

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 8250

CULVERT SAFETY INSPECTION REPORT

Facility MILL	Latitude / Longitude 42.8524 / -83.4463	MDOT Structure ID 634505000874B01	Structure Condition Fair Condition(6)	
Feature KEARSLEY DRAIN	Length / Width / Spans 27.9 / 0 / 2	Owner City: ORTONVILLE(5050)		
Location IN ORTONVILLE	Built / Recon. / Paint / Ovly. 1966 / / /	TSC Oakland(23)	Operational Status A Open, no restriction(A)	
Region / County Metro(7) / Oakland(63)	Material / Design 3 Steel / 19 Culvert	Last NBI Inspection 09/28/2017 / MRNO	Scour Evaluation 8 Stable Above Footing	

CULVERT INSPECTION

MRNO

Inspector Name Amanda Hemeyer	Agency / Company Name Rowe Professional Services Company	Insp. Freq. 24	Insp. Date 09/28/2017
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GENERAL NOTES

Assisted by: James Brock

Twin CMP arch culvert

NBI INSPECTION

	09/13	09/15	09/17	
1. Culvert Rating (SIA-62)	6	6	6	(09/17) (09/15) Twin multi-plate pipe arch culvert with bolted connections. 3 bolts missing in the E pipe. Rusting and light section loss at waterline. (09/13)
2. Channel (SIA-61)	6	6	6	All flow through west pipe. Channel is well vegetate with slight edge slumping. Geotextile fabric is exposed between culverts on south side with erosion occurring. (09/17) HMA pavement, minor cracks, no longer sealed. Raised concrete sidewalks along both sides of road, one panel in north walk has approx. 1" of settlement. Type A guardrail on steel posts, two panels on north side are impact damaged. Twin CMP arch culvert with bolted connections, 3 bolts missing in east pipe, rusting and light section loss at waterline, worse in west pipe. East pipe is filled with sediment with a grass covered peninsula on downstream end, no flow through this pipe. All flow through west pipe. Channel is well vegetate with slight edge slumping. Geotextile fabric is exposed between culverts on south side with erosion occurring. (09/15) Well vegetated. Slight edge slumping. E pipe is filled with sediment with a grass covered peninsula on downstream end, no flow through this pipe. All flow through W pipe. (09/13)
3. Scour	7		7	No scour noted, ends are buried. (09/17) (09/15) No scour noted. (09/13)

AASHTO ELEMENTS

(English Units)

Element Number	Element Name	Total Quantity	Unit	Good CS1	Fair CS2	Poor CS3	Severe CS4
Culvert							
240	Steel Culvert	56	ft	0 0%	56 100%	0 0%	0 0%

Twin CMP arch culvert with bolted connections, 3 bolts missing in east pipe, rusting and light section loss at waterline, worse in west pipe. Manhole in top of east pipe at south end. East pipe is filled with sediment with a grass covered peninsula on downstream end, no flow through this pipe. All flow through west pipe.

MISCELLANEOUS

Guard Rail		Other Items	
Item	Rating	Item	Rating
36A. Bridge Railings	0	71. Water Adequacy	8
36B. Transitions	0	72. Approach Alignment	8
36C. Approach Guardrail	0	Special Insp. Equipment	2
36D. Approach Guardrail Ends	0	Underwater Insp. Method	1

RECOMMENDATIONS & ACTION ITEMS

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Recommendation Type
Slope Repair


Priority
H

Description
Replace riprap that has been washed away from the south end between culverts. Fix erosion on upstream end.

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SUPPORTING IMAGES

MRNO 09/28/2017



Document Name: DSCN0411.JPG
 Category: Elevation
 Comments: South elevation



Document Name: DSCN0406.JPG
 Category: Culvert
 Comments: East culvert




Document Name: DSCN0410.JPG
 Category: Culvert
 Comments: West culvert

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STRUCTURE INVENTORY AND APPRAISAL

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
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KEARSLEY DRAIN	27.9 / 0 / 2	City: ORTONVILLE(5050)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
IN ORTONVILLE	1966 / / /	Oakland(23)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Metro(7) / Oakland(63)	3 Steel / 19 Culvert	09/28/2017 / MRNO	8 Stable Above Footing	

Bridge History, Type, Materials

27 - Year Built	1966
106 - Year Reconstructed	
202 - Year Painted	
203 - Year Overlay	
43 - Main Span Bridge Type	3 19
44 - Appr Span Bridge Type	
77 - Steel Type	0
78 - Paint Type	9
79 - Rail Type	1
80 - Post Type	1
107 - Deck Type	1
108A - Wearing Surface	6
108B - Membrane	0
108C - Deck Protection	0

Structure Dimensions

34 - Skew	0
35 - Struct Flared	0
45 - Num Main Spans	2
46 - Num Apprs Spans	0
48 - Max Span Length	11.8
49 - Structure Length	27.9
50A - Width Left Curb/SW	3.9
50B - Width Right Curb/SW	0
33 - Median	0
51 - Width Curb to Curb	0
52 - Width Out to Out	0
112 - NBIS Length	Y

Inspection Data

90 - Inspection Date	09/28/2017
91 - Inspection Freq	24
92A - Frac Crit Req/Freq	N
93A - Frac Crit Insp Date	
92B - Und Water Req/Freq	N
93B - Und Water Insp Date	
92C - Oth Spec Insp Req/Freq	N
93C - Oth Spec Insp Date	
92D - Fatigue Req/Freq	N
93D - Fatigue Insp Date	
176A - Und Water Insp Method	1
58 - Deck Rating	N
58A/B - Deck Surface/Bottom	
59 - Superstructure Rating	N
59A - Paint Rating	
60 - Substructure Rating	N
61 - Channel Rating	6
62 - Culvert Rating	6

Navigation Data

38 - Navigation Control	0
39 - Vertical Clearance	0
40 - Horizontal Clearance	0
111 - Pier Protection	
116 - Lift Brdg Vert Clear	0

Route Carried By Structure(ON Record)

5A - Record Type	1
5B - Route Signing	5
5C - Level of Service	0
5D - Route Number	00000
5E - Direction Suffix	0
10L - Best 3m Unclr-Lt	0 0
10R - Best 3m Unclr-Rt	99 99
PR Number	
Control Section	
11 - Mile Point	0
12 - Base Highway Network	0
13 - LRS Route-Subroute	0000006545 08
19 - Detour Length	2
20 - Toll Facility	3
26 - Functional Class	07
28A - Lanes On	2
29 - ADT	2756
30 - Year of ADT	2000
32 - Appr Roadway Width	35.1
32A/B - Ap Pvt Type/Width	5 35.01
42A - Service Type On	5
47L - Left Horizontal Clear	0.0
47R - Right Horizontal Clear	48.9
53 - Min Vert Clr Ov Deck	99 99
100 - STRAHNET	0
102 - Traffic Direct	2
109 - Truck %	0
110 - Truck Network	0
114 - Future ADT	8839
115 - Year Future ADT	2020
Freeway	0

Structure Appraisal

36A - Bridge Railing	0
36B - Rail Transition	0
36C - Approach Rail	0
36D - Rail Termination	0
67 - Structure Evaluation	6
68 - Deck Geometry	N
69 - Underclearance	N
71 - Waterway Adequacy	8
72 - Approach Alignment	8
103 - Temporary Structure	
113 - Scour Criticality	8

Miscellaneous

37 - Historical Significance	5
98A - Border Bridge State	
98B - Border Bridge %	
101 - Parallel Structure	N
EPA ID	
Stay in Place Forms	
143 - Pin & Hanger Code	
148 - No. of Pin & Hangers	

Route Under Structure (UNDER Record)

5A - Record Type	
5B - Route Signing	
5C - Level of Service	
5D - Route Number	
5E - Direction Suffix	
10L - Best 3m Unclr-Lt	
10R - Best 3m Unclr-Rt	
PR Number	
Control Section	
11 - Mile Point	
12 - Base Highway Network	
13 - LRS Route-Subroute	
19 - Detour Length	
20 - Toll Facility	
26 - Functional Class	
28B - Lanes Under	
29 - ADT	
30 - Year of ADT	
42B - Service Type Under	5
47L - Left Horizontal Clear	
47R - Right Horizontal Clear	
54A - Left Feature	
54B - Left Underclearance	99 99
54C - Right Feature	
54D - Right Clearance	99 99
Under Clearance Year	
55A - Reference Feature	N
55B - Right Horiz Clearance	99.9
56 - Left Horiz Clearance	0
100 - STRAHNET	
102 - Traffic Direct	
109 - Truck %	
110 - Truck Network	
114 - Future ADT	
115 - Year Future ADT	
Freeway	

Proposed Improvements

75 - Type of Work	31 1
76 - Length of Improvement	45
94 - Bridge Cost	200
95 - Roadway Cost	150
96 - Total Cost	350
97 - Year of Cost Estimate	2004


Load Rating and Posting

31 - Design Load	6
41 - Open, Posted, Closed	A
63 - Fed Oper Rtg Method	6
64F - Fed Oper Rtg Load	1.14
64MA - Mich Oper Rtg Method	6
64MB - Mich Oper Rtg	1.14
64MC - Mich Oper Truck	1
65 - Inv Rtg Method	6
66 - Inventory Load	.92
70 - Posting	5
141 - Posted Loading	
193 - Overload Class	N

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WORK RECOMMENDATIONS

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MRNO