	- -	NA/PS	- -
B-18-37 (3)	- -	- -	- -	- -	- -	NA/PS	- -
B-18-37 (4)	Grey	Yes	No	- -	- - -	ND	None
B-18-37 (5)	Grey	Yes	No	- -	- - -	ND	None
B-18-37 (6)	Grey	Yes	No	- -	- - -	ND	None
B-18-37 (7)	Grey	Yes	No	- -	- - -	ND	None
B-18-37 (8)	Grey	Yes	No	- -	- - -	ND	None
B-18-37 (9)	Grey	Yes	No	- -	- - -	ND	None

Industrial Hygiene Laboratory
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Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

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), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes 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, 2016. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2016. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

Analyzed by: K. Williamson — Kathleen Williamson, Laboratory Manager

Reviewed by: Amanda Parkins — Amanda Parkins, Approved Signatory

Date Issued
10/19/2015

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: Wisconsin Department of Transportation

Lab Log #:	0047035
Project #:	235777.0000.0000
Date Received:	10/16/2015
Date Analyzed:	10/20/2015

Site: DOT Bridge Inspection, B-18-38

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
B-18-38 (1)	Grey	Yes	No	- -	- - -	10%	Chrysotile
B-18-38 (2)	- -	- -	- -	- -	- -	NA/PS	- -
B-18-38 (3)	- -	- -	- -	- -	- -	NA/PS	- -
B-18-38 (4)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (5)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (6)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (7)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (8)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (9)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (10)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (11)	Grey	Yes	No	- -	- - -	ND	None
B-18-38 (12)	Grey	Yes	No	- -	- - -	ND	None

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
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SNA- Sample Not Analyzed- See Chain of Custody for details

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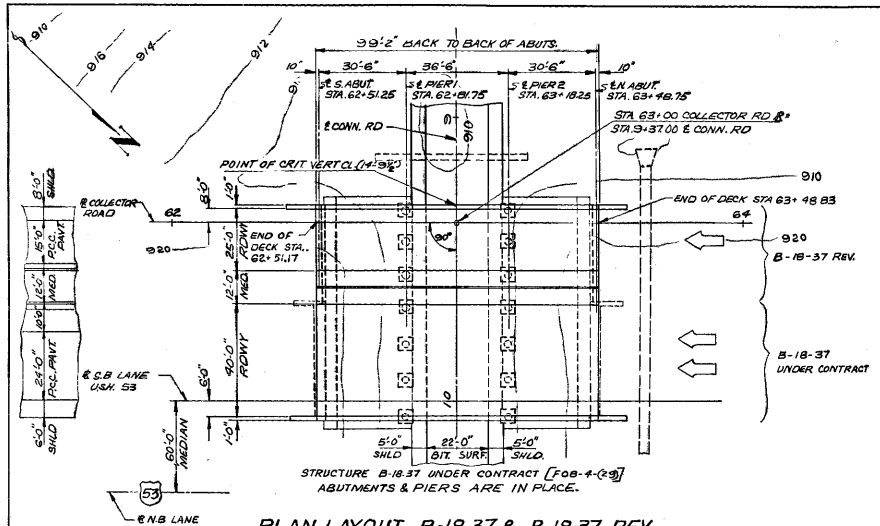
Analyzed by: K. Williamson — Kathleen Williamson, Laboratory Manager

Reviewed by: Amanda Parkins — Amanda Parkins, Approved Signatory

Date Issued 10/21/2015

FORM E-8-11-88

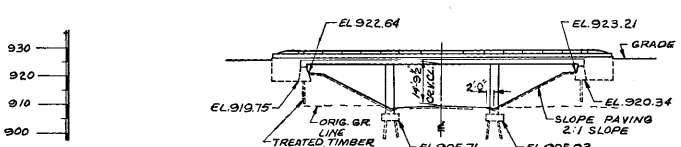
COUNTY & HIGHWAY	ROUTE & SECTION	I.C.	ASS'N AGREEMENT: STATE	FEDERAL	D.P.W. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
18.1	8.4	21.20			4			



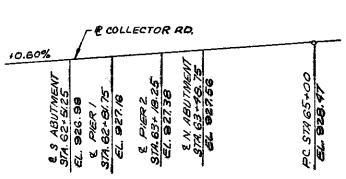
STRUCTURE B-18-37 UNDER CONTRACT [FOB-4-(29)]
ABUTMENTS & PIERS ARE IN PLACE.

PLAN LAYOUT B-18-37 & B-18-37 REV.

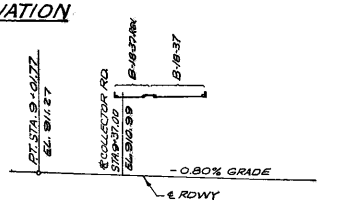
3 SPAN CONTINUOUS REINFORCED CONCRETE SLAB.



ELEVATION



PROFILE GRADE- COLLECTOR RD. U.S.H. 53



PROFILE GRADE- CONN. RD.

GENERAL NOTES

ALL CONCRETE MASONRY SHALL BE GRADE A-A.
BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
THE UPPER LIMITS FOR "EXCAVATION FOR STRUCTURES" SHALL BE THE FINISHED GRADED SECTION AT THE PIERS AND THE BOTTOM OF THE SLOPE PROTECTION AT THE ABUTMENTS.
ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW ABUTMENTS SHALL BE BACKFILLED WITH GRANULAR BACKFILL. PAYMENT WILL BE MADE ONLY FOR THE MATERIAL ACTUALLY PLACED WITHIN THE LIMITS SPECIFIED FOR "EXCAVATION FOR STRUCTURES."
JOINT FILLER SHALL CONFORM TO A.A.S.H.O. DESIGNATION M 153 TYPE III.

DESIGN DATA

LIVELOAD - HS20
ALLOWABLE DESIGN STRESSES:
CONCRETE MASONRY - GRADE "A-A" f_c = 1400 P.S.I.
BAR STEEL REINFORCEMENT f_s = 20000 P.S.I.

FOUNDATION DATA:
ALL SUBSTRUCTURE UNITS TO BE SUPPORTED ON TREATED TIMBER PILES AND DRIVEN TO A MINIMUM BEARING OF 24 TONS PER PILE. PIER PILES EST. 20'-0" LONG. A BUT. PILES EST. 30'-0" LONG.
USE TEST PILE INFORMATION FROM B-18-37.

TOTAL ADDITIONAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	S. ABUT.	PIER 1	PIER 2	N. ABUT.	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.	———	30	30	30	30	120
CONCRETE MASONRY	C.Y.	194.7	20.3	17.5	17.5	20.3	270.3
BAR STEEL REINFORCEMENT	LB.	49,560	980	2130	2130	980	55780
GRANULAR BACKFILL	C.Y.	———	15	25	25	15	80
TREATED TIMBER PILING - DELIVERED	L.F.	———	180	280	280	180	920
TREATED TIMBER PILING - DRIVEN	L.F.	———	180	280	280	180	920
SLOPE PAVING, CONCRETE	S.Y.	———	138	———	———	138	276
NON-BID ITEMS							
5/8" ϕ EXPANSION - HOOK BOLTS	EA.	———	8	———	———	6	12
FILLER	SIZE	1/2	———	———	———	———	1/2

LIST OF DRAWINGS

1. GENERAL PLAN ——— X34908
2. SUPERSTRUCTURE ——— X34909
3. TUBULAR ALUMINUM RAILING, TYPE 6 X34910
4. ABUTMENTS ——— X34911
5. PIERS ——— X34912
6. BILL OF BARS ——— X34913

REVISED

STATE HIGHWAY COMMISSION OF WISCONSIN

GENERAL PLAN

CO. EAU CLAIRE | CITY VIL. TA. | WASHINGTON | STA. 63+00
SECTION 35 | TOWN 27N | RANGE 9W
DESIGN SPEC. AASHO. 61 | LOADING HS20 | CONST. SPEC. 1963
DATE 5-9-66 | DESIGN L.J.S. | DRAWN DEO | CKD F.R.W.
RECOMMENDED H.B. Schultz STATE BRIDGE ENGINEER
APPROVED [illegible] STATE HIGHWAY ENGINEER

STRUCTURE B-18-37 REV | SHEET 1 OF 6

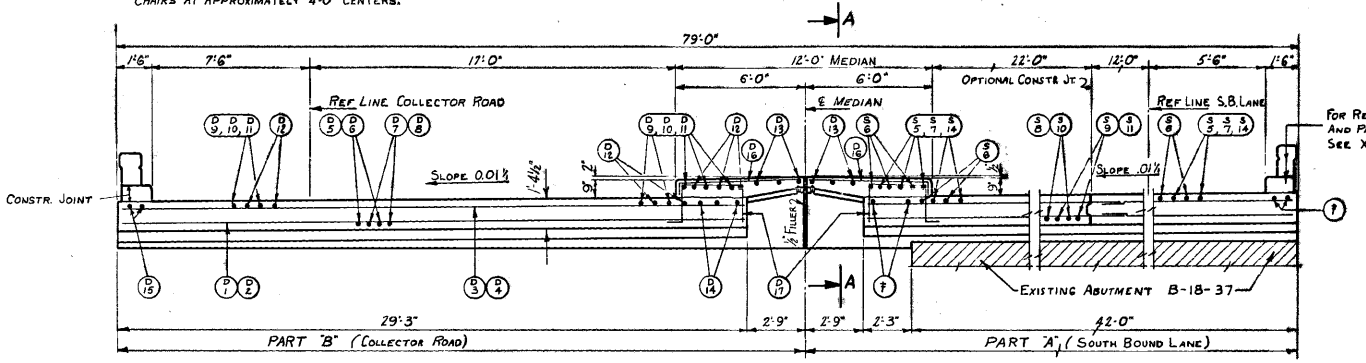
X34908

FORM E-B-12-88

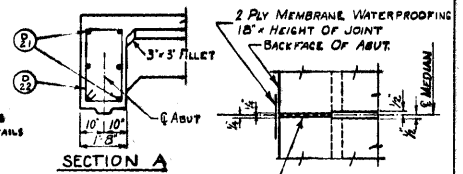
S.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4			

ALTERNATE TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

SEE X28317 B-18-37 FOR ANY ARRANGEMENT OF S BARS NOT SUPERSEDED BY DETAILS OF THIS SHEET

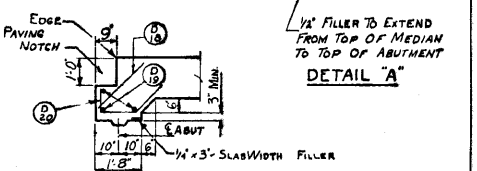


CROSS SECTION THRU ROADWAY

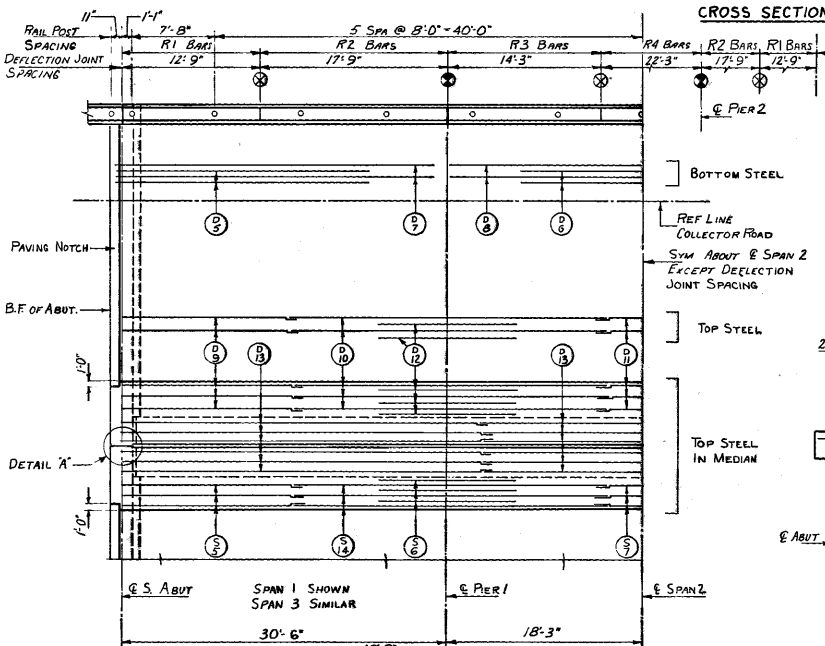


SECTION A

DETAIL "A"



DETAIL OF SLAB AT ABUTMENTS



PART PLAN

② INDICATES DEFLECTION JOINTS IN RAIL PARAPET AND CURB AT PIERS.

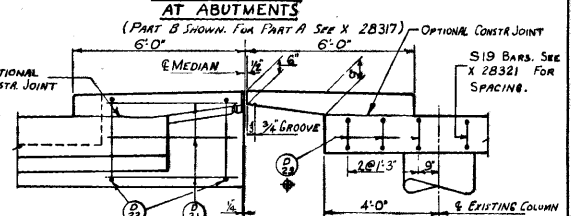
⊗ INDICATES DEFLECTION JOINTS IN RAIL PARAPET ONLY. FALSEWORK SHALL REMAIN IN PLACE UNTIL THE MEDIAN CURBS HAVE CURED. PARAPET CURBS ABOVE THE HORIZONTAL CONSTRUCTION JOINT SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DESCREPANCIES ARE TO BE PLUS (+).

Ⓕ THESE BARS ARE EXTRA S8 THRU S11 BARS. SPACE AS SHOWN AND PLACE SYMMETRICAL OVER PIERS SIMILAR TO D14 AND D15 BARS.

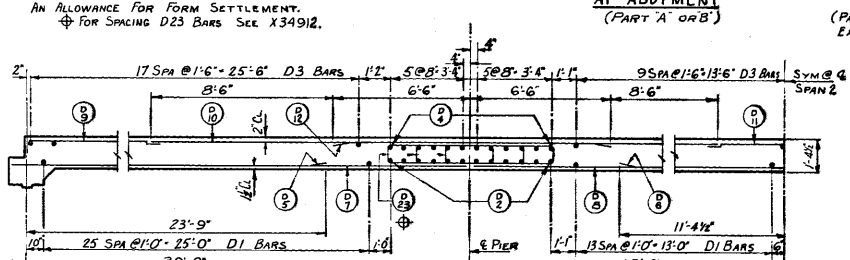
PROVIDE A CAMBER OF ⅜ IN SPANS 1, 2 & 3 TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE AN ALLOWANCE FOR FORM SETTLEMENT.

⊕ FOR SPACING D23 BARS SEE X34912.

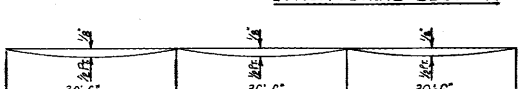


SECTION THRU MEDIAN AT ABUTMENT
(PART 'A' OR 'B')

SECTION THRU MEDIAN AT PIER
(PART 'A' SHOWN. PART 'B' SIMILAR EXCEPT FOR COLUMN & STIRRUPS.)



LONGITUDINAL SECTION

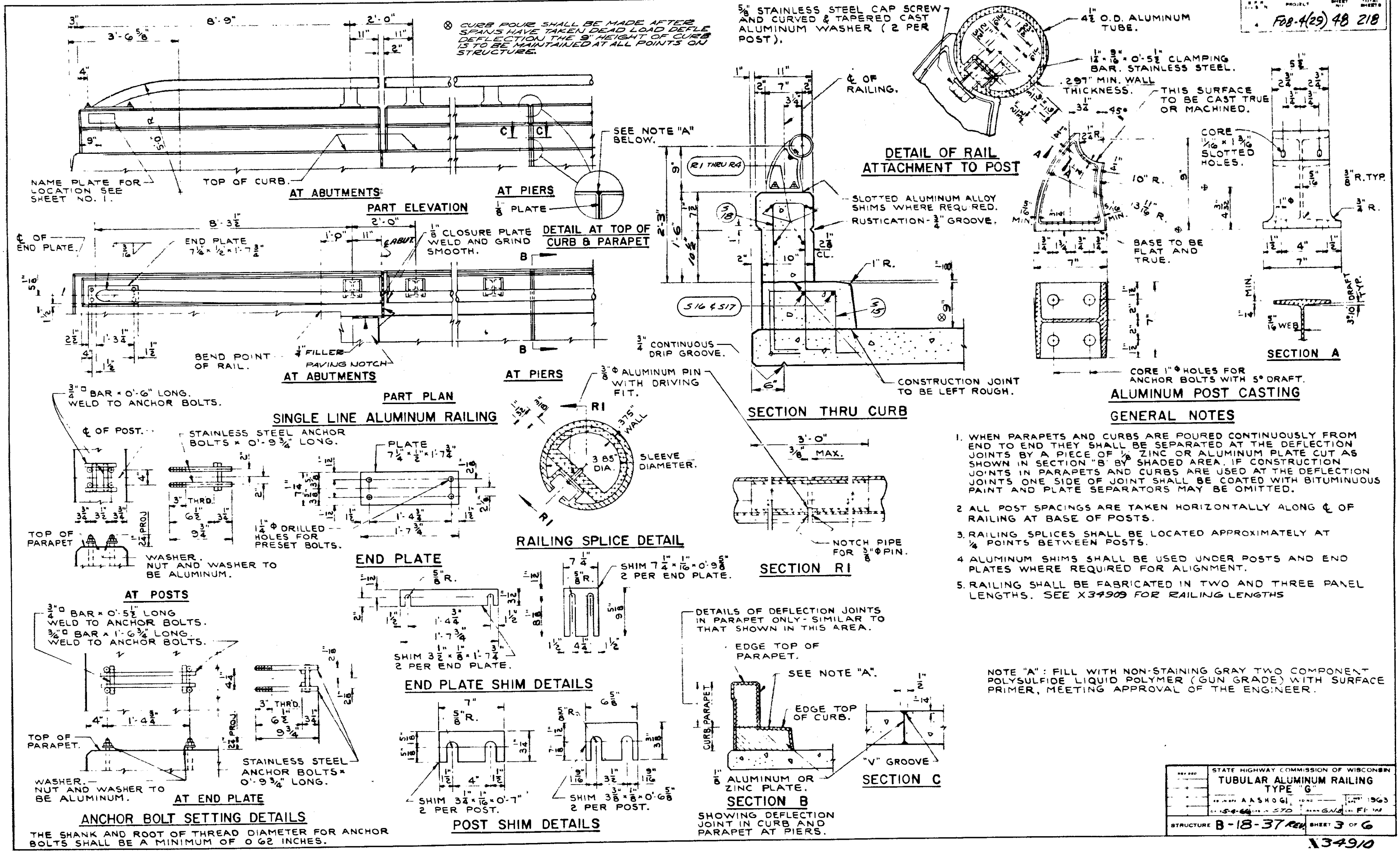


DEFLECTION DIAGRAM

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	SUPERSTRUCTURE
	DESIGN BY: AASHO '61 LOADING HS-20 STD. SPEC 1963
	DATE 5-4-66 CHECKED L.J.S. DRAWN JRP CHK. F.R.W.
	STRUCTURE B-18-37 REV SHEET 2 OF 6

X 34909

B-18-37



GENERAL NOTES

1. WHEN PARAPETS AND CURBS ARE POURED CONTINUOUSLY FROM END TO END THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8 ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "B" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION JOINTS ONE SIDE OF JOINT SHALL BE COATED WITH BITUMINOUS PAINT AND PLATE SEPARATORS MAY BE OMITTED.
2. ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG ¢ OF RAILING AT BASE OF POSTS.
3. RAILING SPLICES SHALL BE LOCATED APPROXIMATELY AT 1/4 POINTS BETWEEN POSTS.
4. ALUMINUM SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQUIRED FOR ALIGNMENT.
5. RAILING SHALL BE FABRICATED IN TWO AND THREE PANEL LENGTHS. SEE X34909 FOR RAILING LENGTHS

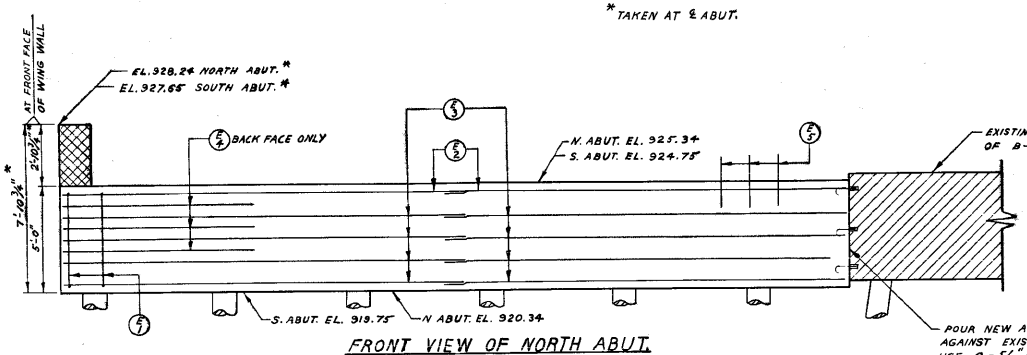
NOTE "A": FILL WITH NON-STAINING GRAY TWO COMPONENT POLYSULFIDE LIQUID POLYMER (GUN GRADE) WITH SURFACE PRIMER, MEETING APPROVAL OF THE ENGINEER.

STATE HIGHWAY COMMISSION OF WISCONSIN
TUBULAR ALUMINUM RAILING TYPE "G"
AASHO 61 — 1963
STRUCTURE B-18-37 REV. SHEET 3 OF 6
X34910

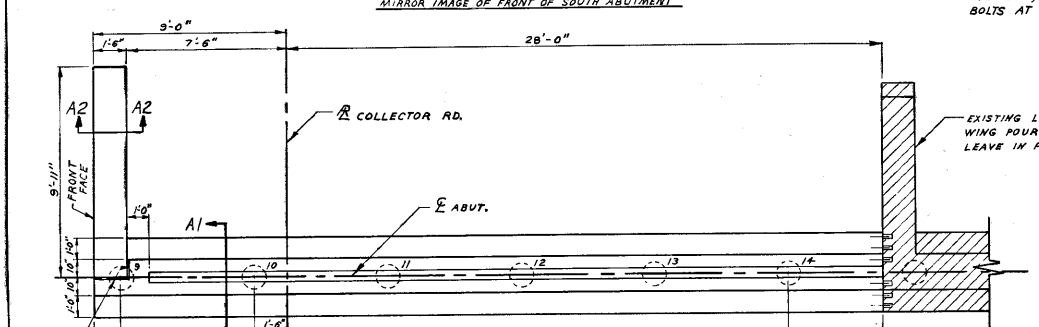
FORM E-B-18-68

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4			

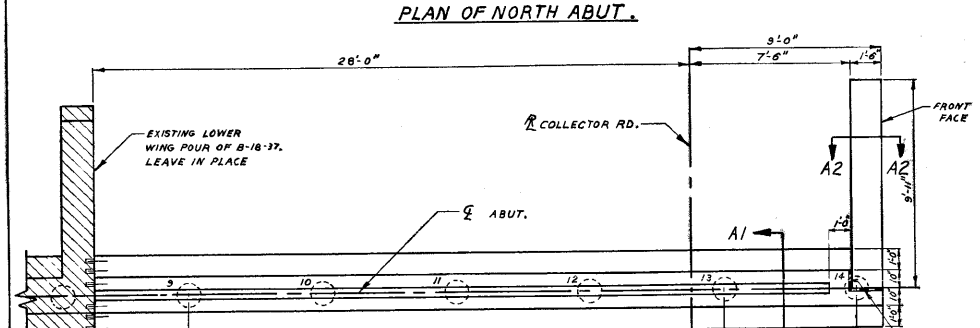
*TAKEN AT ℄ ABUT.



FRONT VIEW OF NORTH ABUT.
MIRROR IMAGE OF FRONT OF SOUTH ABUTMENT

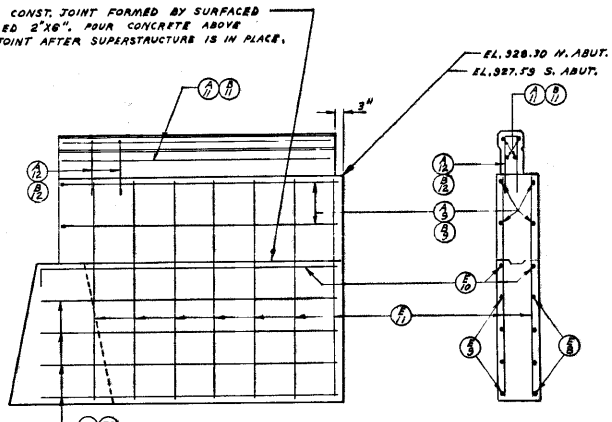


PLAN OF NORTH ABUT.



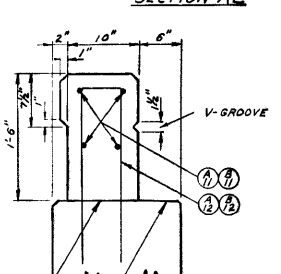
PLAN OF SOUTH ABUT.

KEYED CONST. JOINT FORMED BY SURFACED BEVELED 2"X6". POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE.

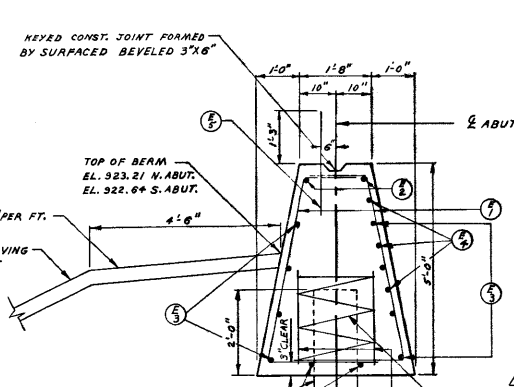


ELEVATION OF WING

SECTION A2



PARAPET DETAIL



SECTION A1

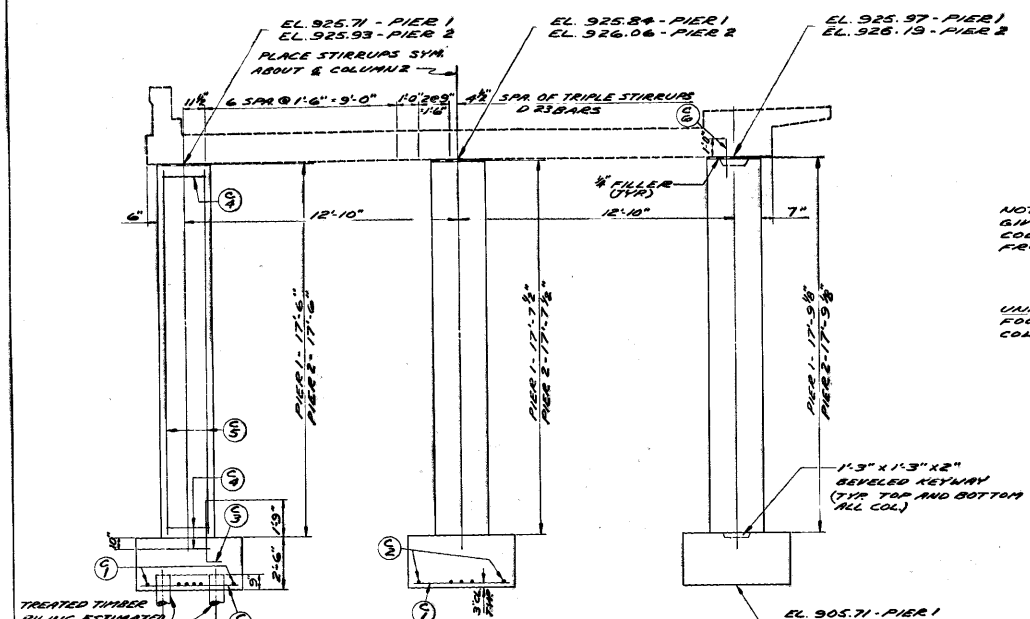
NOTE: FILL TO THE BOTTOM OF SLOPE PROTECTION BEFORE DRIVING PILING. PLACE BOTTOM OF WING ON COMPACTED GROUND.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	ABUTMENTS
	DESIGN SPEC. A.A.S.H.O. '61 LOADING HS-20 CONST. ERA 1963
	DATE 5-4-66 DESIGN L.J.S. DRAWN L.J.S. CK. F.R.W.
	STRUCTURE B-18-37REV. SHEET 4 OF 6

X 34911

FORM E-B-12-68

B P R DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4			

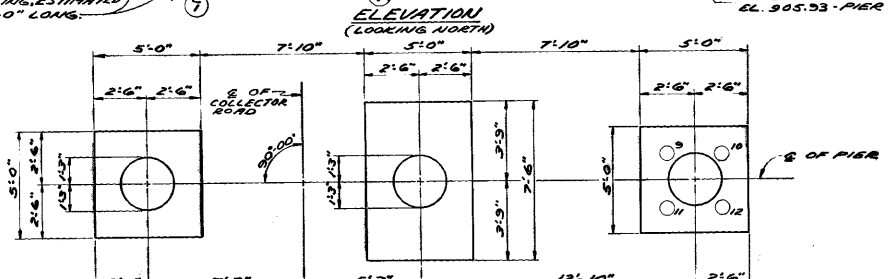


ELEVATION
(LOOKING NORTH)

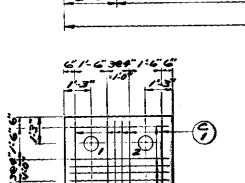
NOTE: TOP OF COLUMN ELEVATIONS ARE GIVEN AT TOP OF ½" FILLER AT ℄ OF COLUMN. COLUMN LENGTHS ARE MEASURED FROM SAME POINTS.

CONCRETE MASONRY

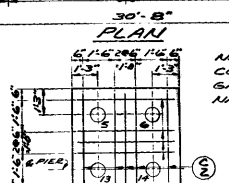
UNIT	PIER 1	PIER 2
FOOTINGS	7.9 C.Y.	7.9 C.Y.
COLUMNS	9.6 C.Y.	9.6 C.Y.
TOTAL	17.5 C.Y.	17.5 C.Y.



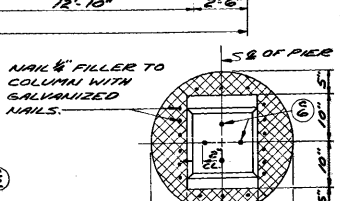
PLAN



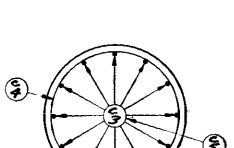
EXT. FOOTINGS



INT. FOOTING



FILLER DETAIL



SECTION THRU COLUMNS

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	PIERS
	DESIGN BY: A.R.S. K.A.W. LOADING: M S-20 CONST. 1963
	DATE: 5-9-66 DIVISION: L.J.S. DRAWN: G.J.E. CHK: F.R.W.
	STRUCTURE B 18 37 P&K SHEET 5 OF 6

X 34912

FORM F 8-12 62

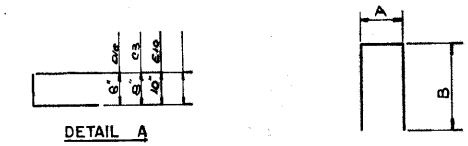
BAR BENDING DETAILS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.
OMIT DETAILS WHERE DIMENSIONS ARE BLANK.

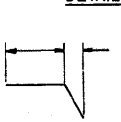
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4			

MARK	DIM. "A"	DIM. "B"

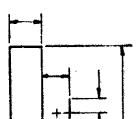
DETAIL A



DETAIL B



DETAIL C



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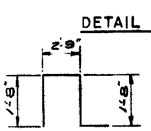
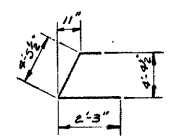
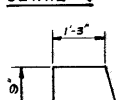


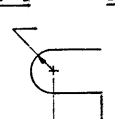
DETAIL E



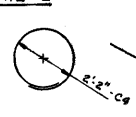
DETAIL F



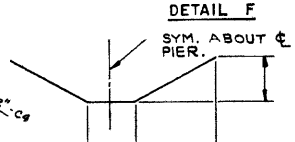
DETAIL G



DETAIL H



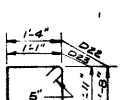
DETAIL J



DETAIL K

⊗ 5 WRAPS OF NO.3 SPIRAL 21" DIA.

BUNDLING DETAIL



DETAIL L

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
SUPERSTRUCTURE *** 1960# ****	S 1	80	6	28-6	Shown	Slab-Transverse Bottom	
	S 2	80	6	18-6	"	" " "	
	S 3	55	4	28-0	1-6	" " Top	
	S 4	55	4	18-6	1-6	" " "	
	S 5	74	4	16-6	1-3	" Longitudinal Top Spans 1 & 3	
	S 6	74	11	13-0	1-3	" " " Over Piers	
	S 7	37	4	8-6	1-3	" " " Span 2	
	S 8	92	9	28-9	1-0	" " Bottom Spans 1 & 3	
	S 9	92	9	24-3	1-0	" " " Spans 1 & 3	
	S10	46	9	36-6	1-0	" " " Span 2	
	S11	46	9	22-9	1-0	" " " " 2	
	S12	86	5	4-1	1-0	" at Abutment	A
	S13	6	4	26-6	Shown	" " "	
	S14	74	11	30-0	1-3	" Longitudinal Top over Piers	
	S15	260	5	5-6	9	" & Curb	B
	S16	8	5	30-0	Shown	Curb-Spans 1 & 3	
	S17	8	5	18-9	"	" Span 2	
	S18	260	5	7-6	9	Rail Parapet	B
	S19	204	5	13-3	Shown	Slab-Stirrups over Piers	C
	S20	24	9	29-0	"	" Transverse over Piers	
	S21	24	9	18-6	"	" " " "	
	S22	24	10	29-0	"	" "	
	S23	24	10	18-6	"	" "	
	S24	6	4	17-0	"	" at Abutments	
	S25	84	4	2-3	1-0	" " "	
	R 1	16	5	12-3	Shown	Rail Parapet	
	R 2	16	5	17-3	"	" "	
	R 3	8	5	13-9	"	" "	
	R 4	8	5	21-9	"	" "	
	D 1	80	6	28-9	Shown	Slab-Transverse-Bottom	
	D 2	24	9	28-9	"	" " " at Piers	
	D 3	55	4	28-9	"	" " Top	
	D 4	24	10	28-9	"	" " " at Piers	
	D 5	58	9	24-3	1-0	" Longitudinal Bottom Spans 1 & 3	
	D 6	29	9	22-9	1-0	" " " Span 2	
	D 7	60	9	28-9	1-0	" " " Spans 1 & 3	
	D 8	30	9	36-6	1-0	" " " Span 2	
	D 9	48	4	16-6	1-3	" " Top-Spans 1 & 3	
	D10	48	11	30-0	1-3	" " " Over Piers	
	D11	24	4	8-6	1-3	" " " Span 2	
	D12	48	11	13-0	1-3	" " " Over Piers	
	D13	18	5	33-9	Shown	Median-Longitudinal-Top	
	D14	6	8	20-0	"	Slab at Median-Symmetrical over Piers	
	D15	4	11	20-0	"	" " Parapet Curb-Sym. over Piers	
	D16	234	6	6-0	10	Median Transverse Top	A
	D17	234	4	6-9	10	" "	E
	D18	54	4	2-3	1-0	Slab at Abutments	
	D19	6	4	28-9	Shown	" " "	
	D20	54	5	4-3	1-0	" " "	G
	D21	24	4	4-9	Shown	Median at Abutments	
	D22	24	4	8-9	1-0	" " "	L
	D23	138	5	13-0	Shown	Stirrups at Piers	L

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
ABUTMENTS *1960#	E 1	76	4	8-0	2-0	Body	F
	E 2	8	6	19-6	Shown	"	
	E 3	40	4	19-0	"	"	
	E 4	6	4	10-0	"	"	
	E 5	74	5	2-6	1-0	"	
	E 6	24	4	2-3	Shown	" 2 Bars Per Pile	
	E 7	12	3	28-0	"	"	⊗
	E 8	8	6	10-9	1-2	Wing	
	E 9	8	4	10-9	1-2	"	
	E10	4	7	11-3	Shown	"	A
	E11	28	4	7-6	1-6	"	
	A 9	4	4	10-9	1-6	Wing	C
	B 9	4	4	10-9	1-6	"	C
	A11	4	5	9-3	Shown	Parapet	
	B11	4	5	9-3	"	"	B
	A12	13	5	6-0	9	"	B
	B12	13	5	6-0	9	"	
PIERS 4280#	C 1	64	5	4-6	Shown	Footings	
	C 2	10	7	7-0	"	"	
	C 3	72	7	3-6	"	Dowels	A
	C 4	114	4	7-9	1-0	Hoops	J
	C 5	72	7	17-3	Shown	Columns	
	C 6	24	8	2-6	"	Top of Columns-Dowels	

* THIS WEIGHT FOR ABUTMENTS INCLUDES ONLY THE TOTAL FOR "E" BARS FOR B-18-37 REV.

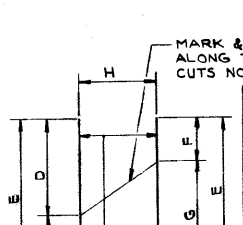
** THESE A & B BARS ARE DELETED FROM B-18-37 PROJ FOB-4(29) AND ARE REINCORPORATED IN B-18-37 REV. SEE X2B320 & X2B322 FOR BENDING DETAILS.

*** WEIGHT FOR SUPERSTRUCTURE INCLUDES THE DIFFERENCE BETWEEN THE WEIGHTS OF SUPERSTRUCTURE BAR STEEL FOR ORGINAL B-18-38 AND ORGINAL B-18-37, PLUS "D" BARS.

**** THESE S&R BARS ARE FORMERLY SUPERSTRUCTURE BARS FOR B-18-38 -PROJ. FOB-4(29) AND HAVE A TOTAL WEIGHT OF 68,140#. SEE X2B325 FOR CORRESPONDING BENDING DETAILS.

MARK & CUT ALL BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS.

"H" IS NUMBER OF BARS, BEFORE CUTTING.



CUT, BUNDLE & MARK.— (MARK WITH BAR NO. & SET NO.)

BENT BARS, IF USED, IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.

† CUTTING DIAGRAM

MARK	C	D	E	F	G	H	SETS REQ'D.

STATE HIGHWAY COMMISSION OF WISCONSIN

BILL OF BARS

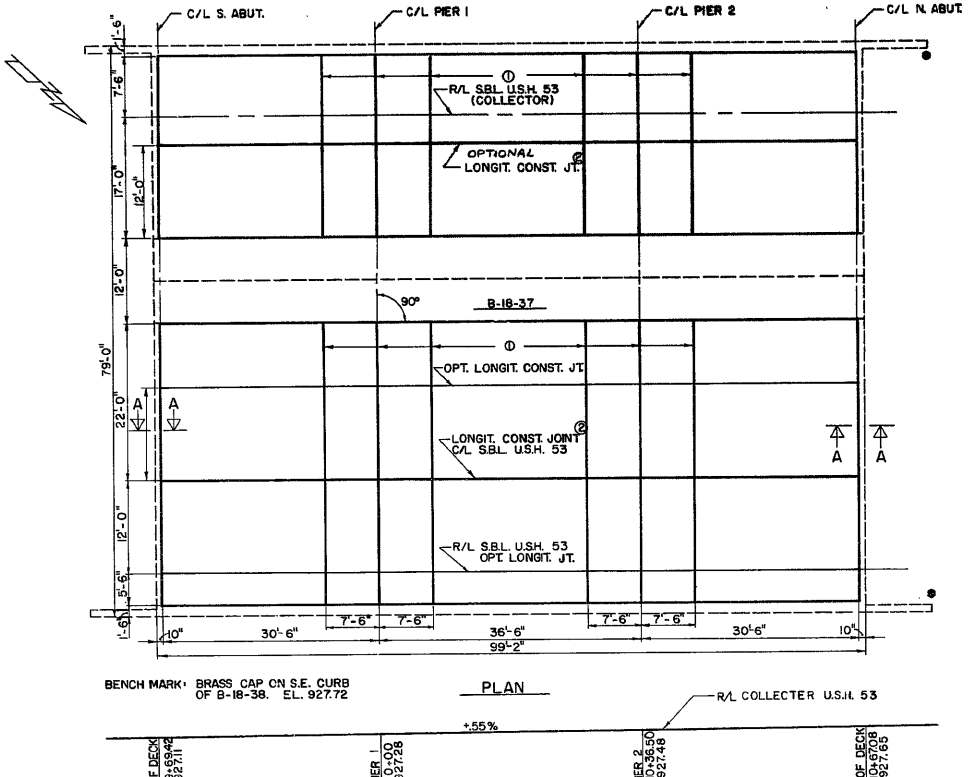
AASHO 61 | HS20 | 1963

5-4-66 | CJS | DEO | FRW.

STRUCTURE B-18-37REV | SHEET 6 | 6

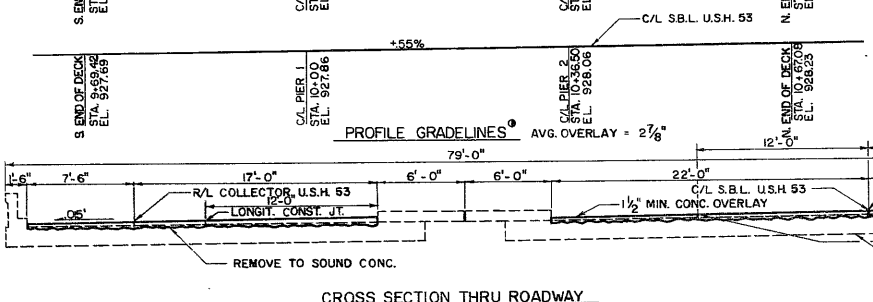
34913

STATE PROJECT NUMBER	SHEET NO.
0018-94-10	8.1

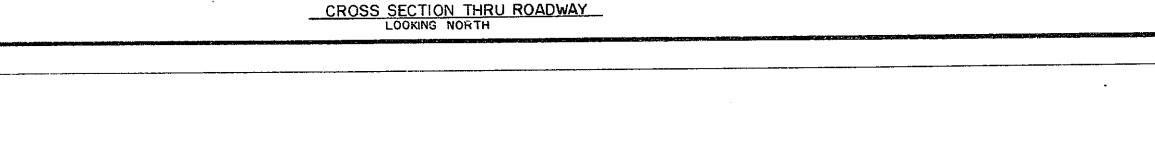


BENCH MARK: BRASS CAP ON S.E. CURB OF B-18-38. EL. 927.72

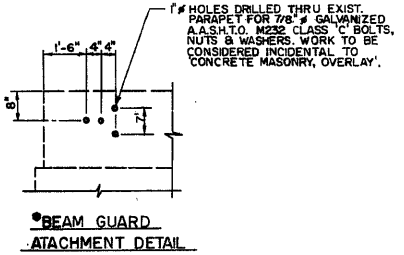
PLAN



PROFILE GRADELINES ① AVG. OVERLAY = 2 7/8"

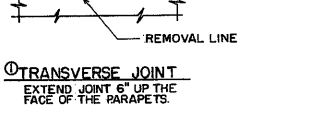


CROSS SECTION THRU ROADWAY
LOOKING NORTH

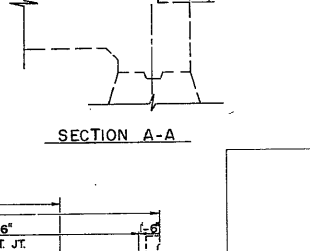


1" ϕ HOLES DRILLED THRU EXIST. PARAPET FOR 7/8" ϕ GALVANIZED A.A.S.H.T.O. M232 CLASS 'C' BOLTS, NUTS & WASHERS. WORK TO BE CONSIDERED INCIDENTAL TO 'CONCRETE MASONRY, OVERLAY'.

●BEAM GUARD ATACHMENT DETAIL



①TRANSVERSE JOINT
EXTEND JOINT 6" UP THE FACE OF THE PARAPETS.



SECTION A-A

GENERAL NOTES

DRAWING SHALL NOT BE SCALED. ALL DIMENSIONS ARE PLUS OR MINUS AND SHALL BE FIELD VERIFIED.

● ANY VARIATION TO THE GRADELINE OVER 1/4" MUST BE SUBMITTED FOR REVIEW BY THE BRIDGE OFFICE.

▲ TWO ALTERNATES:

A) INSTALL NEOPRENE COMPRESSION SEAL RECESSED 1/8".

B) FILL OPENING WITH COLD APPLIED ELASTIC TYPE JOINT SEALER

② TRAFFIC IS TO BE MAINTAINED DURING CONSTRUCTION.

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNITS	TOTALS
DECK PREPARATION	S.Y.	20
DECK CLEANING	S.Y.	695
CONCRETE MASONRY, OVERLAY	C.Y.	61
PROTECTIVE SURFACE TREATMENT	GAL.	42

RATINGS

INVENTORY RATING—HS 21
OPERATIONAL RATING—HS 35

LAYOUT

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-18-37

SBL U.S.H. 53 OVER TOWN ROAD

County EAU CLAIRE		Town/~~City~~/Village WASHINGTON	
Design Spec A.A.S.H.T.O. 86		Load —	Const Spec 1981
Designed By D.C.B.	Design Checked B.D.	Drawn By D.C.B.	Plans Checked B.D.

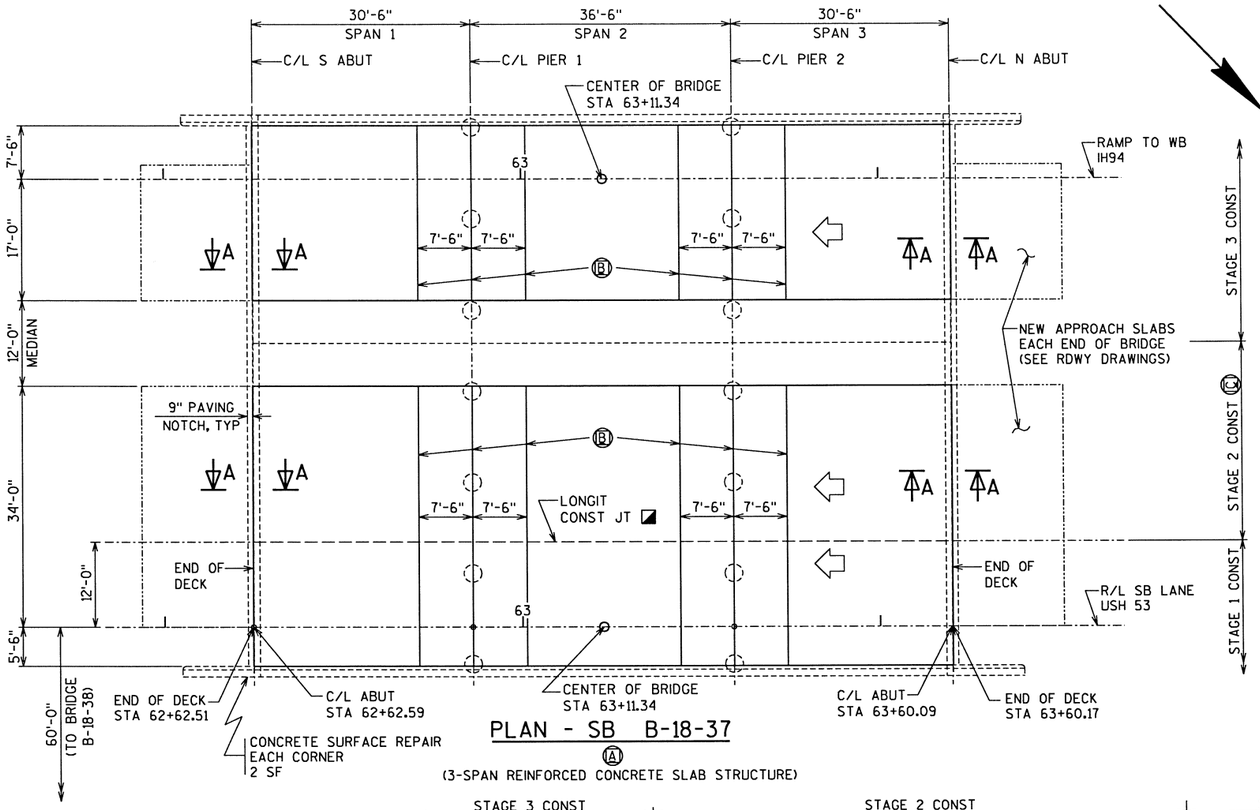
Approved Stanley W. Woods, Chief Bridge Engineer — 1-20-89 Date

CONCRETE OVERLAY

SHEET 1 OF 1

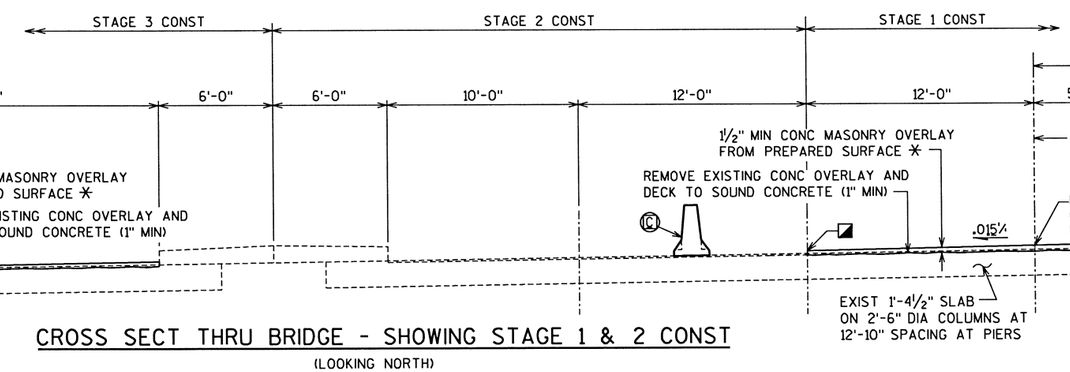
X 82224

B-18-3



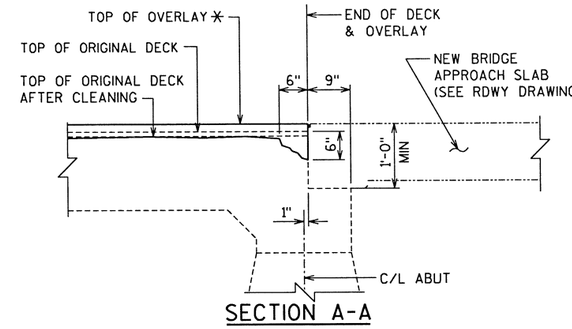
PLAN - SB B-18-37

(A) (3-SPAN REINFORCED CONCRETE SLAB STRUCTURE)

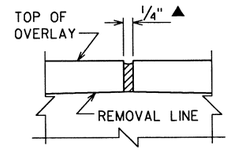


CROSS SECT THRU BRIDGE - SHOWING STAGE 1 & 2 CONST

(LOOKING NORTH)



SECTION A-A



(B) TRANSVERSE JOINT

▲ ¼" SAW CUT FULL DEPTH OF OVERLAY.

PROVIDE EITHER:
A) INSTALL NEOPRENE COMPRESSION SEAL ACME M044 OR APPROVED EQUAL.
B) COLD APPLIED ELASTIC TYPE JOINT SEALER.

HOLD ALL ⅛" BELOW SURFACE OF OVERLAY. CONSIDERED INCIDENTAL TO 'CONCRETE MASONRY OVERLAY'

TRAFFIC DATA

ADT (2004)	=	24,300
ADT (2024)	=	27,300
DHV	=	2,730
D	=	50/50
T	=	5.4 %
V	=	60 MPH

LIST OF DRAWINGS

1 CONCRETE OVERLAY

STATE PROJECT NUMBER

1191-06-61

DESIGN DATA

LIVE LOAD:
INVENTORY RATING = HS20
OPERATING RATING = HS32
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 170 KIPS

INVENTORY AND OPERATING RATINGS ACCOUNT FOR THE DECK IMPROVEMENTS SHOWN IN THESE PLANS BUT DO NOT INCLUDE FUTURE WEARING SURFACE.

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY - SUPERSTRUCTURE f'c = 4,000 psi
- ALL OTHER (GRADE A) f'c = 3,500 psi

GENERAL NOTES:

DRAWINGS ARE NOT TO BE SCALED.

DIMENSIONS SHOWN ARE BASED ON EXISTING ORIGINAL STRUCTURE PLANS AND INSPECTION REPORTS. CONTRACTOR TO VERIFY BEFORE ACCEPTANCE. EXIST BRIDGE PLANS AVAILABLE AT WisDOT.

PROFILE GRADE LINE SHALL BE DETERMINED BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" PLACED ABOVE THE DECK SURFACE AFTER CLEANING. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

TOP OF EXISTING DECK ELEVATION SHALL BE DETERMINED FROM A FIELD SURVEY AT LOCATION DEEMED NECESSARY FOR ESTABLISHING OVERLAY THICKNESS FOR ACCURATE RATINGS AND POINT OF MINIMUM THICKNESS.

CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER.

PRIOR TO CLEANING DECK FOR CONCRETE OVERLAY, SEAL CONSTRUCTION JOINT AND ALL TRANSVERSE CRACKS IN SLAB WITH TK-210 EPOXY. REFER TO MANUFACTURER RECOMMENDATIONS FOR APPLICATION.

THE ITEM "PREPARATION DECKS TYPE _" SHALL BE LOCATED, MARKED AND MEASURED BY THE FIELD ENGINEER.

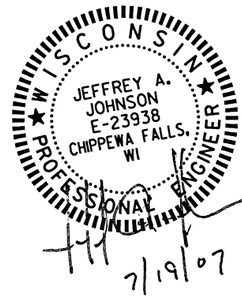
ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR THE PAVING NOTCH AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM, "CONCRETE MASONRY, OVERLAY, DECKS".

THE EXISTING CONCRETE OVERLAY REMOVAL SHALL BE PAID UNDER ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY". AN ADDITIONAL 1-INCH MINIMUM OF CONCRETE SHALL BE REMOVED FROM BELOW THE ENTIRE SURFACE OF THE ORIGINAL DECK ELEVATION. THIS REMOVAL SHALL BE PAID UNDER ITEM "CLEANING DECKS" CONTRACTOR TO VERIFY COMPLETENESS OF REMOVALS WITH THE ENGINEER.

MULTIPLE POURS AND SEQUENCE OF POURS FOR A GIVEN CONSTRUCTION STAGE MUST BE APPROVED BY THE STRUCTURES DESIGN SECTION.

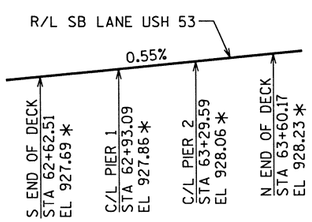
SEE ROADWAY PLANS FOR EXISTING & PROPOSED UTILITY LOCATIONS.

ALL CONC REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.



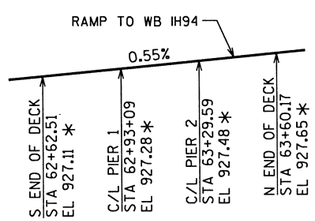
BRIDGE OFFICE CONTACT:
FINN HUBBARD
(608) 266-8489

SEH
SEH INC CONTACT:
JOHN BECKFIELD
(715) 720-6265
421 FRENETTE DR CHIPPEWA FALLS WI, 54729



PROPOSED GRADE LINE (A)

R/L SB LANE USH 53



PROPOSED GRADE LINE (A1)

RAMP TO WB IH94

BENCH MARK

NO	STATION	DESCRIPTION	ELEV
		BRASS CAP ON SE CURB OF B-18-38	EL 927.72

◪ LONGITUDINAL CONST JOINT IN OVERLAY MAY BE USED. ½" DEEP SAWCUT FILL WITH JOINT SEALER. COORDINATE WITH STAGING PLAN.

✳ MAINTAIN EXIST DECK ELEVATIONS. A 1½" MIN NEW OVERLAY THICKNESS IS REQUIRED

(A) STATIONING MAY VARY BASED ON EXACT LOCATION OF BRIDGE TO PROPOSED ALIGNMENT. CONTRACTOR TO VERIFY. VARIATIONS TO THE NEW GRADE LINE OVER 1/4-INCH MUST BE SUBMITTED FOR REVIEW BY BRIDGE SECTION.

(B) TRANSVERSE CONST JOINT: PROVIDE ¼" SAW CUT FULL DEPTH OF OVERLAY

(C) TEMPORARY PRECAST CONC BARRIER TO PROVIDE 15'-0" MIN CLEARANCE FOR TRAFFIC IN STAGES 1 AND 2. SEE APPROACH ROADWAY PLANS FOR ALIGNMENT & BID ITEM.

TOTAL ESTIMATED QUANTITIES - B-18-37

	BID ITEMS	UNIT	STAGE 1	STAGE 2	STAGE 3	TOTALS
②	PROTECTIVE SURFACE TREATMENT	SY	226	239	302	767
	PREPARATION OF DECK TYPE 1	SY	19	24	27	70
	PREPARATION OF DECK TYPE 2	SY	8	10	11	29
	CLEANING DECKS	SY	190	239	266	695
	CURB REPAIR	LF	-	10	10	20
	CONCRETE SURFACE REPAIR	SF	4	-	4	8
①	CONCRETE MASONRY OVERLAY DECKS	CY	18	22	25	65
	REMOVING CONCRETE MASONRY DECK OVERLAY	SY	190	239	266	695
	NON-BID ITEMS					

① GRADE E CONCRETE PER SECTION 501.

② INCLUDES PROTECTIVE SURFACE TREATMENT ON CURBS AND FRONT FACE OF EXIST CONC PARAPET RAIL ON BRIDGE AND ON ABUTMENT WINGS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED William C. Dahm SDR — 10-15-07
CHIEF STRUCTURAL DESIGN ENGINEER — DATE

STRUCTURE B-18-37

USH 53 SB AND RAMP TO WB IH94 OVER KEYSTONE CIRCLE

COUNTY	EAU CLAIRE	TOWN/~~CITY/VILLAGE~~	WASHINGTON
DESIGN SPEC.	AASHTO STD. SPEC. 2002	LOAD	HS20
CONST. SPEC.	2003		
DESIGNED BY	JAJ	DESIGN CK'D.	ALGE
DRAWN BY	DLF	PLANS CK'D.	ALGE

CONCRETE OVERLAY

SHEET 1 OF 1

295

PLANS RECEIVED

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