

Inspector: Schmidt,Eric

Inspection Date: 08/02/2025

Structure Number: 3113914

Facility Carried: SR 562

Ohio Bridge Inspection Summary Report

HAM-00562-0147 (3113914)

B.L.04: District District 0857386 - NORWOOD (HAM county)

B.CL.02: Major Maint 01 - State Highway Agency /

225 Routine Main A/B 04 - City or Municipal Highway /
Agency

221 Inspection A/B 01 - State Highway Agency /

5A: Inventory Route 1 00562

7: Facility On SR 562

6: Feature Ints ROSS AVENUE;CSRR, CR689

9: Location .3 MI E OF US 42

Lat, Lon 39.167739 ,-84.465639

Condition

B.C.01: Deck 6

58.01: Wearing Surface 7

B.C.08: Joint 9

B.C.02: Superstructure 6

59.01: Paint & PCS 6

B.C.03: Substructure 6

B.C.09: Channel N

B.C.11: Scour N

B.C.10: Channel Prot. N

B.C.05: Bridge Railing 8

B.C.06: Transitions 8

B.C.07: Bearings 5

B.C.04: Culverts N

Ohio GA 6

Appraisal

B.AP.03: Scour Vul. Not over Waterway

Geometric

48: Max Span Length (ft) 160.0

49: Structure Length (ft) 1405.0

52: Deck Width, Out-To-Out (ft) 80.3

424: Deck Area (sf) 112821.5

32: Appr Roadway Width (ft) 32.0

51: Road Width, Curb-Curb (ft) 76.0

50A: Curb/SW Width: Left (ft) 0

50A: Curb/SW Width: Right (ft) 0

34: Skew (deg) 3

33: Bridge Median 1 - Open median

54B: Min Vert Underclearance (ft) 15

336A: Min Vert Clrnce IR Cardinal (ft) 99

336B: Min V Clr IR Non-Cardinal (ft) 0

578: Culvert Length (ft) 0

Load Posting

41: Op/Post/Closed A - Open

70: Posting 5 - Equal to or above legal loads

70.01: Date

70.02: Sign Type

734: Percent Legal (%) 110

704: Analysis Date 12/02/2019

63: Analysis Method 8 - Load and Resistance Factor Rating
(LRFR) rating report by rating factor (RF)
method using HL-93 loadings.

Structure Type

43: Bridge Type 3 - Steel
03 - Girder and Floorbeam System
N- Not Applicable

45: Spans Main / Approach 13 / 0

107: Deck Type 1 - Concrete Cast-in-Place

408: Composite Deck U - Unknown

414A Joint Type 1 8 - Elastomeric Strip Seal

414B: Joint Type 2 N - None

108A: Wearing Surface 2 - Integral Concrete (separate
non-modified layer of concrete
added to structural deck)
3 - MicroSilica

422: WS Date 04/01/2007

423: WS Thick (in) 1.2

482: Protective Coating 5 - Paint System OZEU

483: PCS Date 01/01/1994

453: Bearing Type 1 2 - Rockers & Bolsters

455: Bearing Type 2 5 - Pot

528: Foundn: Abut Fwd 2 - Cast-in-Place Reinforced
Concrete Piles (Other diameter)

533: Foundn: Abut Rear 2 - Cast-in-Place reinforced
Concrete Piles (Other diameter)

536: Foundn: Pier 1 2 - Cast-in-Place Reinforced
Concrete Piles (Other diameter)

539: Foundn: Pier 2 N - None (Such as most Culverts)

Age and Service

27: Year Built/ 106 Rehab 1972 / 0000

42A: Service On 1 - Highway

42B: Service Under 4 - Highway - railroad

28A: Lanes on 02

28B: Lanes Under 06

19: Bypass Length 1

29: ADT 58705

109: % Trucks (%) 5

Inspections

B.IE.03 Routine Insp. 12 Months 08/02/2025

B.IE.03: NSTM Insp. Y 24 08/22/2025

B.IE.03: UW Insp. N

B.IE.03: Special Insp.

UBIT Insp. Y 24 08/02/2025

Drone Insp. N 0

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[illegible]

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
152-Steel Floor Beam	3 - Mod.	531	ft.	266	265	0	0
	Contractor Inspection Results 2019 FC Inspection, Palmer Engineering, "Based on the inspection, Piers 4 through 9, and their associated fatigue prone details are in [7, GOOD] condition overall. 2021 FC Inspection, Gannett Fleming, "Based on the inspection, Piers 4 through 9, and their associated fatigue prone details are in [7, GOOD] condition overall. CS2: 2019 and 2021, FC Inspection Comments: P4, signs of water ponding, old painted over pitting up to 1/8", corrosion re-initiating due to leakage. Leakage from retrofit at G-10, arrest hole on west web at G-10. P5, evidence of water ponding, previous repair to crack at diaphragm of G6, no change or other cracks found. Up to 3/8" deflection in area of retrofit sawcuts, G5, west web and G6, 1/4". Incorrectly installed expansion plugs in retrofits. P6, 4" (2" in 2021) of ponding water with evidence of ponding water on upslope sides of diaphragms. South hatch missing 5 bolts. Retrofit G5, bowing inward 1/8" east web. P7, corrosion initiating in repaired areas, up to 1/16" old, painted over pitting. P7, corrosion initiating in previous repairs, 1/16" old, painted over pitting. P8, corrosion in areas of retrofits, miss drilled retrofit hole, G5, bowing of west web, 1/16", G7. P9, corrosion reactivating at previously painted areas. Discontinuity in welds, missing expansion plugs, random fillet welds, areas of over grinding and under removal of flanges/longi stiffeners found throughout all floorbeams. From 2013 fracture critical inspection: Pier cap 4 interior corroded, 1/2" crack found at web, along stiff./vert. stiff. intersecting welds in compression area of web. Steel caps retrofitted in 1993. Random h.l. cracks to concrete caps. A few small shallow spalls. Pier 1 has heavy leakage from drainage system leaking onto cap and column 3. 2015 FC inspection of steel fb's 4 thru 9, performed by consultant. fb-4; 2015 a 1/4" crack removed from west web at the first stiffener on the south side of g-10. FB5; vert crack found at the bottom of the fillet weld between the west web and G-6 diaphragm, (measures 1" on northside and 1-1/8" on south side). Repaired and drilled out 2015. FB6; interior, water on bottom flange at north bearing. five missing bolts, south access hatch. FBs 7 & 8; exterior, surface rust bottom east edge between g-10 and south beam. Floorbeam 3, beam 6, east side, rusting at lower saw cut/retrofit, from above leakage. CS3: Pier 6, Grider 6 crack found in web at weld between stringer web and steel pier cap west web in 2023 and was drilled out in 2024.						
205-Reinforced Concrete Column	3 - Mod.	57	each	43	13	1	0
	CS2: also horizontal cracks with effl. Pier 4 has delam top. Several columns with vertical cracks. Sound patches pier 3 columns 2 and 3, pier 1 both columns. pier 4 both columns. pier 10 column 3. Pier 9 column 2 has been wrapped.						
210-Reinforced Concrete Pier Wall	3 - Mod.	142	ft.	132	8	2	0
	CS2- Pier wall 5 has moderate erosion exposing up to 18" of footing across 8' of the rear. CS3- Pier 6 left on wall has a 5 sf spall/delam with re-steel exposed.						
215-Reinforced Concrete Abutment	3 - Mod.	161	ft.	113	48	0	0
	CS2: Vertical, horizontal, diagonal cracks, mostly at forward, but several at rear abutment (0.035"w) a couple with leakage. 2024; rehab project has prepped these areas for repair and are now sound patches (3ea spall/delam with exposed steel at forward. Map cracking at right forward. and 1' delam under bearing 1. Couple vertical cracks with rust staining. Forward, right, 20 sf deep spall, 3" depth, between 9 & 10. Then 9 sf under beam 10.)						
234-Reinforced Concrete Pier Cap	3 - Mod.	430	ft.	383	45	2	0
	CS2: A few hairline vertical cracks. 3ft sound patch in bottom at col. 3. CS3: Pier 3, top of column 4. Pier 1 cap has a 5ft spall with ReSteel and a 1sf spall						
300-Strip Seal Joint	3 - Mod.	400	ft.	0	160	240	0

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
	CS2- Right rear joint set uneven, header has been patched, no saw cut along slab. EB intermediate joint with snow plow gouges. Cracks in headers. CS3- EB intermediate 1st and 3rd expansion joints have a few tears & holes in strip seals allowing leakage to structure below causing advanced deterioration to hinge areas. Left forward has a 6' l tear. Left forward header has 3' l area breaking up and left rear has cracks and asphalt patch, shallow spalls. Right forward and left has spalls in concrete overlay of headers. Rear, leakage, 75'. Forward 75' leakage. WB, left forward, header breaking up with increased impact to steel angle joint.						
310-Elastomeric Bearing	3 - Mod.	21	each	10	11	0	0
	2024 Rehab: New elastomeric bearings at abutments. CS2: Few abutment bearings not in 100% contact and show uneven elastomeric distortion. 1, 5 & 10 @ FWD have slight lateral movement. 1 thru 11 at rear have lateral movement.						
311-Movable Bearing	3 - Mod.	50	each	25	25	0	0
	CS2: 2019 Fracture Critical Report: Several pot bearings have minor surface corrosion and lead pad extruded, P8, center bearing has some pack rust. Few rockers with light rust.						
313-Fixed Bearing	3 - Mod.	26	each	18	8	0	0
	CS2: Light rust to few masonry plates.						
321-Reinforced Concrete Approach Slab	3 - Mod.	1600	sq. ft.	1560	40	0	0
	2024: WB lanes under construction. CS2: Fwd. slab of EB lanes has transverse crack full width approximately 1' past BW/header joint.						
331-Reinforced Concrete Bridge Railing	3 - Mod.	2810	ft.	2808	2	0	0
	2024; EB and WB railing has been replaced. CS2: Few sealed vertical cracks in EB and WB railing.						
815-Drainage	3 - Mod.	121	each	92	16	13	0
	CS2: 16 partially clogged scuppers in west bound lane. CS3: 13 clogged scuppers in west bound lane.						
820-Steel Seated-Hinge Assembly	3 - Mod.	30	each	0	30	0	0
	CS2: Old LOS. Concrete debris on flanges at hinge #3. Blasting grit in most hinge areas. Some rusting, due to leakage at joints. Old LOS to beam end at hinges, heavy in some areas. Freckled rust initiating at a few areas. Hinge #1, rusting at center two hinges from leaking joint.						
830-Abutment Backwall	3 - Mod.	161	ft.	110	21	30	0
	CS2: Hairline vertical cracks. Sound repairs to tops of BWs.						

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ODOT District: District 08

HAM-00562-0147 _(3113914)

Date Built: 07/01/1972

Major Maint: 01 - State Highway Agency

Facility Carried: SR 562

Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 04 - City or Municipal Highway Agency

Feature Inters: ROSS AVENUE;CSRR, CR689

Traffic Under: 4 - Highway - railroad

Insp. Resp A: 01 - State Highway Agency

FIPS Code: 57386 - NORWOOD (HAM county)

Location: DISTRICT 08

.3 MI E OF US 42

Insp
Resp B:

Inspector

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Reviewer Collett,Brandon

Inspector Comments - Deck and Approach

Deck, Wearing Surface, Joints, Railing

Floor/Slab

HL transverse cracks throughout spans, some with efflor. Areas of sound full depth patches and several with cracking and efflor. Some areas of haunch spalling. Areas of patched spalls in both deck edges. Multiple patches in west bound deck edges span 13,12,11. 1x1 spall 6 bay 7

Bridge Wearing Surface

2024: New wearing surface in lanes of EB and WB traffic. Some low areas in surface with light or no tining. Transverse cracking every 10' to 30'

Bridge Railing

2024; EB railing has been replaced with few sealed vertical cracks. WB railing has been removed during rehab.

Bridge median has hairline vertical cracks visible through sealer. Areas of wider horizontal cracks with staining. Several collision tire mark areas. A couple spalls and wide cracks at medians at approaches.

Deck Drainage

Scuppers open in EB shoulder. 16 Partially clogged scuppers and 13 clogged scuppers in west bound lane.

Expansion Joints

2023-2024 Rehab; Joints have been replaced under EB traffic and are in the process of being replaced under WB in 2024.

Approach

Approach Wearing Surface

WB lanes under construction in 2024. EB lanes have newer asphalt.

Approach Slabs

2024; WB under construction in. EB, fwd. slab has transverse crack entire width approximately 1' past BW/header joint.

Approach Embankment

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Possible settlement eastbound, forward.

Approach Guardrail

Guardrail along EB lanes new in 2024.

Inspector Comments - General Appraisal

Superstructure, Bearings

Beams/Girders

New paint applied at hinges and at bearings and a few beams above pier caps. Some rust to bottom flanges. Old LOS to beam ends at hinge areas. Light rusting in splice Beam 1 span 7 from leaking scupper. Concrete slobber Beam 1 span 5.

Diaphragm/X-Frames

WO angles near interior exp, bent from rehab project. A several end-frames and a few cross-frames have freckled/light rust.

Floor Beams

Reviewer Note (2023); The August 2023 Fracture Critical pier cap report found a crack at the interfaces of the Grider 6 Stringer web and the Steel Pier cap west web. A follow-up inspection was completed with the consultant and the District Bridge Engineer (Collett) on 8-17-23. Following discussions with OSE, DBE and consultant, the cause of the cracking is not obvious, nor is the proper repair method. At the time of this review, a follow-up inspection with a national expert is being organized for early October. While the crack does not seem to have potential to propagate to the tension flange of the stringer or into the tension area of the steel pier cap, it is a newly found crack (considered unstable for now) and in the vicinity of a fracture critical/non-redundant member (NSTM). Therefore, the rating was lowered to a 4 until we better understand the cause of the cracking and can determine if the crack has stabilized itself.

Reviewer Note 2024: Crack in Girder 6 at the interior junction of the Pier 6 steel pier cap that was found in 2023 was evaluated by nation expert and determined to be distortion inducted cracking, and not cracking due to structural capacity. It appears the height of the web within the steel pier cap is distorted (bowed) in girders 5, 6, and 7 due to either pier cap deflection or original fabrication leading to the crack at the top west corner of Girder 6. As a change order to the 2024 rehabilitation project, the crack was drilled out at Grider 6 and the weld was removed from the bottom of the crack to the top flange by sawcut. Additionally, the top of the web that was distorting due to contact with top flange is also being removed. Though not originally cracked, similar repairs were made at the top of Girders 5, 6, and 7 for preventative reasons. Holes were also drilled errantly by the contractor within Pier 5 until it was discovered they were in the wrong pier cap. The repairs were stopped and painted as soon as this was realized without sawcutting the top of the web.

Reviewer note: 2025 NSTM inspection found retrofit to be performing satisfactory..

Bearing Devices

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2024: New elastomeric bearings at abutments, several not in 100% contact and unevenly loaded. Contractor has been notified. Some light rust to pier bearings, rocker and fixed bearings, masonry plates. 2019 Fracture Critical Report: Several pot bearings have minor surface corrosion and lead pad extruded, P8, center bearing has some pack rust. 1, 5 & 10 @ FWD have slight lateral movement. 1 thru 11 at rear have lateral movement.

Reviewer note 2025: New elastomeric bearings at the rear abutment are shifted at the top of the bearing towards the backwall and towards the right. Given the skew, this could be consistent with sliding/translation of the abutment backwall. The expansion joint above is nearly closed. This is not currently being problematic, but should be monitored in future inspections. Photos of bearings from reviewer field check are in the I: Structures directory.

Protective Coating System

Fading throughout with chalking to OS faces of exterior beams and steel pier caps or floor beams. Areas of light to moderate rust, mainly bottom flanges. Random areas of paint peeling. Up to 6% rust. Note: 2015 project to paint areas.

Utilities

9 ea. light poles have 1 or 2 anchor nuts loose, light rust to light poles and arms. Several missing cover plates at parapet. Several loose bolts in covers or missing cover plates on concrete rail. One light pole missing lens cover at light.

Substructure

Abutments

Some vertical cracks. 2024 all delam have been patched.

Pier Columns/Bents

Several columns with HL cracking. Some areas of delam. 2024 rehab has patched all pier Columns.

Pier Caps

HL vertical cracks, few sound patched areas in pier 3 and small patch in pier 11. Pier 1 cap has a 5ft spall with ReSteel and a 1sf spall.

Wingwalls

Right forward has several horizontal & vertical cracks. Right forward wingwall top has a 3/16" w crack. Left rear, gravel pile at bottom of joint.

Slope Protection

Erosion at Pier 5, exposing vertical face up to 1.5'. Pier 4, erosion exposing vertical face of footer, up to 1'. A few cracks at rear.

Culvert

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Inspector Comments - Waterway

Channel Protection

Channel

Scour

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Bridge Inspection Report

Pictures