Bridge Number:
N0254R1 JJ/Mercer

Asbestos-Containing Material Present?

Yes: ☐ No: ☒

If yes, see report for location(s).

Structural Steel Present?

Yes: ☒ No: ☐

If No, then skip the following.

Lead-Based Paint (LBP) Present?

Yes: ☒ No: ☐

Trusses LBP?

Yes: ☐ No: ☐

Girder LBP?

Yes: ☒ No: ☐

Railing LBP?

Yes: ☒ No: ☐

Pile LBP?

Yes: ☒ No: ☐

MEMORANDUM

Missouri Department of Transportation
Construction and Materials
Central Laboratory

TO: TMS

FROM: Frank Reichart
Environmental Chemist

DATE: October 7, 2015

SUBJECT: Materials
Asbestos Inspection & Heavy Metal Paint Survey
Route JJ
Bridge N-0254R1
Mercer County

We are providing you with the results of the inspection on the above referenced bridge. The inspection report contains an asbestos and a heavy metals survey. The asbestos inspection included identifying suspect asbestos-containing material and NVLAP accredited testing to confirm the presence of asbestos.

Form T746 – This will show if samples were taken, where from, and, if the sample was found to contain asbestos, our estimated quantity of material present. Under the column "Friability Category", this is the meaning for the following:

N-ACM – No asbestos detected.
I NF – Asbestos is present. Material shall be handled carefully by a licensed abatement worker and kept wet if removing as part of a maintenance activity.
II NF – Asbestos is present. If removal is required for the maintenance activity, use an abatement contractor.

In accordance with Missouri Department of Natural Resources' Technical Bulletin "Managing Construction and Demolition Waste" dated January 31, 2003, a heavy metal paint survey has been performed on the above referenced bridge. This survey includes locating concrete which has been painted with something other than traffic paint or graffiti, and testing the painted surface(s) to determine if hazardous heavy metals are present. If the bridge is being removed completely, or the maintenance repairs include removing the painted concrete, then, non-hazardous painted concrete may be used as clean fill materials, if properly handled. You must contact the Central Office Design Division for proper handling of the reported painted surfaces.

Although our survey included observing and sampling all accessible areas, it is possible that potentially hidden asbestos-containing materials may exist within the structure. Should you have any questions regarding these reports, please contact me at (573) 526-4359.

db/fr/dr
http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared documents/asbestos/districts/northwest (nw)/mt/n0254r1/dr15100715.docx
Attachments

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
All Suspect ACM

ROUTE:	JJ	**SURVEYED BY:**	Frank Reichart and Diane Roegge
MODOT JOB NO.:	N/A	**CERTIFICATION #:**	7118110514MOIR11239, F.R.
DISTRICT:	NW	**CERTIFICATION #:**	7118110514MOIR7165, D.R.
COUNTY:	Mercer	**SITE ADDRESS:**	Over West Fork Honey Creek
DATE OF SURVEY:	October 7, 2015	**TYPE(S) OF STRUCTURE(S):**	Bridge
PARCEL NO.:	Bridge N-0254R1		

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
15MFJR 319	Asphalt Felt Material	Over 2-Abutments	N-ACM	
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable
NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
Nonfriable Asbestos-Containing Materials
(Abatement not required if not made friable during demolition.)

ROUTE:	JJ	**TESTED BY:**	Frank Reichart and Diane Roegge
MODOT JOB NO.:	N/A	**CERTIFICATION #:**	7118110514MOIR11239, F.R.
DISTRICT:	NW	**CERTIFICATION #:**	7118110514MOIR7165, D.R.
COUNTY:	Mercer	**SITE ADDRESS:**	Over West Fork Honey Creek
DATE OF TESTS:	October 14-15, 2015	**TYPE(S) OF STRUCTURE(S):**	Bridge
PARCEL NO.:	Bridge N-0254R1		

Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
		None Located	I NF			

All necessary work to handle this material is the contractor's responsibility.

I NF = Category I Nonfriable

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
All materials requiring removal or special handling.

ROUTE:	JJ	**TESTED BY:**	Frank Reichart and Diane Roegge
MODOT JOB NO.:	N/A	**CERTIFICATION #:**	7118110514MOIR11239, F.R.
DISTRICT:	NW	**CERTIFICATION #:**	7118110514MOIR7165, D.R.
COUNTY:	Mercer	**SITE ADDRESS:**	Over West Fork Honey Creek
DATE OF TESTS:	October 14-15, 2015	**TYPE(S) OF STRUCTURE(S):**	Bridge
PARCEL NO.:	Bridge N-0254R1		

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE:	JJ	**TESTED BY:**	N/A
MODOT JOB NO.:	N/A	**DATE OF TESTS:**	N/A
DISTRICT:	NW	**PARCEL NO.:**	Bridge N-0254R1
COUNTY:	Mercer	**SITE ADDRESS:**	Over West Fork Honey Creek
SURVEYED BY:	Frank Reichart	**TYPE(S) OF STRUCTURE(S):**	Bridge
DATE OF SURVEY:	October 7, 2015		

Sample ID	Color/Location of Material/Substrate	Metals (ppm)							
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag
	No samples taken. No painted surfaces located.								

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

MEMORANDUM

Missouri Department of Transportation
Construction and Materials
Central Laboratory

TO: TMS

FROM: Frank Reichart
Environmental Chemist, Lead License #110506-300003364

DATE: October 30, 2018

SUBJECT: Materials
Job No. N/A
JJ/Mercer County
Bridge# N0254R1

On October 30, 2018, a paint screening for regulated heavy metals was performed on the subject bridge. The following results were obtained:

	18MFJR758
Arsenic (As)	55,062 ppm**
Chromium (Cr)	45 ppm
Lead (Pb)	512,913 ppm (51.3%)
Cadmium (Cd)	775 ppm
Selenium (Se)	LOD*
Barium (Ba)	108 ppm
Mercury (Hg)	LOD
Silver (Ag)	LOD

*LOD = below the detection limit of the instrument
**ppm = parts per million

TMS paint data indicated a System A paint was under the System S paint, applied in 2006. The results verify the information found in TMS.

The existing paint system is lead-based paint (LBP). Therefore any painting project will be subject to DHSS notification and regulation.

Should any further screenings be required, please contact Todd Bennett, Chemical Laboratory Director, at (573) 751-1045.

Should you have any questions regarding the screenings, feel free to call me at (573) 526-4359.

fr/dr
http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared documents/asbestos/districts/northwest (nw)/mt/n0254r1/lbp xrf n0254r1.docx

Expiration Date **11/5/2015**

Training Date: **11/5/2014**

Certificate Number: 7118110514MOIR11239

Missouri State Certificate for Asbestos Related Occupations

issued by Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102
Phone (573) 751-4817

Francis J. Reichart

has successfully completed the requirements for certification as a INSPECTOR. This Missouri State Certification is subject to review and the director may deny, suspend or revoke the certification per RSMo chapter 643.230.

12/31/2014
Date

Kyra L Moore
Director of Air Pollution Control Program

Expiration Date **11/5/2015**

Certificate Number: 7118110514MOIR7165

Training Date: **11/5/2014**

Missouri State Certificate for Asbestos Related Occupations

issued by Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102
Phone (573) 751-4817

Diane R. Roegge

has successfully completed the requirements for certification as a INSPECTOR. This Missouri State Certification is subject to review and the director may deny, suspend or revoke the certification per RSMo chapter 643.230.

12/31/2014
Date

Lyra L Moore
Director of Air Pollution Control Program

Missouri Department of Transportation
State Bridge Inspection Report

December 03, 2024
7:33:27AM

COUNTY: MERCER **DISTRICT: NW** **CLASS: STATBR** **FED-ID: 7418** **BRIDGE: N0254**

GENERAL STRUCTURE INFORMATION

ROUTE: RTJJE	**# SPANS:** 3	**PLACE CODE:** 77578 WASHINGTON	
FEATURE: HONEY CR	**LANES ON:** 2	**LENGTH:** 113 FT 0 IN	
STATUS: P-POSTLOAD	**LANES UNDER:** 0	**MAXIMUM SPAN:** 38 FT 1 IN	
LOG MILE: 0.509	**COMPASS DIRECTION:** EAST to WEST	**APPROACH ROADWAY:** 20 FT 0 IN	
DETOUR: 38.00 MILES	**DIRECTION OF TRAFFIC:** 2-WAY TRAF	**CURB TO CURB:** 20 FT 0 IN	
NHS: NO	**FUNCTIONAL CLASS:** RL-MAJOR COLLECTOR	**OUT TO OUT:** 22 FT 4 IN	
BUILT: 1957	**NBI OWNER:** MODOT	**AADT:** 67	
REHAB: 1994	**NBI MAINTAINED:** MODOT	**AADT YEAR:** 2023	
LOCATION: S 8 T 63 R 23 W	**MAINTENANCE DISTRICT:** NW	**AADT TRUCK:** 12.5%	
LATITUDE: 40 16 20.93 (DMS)	**MAINTENANCE COUNTY:** MERCER	**FUTURE AADT:** 84	
LONGITUDE: 93 30 31.51 (DMS)	**SUB AREA:** 7A21	**FUTURE AADT YEAR:** 2043	

BRIDGE INSPECTION INFORMATION

DATE: 08/03/2023 **RESPONSIBILITY:** DISTRICT
FREQUENCY: 24 **CALCULATED INTERVAL**:** 24
TEAM LEADER: BRYCE ACTON **ELEMENT:** NO
INSPECTOR 2: **INSPECTOR 4:**
INSPECTOR 3:

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

GENERAL INSPECTION COMMENTS

FRACTURE CRITICAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

FRACTURE CRITICAL INSPECTION COMMENTS

INDEPTH INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

INDEPTH INSPECTION COMMENTS

SPECIAL INSPECTION INFORMATION

DATE: 08/04/2021 **RESPONSIBILITY:** DISTRICT **CATEGORY:** CHANNEL CROSS SEC
FREQUENCY: 72 **CALCULATED INTERVAL**:** 86 **NBI:** NO
TEAM LEADER: SCOTT STEPHENS **INSPECTOR 3:** **METHOD:** WT TAPE
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

SPECIAL INSPECTION COMMENTS

UNDERWATER INSPECTION INFORMATION

DATE: 08/03/2023 **RESPONSIBILITY:** DISTRICT **CATEGORY:** DRY
FREQUENCY: 60 **CALCULATED INTERVAL**:** 24 **NBI:** NO
TEAM LEADER: BRYCE ACTON **INSPECTOR 3:** **METHOD:** VISUAL
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

UNDERWATER INSPECTION COMMENTS

OTHER SPECIAL INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

OTHER UNDERWATER INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

Design_No = n0254

COUNTY: MERCER **DISTRICT: NW** **CLASS: STATBR** **FED-ID: 7418** **BRIDGE: N0254**

STRUCTURE POSTING

APPROVED CATEGORY: S-7 TRUCKS OVER 17 TONS 15 MPH ON BRIDGE.
Ton 1: 17 **Ton 2:** **Ton 3:**
COMMENTS:

FIELD CATEGORY: S-7 TRUCKS OVER 17 TONS 15 MPH ON BRIDGE.
Ton 1: 17 **Ton 2:** **Ton 3:** **PROBLEM:** **PROBLEM DIRECTION:**
COMMENTS:

GENERAL COMMENTS/MAJOR RATED ITEMS

GENERAL COMMENTS: (BOWDEJ1, 02/02/2010)--(38'-37'-38') SMP WF GDR SPANS (STRENGTHEN ALL GDRS 1994)

[ITEM 58] DECK: 4-POOR CONDITION
RATING : 08/13/2015
COMMENTS: (MENEET, 01/30/2014)--PATCHES
(ACTONB1, 08/21/2023)--SATURATION THROUGHOUT

[ITEM 59] SUPER: 5-FAIR CONDITION
RATING : 08/13/2015
COMMENTS: (STEPHS2, 08/13/2015)--RUSTING OF GIRDERS

[ITEM 60] SUB: 5-FAIR CONDITION
RATING : 08/22/2017
COMMENTS: (WILSOT2, 03/14/2012)--MOD PILE EXPOSED
(STEPHS2, 08/22/2017)--SECTION LOSS AT GROUND LINE

[ITEM 61] BANK/CHANNEL: 5-MAJOR DAMAGE
RATING : 03/14/2012
COMMENTS: (ACTONB1, 08/21/2023)--CHANNEL DEEPENING & BANKS WIDENING
(ACTONB1, 08/21/2023)--MODERATE BANK EROSION W/ROCK ADDED @ BOTH SLOPES

[ITEM 113] SCOUR: 8-STABLE FOR CALCULATED
RATING : 03/14/2012
EVALUATION TYPE :
COMMENTS: (ACTONB1, 08/21/2023)--MINOR LOCAL SCOUR - ROCK ADDED @ BOTH BENT PILE

[ITEM 71] WATERWAY ADEQUACY: DECK ABOVE FLOOD ELEV
RATING : 05/18/2001
COMMENTS:

[ITEM 72] APPRRDWY ALIGNMENT: 6-SATISFACTORY
RATING : 05/18/2001
COMMENTS:

RAILING AND APPROACH PAVEMENT COMPONENTS AND RATINGS

[ITEM 36A] BRIDGE RAILING RATING: *DOESNT MEET CURRNT STND-0* ***RATING :*** *01/20/2003* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
STEEL	ANGLE-DOUBLE	BOTH	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
OTHER	THROUGHOUT		NOT APPLICABLE	(STEPHS2, 09/09/2021)--PAINTED 2020

MATERIAL	CONSTRUCTION	DIRECTION
REINFORCED CONCRETE	CURB	BOTH

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
SCALING	THROUGHOUT		HEAVY	

[ITEM 36B] TRANSITION RAILING RATING: *NOT PROVIDED-0* ***RATING :*** *05/18/2001* ***COMMENTS:***

[ITEM 36C] APPROACH RAILING RATING: *NOT PROVIDED-0* ***RATING :*** *05/18/2001* ***COMMENTS:***

COUNTY: MERCER **DISTRICT: NW** **CLASS: STATBR** **FED-ID: 7418** **BRIDGE: N0254**

[ITEM 36D] RAIL END TREATMENT RATING: *NOT PROVIDED-0* ***RATING :*** *05/18/2001* ***COMMENTS:***

APPROACH PAVEMENT: *Overall condition assigned for each approach pavemenet component is shown below.

MATERIAL	CONSTRUCTION	DIRECTION	CONDITION*	COMMENTS
ASPHALT	BITUMINOUS MAT	BOTH	GOOD	

DRAINAGE, EXPANSION DEVICES, BANK/SLOPE, AND DECK PROTECTIVE COMPONENTS

DECK PROTECTIVE COMPONENTS:

SERIES TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	THICKNESS	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
MAIN SERIES-1	*WEARING SURFACE*	*ASPHALT*	*BITUMINOUS SEAL COAT*	*.3 IN*			*POOR*

COMMENT:

DECK PROTECTION	*NOTAPPLICABLE*	*NONE*

COMMENT:

MEMBRANE	*NOTAPPLICABLE*	*NONE*

COMMENT:

DRAINAGE COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
DRAINAGE	*REINFORCED CONCRETE*	*CURB OUTLET*		

EXPANSION DEVICE COMPONENTS:

SUB UNIT-#	SUB LABEL	COMPONENT	MATERIAL	CONSTRUCTION	GAP	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION

COMMENT:

BANK/SLOPE PROTECTION COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
BANK PROTECTION	*ROCK*	*RIP RAP*	*BOTH*	(STEPHS2, 08/22/2017)--PAVEMENT SLABS BROKEN UP

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
ERODING	THROUGHOUT		SEVERE	(STEPHS2, 08/21/2019)--WEST BANK

DECK COMPONENTS

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-1	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	EDGE		MODERATE		
PATCHES	THROUGHOUT		MANY	50 %	
SATURATION	THROUGHOUT		MODERATE		
SCALING	THROUGHOUT		LIGHT		
SPALLS	RANDOM		MINOR		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-2	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

DETERIORATION	EDGE		MODERATE	
PATCHES	THROUGHOUT		MANY	50 %
SATURATION	THROUGHOUT		MODERATE	
SCALING	THROUGHOUT		LIGHT	
SPALLS	RANDOM		MINOR	
TRANSVERSE CRACKS	THROUGHOUT		MANY	

MAIN SPANS-3 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	EDGE		MODERATE		
MAP CRACKS	THROUGHOUT		MEDIUM		
PATCHES	THROUGHOUT		MANY	50 %	
SATURATION	THROUGHOUT		MODERATE		
SCALING	THROUGHOUT		LIGHT		
SPALLS	THROUGHOUT		MODERATE		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

SUPERSTRUCTURE COMPONENTS

SERIES TYPE-#	SPAN TYPE	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
MAIN SERIES-1	*SIMPLE SPAN*	*STEEL*	*WIDE FLANGE GIRDERS*		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-1	NON-COMPOSITE	38 FT 1 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
RUSTING	BOTTOM FLANGE		LIGHT		
RUSTING	TOP FLANGE		MODERATE		
SECTION LOSS	TOP FLANGE		MINOR		

MAIN SPANS-2	NON-COMPOSITE	37 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
RUSTING	BOTTOM FLANGE		LIGHT		
RUSTING	TOP FLANGE		MODERATE		
SECTION LOSS	TOP FLANGE		MINOR		

MAIN SPANS-3	NON-COMPOSITE	38 FT 1 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
RUSTING	BOTTOM FLANGE		LIGHT		
RUSTING	TOP FLANGE		LIGHT		
SECTION LOSS	TOP FLANGE		MINOR		

SUBSTRUCTURE COMPONENTS

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-1		*24 FT 4 IN*	*REINFORCED CONCRETE*	*NON-INTEGRAL*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
DETERIORATION	VERTICAL FACE		MINOR		
HAIR LINE CRACKING	RANDOM		FEW		
PILING	REINFORCED CONCRETE	CAST-IN-PLACE			

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

Design_No = n0254

STRAIGHT WINGS	REINFORCED CONCRETE	CAST-IN-PLACE				
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***	
BACKWALL	REINFORCED CONCRETE	CAST-IN-PLACE				
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***	
EXPANSION BEARING	STEEL	SLIDING CURVED/FLAT PL/				
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***	

BENT-2 *21 FT 0 IN* *REINFORCED CONCRETE* *PILE CAP*

CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT	***MATERIAL***	***CONSTRUCTION***			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DELAMINATION	VERTICAL FACE		MINOR		
SPALLS	VERTICAL FACE		MINOR		
PILING	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
LOCAL SCOUR	GROUND LINE		PILE EXPOSED		
SECTION LOSS	GROUND LINE		MODERATE		
EXPANSION BEARING	STEEL	SLIDING CURVED/FLAT PL/			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***

BENT-3 *21 FT 0 IN* *REINFORCED CONCRETE* *PILE CAP*

CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT	***MATERIAL***	***CONSTRUCTION***			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DELAMINATION	VERTICAL FACE		MINOR		
SPALLS	VERTICAL FACE		MINOR		
PILING	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
LOCAL SCOUR	GROUND LINE		PILE EXPOSED		
RUSTING	GROUND LINE		MINOR		
EXPANSION BEARING	STEEL	SLIDING CURVED/FLAT PL/			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***

ABUTMENT-4 *24 FT 4 IN* *REINFORCED CONCRETE* *NON-INTEGRAL*

CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT	***MATERIAL***	***CONSTRUCTION***			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DETERIORATION	VERTICAL FACE		MINOR		
VERTICAL CRACKS	RANDOM		FEW		
PILING	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
SECTION LOSS	GROUND LINE		MODERATE		
STRAIGHT WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
BACKWALL	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
SHOVING	THROUGHOUT		MINOR		
SPALLS	BACKWALL		MINOR		
EXPANSION BEARING	STEEL	SLIDING CURVED/FLAT PL/			

COUNTY: MERCER **DISTRICT: NW** **CLASS: STATBR** **FED-ID: 7418** **BRIDGE: N0254**

CONDITION	*LOCATION 1*	*LOCATION 2*	*SEVERITY*	*MEASUREMENT*	*COMMENT*

OVER/UNDER ROUTES CLEARANCE INFORMATION

CLEARANCES OVER DECK

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

CLEARANCES UNDER BRIDGE

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

STRUCTURE PAINT INFORMATION

CONDITION: FAIR **RUST AMOUNT :** 6=1.0% OF SURFACE RUSTED **STEEL TONS :** 20

ORIGINAL PAINT	CONTRACT REPAINT	DEPARTMENT REPAINT	
PAINT TYPE : A SYSTEM	**PAINT TYPE :**	**PAINT TYPE :** S SYSTEM	**MANUFACTURE :** ARMOR SHIELD
NAME : RED LEAD	**NAME :**	**NAME :** CAL SULPH/LEAD PAINT	**SURFACE PREP :** HAND CLEANED
PAINT COLOR : ALUMINUM	**PAINT COLOR :**	**PAINT COLOR :** GRAY	
PAINT YEAR : 1958	**PAINT YEAR :**	**PAINT YEAR :** 2006	
MILS : 3	**MILS :**	**MILS :** 14	

REQUESTED WORK ITEMS

GENERAL WORK COMMENTS:

RESPONSIBILITY	*LOCATION*	*ITEM*	*CATEGORY*	*PRIORITY*	*DATE*	*WORK ITEM COMMENT*

UTILITY ATTACHMENTS

COUNTY: MERCER | DISTRICT: NW | CLASS: STATBR | FED-ID: 7418 | BRIDGE: N0254

UTILITY	OWNER	METHOD	MEASUREMENT TYPE	VALUE	NUMBER	UTILITY ATTACHMENT COMMENT

PROGRAM NOTES INFORMATION

YEAR	PROJECT #	MONTH LET	YEAR LET	ITEMS	COMMENT

COMPUTER GENERATED RATINGS AND DEFICIENCY ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	4-MEETS MINIMUM TOLERABLE	5/18/2001
[Item 68] Deck Geometry Rating:	5-BETTER THAN MINIMUM	3/7/2024
[Item 69] Underclearance:	N-NOT APPLICABLE	5/18/2001
Sufficiency Rating:	55.7%	3/7/2024
Deficiency:	STRUCTURAL	12/21/2015
Funding Eligibility:	PARTIAL	----
Estimated New Structure Length:	141 FT.	----
Estimated Structure Cost:	$498,480	----
Estimated Total Project Cost:	$747,720	----
Year of Cost Estimate:	2024	----

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

ADVANCED SIGN INFORMATION

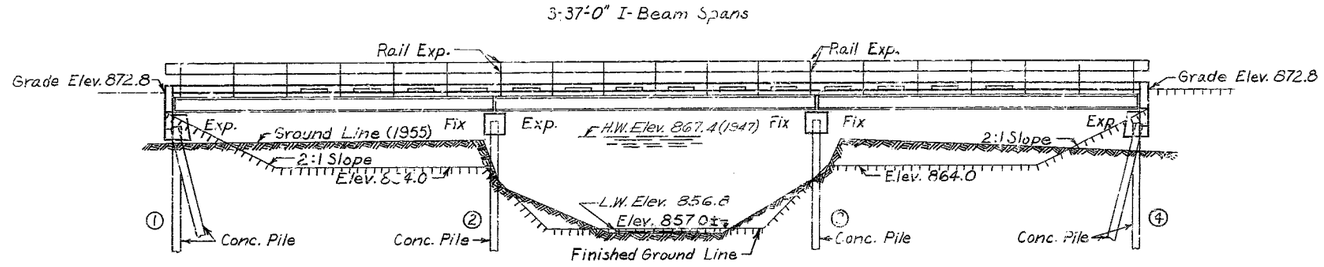
SIGN #	SIGN TYPE	PROBLEM	PROBLEM DIRECTION
1			

OUTFALL INSPECTION INFORMATION

 # OUTFALLS: **INSPECTOR:**
STATUS: **DATE:**
NOTES:

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		12	7	



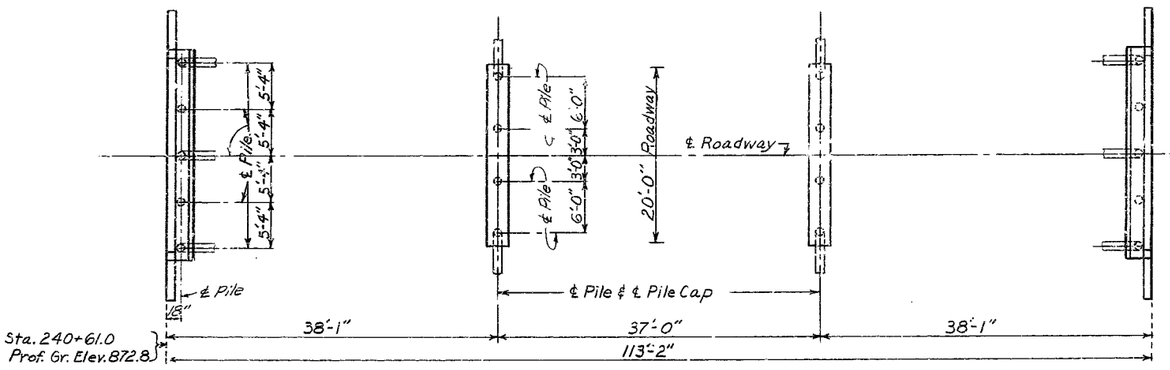
GENERAL ELEVATION

Note: All piling shall be Cast-in-Place Concrete Piles in accordance with Special Provisions for Concrete Piles. Estimated quantities shown on plans are based on the following lengths, 10 @ 45' and 8 @ 50'. These indicated lengths are approximate only. Proper lengths to give required bearing and penetration are to be determined by the Contractor.

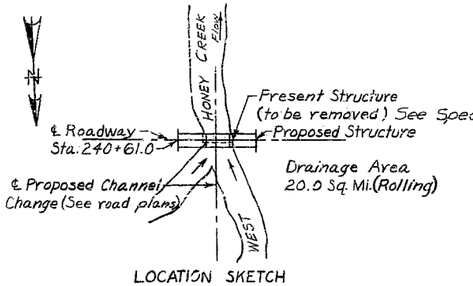
All piling shall be driven to sustain a load of at least 22 ton per pile and with tips to at least Elev. 842.0 for Bents No. 1 & 4 and to at least Elev. 837.0 for Bents No. 2 & 3.

A gravity hammer weighing not less than 4,000 pounds with a drop of not more than 10 feet may be used for driving steel shells if desired.

Concrete for piles shall be Class "A".



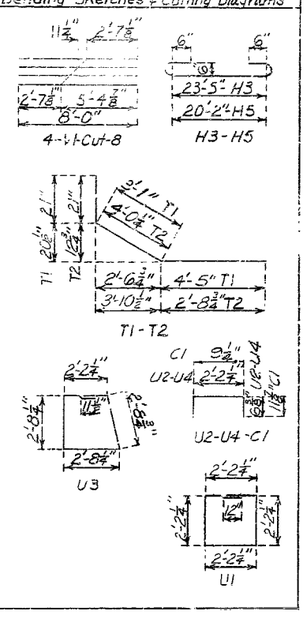
PLAN



LOCATION SKETCH

COMPLETE BILL OF REINFORCING STEEL

No.	Size	Length	Mark	Location	Bending Sketches & Cutting Diagrams
End Bents No. 1 and 4					
12	#6	6'-9"	H1	Wing	
4	#6	5'-0"	H2	"	
8	#4	8'-0"	V1	"	
4	#4	6'-0"	V3	"	
9	#6	9'-3"	T1	"	
9	#6	8'-6"	T2	"	
16	#6	26'-0"	H3	Beam	
8	#6	24'-0"	H4	"	
44	#4	11'-3"	U3	"	
16	#4	3'-3"	U4	"	
92	#4	3'-6"	V2	Bkwall	
Int. Bents No. 2 & 3					
16	#6	22'-9"	H5	Beam	
4	#6	20'-9"	H6	"	
44	#4	9'-9"	U1	"	
16	#4	3'-3"	U2	"	
Superstructure					
452	#7	22'-0"	S1	Slab	
128	#4	19'-6"	S2	"	
64	#4	19'-0"	S3	"	
168	#5	2'-9"	C1	Curb	
24	#6	20'-0"	C2	"	
12	#6	19'-6"	C3	"	



ESTIMATED QUANTITIES

Item		Substr.	Superstr.	Total
Class 1 Excavation for Structures	Cu. Yds.	10		10
Class "B" Concrete	Cu. Yds.	31.2	54.3	85.5
Reinforcing Steel	Lbs.	2910	10680	13590
Fabricated Structural Steel	Lbs.		38700	38700
Concrete Piles in Place	Lin. Ft.	850		850
Gray Iron Alloy Castings	Lbs.		1280	1280

Note: All Excavation for bridge will be paid for as Class 1 Excavation for Structures.

* Final pay weight for Fabricated Structural Steel will be based on using field rivets except for bolted connections specified for handrail.

B.M. Elev. 865.01 X-Nails in N.W. Root of 18" Locust 85½ Lt. Sta. 238+95. (U.S.G.S. Datum)

GENERAL NOTES:

Design Specifications: A.A.S.H.O. 1953.
Loading H10-44.
Structural Steel Stress 18,000 #/□".
Reinforcing Steel Stress 20,000 #/□".
Class "B" Concrete Stress 1200 #/□".
All concrete except for piling shall be Class "B".
Rivets ¾"ϕ, holes ⅞"ϕ except in handrail where rivets shall be $\frac{5}{8}$"ϕ, holes $\frac{11}{16}$"ϕ.
Field connections shall be riveted, except as noted in handrail details, or if the Contractor desires to eliminate all field riveting on this project, he may use machine bolts except for the 3rd rivet head bolts specified for handrail. Heads and nuts of machine bolts shall be American Standard Regular.
Paint: Shop, none. Field contact surfaces of bolted field connections one coat of red lead and surfaces inaccessible after erection three coats of red lead. No other paint to be applied by the Contractor except as noted for steel shells of Cast in Place Pile. Red lead required shall be furnished by Contractor. Payment for cleaning and painting such surfaces will be included in unit price bid for Fabricated Structural Steel.
Steel shells for cast-in-place piles shall be painted as specified for steel piles in Section 22-9C of the Standard Specifications.
Where Joint Filler is specified on plans it shall conform with the requirements for Premoulded Material for Filler as given in Section 59-220 of the Standard Specifications.
Qualification of welding operators will be required.

BRIDGE OVER WEST HONEY CREEK

STATE ROAD FROM ROUTE SC WEST TO ROUTE SY
ABOUT 13.0 MILES S.E. OF PRINCETON
PROJECT NO. S-870 (2) (S.J.J) **STA.** 240+61.0

MERCER **COUNTY**

SUBMITTED BY J. A. Williams BRIDGE ENGINEER DATE 6-20-1957
APPROVED BY Geo. M. Whitton CHIEF ENGINEER DATE 6-20-1957

STD. C-110R4
N-254

336

Drawn Feb. 1957 by B.J.P.
Checked June 1957 by H.G.M.

Note: This drawing is not to scale. Follow dimensions.

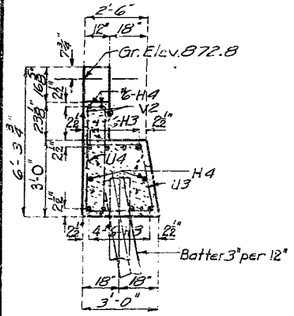
FINISHED

FINISHED

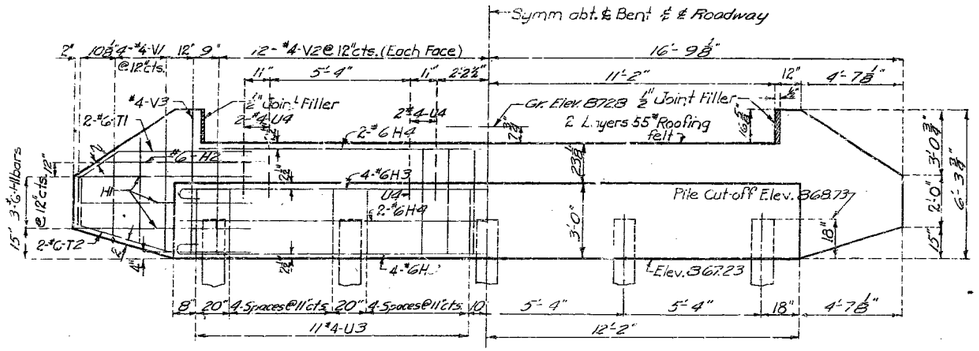
FINISHED

MISSOURI STATE HIGHWAY DEPARTMENT

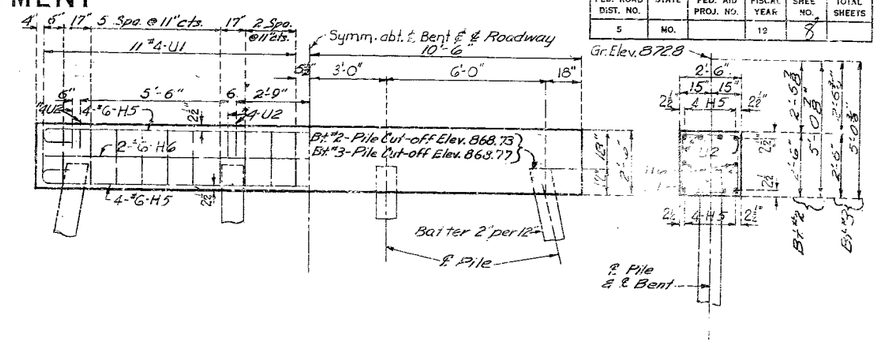
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		12	3	



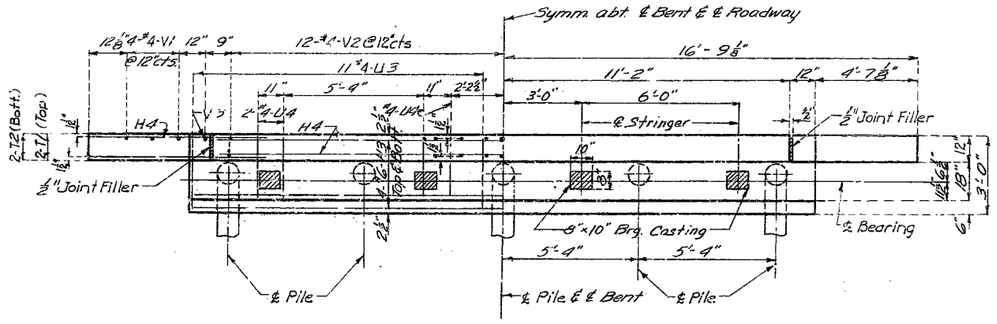
SECTION AT ℄



ELEVATION

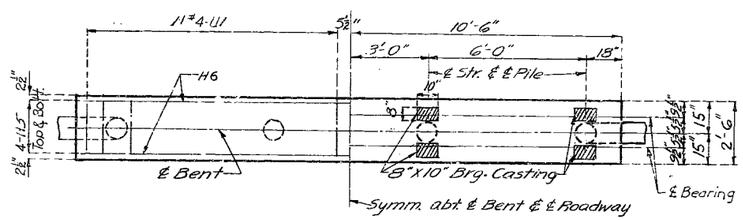


SECTION AT ℄



PLAN

DETAILS OF END BENTS NO. 1 & 4



PLAN

DETAILS OF INTERMEDIATE BENTS NO. 2 & 3

337

BRIDGE OVER WEST HONEY CREEK

STATE ROAD FROM ROUTE SC WEST TO ROUTE SY

ABOUT 13.0 MILES S.E. OF PRINCETON

PROJECT NO. S-870 (2) (SJJ) STA. 240+61.0

MERCER COUNTY

FINISHED

FINISHED

Drawn Feb. 1957 by B.J.P. & J.C.F.

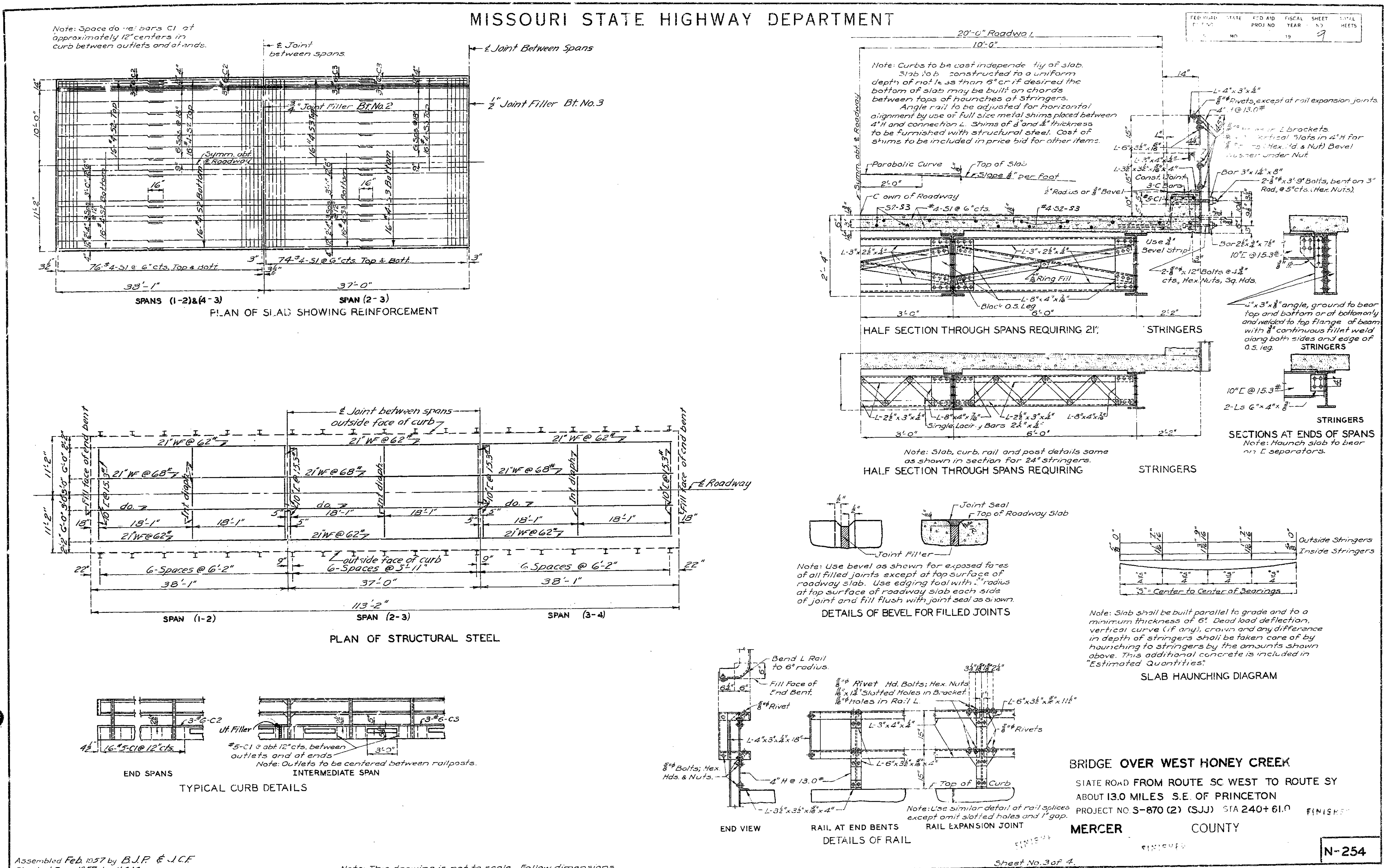
Checked June 1957 by H.G.M.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2 of 4

N-254

NO CONSTRUCTION CHANGES



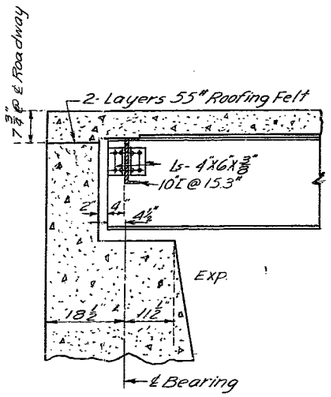
338

NO CONSTRUCTION CHANGES

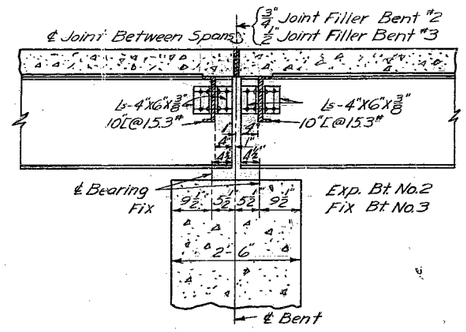
Sq. 20-H10
Rev. Feb. 1955

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		19	10	

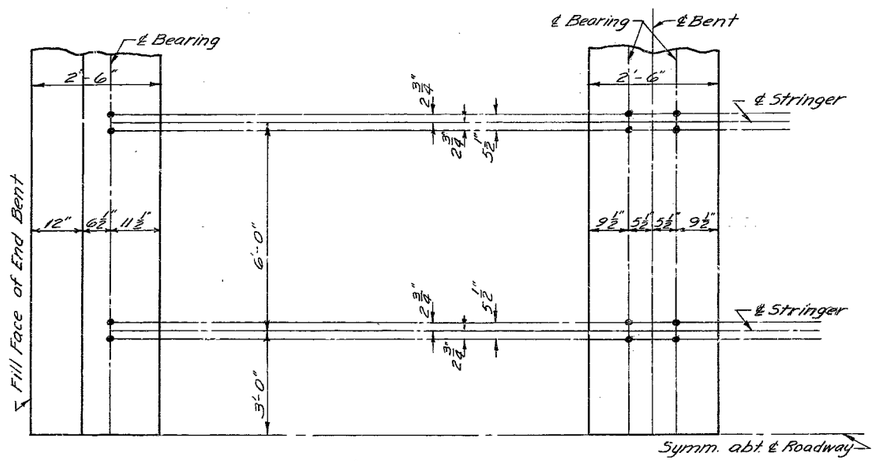


END BENTS NO. 1 & 4



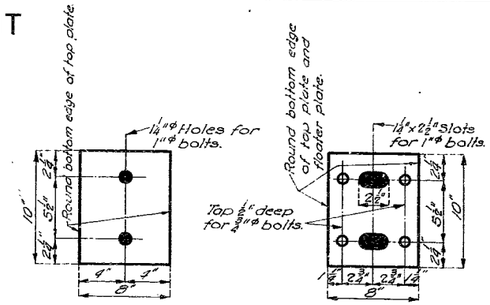
INT BENTS NO. 2 & 3

PART LONGITUDINAL SECTION



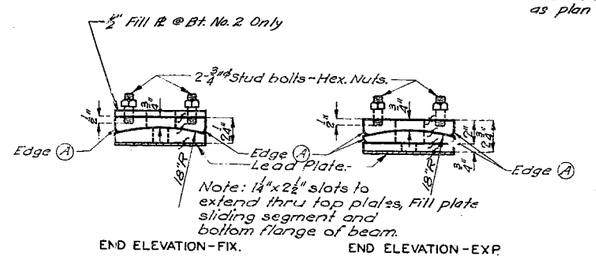
END BENTS 1 & 4 INT. BENTS 2 & 3

PART ANCHOR BOLT PLAN



BOTTOM PLATES TOP PLATES

Note: Plan of fill PL same as plan of top casting.



END ELEVATION-FIX. END ELEVATION-EXP.

Required: 12 Sets 8"X10" Each set consists of 5 plates each.
4 Fill Plates 8"×10"×1/2"

GENERAL NOTES:

Finish all surfaces marked X.

Bearing Castings shall be either Gray Iron Alloy or Cast Steel. Payment will be made as Gray Iron Alloy.

All bolts and nuts shall be paid for as Fabricated Structural Steel.

Anchor bolts for 8"X10" castings shall be 1"ø swedged bolts, no heads or nuts and are to extend 10" into Concrete. Top ends of anchor bolts shall be above the top of Castings, but no higher than 1/4" below the top surface of bottom flange of beam.

Lead plates under bearings shall be approximately 1/8" thick and weigh 8#/sq ft Cost of lead plates to be included in price bid for other items.

Edge (A) to be rounded (1/8"-1/4" radius.)

The 8"X10"X1/2" fill plate may be made a part of the top casting if desired, but payment for the 8"X10" fill plate will be made as Fabricated Structural Steel.

BRIDGE OVER WEST HONEY CREEK

STATE ROAD FROM ROUTE SC WEST TO ROUTE SY

ABOUT 13.0 MILES S.E. OF PRINCETON

PROJECT NO. S-870 (2) (SJJ) STA. 240+61.0

MERCER COUNTY

N-254

339

Assembled Feb., 1957 By B.J.P. & J.C.F
Checked June 1957 by H.G.M.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 4 of 4

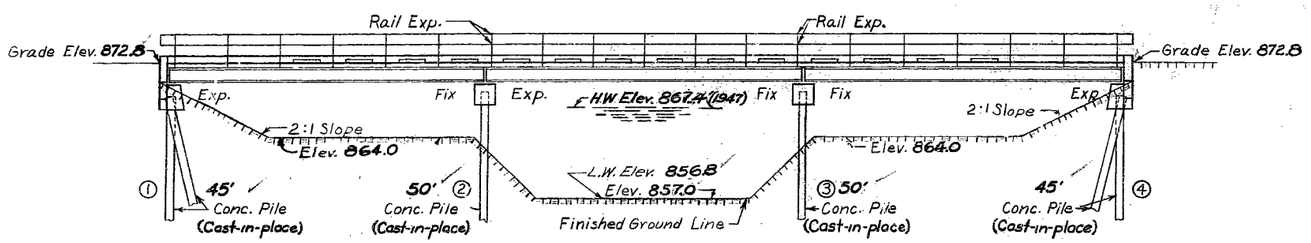
NO CONSTRUCTION CHANGES

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	S-870(2)	1958		

FINAL PLANS

3-37'-0" I-Beam Spans



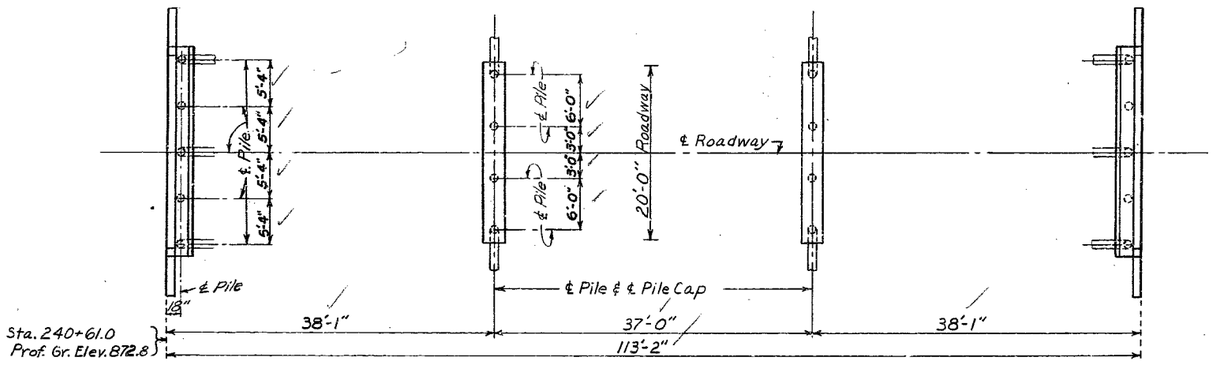
GENERAL ELEVATION

Note: All piling **were** Cast-in-Place Concrete Piles in accordance with Special Provisions for Concrete Piles. Estimated quantities shown on plans **were** based on the following lengths, 10 @ 45' and 8 @ 50'. These indicated lengths **were** approximate only. Proper lengths to give required bearing and penetration **were** determined by the Contractor.

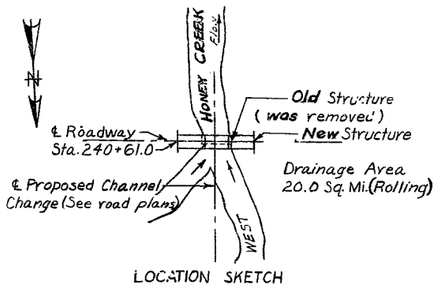
All piling **were** driven to sustain a load of at least **22** tons per pile and with tips to at least Elev. **842.0** for Bents No 1 & 4 and to at least Elev. **837.0** for Bents No. 2 & 3.

A McKiernan-Terry No. 9-B-2 Double-Acting steam hammer **was** used for driving steel shells

Concrete for piles **was** Class "A".



PLAN



LOCATION SKETCH

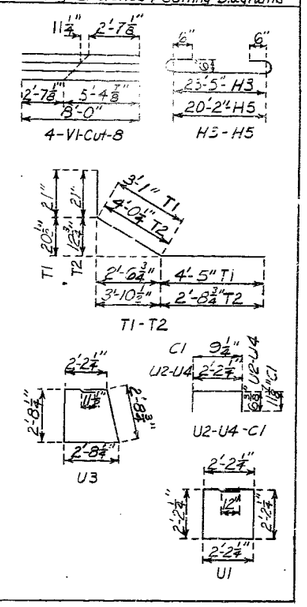
GENERAL NOTES:

Design Specifications: A.A.S.H.O. 1953.
Loading H10-44.
Structural Steel Stress 18,000 #/□".
Reinforcing Steel Stress 20,000 #/□".
Class "B" Concrete Stress 1200 #/□".
All concrete except for piling **was** Class "B".
Rivets $\frac{7}{8}$" ϕ, holes $\frac{15}{16}$" ϕ except in handrail where rivets **were** $\frac{5}{8}$" ϕ, holes $\frac{11}{16}$" ϕ.
Field connections **were bolted**, except as noted in handrail details, **The** Contractor desired to eliminate **all** field riveting on this project, **he used** machine bolts except for the $\frac{5}{8}$" ϕ rivet head bolts specified for handrail. Heads and nuts of machine bolts **were** American Standard Regular.
Paint: Shop, none. Field contact surfaces of bolted field connections one coat of red lead and surfaces inaccessible after erection three coats of red lead. No other paint **was** applied by the Contractor except as noted for steel shells of Cast in Place Pile. Red lead required **was** furnished by Contractor. Payment for cleaning and painting such surfaces **was** included in unit price **bid** for Fabricated Structural Steel.
Steel shells for cast-in-place piles **was** painted as specified for steel piles in Section 22-9C of the Standard Specifications.
Where joint filler **was** specified on plans it **did** conform with the requirements for Premoulded Material for Filler as given in Section 59-220 of the Standard Specifications.
Qualification of welding operators **was** required.

COMPLETE BILL OF REINFORCING STEEL

No.	Size	Length	Mark	Location
End Bents No. 1 and 4				
12	#6	6'-3"	H1	Wing
4	#6	5'-0"	H2	"
8	#4	8'-0"	V1	"
4	#4	6'-0"	V3	"
8	#6	9'-3"	T1	"
8	#6	8'-6"	T2	"
16	#6	26'-0"	H3	Beam
8	#6	24'-0"	H4	"
44	#4	11'-3"	U3	"
16	#4	3'-3"	U4	"
92	#4	3'-6"	V2	Bkwall
Int. Bents No. 2 & 3				
16	#6	22'-9"	H5	Beam
4	#6	20'-9"	H6	"
44	#4	9'-9"	U1	"
16	#4	3'-3"	U2	"
Superstructure				
452	#4	22'-0"	S1	Slab
128	#4	19'-6"	S2	"
64	#4	19'-0"	S3	"
168	#5	2'-9"	C1	Curb
24	#6	20'-0"	C2	"
12	#6	19'-6"	C3	"

Bending Sketches & Cutting Diagrams



FINAL QUANTITIES

Item		Substr.	Superstr.	Total
Class 1 Excavation for Structures	Cu. Yds.	0	0	0
Class "B" Concrete	Cu. Yds.	31.2	54.3	85.5
Reinforcing Steel	Lbs.	2910	10680	13590
Fabricated Structural Steel	Lbs.		38910*	38910
Concrete Piles in Place	Lin. Ft.	869		869
Gray Iron Alloy Castings	Lbs.		1280	1280

Note: All Excavation for bridge will be paid for as Class 1 Excavation for Structures.
* Final pay weight for Fabricated Structural Steel **was** based on using field rivets except for bolted connections specified for handrail.

B.M. Elev. 865.01 X-Nails in N.W. Root of 18" Locust 85'± Lt. Sta. 238+95. (U.S.G.S. Datum)

BRIDGE OVER WEST HONEY CREEK

STATE ROAD FROM ROUTE SC WEST TO ROUTE SY
ABOUT 13.0 MILES S.E. OF PRINCETON
PROJECT NO. S-870 (2) (SJJ) **STA.** 240+61.0

MERCER **COUNTY**

FINISHED

SUBMITTED BY J. A. Williams BRIDGE ENGINEER DATE 6-20-1957
APPROVED BY Roy M. Whitten CHIEF ENGINEER DATE 6-20-1957

FINISHED FINISHED

STD. C-110R4
N-254

Drawn Feb. 1957 by B.J.P.
Checked June 1957 by H.G.M.

Note: This drawing is not to scale. Follow dimensions.

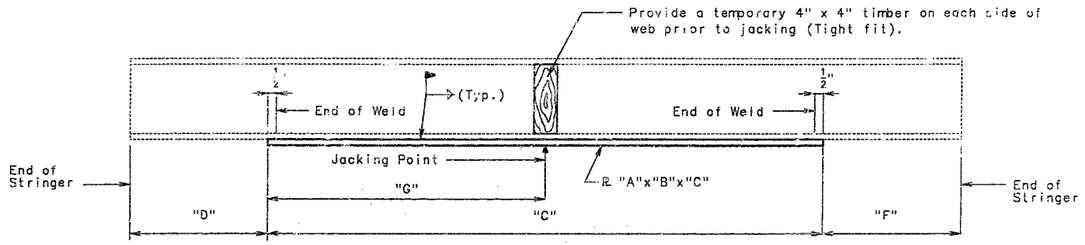
Sheet No. 1A of 4

340

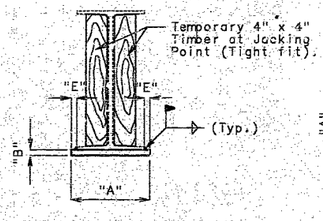
FINAL PLANS

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

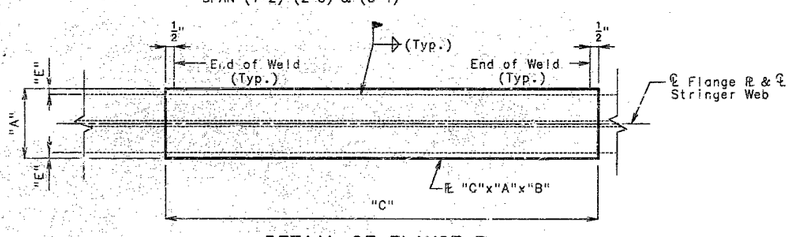
STATE	PROJ. NO.	SHEET NO.
MO.	J2S0577	18
SEC/SUR 8	TWP 63N	RGE 23W



TYPICAL ELEVATION OF STRINGER
SPAN (1-2) (2-3) & (3-4)



SECTION THRU STRINGER



DETAIL OF FLANGE ℞

General Notes:

Design Specifications:

A.A.S.H.T.O. 1992

Design Loading:

1993 Missouri Posting Loads. (H20 & 3S2)
No Future Wearing Surface

Design Unit Stresses:

Structural Carbon Steel fy=36,000 psi. (New Steel)
Existing Steel fy=33,000 psi.
Working stress Design based on 98% fy. (Existing)

Paint:

Calcium Sulfonate (2 coats)(See Special Provisions).

Old and New Work:

Outline of old work is indicated by light dashed lines.
Heavy lines indicate new work.

Dimensions:

Longitudinal dimensions are based on the original design plans.

Traffic:

Maintain one lane of traffic during construction, (See Roadway Traffic Control Plans).

Stringer Support:

All existing stringers in the span being strengthened shall be raised simultaneously * " at jacking point and supported during welding of new steel plates.

The temporary supports must be capable of safely supporting a service load of approximately ** tons per stringer. (Factor of safety not included) (See Special Provisions).

ESTIMATED QUANTITIES

ITEM		TOTAL
Strengthening Existing Stringers	Lump Sum	1

TABLE OF DIMENSIONS

Stringer Location		Dimensions								
		"A"	"B"	"C"	"D"	"E"	"F"	"G"	*	**
Exterior	All spans	10"	1"	18'-6"	9'-2"	7/8"	9'-2"	9'-3"	9/16"	26.0
Interior	All spans	10"	1"	18'-6"	9'-2"	7/8"	9'-2"	9'-3"	9/16"	27.0

WID 5, FLA,1,A
FLANGE BRACE
AUG. 1993
REVISED
NOV. 1993

DESIGNED: JAN. 1994
DETAILED: JAN. 1994
CHECKED: JAN. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 1 OF 1 .

REPAIRS TO BRIDGE OVER WEST HONEY CREEK
STATE ROAD FROM RTE. Y TO HALF ROCK
ABOUT .7 MILE EAST OF RTE. Y
PROJECT NO. J2S0577 STA. 240+6*.00
JOB NO. J2S0577 RTE. JJ
MERCER COUNTY
DATE 2/26/94

STD.
STD.
N02541

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

December 3, 2024
7:28:30am

COUNTY : MERCER **BRIDGE :** N0254 1 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 11/27/2024 **SUBMITTAL YEAR :** 2024

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	NW
3	County	MERCER
8	Federal ID No.	7418
27	Year Built	1957
106	Year Reconstructed	1994
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	STATE HIGHWAY AGENCY
22	Structure Owner	STATE HIGHWAY AGENCY
33	Br. Median Code	NO MEDIAN
37	Historical Significance	NOT ELIGIBLE FOR NR OF HP
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	YES

ROUTE DESIGNATION INFORMATION

5A	Record Type	ROUTE CARRIED 'ON' STRUCT
5B	Route Signing Prefix	MO
5C	Designated Level of Service	MAINLINE
5D	Route Number	000JJ
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RT JJ E
12	Base Hwy. Network	NO
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	07-RURAL MAJOR COLLECTOR
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	NOT ON NHS
105	Federal Lands Highway	NOT APPLICABLE
110	Designated Nat. Network	NO

STRUCTURE LOCATION INFORMATION

4	Place	WASHINGTON
	Code	77578
9	Location	S 8 T 63 N R 23 W
11	Milepoint	0.51 miles
16	Latitude	40 D 16 M 21 S
17	Longitude	93 D 30 M 32 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	67
30	AADT Year	2023
102	Direction of Traffic	2-WAY TRAFFIC
109	AADT Truck Percent	13%
114	Future AADT	84
115	Future AADT Year	2043

UNDERRECORD INFORMATION

6	Features Intersected	HONEY CR
42B	Type of Service Under	WATERWAY
28B	Lanes Under Structure	00
54A	Vert. Clearance Ref.	N/A
54B	Vert. Clearance	0 Ft. 0 In.
55A	Rt. Lat Clear Ref.	N/A
55B	Rt. Lat Clearance	0 Ft. 0 In.
56	Left Lat Clearance	0 Ft. 0 In.
38	Navigation Control	PERMIT NOT REQ
39	Nav Vertical Clear	0 Ft. 0 In.
40	Nav Horizontal Clear	0 Ft. 0 In.
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	99 Ft. 99 In.
19	By pass Detour Length	38.13 miles
32	Approach Roadway Width	20 Ft. 0 In.
34	Skew	0.00 Degrees
35	Struct. Flared	NO
47	Total Horiz. Clear	20 Ft. 0 In.
48	Maximum Span Length	38 Ft. 1 In.
49	Structure Length	112 Ft. 10 In.
50A	Left Curb/Sidewalk Width	0 Ft. 0 In.
50B	Right Curb/Sidewalk Width	0 Ft. 0 In.
51	Curb to Curb Br. Width	20 Ft. 0 In.
52	Deck Width (Out-Out)	22 Ft. 4 In.
53	Vert.Clearance Over Deck	99 Ft. 99 In.

Design_No = N0254 and Inventory_Appraisal_Submittal_Year = 2024

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

December 3, 2024
7:28:30am

COUNTY : MERCER **BRIDGE :** N0254 1 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 11/27/2024 **SUBMITTAL YEAR :** 2024

LOAD RATING AND POSTING INFORMATION

31	Design Load	H 10
41	Structure Status	POSTED FOR LOAD
63	Oper. Rating Meth.	ALLOWABLE STRESS
64	Operating Rating	28 Tons.
65	Inventory Rating Meth	ALLOWABLE STRESS
66	Inventory Rating	16 Tons.
70	Bridge Posting Code	20.0-29.9% BELOW

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating	55.7 Percent
	Deficiency Rating	STRUCTURAL
	Funding Eligibility	PARTIAL
75A	Proposed Work	REHAB-GENERAL DETERIORAT
75B	Work Done By	Contract
76	New Struc Length	141 Ft. 1 In.
94	Struc Improve Cost	$ 498,000
95	Roadway Improve Cost	$ 50,000
96	Total Project Cost	$ 748,000
97	Year of Cost Estimates	2024

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating	DOES NOT MEET ACCEPT STND
36B	Transition Rail App. Rating	DOES NOT MEET ACCEPT STND
36C	Approach Rail App. Rating	DOES NOT MEET ACCEPT STND
36D	Rail End Treat. App. Rating	DOES NOT MEET ACCEPT STND
67	Struc Eval App. Rating	4
68	Deck Geometry App. Rating	5
69	Underclearance App. Rating	N
71	Waterway Adeq. App. Rating	8
72	Approach Road App. Rating	6
113	Scour Assess App. Rating	8

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	STEEL
43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
45	# of Main Spans	3
44A	Appr Struc. Mat type	000
44B	Appr Struc. Cnstr. type	000
46	# of Approach Span	0
107	Deck Mat/Constr.	1 CONCRETE CIP
108A	Wear Surf Mat/Constr.	6 BITUMINOUS
108B	Membrane Mat/Constr.	0 NONE
108C	Deck Protect Mat/Constr.	0 NONE

CONDITION RATING INFORMATION

58	Deck Cond. Rating	4
59	Superstructure Cond. Rating	5
60	Substructure Cond. Rating	5
61	Channel /Channel Protection Cond. Rating	5
62	Culvert Cond. Rating	N

INSPECTION INFORMATION

90	Gen. Insp Date	8 / 23	
91	Gen. Insp. Frequency	24	Months
92A	Frac. Critical Inspection	N	Months
93A	Frac. Critical Insp. Date		
92B	Underwater Inspection	N	Months
93B	Underwater Insp. Date		
92C	Special Inspection	N	Months
93C	Special Inspection Date		

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category S-7

	Ton1	Ton2	Ton3
Tonnage Values for Posting Sign	17		

General Text for Posting Sign

TRUCKS OVER 17 TONS 15 MPH ON BRIDGE.

FIELD POSTING INFORMATION

Field Posting Category S-7

	Ton1	Ton2	Ton3
Tonnage Values for Posting Sign	17		

General Text for Posting Sign

TRUCKS OVER 17 TONS 15 MPH ON BRIDGE.

Design_No = N0254 and Inventory_Appraisal_Submittal_Year = 2024

STRUCTURAL REHABILITATION CHECKLIST

Missouri Department of Transportation

Bridge No.: N0254 **Job No.:** NW0014

Route: JJ **Over:** West Honey Creek

County: Mercer **Date of Field Check:** 10/27/2022

*** * * Please include photographs for all items that apply. * * ***

1

OVERLAY

* **Type of existing overlay:** ☐ None ☐ Asphalt ☐ Low Slump ☐ Silica Fume ☐ Latex ☑ Epoxy ☐ Other: _____

* **Existing overlay thickness:** _____" * **Year overlay was applied:** _____ ☑ Unknown

* **% of overlay repaired or patched:** _____ % * **Replace overlay:** ☐ Yes ☐ No

* **Notes:** _____

Picture # DSCN2599, DSCN2600, DSCN2602, DSCN2604

2A

DECK REPAIRS *(Deck repair quantities are required even if a Deck Test request has been ordered for this structure.)*

* **Half-sole repairs:** _____ sq. ft.
(round up to the nearest 50 sq. ft.)

* **Full depth repairs:** _____ sq. ft.
(round up to the nearest 50 sq. ft.)

* **Existing deck repair (patching):** _____ sq. ft.
(round up to the nearest 25 sq. ft.)

* **Slab edge repairs:** _____ lin. ft.
(covers the outer 4" of the slab edge)

* **Superstructure repair (Unformed):** _____ sq. ft.
(covers the remaining slab cantilever beyond the outer 4")

* **Clean & epoxy coat slab edge:** _____ lin. ft.
(in lieu of edge repairs)

* **Cantilever replacement:** _____ lin. ft.

* **Total surface hydro demolition of bridge deck** ☐ Yes ☐ No
(half-sole, full depth and exist. deck repair quantities still required)

* **Full deck replacement (redeck):** ☑ Yes ☐ No ☐ Optional

* **Superstructure replacement:** ☐ Yes ☑ No ☐ Optional

* **Deck repairs with voided tube replacement:** ☐ Yes ☐ No
(minimum of 10% of half-sole repair quantity)
_____ sq. ft.

* **Full bridge replacement:** ☐ Yes ☑ No ☐ Optional
(Deck repair quantities required for cost comparison of alternatives)

* **How were the quantities obtained?** ☐ Visual ☐ Bridge Inspection Report ☐ Sounded ☐ Other _____

* **Notes:** Per photos, significant existing deck repairs.

Picture # DSCN2599, DSCN2600, DSCN2602, DSCN2604

2B

DECK REPAIRS CONT.

*** ISSUES / PROBLEMS WITH PRECAST PRESTRESSED DECK PANEL**

Spans	Location in Span					Deterioration		Describe
	At Panel Jt.	Btwn (mid) Panel Jt.	End	Mid	End	Type	Amount	
	☐	☐	☐ ☐	☐ ☐	☐		sq. ft	
	☐	☐	☐ ☐	☐ ☐	☐		sq. ft	
	☐	☐	☐ ☐	☐ ☐	☐		sq. ft	
	☐	☐	☐ ☐	☐ ☐	☐		sq. ft	
	☐	☐	☐ ☐	☐ ☐	☐		sq. ft	
	☐	☐	☐ ☐	☐ ☐	☐		sq. ft	

* **Notes:** N/A

(Deterioration may include water saturation, efflorescence, rust staining, cracking, spalling, exposed steel, disintegration of panel edg at joints, etc. Typically observed at or near panel joints. The location and "Type" of deterioration should be recorded.)

Picture #

3

APPROACH SLABS

* **Is there a bridge approach slab in place?** ☐ Yes ☐ No * **Type:** ☐ Concrete ☐ Asphalt ☑ Other **Unknown**

* **Is there rdwy. approach pavement in place?** ☐ Yes ☐ No * **Type:** ☐ Concrete ☐ Asphalt ☑ Other **Unknown**

* **Is the approach slab sinking at the end bent?** ☑ N/A ☐ Yes ☐ No

* **Are repairs needed to the bridge approach slab driving surface?** ☐ Yes ☐ No
(Typically a roadway item but will be reported to District on the Bridge Memorandum.)

* **Full replacement of bridge approach slab?** ☑ Yes ☐ No

* **Notes:**

Picture # DSCN2604, DSCN2599

4

SLAB DRAINS

* **Is the drainage system working adequately?** ☑ Yes ☐ No

* **Recommendations:** _____

* **Notes:** _____

_____

Picture # **DSCN2600**

5

CURBS & RAILS

* **Existing curb (left side):** ☐ Safety Barrier Curb ☑ Curb/parapet ☐ Blockouts ☐ Thrie Beam ☐ Baluster ☑ Steel Channel

☐ Other _____ ☐ Handrail ☐ Fence _____

* Does curb need repa☐ Yes☐ No * Curb repair _____ lin. ft.

* Remove hand rail ☐ Yes☐ No * Add curb blockou☐ Yes ☐ No

* **Existing curb (right side):** ☐ Safety Barrier Curb ☑ Curb/parapet ☐ Blockouts ☐ Thrie Beam ☐ Baluster ☑ Steel Channel

☐ Other _____ ☐ Handrail ☐ Fence _____

* Does curb need repa☐ Yes☐ No * Curb repair _____ lin. ft.

* Remove hand rail ☐ Yes☐ No * Add curb blockou☐ Yes ☐ No

* **Existing median curb:** Type: _____ Width _____" Height _____"

* Does curb need repa☐ Yes☐ No * Curb repair _____ lin. ft.

* **Approach rail attachment:** ☑ None ☐ Not attached ☐ 4 Hole ☑ 5 Hole ☐ Turn-down ☐ Other _____

* **If the existing handrails will be removed, does the local maintenance supervisor wish to keep them?** ☐ Yes ☑ No

Storage address: *location:* _____

address: _____

city: _____ *state:* _____ *zip:* _____

* **Notes:** _____

_____

Picture # **DSCN2600**

6

EXPANSION DEVICES

Bent	Type	Recommendations	Gap Left	Gap Right	Temperature & Other Info
		☐ USE-IN-PLACE ☐ REPAIR ☐ REPLACE	"	"	
		☐ USE-IN-PLACE ☐ REPAIR ☐ REPLACE	"	"	
		☐ USE-IN-PLACE ☐ REPAIR ☐ REPLACE	"	"	
		☐ USE-IN-PLACE ☐ REPAIR ☐ REPLACE	"	"	
		☐ USE-IN-PLACE ☐ REPAIR ☐ REPLACE	"	"	
		☐ USE-IN-PLACE ☐ REPAIR ☐ REPLACE	"	"	

* **Notes:** N/A

Picture #

7

BEARINGS

Bent	Coating	Recommendations	Notes (indicate which bearings at each bent)
W 1	☐ CLEAN & OVERCOAT ☑ BLAST CLEAN & RECOAT	☐ USE-IN-PLACE ☐ REPAIR ☐ RESET ☑ REPLACE ☐ MAKE END BENT SLIDING SLAB ☑ MAKE END BENT INTEGRAL	
2	☐ CLEAN & OVERCOAT ☐ BLAST CLEAN & RECOAT	☐ USE-IN-PLACE ☐ REPAIR ☐ RESET ☑ REPLACE ☐ MAKE END BENT SLIDING SLAB ☐ MAKE END BENT INTEGRAL	
3	☐ CLEAN & OVERCOAT ☐ BLAST CLEAN & RECOAT	☐ USE-IN-PLACE ☐ REPAIR ☐ RESET ☐ REPLACE ☐ MAKE END BENT SLIDING SLAB ☐ MAKE END BENT INTEGRAL	
E 4	☐ CLEAN & OVERCOAT ☑ BLAST CLEAN & RECOAT	☐ USE-IN-PLACE ☐ REPAIR ☐ RESET ☐ REPLACE ☐ MAKE END BENT SLIDING SLAB ☑ MAKE END BENT INTEGRAL	
	☐ CLEAN & OVERCOAT ☐ BLAST CLEAN & RECOAT	☐ USE-IN-PLACE ☐ REPAIR ☐ RESET ☐ REPLACE ☐ MAKE END BENT SLIDING SLAB ☐ MAKE END BENT INTEGRAL	
	☐ CLEAN & OVERCOAT ☐ BLAST CLEAN & RECOAT	☐ USE-IN-PLACE ☐ REPAIR ☐ RESET ☐ REPLACE ☐ MAKE END BENT SLIDING SLAB ☐ MAKE END BENT INTEGRAL	

* **Notes:**

Picture # (Provide Pictures of Each Bearing)

DSCN2613, DSCN2614, DSCN2615, DSCN2616, DSCN2617, DSCN2622, DSCN2623, DSCN2624, DSCN2625, DSCN2626, DSCN2628, DSCN2630, DSCN2631, DSCN2632, DSCN2633, DSCN2640, DSCN2641, DSCN2642, DSCN2643,

8

COATING SYSTEM (PAINT)

* **Existing coating system:** Sys S ☐ green ☑ gray ☐ other

* **Date last coated:** 3/30/06

* **Is existing coating peeling?** ☑ Yes (Overcoat is not an option ☐ No

* **Coating recommendation:**

☑ Blast clean & recoat all steel ☐ Clean & overcoat all steel

☐ Blast clean & recoat only at joint locations ☐ Blast & recoat at joint locations and clean & overcoat all other steel

Note: Pull-off test required for overcoat (Calcium Sulfonate) option. Bridge Division will request pull-off tests.

* **Notes:**

Picture # **DSCN2612, DSCN2626, DSCN2627, DSCN2644, DSCN2645, DSCN2646, DSCN2650**

9

SUPERSTRUCTURE REPAIRS *(Repairs needed not previously stated.)*

Concrete Slab Superstructure or Girder: *(above the bearings)* **Paint all girders**
(Example: Deck solid slabs, voided slabs, box girders, deck girders & prestressed girders)

Steel: *(Example: Beams, stringers, girders, diaphragms, cross-frames, misc. steel)*

Member *(Check all that apply) (Attach pictures)*							Describe & Locate
	☐	Section Loss	%	☐	Cracks	in.	
	☐	Section Loss	%	☐	Cracks	in.	
	☐	Section Loss	%	☐	Cracks	in.	
	☐	Section Loss	%	☐	Cracks	in.	

Notes:

Picture #

10

SUBSTRUCTURE REPAIR

Bent	Formed Repair	Unformed Repair	Seal Concrete Beam Cap Bts.	Coat Exposed Pile @ Int. Pile Cap Bts.	Describe (Beam, Backwall, Wing, etc.)
W 1	sq. ft.	24 sq. ft.	☐ Yes ☐ No	☐ Yes ☐ No	Long crack in bent cap
2	sq. ft.	96 sq. ft.	☑ Yes ☐ No	☐ Yes ☐ No	both ends cracking
3	48 sq. ft.	48 sq. ft.	☑ Yes ☐ No	☐ Yes ☐ No	both ends cracking
E 4	sq. ft.	24 sq. ft.	☐ Yes ☐ No	☐ Yes ☐ No	significant cracking
	sq. ft.	sq. ft.	☐ Yes ☐ No	☐ Yes ☐ No	

* **Does the structure need graffiti protection?** ☑ No ☐ Bottom 8' of Concrete ☐ End Bents ☐ Other

* **Notes:**

Picture # **DSCN2634, DSCN2635, DSCN2636, DSCN2637, DSCN2640, DSCN2643, DSCN2648, DSCN2649, DSCN2622, DSCN2620, DSCN2619,**

11

SIGNS, SIGNALS &/OR LIGHTING ATTACHED TO STRUCTURE

* **Are there signs attached directly to this structure?** ☐ Yes ☑ No quantity _____ location _____

* **Describe proposed work to be done to signs.** _____

* **Are there signals attached directly to this structure?** ☐ Yes ☑ No quantity _____ location _____

* **Describe proposed work to be done to signals.** _____

* **Is there aviation lighting attached to this structure?** ☐ Yes ☑ No ☐ N/A ☐ Red _____ *qnty.* ☐ Green _____ *qnty.*

* **Is there navigational lighting attached to this structure?** ☐ Yes ☑ No ☐ N/A ☐ Red _____ *qnty.* ☐ Green _____ *qnty.*

* **Is there roadway lighting attached to this structure?** ☐ Yes ☑ No ☐ N/A

* **Describe proposed work to be done to lighting.** _____

* **Notes:** _____

Picture #

12

UTILITIES ATTACHED TO STRUCTURE

Type	Qty.	Size	Owner	Condition
☐ Conduit ☐ Pipeline ☐ Other				☐ Repaint ☐ Repair ☐ Replace ☐ Remove
☐ Conduit ☐ Pipeline ☐ Other				☐ Repaint ☐ Repair ☐ Replace ☐ Remove
☐ Conduit ☐ Pipeline ☐ Other				☐ Repaint ☐ Repair ☐ Replace ☐ Remove
☐ Conduit ☐ Pipeline ☐ Other				☐ Repaint ☐ Repair ☐ Replace ☐ Remove

* **Notes:** N/A

Picture #

13

CATHODIC PROTECTION SYSTEM

* **Is there a cathodic system on this structure?** ☐ Yes ☑ No ☐ Remove ☐ Do not alter ☐ Abandon in place (grooved system)

* **Is it on and working?** ☐ Yes ☐ No ☐ Unknown _____

* **Notes:** _____

_____

Picture #

14

CHANNEL ALIGNMENT, SLOPE PROTECTION & SCOUR

* **Is channel aligned to bridge opening?** ☑ Yes ☐ No Describe _____

* **Is drift a continual problem?** ☐ Yes ☑ No Describe & Locate _____

* **Is erosion a problem?** ☐ Yes ☑ No Describe & Locate _____

* **Describe slope protection in place.** Good rock cover, W. end, 20' exposed dirt on E end

* Scour	At Footing	At Piling	Depth	Bent	Recommendation
	☐	☐			
	☐	☐			

* **Describe needed work.** Place rock from Span 3 to 4, cover soil

_____

_____

Picture # DSCN2606, DSCN2607, DSCN2618, DSCN2621, DSCN2650,

15

TRAFFIC LANES

* **Number of lanes striped:** on structure 2 under structure _____

* **Shoulder width:** ☑ None on structure _____ (left) _____ (right) under structure _____ (left) _____ (right)

* **Sidewalk widths:** on structure _____ (left) _____ (right) under structure _____ (left) _____ (right)

* **Median width:** on structure _____ under structure _____

* **Proposed improvements for lanes/shoulders/sidewalks:** _____

_____

Picture # DSCN2600

16

GENERAL AREA CONDITIONS

* **Primary area:** ☐ Commercial ☐ Industrial ☐ Residential ☑ Agricultural ☐ Military ☐ Other _____

* **Posted speed limit on structure:** 45 mph

* **Posted load on structure:** 17 tons @ 15 mph ☐ NA

Single Unit: _____ tons @ _____ mph ☑ NA

Semi (tractor/trailer): _____ tons @ _____ mph ☑ NA

* **Are both signs in place?**

☐ Yes ☑ No

* **Do pedestrians and/or bicyclists regularly use this structure?** ☐ Yes ☐ No ☑ Undetermined

* **Notes:** _____

Picture #

17

MAINTENANCE

* **What work has been done to this structure that may not be reflected on existing bridge plans?** _____

Rock has been added to spill slopes, both ends

Picture #

18

ADDITIONAL FIELD NOTES _____

Picture #

19

STAGING / DETOUR

* **Traffic Control:** ☑ Close structure ☐ Stage construction on structure ☐ Cross over traffic to adjacent structure ☐ Detour

☐ Other option _____

* **Define probable detour route.** Use ADT to determine if a signed detour is needed.

20

PERSONS ASSISTING WITH CHECKLIST

Name	Joyce Reynolds	Title	Project Manager	Ph.	(816) 387 - 2411
Name	Rick Orr	Title	Project Manager	Ph.	(816) 387 - 2483
Name		Title		Ph.	( ) -
Name		Title		Ph.	( ) -
Name		Title		Ph.	( ) -

21

REQUIRED SIGNATURES

I have reviewed the information on this checklist and believe it to be as accurate as possible.

Name Joyce Reynolds **Date** 12/2/2022

Transportation Project Manager

Name Bryce Acton **Date** 12/2/2022

District Bridge Engineer

The structural rehabilitation checklist indicates how the bridge is functioning and aging.

All deterioration should be noted, even if it is known that the work will not be completed under the proposed project.

Send **NEW** Structural Rehabilitation Checklist by email
To: "Bridge Survey Processor"
Cc: Structural Project Manager or Structural Resource Manager