


## MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 11993

## CULVERT SAFETY INSPECTION REPORT

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
S GIBRALTAR	42.0854 / -83.2057	824263600006B01	Fair Condition(6)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
BLAKELY DRAIN	34.1 / 42.3 / 1	City: GIBRALTAR(2636)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
GIBRALTAR E/JEFFERSON	1992 / / / 1995	Taylor(25)	A Open, no restriction(A)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
Metro(7) / Wayne(82)	1 Concrete / 19 Culvert	08/02/2023 / HLEP	5 Stable w/in footing	

## CULVERT INSPECTION

HLEP

<b>Inspector Name</b>	<b>Agency / Company Name</b>	<b>Insp. Freq.</b>	<b>Insp. Date</b>
Joel Thorne	Great Lakes Engineering Group	24	08/02/2023

## GENERAL NOTES

Use east west alignment for roadway. HMA surface with sealed and unsealed cracks. 1 SFT of settlement in WB lane. Heavy leaching map cracks in north rail.

Water surface is 15" below top of precast arch. Set UW inspection for 24 months.

## NBI INSPECTION

	08/19	08/21	08/23	
<b>1. Culvert Rating (SIA-62)</b>	N	7	6	(08/23) (08/21) (08/19)
<b>2. Channel (SIA-61)</b>	7	7	7	Channel banks are heavily vegetated with tall grass and reeds growing between riprap. (08/23) Channel banks are heavily vegetated with tall grass and reeds growing between riprap. (08/21) Bridge constricts waterway approx. 50 feet in NE quad and 30 ft in SW quad. Heavily vegetated with tall grass and reeds growing between riprap. (08/19)
<b>3. Scour</b>	8	8	4	2021 UW inspection report noted the following: West abutment: Vertical footing exposure along the majority of the length of the abutment. no undermining observed. Vertical exposure ranged from 0" to 2'-0". East abutment: Vertical footing exposure along the majority of the length of the abutment. no undermining observed. Vertical exposure ranged from 0" to 1'-0". (08/23) See 2018 UW inspection (08/21) Probed from deck. No scour observed. (08/19)

## AASHTO ELEMENTS

(English Units)

Element Number	Element Name	Total Quantity	Unit	Good CS1	Fair CS2	Poor CS3	Severe CS4
<b>Culvert</b>							
851	Reinf Conc Culvert 3-Sided	42	ft	42 100%	0 0%	0 0%	0 0%
Precast conspan. Water 15" below top of arch. Cracking along the north and south fascia with areas of spalls to steel. 2021 UW report notes light map cracking in culvert soffit with segments 1n and 2n being slightly offset by up to 1".							
861	Culvert Wingwall	4	(EA)	4 100%	0 0%	0 0%	0 0%
CIP wingwalls							
863	Culvert Headwall	2	(EA)	2 100%	0 0%	0 0%	0 0%
CIP headwalls with hairline map cracks							

## MISCELLANEOUS

## Guard Rail

<u>Item</u>	<u>Rating</u>
36A. Bridge Railings	1


## Other Items

<u>Item</u>	<u>Rating</u>
71. Water Adequacy	6

**MICHIGAN DEPARTMENT OF TRANSPORTATION**

**STR 11993**

**CULVERT SAFETY INSPECTION REPORT**

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
S GIBALTAR	42.0854 / -83.2057	824263600006B01	Fair Condition(6)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
BLAKELY DRAIN	34.1 / 42.3 / 1	City: GIBALTAR(2636)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
GIBALTAR E/JEFFERSON	1992 / / / 1995	Taylor(25)	A Open, no restriction(A)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
Metro(7) / Wayne(82)	1 Concrete / 19 Culvert	08/02/2023 / HLEP	5 Stable w/in footing	

<b>36B. Transitions</b>	1	<b>72. Approach Alignment</b>	8
<b>36C. Approach Guardrail</b>	1	<b>Special Insp. Equipment</b>	1
<b>36D. Approach Guardrail Ends</b>	1	<b>Underwater Insp. Method</b>	3


**RECOMMENDATIONS & ACTION ITEMS**

<b>Recommendation Type</b>	<b>Priority</b>	<b>Description</b>
Super Repair	L	Repair spall with exposed reinforcing steel on fascias of the bridge.

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 11993

CULVERT SAFETY INSPECTION REPORT

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>	
S GIBRALTAR	42.0854 / -83.2057	824263600006B01	Fair Condition(6)	
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>		
BLAKELY DRAIN	34.1 / 42.3 / 1	City: GIBRALTAR(2636)		
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>	
GIBRALTAR E/JEFFERSON	1992 / / / 1995	Taylor(25)	A Open, no restriction(A)	
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>	
Metro(7) / Wayne(82)	1 Concrete / 19 Culvert	08/02/2023 / HLEP	5 Stable w/in footing	

SUPPORTING IMAGES

HLEP 08/02/2023



Document Name: IMG\_4641.JPG  
Category: Elevation  
Span Number:  
Comments: South elevation



Document Name: IMG\_4645.JPG  
Category: Elevation  
Span Number:  
Comments: North elevation



Document Name: IMG\_4632.JPG  
Category: Approach  
Span Number:  
Comments: Looking west through structure



Document Name: IMG\_4635.JPG  
Category: Railing  
Span Number:  
Comments: South rail



**MICHIGAN DEPARTMENT OF TRANSPORTATION**

**STR 11993**

**CULVERT SAFETY INSPECTION REPORT**

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>
S GIBRALTAR	42.0854 / -83.2057	824263600006B01	Fair Condition(6)
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>	
BLAKELY DRAIN	34.1 / 42.3 / 1	City: GIBRALTAR(2636)	
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>
GIBRALTAR E/JEFFERSON	1992 / / / 1995	Taylor(25)	A Open, no restriction(A)
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>
Metro(7) / Wayne(82)	1 Concrete / 19 Culvert	08/02/2023 / HLEP	5 Stable w/in footing



Document Name: IMG\_4638.JPG  
Category: Railing  
Span Number:  
Comments: North rail



Document Name: IMG\_4633.JPG  
Category: Deck  
Span Number:  
Comments: HMA surface



Document Name: IMG\_4634.JPG  
Category: Deck  
Span Number:  
Comments: South sidewalk



Document Name: IMG\_4637.JPG  
Category: Deck  
Span Number:  
Comments: North sidewalk



**MICHIGAN DEPARTMENT OF TRANSPORTATION**

**STR 11993**

**CULVERT SAFETY INSPECTION REPORT**

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>
S GIBRALTAR	42.0854 / -83.2057	824263600006B01	Fair Condition(6)
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>	
BLAKELY DRAIN	34.1 / 42.3 / 1	City: GIBRALTAR(2636)	
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>
GIBRALTAR E/JEFFERSON	1992 / / / 1995	Taylor(25)	A Open, no restriction(A)
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>
Metro(7) / Wayne(82)	1 Concrete / 19 Culvert	08/02/2023 / HLEP	5 Stable w/in footing



Document Name: IMG\_4640.JPG  
Category: Deck  
Span Number:  
Comments: Settlement in WB lane



Document Name: IMG\_4642.JPG  
Category: Culvert  
Span Number:  
Comments: STS in fascia



Document Name: IMG\_4643.JPG  
Category: Culvert  
Span Number:  
Comments: Looking north through culvert



Document Name: IMG\_4646.JPG  
Category: Culvert  
Span Number:  
Comments: Looking south through culvert

**MICHIGAN DEPARTMENT OF TRANSPORTATION**

**STR 11993**

**CULVERT SAFETY INSPECTION REPORT**

<b>Facility</b>	<b>Latitude / Longitude</b>	<b>MDOT Structure ID</b>	<b>Structure Condition</b>
S GIBALTAR	42.0854 / -83.2057	824263600006B01	Fair Condition(6)
<b>Feature</b>	<b>Length / Width / Spans</b>	<b>Owner</b>	
BLAKELY DRAIN	34.1 / 42.3 / 1	City: GIBALTAR(2636)	
<b>Location</b>	<b>Built / Recon. / Paint / Ovly.</b>	<b>TSC</b>	<b>Operational Status</b>
GIBALTAR E/JEFFERSON	1992 / / / 1995	Taylor(25)	A Open, no restriction(A)
<b>Region / County</b>	<b>Material / Design</b>	<b>Last NBI Inspection</b>	<b>Scour Evaluation</b>
Metro(7) / Wayne(82)	1 Concrete / 19 Culvert	08/02/2023 / HLEP	5 Stable w/in footing



Document Name: IMG\_4636.JPG  
 Category: Channel  
 Span Number:  
 Comments: South channel



Document Name: IMG\_4639.JPG  
 Category: Channel  
 Span Number:  
 Comments: North channel