

## BRIDGE INSPECTION REPORT

2801744  
Structure File NumberBRIDGE NUMBER **GEA 00422 0986 R**YEAR BUILT **1960**DIST **12** Bridge Type **322** TYPE SERVICE **1 5** **LA DUE RES. 0.71 MI E 44**

<b>DECK</b>	out/out 41.3 Deck Area 9,085 sqft		2 INTEGRAL CONCRETE (MONOLITHIC)	
1. FLOOR	1 REINF CONCRT (PRESTRSD, PRECAST)	1	2. WEARING SURFACE	Thk 2 Wear Date 1/1/1994 1
3. CURBS, SIDEWALKS AND WALKWAYS	Left N NONE / Right N NONE		4. MEDIAN	Lanes on 2
5. RAILING	C 32" DEFLECTOR-TYPE PARAPET (NJ)	1	6. DRAINAGE	0 OTHER-NATURAL(OFF THE BRIDGE ENDS) 1
7. EXPANSION JOINTS	3 COMPRESSION SEAL	3	8. SUMMARY	7
<b>SUPERSTRUCTURE</b>			4 ROLLED STEEL	
9. ALIGNMENT	Max Spans 60	1	10. BEAMS/GIRDERS/SLAB	1
11. DIAPHRAGMS or CROSSFRAMES		2	12. JOISTS/STRINGERS	
13. FLOOR BEAMS			14. FLOOR BEAM CONNECTIONS	
15. VERTICALS			16. DIAGONALS	
17. END POSTS			18. TOP CHORD	
19. LOWER CHORD			20. LOWER LATERAL BRACING	
21. TOP LATERAL BRACING			22. SWAY BRACING	
23. PORTALS			24. BEARING DEVICES	2 ROCKERS 2
25. ARCH			26. ARCH COLUMNS or HANGERS	
27. SPANDREL WALLS			28. PROTECTIVE COATING SYSTEM	Paint Date 1/1/1987 5 PAINT SYSTEM OZE 7
29. PINS/HANGERS/HINGES			30. FATIGUE PRONE CONNECTIONS	
31. LIVE LOAD RESPONSE		S	32. SUMMARY	7
<b>SUBSTRUCTURE</b>			6 STUB-CAPPED PILE (SINGLE ROW PILES)	
33. ABUTMENTS	6 STUB-CAPPED PILE (SINGLE ROW PILES)	2	34. ABUTMENT SEATS	Abutment: ON PILING 1
35. PIERS		1	36. PIER SEATS	5 CAPPED COLUMN Piers: ON PILING 1
37. BACKWALLS		1	38. WINGWALLS	1
39. FENDERS and DOLPHINS	Piers = 03 NN NN Spans = 4		40. SCOUR	2 1
41. SLOPE PROTECTION	3 RIP RAP (DUMPED ROCK)	1	42. SUMMARY	Dive Date 12/30/1899 6
<b>CULVERTS</b>				
43. GENERAL	N NONE/NOT APPLICABLE		44. ALIGNMENT	
45. SHAPE			46. SEAMS	
47. HEADWALLS or ENDWALLS	Culvert Length 0		48. SCOUR	Culvert Fill Depth 0
49.			50. SUMMARY	
<b>CHANNEL</b>				
51. ALIGNMENT		1	52. PROTECTION	2 STONE 1
53. WATERWAY ADEQUACY	6 (SEE CODING GUIDE)	1	54. SUMMARY	8
<b>APPROACHES</b>				
55. PAVEMENT	2 BITUMINOUS	1	56. APPROACH SLABS	1
57. GUARDRAIL	1 STEEL BEAM	1	58. RELIEF JOINTS	
59. EMBANKMENT		1	60. SUMMARY	Percent Legal = 150 7
<b>GENERAL</b>				
61. NAVIGATION LIGHTS			62. WARNING SIGNS	Maint Resp 1 OHIO TRAN DEPT
63. SIGN SUPPORTS	Signs on = N MVC on = 9999.9 Under C = 0		64. UTILITIES	
65. VERTICAL CLEARANCE	Under NC = 0	N	66. GENERAL APPRAISAL & OPERATIONAL STATUS	6 A
67. INSPECTED BY			68. REVIEWED BY	

SIGNED

PE Number

MJS  
INITIALS

SIGNED

60048 MJM  
PE Number INITIALS

DATE 10/5/2007

1 1 1 1 1 N N N  
SURVEY

DATE 3/16/2008

## DECK

FLOOR: A FEW TRANSVERSE CRACKS. FLOOR < 1% DET.  
WS: CRACKS. WS < 1% DET.  
EXJTS: FINISH BACKWALL ARMOR IS GOUGED AND CRACKED.  
A 6 INCH LONG PIECE OF THIS ARMOR IS MISSING.  
SEE WORK ORDERS 620 2007\*5 AND 620 2007G 17.  
SEE ATTACHED PHOTOS #1 THRU #3 DATED 10/28/04.  
RAILING: MINOR SPALL AND DELAMINATIONS ON LEFT RAIL.

## SUPERSTRUCTURE

BEAMS: RUSTED SECTION LOSS NEAR ABUTMENTS.  
CROSSFRAMES: ENDFRAME RUSTED SECTION LOSS. 1.25 INCH LONG  
CRACK IN WELD THAT JOINS DIAGONAL ANGLE OF  
FINISH ABUTMENT ENDFRAME #4 TO BEAM #4. CRACK  
IN HORIZONTAL ENDFRAME ANGLE IN START BAY 1.  
BEARINGS: RUSTED SECTION LOSS. START ABUTMENT ROCKERS #2,  
#3, #4, AND #5 ARE LOOSE. FINISH ABUTMENT ROCKERS  
#1, #2, #3, #4, AND #5 ARE LOOSE.  
PAINT: FADED PAINT. 2% RUST. PAINT IS 1-5% DET.  
LIVE LOAD RESPONSE: SOME VERTICAL MOVEMENT (UNDER TRUCK  
LOADING) OF BEAM ENDS ABOVE ALL LOOSE  
ROCKERS NOTED IN ITEM #24 (BEARINGS).

## SUBSTRUCTURE

ABUTMENTS: A FEW DELAMINATIONS. A FEW SPALLS.  
PIERS: RUSTING SECTION LOSS OF STEEL AND SCALING OF CONCRETE  
AT WATERLINE.  
SCOUR: SEE ATTACHED DIVE REPORT DATED 10/28/04; NO  
SIGNIFICANT CHANGE.

## APPROACHES

APPROACH SLABS: BOTH APPROACHES ARE 1/4 INCH HIGHER THAN  
DECK AT EXJTS.  
GUARDRAIL: MINOR COLLISION DAMAGE TO START-LEFT.

## GENERAL

DIVER INSPECTED PIERS ON 10/28/04; SEE ATTACHED DIVE REPORT  
DATED 10/28/04.  
INSPECTION FROM A BOAT WITH DAVE EVERETT ON 10/03/07.



**GEA-422-0986R**  
**SFN-2801744**  
**La Due Reservoir**  
*TAKEN BY KJB 10-28-2004*

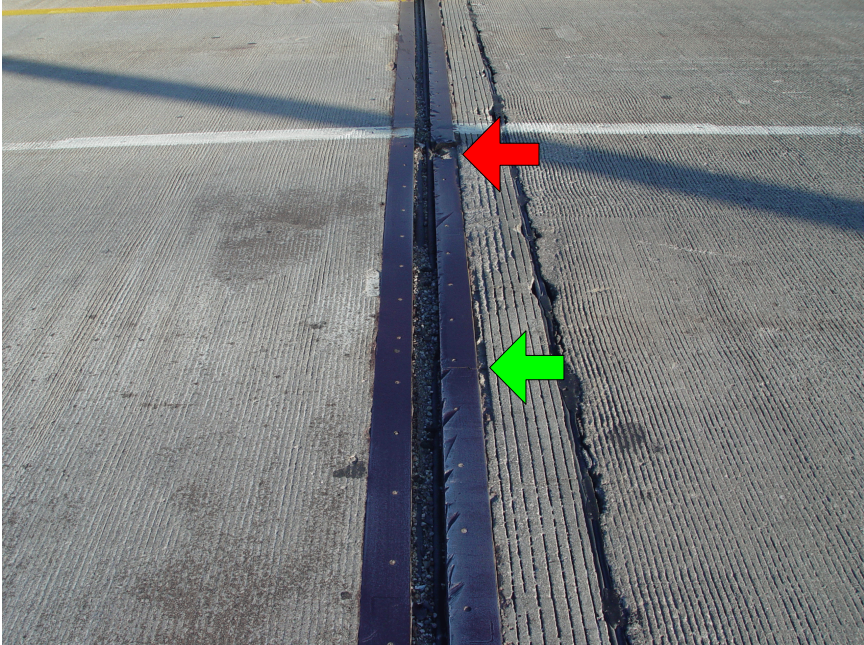


PHOTO #1  
FINISH JOINT APPROACH SLAB DECK  
ARMOR IS BROKEN AT RED ARROW, AND  
CRACKED AT THE GREEN ARROW. THIS IS  
IN THE #2 LANE. NOTE SEVERAL GOUGES  
TO APPROACH SLAB SIDE OF DECK  
ARMOR. DECK SIDE ARMOR IS 3/8" LOWER  
THAN SLAB SIDE IN PLACES.



PHOTO #2  
CLOSE UP OF GREEN ARROW ABOVE.

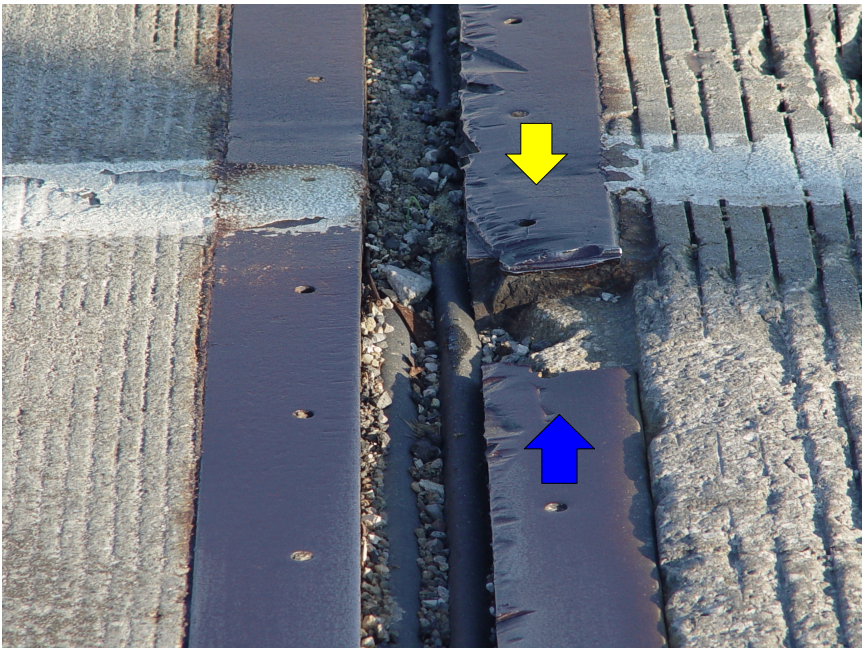


PHOTO #3  
CLOSE UP OF RED ARROW ABOVE. BLUE  
ARROW SHOW THAT THIS SIDE OF  
ARMOR IS A 1/2" LOWER THEN YELLOW  
SIDE OF ARMOR.

BRIDGE No. GEA-422-0986R

OCTOBER 28, 2004

Structure # 2801744

La Due Reservoir  
"EASTBOUND"

carrying SR-44 : GEAUGA COUNTY

UNDERWATER INSPECTION REPORT  
on CONCRETE COLUMN PIERS

Prepared for:  
ODOT D-12

Prepared by:  
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BRIDGE No. GEA-422-0986R

Structure # 2801744

La Due Reservoir  
"EASTBOUND"

SR-44 , GEAUGA COUNTY

OCTOBER 28, 2004

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Ohio Department of Transportation  
District 12

**Underwater Bridge / Culvert Inspection Survey Report**

Summary

BRIDGE GEA -422-0986R

Date of this Inspection: 10 / 28 / 04

By: Specialty Diving (SDI)

Inspection Standard(s): NBIS, OSHA, ADC, SDI

Structure Type: Open Column Piers

Number of Columns per Pier . THREE , Concrete

Inspection Equipment Used (1): Surface supplied Diving Helmet , with Radio Communication  
(2):

Elements Cleaned: Localized area(s) where required

Water Flow Velocity: . 1 fps

Soil Type: Streambed comprised of "hard-packed" small and medium stone. 2' visibility.

Inspection Mode: Dive

Inspection Notation: One Steel-Jacketted Drilled Shaft, Located on South side of each Pier.

Inspection Team Members: 3- Supervisor, Diver, Stand-by Diver

Hazard Analysis/ Assessment: NH,... Boat traffic

Hazard Analysis/ Assessment:  
CS-Confined space  
SP-Septic conditions unknown  
BU-Bottom condition unknown  
PD-Potential underwater debris  
DE-Possible diver entanglement  
LA-Limited or no free access to surface  
SH-Suction hazard  
HF-High flows or currents (4 fps+)  
NH-No assessment hazards

Ohio Department of Transportation  
District 12

**Underwater Bridge / Culvert Inspection Survey Report**

BRIDGE No. GEA-422-0986R

Structure # 2801744

La Due Reservoir  
"EASTBOUND"

*Date of this Inspection:* 10 / 28 / 04

*By:* Specialty Diving (SDI)

*Inspection Standard(s):* NBIS, OSHA, ADC, SDI

Pier 1 :  
Closest to West Abutment

13 feet water depth, no scour

three concrete , round COLUMNS that exhibit light scaling, GOOD  
CONDITION.

One "steel jacketed concrete drilled shaft"  
beyond south edge of pier :  
Exhibits typical light surface corrosion

PIER 2

14  
feet water depth, no scour

three concrete , round COLUMNS that exhibit light scaling, GOOD  
CONDITION.

One "steel jacketed concrete drilled shaft"  
beyond south edge of pier :  
Exhibits typical light surface corrosion

PIER 3

14' water depth  
Light scaling,  
Good Condition

One "steel jacketed concrete drilled shaft"  
beyond south edge of pier :  
Exhibits typical light surface corrosion



BRIDGE No. GEA-422-0986R

Structure # 2801744

La Due Reservoir  
"EASTBOUND"

OCTOBER 28, 2004

..... Inspection Results.....

All Concrete Columns are in Good Condition  
No spalls or Cracks noted.

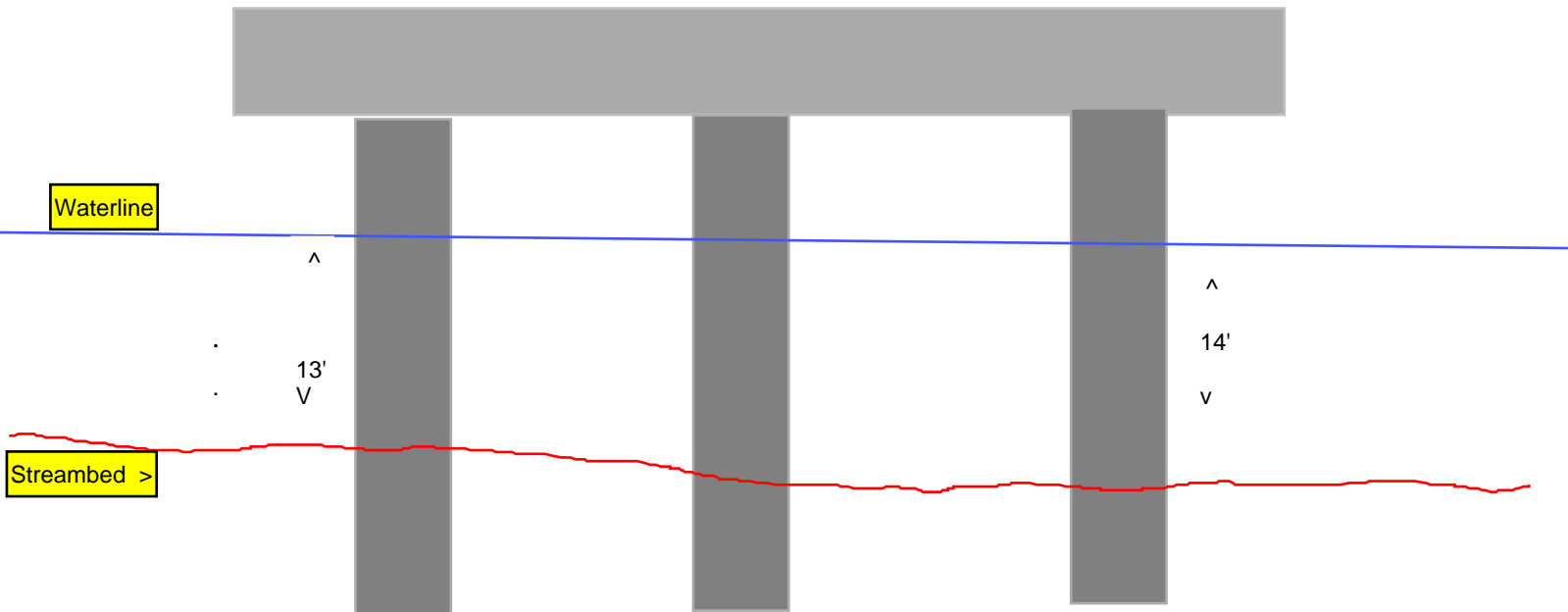
Water depth ranges from 13' to 14'6" at Piers.

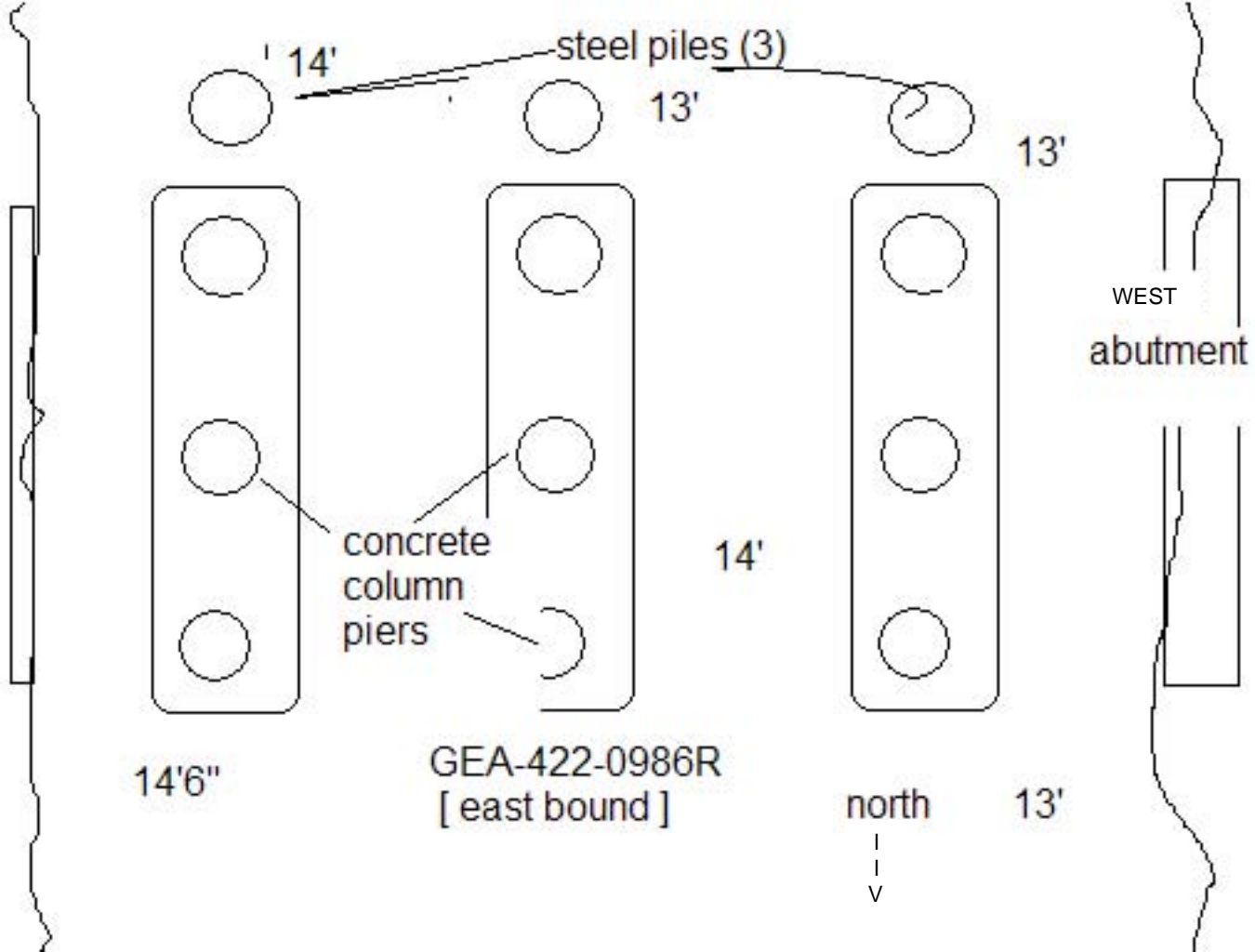
Streambed is combination "Hard-packed" Sand and small to medium Stone.

There is "Rip-Rap" protection along both embankments.

At the time of Inspection , the distance from Waterline to "top of Pier Cap" was: 5' 10" .

East Elevation of Pier 2







East Elevation of :  
< "Eastbound" on Left  
and  
"Westbound" on right >

< 0986R shows  
abutment ,Pier3,2,1  
then west abutment.



Southeast Elevation of

"Twin" to 0986R Bridge

