

ATTACHMENT A

ROUTINE INSPECTION REPORT



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Inspection Report for
B-52-084 (BENSON HOLLOW)

STH 56 over UPPER CAMP CREEK
Mar 05,2018



Type	Prior	Frequency (mos)	Performed
Routine	03-08-16	24	X
Interim	01-21-16	0	
SIA Review	03-08-16	48	

Start Coordinates
Latitude
Longitude

End Coordinates (optional)
Latitude
Longitude

Owner

Maintainer

Time Log

Team members

Hours	Minutes	
0	40	

	Name	Number	Signature	Date
Inspector	Bohnsack, Dave	5015	Dave Bohnsack	03-06-18
			E-signed by David Bohnsack(dtd2b)	

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

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Identification & Location

Feature On: STH 56	Section Town Range: S23 T12N R02W	Structure Number: B-52-084
Feature Under: UPPER CAMP CREEK	County: RICHLAND	
Location 1.5M E JCT CTH MM TO S	Municipality: FOREST	Structure Name: BENSON HOLLOW

Geometry

measurements in feet, except where noted

Approach Roadway Width: 36	Bridge Roadway Width: 36.0	Total Length: 44.3
Approach Pavement Width: 24	Deck Width: 37.8	Deck Area (sq ft): 1674

Traffic

Lanes	ADT	ADT year	Traffic Pattern
On 2	680	2015	TWO WAY TRAFFIC

Capacity

Load Rating

Inventory rating: HS22	Overburden depth (in): 0.0	Last rating date: 01-20-87	Controlling: SLAB Positive Moment
Operating rating: HS37	Deck surface material: CONCRETE	Re-rate for capacity (Y/N):	Control location: 0.5 SPAN 1
Posting:	Re-rate notes:		

Hydraulic

Classification

Scour Critical Code(113): (8) STABLE-ABOVE TOP FOOTING	Q100 (ft3/sec): 1100	
High water elevation (ft): 932.2	Velocity (ft/sec): 12.0	Sufficiency #: 83.8

Span(s)

Span #	Material	Configuration	Depth (in)	Length (ft)	Main
1	CONCRETE	FLAT SLAB		42.0	Y

Expansion joint(s)

Temperature:

File:	New:
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Clearance

Item	File Measurement (ft)	File Date	New Measurement (ft)
Highway Min Vertical On Cardinal			
Horizontal On Cardinal			

Special Components

Component	Year	Work Performed	Note
DECK CRACK SEALER - TK-9030			APPLIED IN 2014 MAINTENANCE PROJECT
CONC. PROTECTIVE TREATMENT - TK-590-1 MS			APPLIED IN 2014 MAINTENANCE PROJECT

Construction History

Year	Work Performed	FOS id
1987	NEW STRUCTURE	5731-02-71

Maintenance Items History

Item	Recommended by	Status	Status change	Year completed
Deck - Patching	Bohnsack, Dave (5015)	COMPLETE	01/21/16	2016
Repair drip edge spalling.				
Deck - Seal Surface Cracks	Bohnsack, Dave (5015)	COMPLETE	03/06/18	2018
Seal deck cracks with 2 PLV sealant.				
Deck - Seal Surface Cracks		COMPLETE		2014
UPLOADED ON 4/28/2015 FROM EXCEL SHEET COMPILED BY ALLAN JOHNSON. SEE SPECIAL COMPONENT TAB FOR SPECIFIC PRODUCT				

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Structure No.: **B-52-084**

Deck - Seal w/ Concrete Sealer		COMPLETE		2014
UPLOADED ON 4/28/2015 FROM EXCEL SHEET COMPILED BY ALLAN JOHNSON. SEE SPECIAL COMPONENT TAB FOR SPECIFIC PRODUCT				

Maintenance Items

Item	Priority	Recommended by	Status	Status change
Approach - Repair Beam Guard	MEDIUM	Bohnsack, Dave (5015)	IDENTIFIED	03/06/18
Replace rotten beam guard posts on approach.				

Elements

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State			
						1	2	3	4
X	38		Reinforced Concrete Slab-Coated Reinforcing	SF	1,675	1,555	120	0	0
			North drip edge/groove and soffit was severely spalled that affected area 3 ft from edge along entire length (4 rebars exposed - 2 bars 100% exposed for 99% of length, 8% area of distress) -- (2015) Exterior drip edge has been repaired by Richland County, (steel flashing used to create drip edge, widened 4").						
		1080	Delamination - Spall - Patched Area	SF		0	120	0	0
			(16) Repaired/patched area on north fascia/soffit completed in 2015 (~3' x 40' = 120 SF). Minor divot/finishing issue in patched area on north side. Spall in haunch area at NW corner (1 SF).						
		1130	Cracking (RC)	SF		0	0	0	0
			Shrinkage cracks in the repaired area on the north fascia.						
		8000	Wearing Surface (Bare)	SF	1,675	1,570	105	0	0
X	215		Reinforced Concrete Abutment	LF	114	112	2	0	0
		1080	Delamination - Spall - Patched Area	LF		0	2	0	0
			Spalling and cracking on north end of both abutments - from deck runoff.						
		1130	Cracking (RC)	LF		0	0	0	0
X	330		Metal Bridge Rail	LF	85	28	54	3	0
		1000	Corrosion	LF		0	25	0	0
			Galvanizing is scraped/damaged allowing corrosion to begin on south rail. Post base plates beginning to corrode.						
		1020	Connection	LF		0	9	1	0
			Short anchor bolts on 9 posts. 1 post with an anchor bolt sheared off.						
	1900		Distortion	LF		0	20	2	0
			(14) 2 areas of dents from TI. Panels w/ slight waves from snow plow riding rail. South rail has one panel dented from TI. North rail has a small hole at east end from TI.						

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Structure No.: **B-52-084**

X	8400		Integral Wingwall	EA	4	4	0	0	0
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Assessments

Chk	Element	Defect	Description	UOM	Total	Quantity in Condition State			
						1	2	3	4
X	9001		Drainage - Ends of Structure	EA	4	4	0	0	0
X	9030		Signs - Object Markers SW: paint damaged from TI. NE: paint damaged from TI, sign tipped slightly. NW & SE: post/sign tipped slightly.	EA	4	0	4	0	0
X	9045		Slope Protection- Riprap	EA	2	2	0	0	0
X	9323		Approach Roadway - Asphalt Both are cracked (some cracks sealed) w/ slight settlement. EA is wedged.	EA	2	0	2	0	0

NBI Ratings

	File	New
Deck	5	5
Superstructure	5	5
Substructure	8	8
Culvert	N	N
Channel	7	7
Waterway	8	8

Structure Specific Notes

CO = 2025.
Located near Benson Hollow Drive.
Aggregation under the bridge from past flood events.

Inspection Specific Notes

Inspector Site-Specific Safety Considerations

Structure Inspection Procedures

Special Requirements

Chk	Hours	Cost	Comments
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**Underwater Probe Form
B-52-084**

General Site Conditions - Scour

General Site Conditions - Embankment Erosion/Conditions

Aggregation under the bridge from past flood events.

Substructure Notes

Chk	Unit	Max Water Depth(ft)	Mode	Notes
X	Cardinal		Dry	
X	Non Cardinal		Dry	

Routine
Document Comment/Description

Typical damage to thrie beam panels - SW corner shown.



Routine

Document Comment/Description

Typical beam guard post rot - post at SW corner shown.



Routine

Document Comment/Description

Condition of the patch along the north soffit.



Routine

Document Comment/Description

North corner of west abutment.



Routine

Document Comment/Description

North corner of east abutment.



Routine

Document Comment/Description

Crumbling edge of north end of deck.



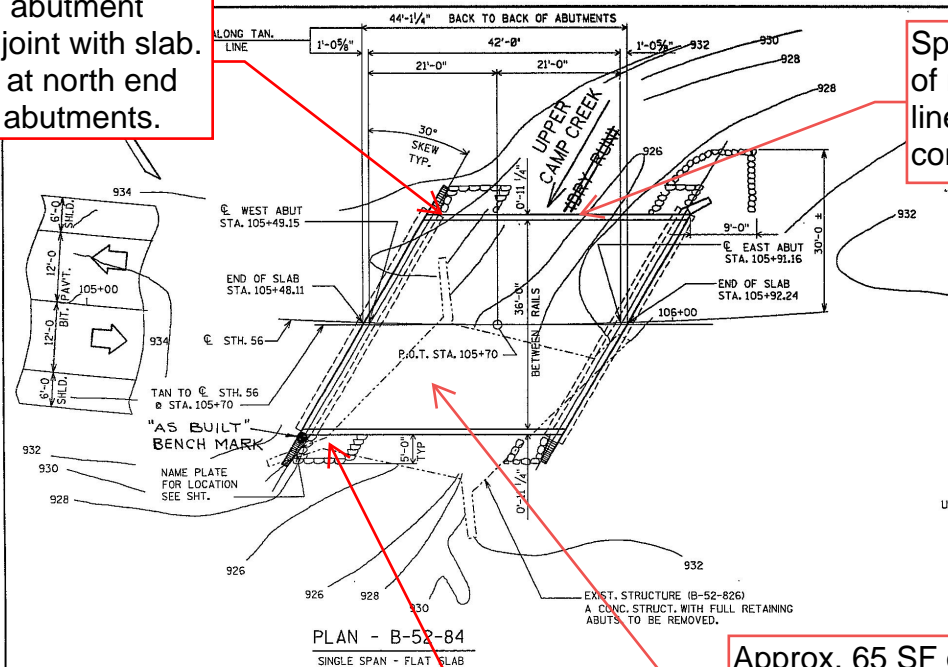
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ATTACHMENT B

BRIDGE PLAN OF DEFICIENT AREAS

Spall in abutment face at joint with slab. Typical at north end of both abutments.

Spalling concrete at top of north slab edge, along line of surface repair completed in 2015.

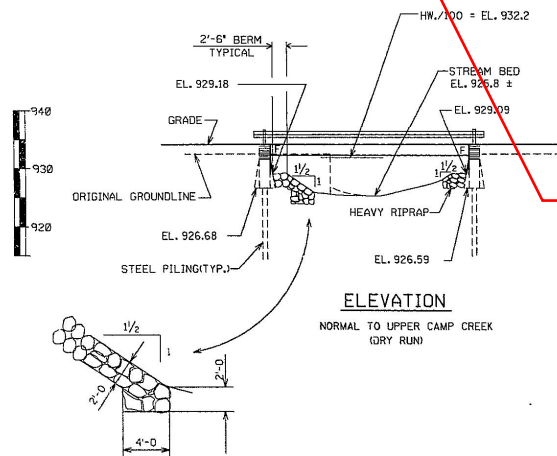


GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINF. SHALL BE IMBED. 2" CL.
UNLESS SHOWN OR NOTED OTHERWISE.
SLAB FALSE WORK SHALL BE SUPPORTED ON PILES.

Approx. 65 SF of Delamination in deck wearing surface at time of 2016 routine inspection. Most of delamination near C/L and WB lane.

Sediment starting to build up in channel under bridge.



HYDRAULIC DATA

100 YEAR FREQUENCY
0 / 100=1100 c.f.s.
VEL.= 12 f.p.s.
HW.= EL. 932.2
WATERWAY AREA= 92 SQ. FT.
DRAINAGE AREA= 2.1 SQ. MI.
OVERTOPPING RD = NA

CURVE DATA

P.I. STA. 107+83.209
Δ = 47°-18'-25.76"
D = 7'-00"
T = 357.376'
L = 673.912
R = 818.511'
S.E. = 0.05 '1'
R.D. = 150'

TRAFFIC VOLUME

STH. 56
A.D.T.=700 (2004)
R.D.S.=50 M.P.H.

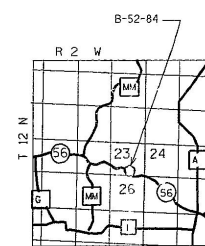
AS BUILT PLAN
DATE 8-88 BY W.K.

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
1	105+38	CHISEL CORNER OF STRUCTURE	932.93
"AS BUILT" 105+38 TOP OF N.W. WING 15' RT.			936.71

LIST OF DRAWINGS

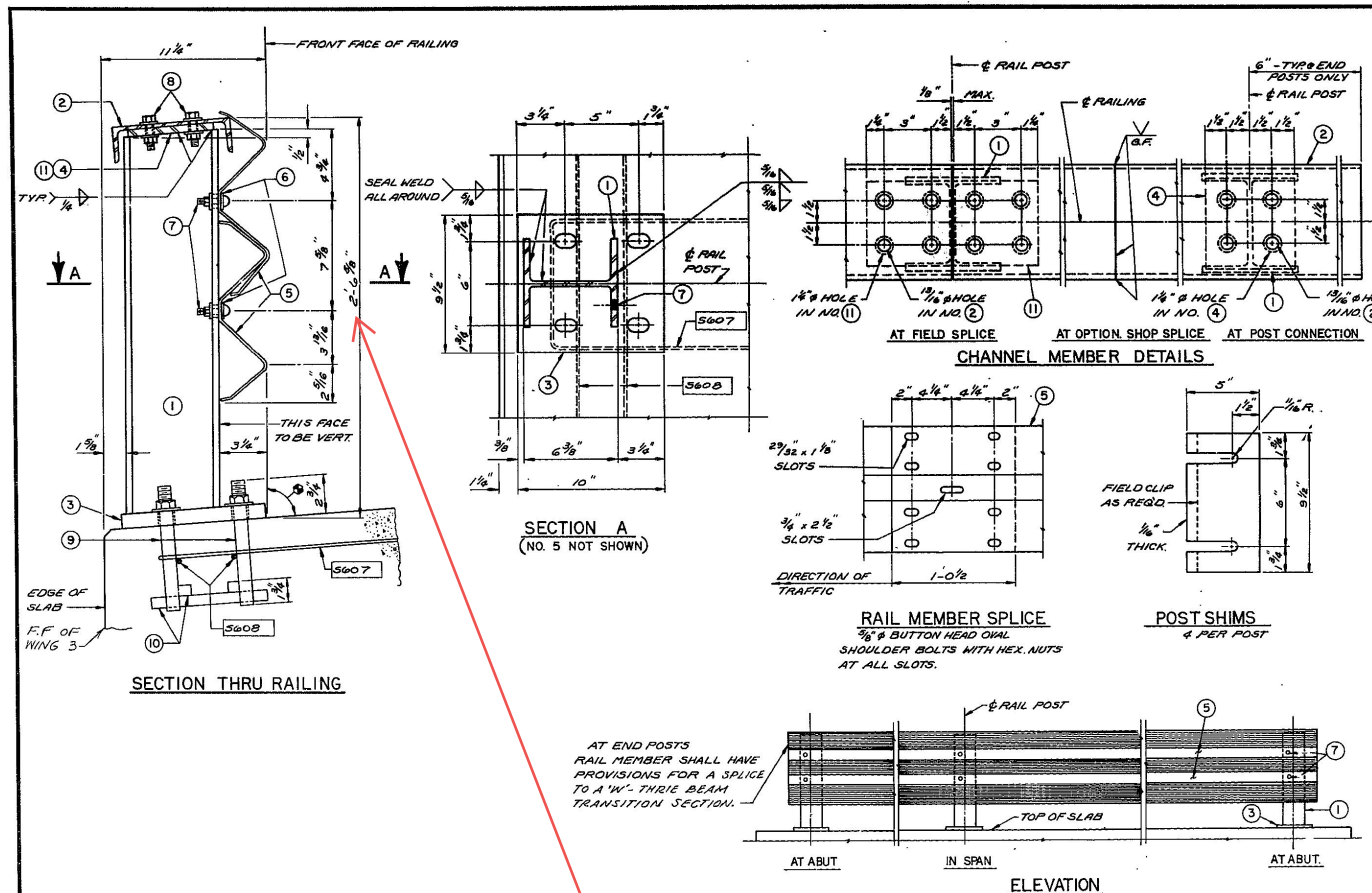
1. GENERAL PLAN X78932
2. TOTAL ESTIMATED QUANTITIES X78933
3. SUBSURFACE EXPLORATION X78934
4. WEST ABUTMENT X78935
5. ABUTMENT DETAILS X78936
6. EAST ABUTMENT X78937
7. SUPERSTRUCTURE X78938
8. STEEL RAILING, TYPE "W" X78939



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-52-84			
COUNTY		TOWN/VILLAGE	
RICHLAND		FOREST	
DESIGN SPEC.	AASHTO 84	LOAD	HS20 SPEC. 1981
DESIGNED BY	W.V. CKD.	DRAWN BY	ZIRK
APPROVED		DATE	
STATE BRIDGE ENGINEER		10-20-06	
GENERAL PLAN		SHEET 1 OF 8 X78932	

10 5731-02-00

B-52-84



Steel W Rail height does not meet current standards

LEGEND

- ① H6.25 WITH 2-3/4" x 2-1/2" VERTICAL SLOTS ON ONE SIDE OF POST FLANGE FOR BOLT NO. 7. CUT BOTTOM OF POST TO ANGLE SHOWN. SET POST NORMAL TO GRADE.
 - ② C8 x 11.5 WITH 3/16" HOLES, ATTACH TO NO. 4 WITH BOLTS NO. 8. ATTACH CONTINUOUSLY TO A MIN. OF FOUR POSTS AND A MAX. OF EIGHT POSTS.
 - ③ PLATE 1-9/16" x 0-10" WITH 1/4" x 1/4" SLOTTED HOLES FOR BOLTS NO. 9. WELD TO NO. 1 AS SHOWN.
 - ④ PLATE 1/2" x 5-3/4" x 0-6" WITH 1/4" HOLES FOR BOLTS NO. 8 WELD TO NO. 1 AS SHOWN.
 - ⑤ CORRUGATED SHEET BEAM, CONFORMING TO A.A.S.H.T.O. DESIGNATION H180-CLASS A, TYPE E.
- THREE GUARD RAIL OR EQUAL, MAY BE USED IN LIEU OF THE DOUBLE UNIT PLATE BEAM SHOWN. ATTACH TO NO. 1 WITH BOLTS NO. 7.
- ⑥ 1-3/4" x 3" MOUNTING BOLT WASHER, EIGHT GUARDED GALVANIZED. 2 PER POST REQ'D.
 - ⑦ 3/8" BUTTON HEAD RAIL MOUNTING BOLT WITH ROUND WASHER AND NUT. 2 PER POST REQ'D.
 - ⑧ 3/8" x 2-1/2" L6 HEX. BOLTS WITH NUT & TWO WASHERS EACH. 4 REQ'D. PER POST CONNECTION, 8 REQ'D. PER SPICE.
 - ⑨ A-443 ANCHOR BAR 3/8" x 10" (MIN. YIELD OF 36 KSI AND elongation of 18%) WITH 3/16" NUT AND WASHER. 8 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 3.
 - ⑩ BARS 3/8" x 0-8" LONG. WELD TO BAR NO. 9.
 - ⑪ PLATE 1/2" x 5-3/4" x 0-11-1/4" WITH 1/4" HOLES FOR BOLTS NO. 8. WELD THE SAME AS NO. 4. USE AT CHANNEL FIELD SPICE ONLY.

GENERAL NOTES

POST BASE PLATE NO. 3 SHALL BE FLAT WITH ALL SURFACES SMOOTH & FREE FROM WARP. FALL EDGES SMOOTH, STRAIGHT & VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL MEMBERS, INCLUDING UPPER 4 INCHES OF NO. 9, SHALL BE GALVANIZED AFTER FABRICATION.

FILL BOLT SLOT OPENINGS IN SHIMS & PLATE NO. 3 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

RAIL MEMBERS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC & THE UPPER RAIL SHALL LAP THE LOWER RAIL.

ALL MATERIAL USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A36 UNLESS NOTED OTHERWISE.

BID ITEM SHALL BE "STEEL RAILING TYPE 'W'" WHICH SHALL INCLUDE ALL ITEMS BETWEEN LONGIT. LIMITS OF NO. 5 SHOWN IN ELEVATION.

SHIM PLATES 6-3/16" x 6" MAY BE USED BETW. TOP OF POST AND CHANNEL MEMBER TO ACHIEVE VERT. ALIGNMENT PRIOR TO GALVANIZING. ALL STEEL RAILING SHALL BE GIVEN A NO. 6 COMMERCIAL BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

6'-0" x 3'-0" x 1/2" AT VERTICAL SOUTH RAIL

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-52-84			
Const. 1981	Drawn ZARK	Files Checked FWG	
STEEL RAILING TYPE 'W'		SHEET 8 OF 8 X78939	

B-52-84

ATTACHMENT D

CORRESPONDENCE WITH DOT FOR BRIDGE REPAIRS

Joshua Sweno

From: Kleinertz, Daniel - DOT <Daniel.Kleinertz@dot.wi.gov>
Sent: Wednesday, October 24, 2018 9:53 AM
To: Quirin Klink
Cc: Jolie Snyder; Bobbi Maxwell
Subject: RE: STH 56 - Richland Cty bridge work
Attachments: RE: STH 56 - Richland Cty bridge work

Follow Up Flag: Follow up
Flag Status: Flagged

Q,

Please see the attached from our bridge maintenance section. You can inflate the areas by 10-20% to estimate future deterioration prior to the let.

Thanks

Dan

From: Quirin Klink [mailto:qklink@msa-ps.com]
Sent: Tuesday, October 23, 2018 2:38 PM
To: Kleinertz, Daniel - DOT <Daniel.Kleinertz@dot.wi.gov>
Cc: Snyder, Jolie <jsnyder@msa-ps.com>; Maxwell, Bobbi <bmaxwell@msa-ps.com>
Subject: FW: STH 56 - Richland Cty bridge work

Dan, I left a voicemail just now as well. See below questions – could you get us answers to these in the next week or so? We need them to submit the prel plans/SSRs. Thanks, Q.

From: Jolie Snyder
Sent: Tuesday, October 23, 2018 2:29 PM
To: Quirin Klink <qklink@msa-ps.com>
Subject: STH 56 - Richland Cty bridge work

Questions for Dan regarding B-52-35 and B-52-84:

B-52-35:

- Do you want us to improve cross slope from 1.5% to 2%? This would affect cost mainly. The extra thickness would be at the C/L road. Should not have significant effect on the load rating.
- Type 1, Type 2, Full Depth Deck Repair Areas. We get these qtys from the DOT for these type of projects since we have no data to go from. We really only need the Type 1, since Type 2 can be estimated as 40% of this. Need from Bridge Maintenance Engineer.

B-52-84:

- Type 1, Type 2, Full Depth Deck Repair Areas. We get these qtys from the DOT for these type of projects since we have no data to go from. We really only need the Type 1, since Type 2 can be estimated as 40% of this. Need from Bridge Maintenance Engineer.

Box Culverts:

- We have asbestos reports for the two bridges, but we want to confirm that we do not need these for the box culverts, based on DOT policy. Is that correct?

Joshua Sweno

From: Olson, Michael A - DOT <MichaelA.Olson@dot.wi.gov>
Sent: Wednesday, October 24, 2018 8:42 AM
To: Kleinertz, Daniel - DOT; Bohnsack, David - DOT
Subject: RE: STH 56 - Richland Cty bridge work

Dan

I would also assume that we would like to correct the crown thickness as long as it wouldn't affect the load rating of the bridge to have that extra concrete. In looking at our last inspections on the bridges these are the follow quantities that I came up with.

B-52-0035: Chained in 2018 showing ~4% delam = ~ 100SF it shows that there is 74 SF of delam or patched areas under the deck with 54 of that being patched areas so I would think that 20SF of full depth would be sufficient. Type 1= 100 SF, Type 2= 40 SF (40%) and Full depth =20 SF.

B-52-0084: Chained in 2012 and 2016 showing 10 SF and 65 SF of delamination respectively. It doesn't look like there is much for delamination on the underside, and with it being a slab span I would anticipate much full depth but I suppose we should throw in a small quantity for just in case purposes. There is also a drip edge repair that the county did in 2015 that is starting to crumble along the north edge of the repair, that we should have the contractor fix while they are out there. I think that would probably fall under the type 1 repair since it is the top edge, but it could also fall under the surface repair item. Just want to make sure that it is addressed in the plan so it gets repaired. It is the entire length of that edge 44 ft. I would go with Type 1= 120 SF, Type 2= 50 SF, Full Depth 5 SF.

That being said as you know these are all just a best guess, if you want to bump them up so we don't have overages feel free. I am not sure if we do asbestos checks or not on boxes so I am no help there.

Let me know if you need anything else.

Mike.

From: Kleinertz, Daniel - DOT
Sent: Tuesday, October 23, 2018 2:44 PM
To: Bohnsack, David - DOT <David.Bohnsack@dot.wi.gov>; Olson, Michael A - DOT <MichaelA.Olson@dot.wi.gov>
Subject: FW: STH 56 - Richland Cty bridge work

Dave/ Mike,

MSA is looking for Type 1 / Type 2 and Full depth deck repair qty's on the two bridges listed below. My assumption is we would want to correct the crown and B-52-35 with the overlay. We also don't do asbestos checks on boxes.

MSA

From: Quirin Klink [<mailto:gklink@msa-ps.com>]
Sent: Tuesday, October 23, 2018 2:38 PM
To: Kleinertz, Daniel - DOT <Daniel.Kleinertz@dot.wi.gov>
Cc: Snyder, Jolie <jsnyder@msa-ps.com>; Maxwell, Bobbi <bmaxwell@msa-ps.com>
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- Type 1, Type 2, Full Depth Deck Repair Areas. We get these qtys from the DOT for these type of projects since we have no data to go from. We really only need the Type 1, since Type 2 can be estimated as 40% of this. Need from Bridge Maintenance Engineer.

Box Culverts:

- We have asbestos reports for the two bridges, but we want to confirm that we do not need these for the box culverts, based on DOT policy. Is that correct?

Joshua Sweno

From: Joshua Sweno
Sent: Thursday, January 3, 2019 12:12 PM
To: 'Bohnsack, David - DOT'
Cc: Kleinertz, Daniel - DOT; Olson, Michael A - DOT; Quirin Klink
Subject: RE: STH 56 - Richland Cty bridge work

Dave,

Thank you for the follow-up. Deck prep/repairs will be included with the plans for both B-52-35 and B-52-84. Based on the number of structures being worked on with this project, the 28 calendar day cure time required for the polymer overlay should not present an issue for the project timing.

Thanks,



Joshua Sweno, PE | Project Engineer

MSA Professional Services, Inc.

+1 (608) 355-8852



From: Bohnsack, David - DOT <David.Bohnsack@dot.wi.gov>
Sent: Thursday, January 3, 2019 10:08 AM
To: Joshua Sweno <jsweno@msa-ps.com>
Cc: Kleinertz, Daniel - DOT <Daniel.Kleinertz@dot.wi.gov>; Olson, Michael A - DOT <MichaelA.Olson@dot.wi.gov>; Quirin Klink <qklink@msa-ps.com>
Subject: RE: STH 56 - Richland Cty bridge work

Josh,

I am willing to try the thin polymer overlay and the work you have proposed for this bridge. There is some deck delamination and deteriorated fascia/drip edge will need to be repaired. This concrete will need to cure for 28 days before the polymer material can be placed on it. Is there any timing issues because of the curing time?

Dave

From: Joshua Sweno [<mailto:jsweno@msa-ps.com>]
Sent: Wednesday, January 02, 2019 12:28 PM
To: Bohnsack, David - DOT <David.Bohnsack@dot.wi.gov>
Cc: Kleinertz, Daniel - DOT <Daniel.Kleinertz@dot.wi.gov>; Olson, Michael A - DOT <MichaelA.Olson@dot.wi.gov>; Quirin Klink <qklink@msa-ps.com>
Subject: RE: STH 56 - Richland Cty bridge work

Dave,

This email is a follow up on our phone call to review the overlay details on structure B-52-35 and B-52-84. We will proceed forward with a HMA Overlay Polymer Modified for structure B-52-35.

For structure B-52-84 we discussed the option of a polymer overlay with additional repair details along the north edge. I have attached a couple pictures from a project that MSA did the design work for along STH 154 in Sauk County. The rehab work to structure B-56-98 included a polymer overlay with additional details for the polymer to be brushed along the outside face and underside of the deck edge (plan details also attached for reference). The polymer was brushed along the edge to seal the existing and repaired concrete and extend the life of the repair.

When you have a chance please review and if possible by the end of this week, let us know if this will be a suitable option for the bridge overlay and repair of the edge at structure B-52-84.

Thanks,



Joshua Sweno, PE | Project Engineer

MSA Professional Services, Inc.

+1 (608) 355-8852



From: Olson, Michael A - DOT <MichaelA.Olson@dot.wi.gov>

Sent: Wednesday, October 24, 2018 8:42 AM

To: Kleinertz, Daniel - DOT <Daniel.Kleinertz@dot.wi.gov>; Bohnsack, David - DOT <David.Bohnsack@dot.wi.gov>

Subject: RE: STH 56 - Richland Cty bridge work

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To: Bohnsack, David - DOT <David.Bohnsack@dot.wi.gov>; Olson, Michael A - DOT <MichaelA.Olson@dot.wi.gov>

Subject: FW: STH 56 - Richland Cty bridge work

ATTACHMENT E
ASBESTOS INSPECTION



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: 5730-00-30

Structure Number: B-52-0084

Structure Name: STH 56 over Upper Camp Creek

City/County: Town of Forest, Richland County

Lat/Long Coordinates: 432943.09/ 903433.13

TRC Project Number: 273741.0000.0000

Date Inspected: March 1, 2017

Inspected By/License Number: John Roelke, All-119523

Findings:

Files available online for this bridge were reviewed, no "As-built" drawings were found. 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.

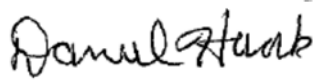
None of the materials that were identified as potentially ACM and sampled tested positive for asbestos. The planned resurfacing of the bridge can proceed as planned. Standard Special Provision (STSP) 107-127 should be incorporated into the specifications.

Sample Number	Sample Description	Sample Location	Analytical Results and Method	Friable/ Non-friable or No ACM	Quantity of ACM Material
1	Caulk	Around railing attachment plate	PLM, non-detect	No ACM	0
2	Caulk	Around railing attachment plate	PLM, non-detect	No ACM	
3	Caulk	Around railing attachment plate	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
4	Caulk	Around nuts and bolts in railing attachment plate	PLM, non-detect	No ACM	0
5	Caulk	Around nuts and bolts in railing attachment plate	PLM, non-detect	No ACM	
6	Caulk	Around nuts and bolts in railing attachment plate	PLM, non-detect	No ACM	
7	Tar-like material	Bridge deck expansion joint	PLM, non-detect	No ACM	0
8	Tar-like material	Bridge deck expansion joint	PLM, non-detect	No ACM	
9	Tar-like material	Bridge deck 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	
13	Plastic-like material	Abutment joint	PLM, non-detect	No ACM	0
14	Plastic-like material	Abutment joint	PLM, non-detect	No ACM	
15	Plastic-like material	Abutment joint	PLM, non-detect	No ACM	
16	Cork-like material	Abutment joint	PLM, non-detect	No ACM	
17	Cork-like material	Abutment joint	PLM, non-detect	No ACM	
18	Cork-like material	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



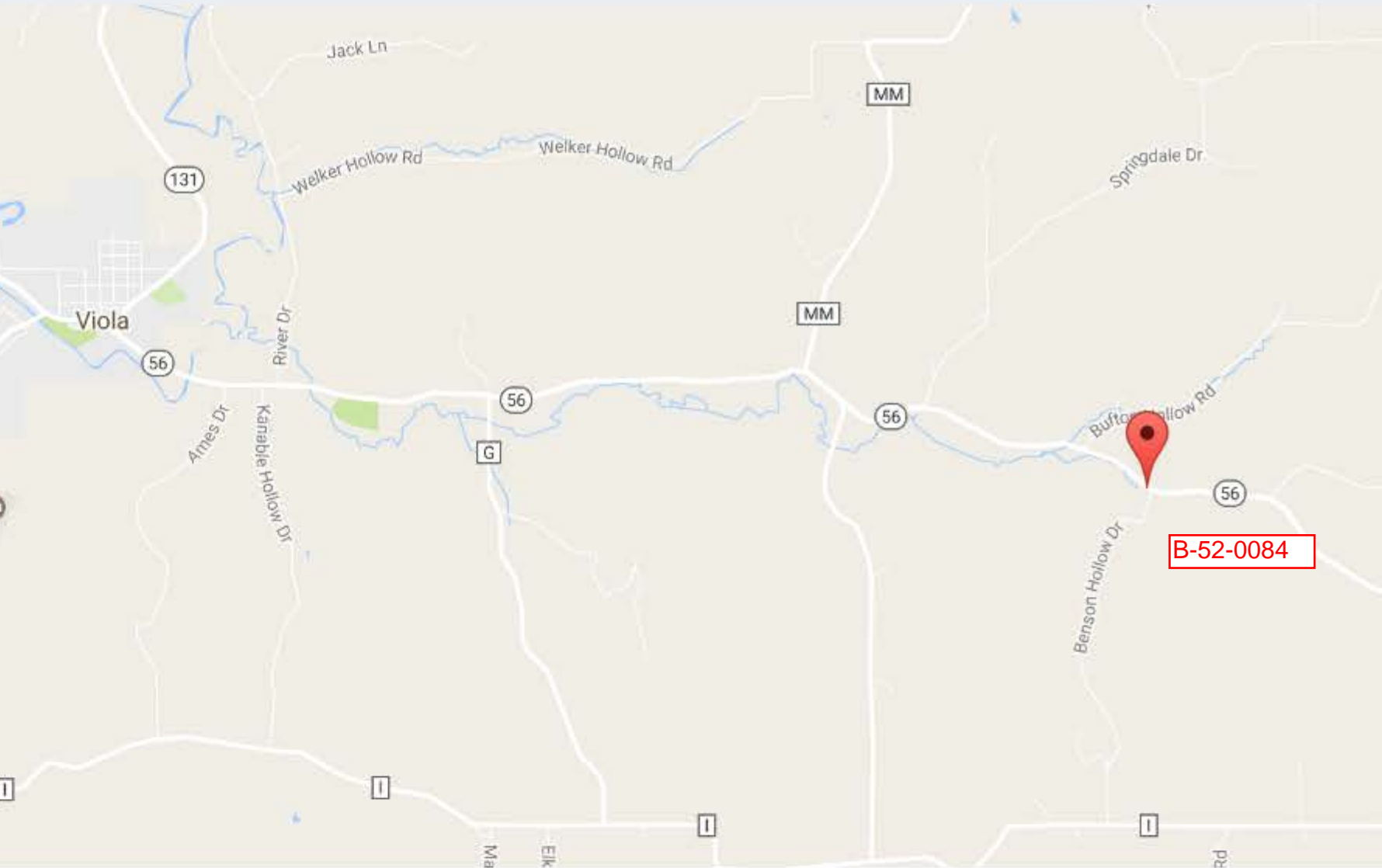
John Roelke
Asbestos Inspector

Attachments: Location Map, Photos, and Laboratory Report

Report Distribution:

Recipient	Electronic (PDF) Copy	Paper Copy
BTS-ESS sharlene.tebeest@dot.wi.gov	X (via email)	X
REC stephan.vetsch@dot.wi.gov	X (via email)	
Project Manager daniel.kleinertz@dot.wi.gov	X (via email)	
Other		





B-52-0084

Bridge B-52-0084



Caulk around railing attachment plate



Caulk around nuts and bolts in railing attachment plate





Tar-like material in bridge deck expansion joint



Caulk in abutment joint



Plastic-like material in abutment joint





Cork-like material in abutment joint



BULK ASBESTOS ANALYSIS REPORT

CLIENT: Wisconsin Department of Transportation

Lab Log #: 0050048
Project #: 273741.0000.0000
Date Received: 03/02/2017
Date Analyzed: 03/02/2017

Site: DOT Bridge Inspection, B-52-84

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
B-52-84 (1)	Grey (caulk)	Yes	No	--	---	ND	None
B-52-84 (2)	Grey (caulk)	Yes	No	--	---	ND	None
B-52-84 (3)	Grey (caulk)	Yes	No	--	---	ND	None
B-52-84 (4)	Grey (caulk)	Yes	No	--	---	ND	None
B-52-84 (5)	Grey (caulk)	Yes	No	--	---	ND	None
B-52-84 (6)	Grey (caulk)	Yes	No	--	---	ND	None
B-52-84 (7)	Black (tar)	Yes	No	--	---	ND	None
B-52-84 (8)	Black (tar)	Yes	No	--	---	ND	None
B-52-84 (9)	Black (tar)	Yes	No	--	---	ND	None
B-52-84 (10)	Grey (caulk)	Yes	No	--	---	ND	None
B-52-84 (11)	Grey (caulk)	Yes	No	--	---	ND	None
B-52-84 (12)	Grey (caulk)	Yes	No	--	---	ND	None
B-52-84 (13)	Colorless (opaque plastic)	Yes	No	--	---	ND	None
B-52-84 (14)	Colorless (opaque plastic)	Yes	No	--	---	ND	None
B-52-84 (15)	Colorless (opaque plastic)	Yes	No	--	---	ND	None
B-52-84 (16)	Tan/Brown (cork gasket)	Yes	No	--	---	ND	None
B-52-84 (17)	Tan/Brown (cork gasket)	Yes	No	--	---	ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0	AIHA-LAP, LLC #100122	CT #PH-0426	ME LA-0075, LB-0071	MA #AA000052	NY #10980	WV# LT000411
RI #AAL-007	TX #300354	VT #AL014538	LA#05011	VA #3333 000283	AZ #A20944	HI #L-09-004
CO# AL-15020	PHIL# 461	PA#68-03387			NJ #CT004	CA #2907

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
B-52-84 (18)	Tan/Brown (cork gasket)	Yes	No	--	---	ND	None

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 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2017. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2018. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

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

Analyzed by:

K. Williamson
Kathleen Williamson, Laboratory Manager

Reviewed by:

Cathryn Lemire
Cathryn Lemire, Approved Signatory

Date Issued

03/02/2017

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0	AIHA-LAP, LLC #100122	CT #PH-0426	ME LA-0075, LB-0071	MA #AA000052	NY #10980	WV# LT000411
RI #AAL-007	TX #300354	VT #AL014538	LA#05011	VA #3333 000283	AZ #A20944	HI #L-09-004
CO# AL-15020	PHIL# 461	PA#68-03387			NJ #CT004	CA #2907

ATTACHMENT F
DNR INITIAL REVIEW



3-20-17

Nathan Schumaker
3550 Mormon Coulee Road
La Crosse WI 54601

Subject: DNR Initial Project Review
Project I.D. 5730-00-30
STH 56, Viola to Richland Center
Camp Creek Bridge to STH 80
Richland County
T-12-N/R-2-W

Dear Mr. Schumaker:

The Wisconsin Department of Natural Resources (DNR) has received the information you provided for the proposed above-referenced project on 2-14-17. According to your proposal, the purpose of this project is to rehabilitate STH 56 from the Camp Creek bridge to STH 80. Proposed improvements include mill and relay, bridge rehabilitation, beam guard, slope work, and culvert replacement/extension.

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 assume that additional information will be provided that addresses all resource concerns identified. In addition to the project specific resource concerns highlighted below, it is DNR's expectation that the full range of DOT roadway standards will be applied throughout the design process.

A. Project-Specific Resource Concerns

Section 4(f) Requirement:

Public lands are present in the vicinity of this project. If there is potential for impacts to these lands, please begin coordination with us as soon as possible. *First and foremost, every effort should be taken to avoid impacts to these lands.*

There is a U.S. Dept. of Transportation "Section 4(f)" process for federally funded transportation projects that impact various types of public parks, wildlife refuges, and recreation areas. This requirement is coordinated by state and federal transportation departments. Please ensure the 4f process as described in DOT FDM Chapter 21-25-1 is followed.

Pittman-Robertson/Dingell-Johnson Funded Lands:

Lands acquired with funding from the U.S. Fish and Wildlife Service (USFWS) Pittman-Robertson Wildlife Restoration or Dingell-Johnson Sport Fish Restoration (PR-DJ) program that are taken by a highway project must

be replaced or made whole, pending approval from appropriate agencies. This PR- DJ requirement would apply to Camp Creek Fishery Area.

The entire transaction must be evaluated for compliance with 43 CFR 12.71 and approved by USFWS through the DNR Federal Aid Coordinator. *Note that the Department of Interior (DOI) asserts PR-DJ funded lands are 4(f) due to main purpose for funding source.*

Wetlands:

There is potential for wetland impacts to occur as a result of this project. Wetland impacts must be avoided and/or minimized to the greatest extent practicable. Unavoidable wetland losses must be compensated for in accordance with the DNR/DOT Cooperative Agreement and the DOT Wetland Mitigation Banking Technical Guideline. Per the Cooperative Agreement, mitigation banking is the preferred compensation option, however DOT and DNR agree that other practicable and ecologically valuable project specific opportunities may be pursued on a case-by-case basis. DNR requests information regarding the amount and type of unavoidable wetland impacts.

Fisheries/Stream Work:

Camp Creek is a Class I trout water. In order to protect developing fish eggs and substrate for aquatic organisms, all instream work that could adversely impact water quality should be undertaken between May 15th and Sept 15th.

Creek 22-14 (Springdale Drive) is a Class II trout water. In order to protect developing fish eggs and substrate for aquatic organisms, all instream work that could adversely impact water quality should be undertaken between May 15th and Sept 15th.

Buffton Hollow Creek is a Class I trout water. In order to protect developing fish eggs and substrate for aquatic organisms, all instream work that could adversely impact water quality should be undertaken between May 15th and Sept 15th.

Fancy Creek is a Class I trout water. In order to protect developing fish eggs and substrate for aquatic organisms, all instream work that could adversely impact water quality should be undertaken between May 15th and Sept 15th.

Unnamed Trib to Fancy Creek (Gillingham Drive) is a Class II trout water. In order to protect developing fish eggs and substrate for aquatic organisms, all instream work that could adversely impact water quality should be undertaken between May 15th and Sept 15th.

Creek 24-3a T11N R1W (Bell Hollow Lane) is a Class II trout water. In order to protect developing fish eggs and substrate for aquatic organisms, all instream work that could adversely impact water quality should be undertaken between May 15th and Sept 15th.

Aquatic Connectivity and Culvert Work:

The culvert extension located at Springdale Drive on Creek 22-14 should be set and sized in such a manner to avoid or minimize impacts to stream morphology, aquatic organism passage, and water quality. This requires that water flow characteristics and streambed sediment in the culvert should closely match the characteristics of the streambed sediment in the natural channel. The invert elevations of the existing and proposed structure(s), the water surface elevations, and the natural streambed elevations upstream and downstream should be specified in

the plans. The natural streambed elevations should extend well beyond the zone of influence of the culvert. The invert elevation of the new culvert(s) should be set an adequate distance below the natural streambed elevation, to allow for a natural and continuous streambed condition to occur.

The scour hole and tail-water control downstream of the current culvert are indicators of an inadequately sized culvert with excessive velocities at certain times of the year. The Department feels this structure could be a candidate for full replacement and sizing as opposed to the culvert extension work currently planned.

Culvert Cleaning at CTH MM

The culverts to be cleaned just west of CTH MM directly outlet to Camp Creek, a Class I trout water. In order to protect developing fish eggs and substrate for aquatic organisms, all instream work that could adversely impact water quality should be undertaken between May 15th and Sept 15th. Additionally, measures should be taken to contain and control sediments during culvert cleaning operations.

Endangered Resources:

Based upon a review of the Natural Heritage Inventory (NHI) and other DNR records dated 3-13-17, the following Endangered Resources are known to occur in the project area or its vicinity and could be impacted by this project.

The Blanchard's cricket frog (*Acris blanchardi*), an endangered species in Wisconsin, prefers ponds, lakes, and a variety of habitats along and adjacent to streams and rivers including, marshes, fens, sedge meadows, low prairies, and exposed mud flats.

The following measures will be needed: Based on the plans provided, we do not anticipate impacts to the Blanchard's cricket frog. However, if any work is performed beyond the current toe of slope in the Camp Creek Fishery Area, further review will be necessary.

The DNR Transportation Liaison has initiated coordination with Stacy Rowe, of the Bureau of Natural Heritage Conservation (NHC).

Migratory Birds:

Based on the information provided and/or site review, there is no evidence of past migratory bird nesting on the existing box structures scheduled for replacement or extension work.

Invasive Species and Viral Hemorrhagic Septicemia (VHS):

Adequate precautions should be taken to prevent transporting or introducing invasive species via construction equipment, as provided under chapter NR 40 Wis. Adm. Code. Further information on species classified as Restricted or Prohibited under NR 40 can be found at: <http://dnr.wi.gov/topic/Invasives/classification.html>.

DNR will work with project managers to help identify specific problem areas across the project site and recommend preventive measures. The following Best Management Practices (BMPs) for rights-of-way provide a series of measures that will ensure reasonable precautions are taken throughout the stages of construction: <http://www.wisconsinforestry.org/files/invasiveBMPs/TransportationRoW-BMPs.pdf>.

Any equipment coming into contact with surface waters must be properly cleaned and disinfected to address the spread of invasive species and viruses. Special provisions must require contractors to implement the following

measures before and after mobilizing in-water equipment to prevent the spread of VHS, Zebra Mussel, and other invasive species. Contractors should follow *STSP 107-055 Environmental Protection, Aquatic Exotic Species Control*, or protocol found here: http://dnr.wi.gov/topic/fishing/documents/vhs/disinfection_protocols.pdf.

Additional information on invasive species and infested waters can be found at:
<http://dnr.wi.gov/lakes/invasives/AISByWaterbody.aspx>

Floodplains:

A determination must be made as to whether or not the project lies within a mapped/zoned floodplain. Floodplain impacts should be assessed and/or quantified and appropriate coordination must be carried out in accordance with the DOT/DNR Cooperative Agreement. Coordination must also occur with the Richland County Zoning Program.

Burning:

If burning of brush will occur as part of this project, the contractor should be informed that it is illegal to burn materials other than clean wood. It is also illegal to start or maintain fires using oily substances, or other materials prohibited under chapter NR 429, Wis. Adm. Code. All necessary burning permits must be obtained prior to construction, as required under local and state fire protection regulations, in order to comply with NR 429 (Malodorous Emissions & Open Burning) http://docs.legis.wisconsin.gov/code/admin_code/nr/400/429.pdf.

Burning permits are available through the local DNR ranger or fire warden, however other local burning permits may be required.

B. Project Specific Construction Site Considerations

The following issues should be addressed in the Special Provisions, and the contractor will be required to outline their construction methods in the Erosion Control Implementation Plan (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. Erosion control and stormwater measures must adhere to the DNR/DOT Cooperative Agreement, Trans 401, and applicable federal laws.

Erosion Control and Storm Water Management:

- Erosion control devices should be specified on the construction plans. All disturbed bank areas should be adequately protected and restored as soon as feasible.
- If erosion mat is used along stream banks, DNR recommends that biodegradable non-netted mat be used (e.g. Class I Type A Urban, Class I Type B Urban, or Class II Type C). Long-term netted mats may cause animals to become entrapped while moving in and out of the stream. Avoid the use of fine mesh matting that is tied or bonded at the mesh intersection such that the openings in the mesh are fixed in size.
- If dewatering is required for any reason, the water must be pumped into a properly selected and sized dewatering basin before the clean/filtered water is allowed to enter any waterway or wetland. The basin must remove suspended solids and contaminants to the maximum extent practicable. A properly designed and constructed dewatering basin must take into consideration maximum pumping volume (gpm or cfs) and the sedimentation rate for soils to be encountered. Do not house any dewatering technique in a wetland.

- The contractor should restrict the removal of vegetative cover and exposure of bare ground to the minimum amounts necessary to complete construction. Restoration of disturbed soils should take place as soon as conditions permit. If sufficient vegetative cover will not be achieved because of late season construction, the site must be properly winterized.
- All temporary stock piles must be in an upland location and protected with erosion control measures (e.g. silt fence, rock filter-bag berm, etc.). Do not stockpile materials in wetlands, waterways, or floodplains

Temporary Stream Channel or Culvert:

If a temporary channel is needed for any culvert construction or extension, the channel should be lined with plastic or other non-erodible material and weighted down with clean stone. A temporary channel or culvert must be capable of carrying all stream flows during the construction period and must maintain a suitable depth and velocity to allow the passage of migrating fish and aquatic species. Fish that become stranded in dewatered areas or temporary channels should be captured and returned to the active channel immediately.

These requirements should be addressed in the special provisions and require the contractor to outline these construction methods in the ECIP.

Asbestos:

A Notification of Demolition and/or Renovation and Application for Permit Exemption, DNR form 4500-113 (chapters NR 406, 410, and 447 Wis. Adm. Code) may be required. Please refer to DOT FDM 21-35-45 and the DNR's notification requirements web page: <http://dnr.wi.gov/topic/Demo/Asbestos.html> for further guidance on asbestos inspections and notifications. Contact Mark Davis, Air Management Specialist 608-266-3658, with questions on the form. The notification must be submitted 10 working days in advance of demolition projects.

Other Issues/Unique Features: The Cooperative Agreement allows our agencies to be flexible with our review process in order to ensure the DOT project remains on schedule. At times we will identify unique resources or project specific concerns that necessitate creative solutions to complex resource issues. We believe the requests below are necessary to adequately protect resources, are reasonable, are site specific, and will not set precedence or new policy for statewide policy or guidance. The request made below apply only to this project, and should be incorporated into the project Special Provisions.

- **Oak Wilt:** This project involves work that may involve cutting or wounding of oak trees. To prevent the spread of oak wilt disease, please avoid cutting or pruning of oaks from April through September. See the DNR webpage at: <http://dnr.wi.gov/topic/foresthealth/oakwilt.html> .
- **Emerald Ash Borer:** This project has the potential for spreading the Emerald Ash Borer (EAB) beetle. It is illegal to move or transport ash material, the emerald ash borer, and hardwood debris (i.e. firewood) from EAB quarantined areas to a non-quarantined area without a compliance agreement issued by WI Department of Agriculture, Trade and Consumer Protection. Regulated items include cut hardwood (non-coniferous) firewood, ash logs, ash mulch or bark fragments larger than one inch in diameter, or ash nursery stock (DATCP statute 21).
 - For more information regarding the EAB and quarantine areas please click on the following link: <http://datcpservices.wisconsin.gov/eab/article.jsp?topicid=20>
 - Recommendations to reduce the spread of EAB in potentially infested Ash wood: <http://datcpservices.wisconsin.gov/eab/articleassets/Recommendations%20to%20reduce%20the%20spread%20of%20EAB.pdf>

This project may require a permit from the U.S. Army Corps of Engineers (ACOE). For further details you will need to contact Kerrie Hauser of the ACOE located in the La Crescent office, at 651-290-5903. All local, state, and federal permits and/or approvals must be obtained prior to commencing construction activities.

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 608-275-3308, or email at andrew.barta@wisconsin.gov.

Sincerely,

Andy Barta

Andy Barta
Environmental Analysis & Review Specialist

cc: Steve Vetsch – WisDOT
Dan Kleinertz - WisDOT
Kerrie Hauser - ACOE