

APPENDIX E

BRIDGE INSPECTION REPORTS

CITY OF CINCINNATI

.

RED FLAG SUMMARY REPORT

HAM-32F-0.00

PID 86461

RELOCATED SR-32 SEGMENT 1


RED BANK CORRIDOR IMPROVEMENTS

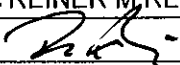
EASTERN CORRIDOR MULTIMODAL PROJECTS

HAMILTON COUNTY, OHIO



URS Corporation
564 White Pond Dr.
Akron, OH 44320

BRIDGE NAME / INSPECTION ITEM		SPAN	RATING
ERIE AVENUE BRIDGE OVER RED BANK ROAD		3160998	7 A
Inspected By: REINER M REISING, P.E.		PE: PE	Init: RMR Date: 07/01/2010
Signature: 			
Reviewed By:		PE:	Init: Date: / /
Signature:			
Bridge #: CITY (ENG) #22	Insp Resp: CITY	Maint Resp: CITY (ENG.)	
County: CIN	Route: ERIE	Unit: 0300	BrType (Main/Appr Spans): 322 / Year Built: 4380
Survey: 10111NNN	Needs to be Inventoried By:		
Load Rating %: 150	Load Rating Analyst Initials: AG	Load Rating Analysis Date: 09/21/2001	
Inspection satisfies AASHTO Manual for Maintenance Inspection of Bridges "Routine Inspection" requirements.			
Not all main structural members were inspected within "arms reach" distance.			
File Location: 19-17-43 TO 49			
1	FLOOR: Minor cracking w efflor; diag. cracks w efflor - part. near abut; spall mostly @ E abut. N-side & CON'T BELOW		2
2	WEARING SURFACE: LMC overlayed (2002); diag. cracks @ corners; trans. cracks; long. cracks (S)		2
3	CURBS, SIDWLKS/WLK WAYS: Trans. cracks; diag. crack @ SW corner; popouts; silane applied (1995).		2
5	RAILING: Minor map cracking; vert. cracks w efflor; popouts; minor scrapes (N); veg. growing in conc. jts.		2
6	DRAINAGE: Street inlets off ends of bridge.		1
7	EXPANSION JOINTS: Sleeper slabs installed 2002.		1
8	DECK SUMMARY:		7
9	STR. ALIGNMENT: Slight sag @ N beam.		1
10	BEAMS/GIRDERS/SLAB: Spot rust; pitting & minor LOS; minor corr. @ abut. conc. inter- CON'T Superstructure Notes BELOW		2
11	DIAPHRAGMS/CROSSFRAMES: Spot rust & minor corr; some bent; some cast into abut; cracked CON'T Superstructure Notes BELOW		2
24	BEARING DEVICES: Painted (1988); minor corr; rockers reset (2002).		1
28	PROTECTIVE COATING SYSTEM (YEAR/CONDITION): Spot rust; minor corr; white granular mat'l deposited CON'T BELOW:	Type: Year: 1981	5
31	LIVE LOAD RESPONSE: Noticable mvmt. under truck loading.		S
32	SUPERSTRUCTURE SUMMARY: Redundant; not fatigue prone.		7
33	ABUTMENTS: Cast around beams; minor cracking; horiz. cracks near top w seepage & efflor; diag. crack @ SW corner.		2
34	ABUTMENT SEATS: Not applicable.		
35	PIERS: Flex. cracks on E pier w minor efflor; hairline flex. cracks @ SW underside of cap; some areas patched; patches		2

BRIDGE NAME / INSPECTION ITEM		SRN	RATING
ERIE AVENUE BRIDGE OVER RED BANK ROAD		3160998	7 A
Inspected By: REINER M. REISING, P.E.		PE:PE	Init:RMR Date:07/01/2010
Signature: 			
Reviewed By:		PE:	Init: Date: / /
Signature:			
Bridge #:	CITY (ENG) #22	Insp Resp:	CITY
		Maint Resp:	CITY (ENG.)
36	PIER SEATS: Minor cracks.		2
37	BACKWALLS: Not applicable.		
38	WINGWALLS: Seepage; minor erosion.		1
41	SLOPE PROTECTION: Conc. slope protection (full height-both sides) w minor cracks.		2
42	SUBSTRUCTURE SUMMARY:		7
55	PAVEMENT: Asphalt overlayed (2002); grade @ inlet @ NE results in abrupt rise in pvmt. @ CON'T Approaches Notes BELOW		2
56	APPROACH SLABS: LMC overlayed (2002); long. cracks @ W.		1
57	GUARDRAIL: Slight damage @ NE; wood posts rotting.		2
58	RELIEF JOINTS: @ ends of approach slabs, through curb.		1
59	EMBANKMENT: Slight erosion @ WW.		2
60	APPROACHES SUMMARY: Stairs closed @ SW; SW s/w settled @ approach.		7
65	VERTICAL CLEARANCE:		1
66	GEN/APPRAS/OPERATIONS:	Condition:	7 A

Deck Notes:

FLOOR CON'T: W abut S-side; delams & spalling along TF of girders; rust stains; honeycombing E span.

Superstructure Notes:

BEAMS/GIRDERS/SLAB CON'T: face; beams cast into abut; slight sag in center span esp. N most beams; N fascia beam TF bent @ 2nd diaphragm from W.

DIAPHRAGMS/CROSSFRAMES CON'T: weld @ some damaged X-frames @ abut.


PROTECTIVE COATING SYSTEM: on BF of beams; corr. @ TF.

Substructure Notes:

PIERS CON'T.: cracking.

Approach Notes:

PAVEMENT CON'T: approach slab; trans cracks(W); breaking up @ app. slab(W).

BRIDGE NAME / INSPECTION FIRM	SPN	RATING
ERIE AVENUE BRIDGE OVER RED BANK ROAD	3160998	7 A
Inspected By: REINER M REISING, P.E.	PE:PE	Init:RMR Date:07/01/2010
Signature: 		
Reviewed By:	PE:	Init: Date: / /
Signature:		
Bridge #: CITY (ENG) #22	Insp Resp: CITY	Maint Resp: CITY (ENG.)

General Notes:

2002 Overlay plans: 29-24-1 to 28

Maintenance Items:

- 1) Seal jt. bet. approach slabs & asphalt pvmnt.
- 2) Clean & seal jts. in approach walks.
- 3) Program guardrail posts & b/o's for replacement.
- 4) Seal cracks in wearing surface.

Inspection Notes:

1979 Rehab plans state reduced set filed in misc.

05/01/2009 Contacted Marc Conner (cincinnati bell) about low aerial line in E span.

BRIDGE NAME / INSPECTION ITEM		SFN	RATING
RED BANK EXPRESSWAY RAILAMERICA OVERHEAD		3162672	7 A
Inspected By: REINER M REISING, P.E.		PE:PE	Init:RMR Date:02/12/2010
Signature:			
Reviewed By:		PE:	Init: Date: / /
Signature:			
Bridge #:	RR #35	Insp Resp:RR & CITY	Maint Resp: RR (RAILAMER)
County:	CIN	Route: REDBK	Unit: 4531 BrType (Main/Appr Spans): 363 / Year Built: 7000
Survey: NNNNNNNN		Needs to be Inventoried By:	
Load Rating %:	0	Load Rating Analyst Initials:	Load Rating Analysis Date: / /
Sent to: Company: RailAmerica			
Title: Asst. General Mngr.			
First Name: Biff		Last Name: Konrad	
Address: 497 Circle Freeway Drive			
Suite 230		Phone: (513)860-1000	
City: Cincinnati		ST: OH	Zip: 45246- Fax:
Inspection satisfies AASHTO Manual for Maintenance Inspection of Bridges "Routine Inspection" requirements.			
Not all main structural members were inspected within "arms reach" distance.			
File Location: 23-58-26 TO 34			
1	FLOOR: Seepage @ long. jt; minor cracks; spall @ E abut; efflor; minor spalls/delams @ TF; stalactites forming.		1
3	CURBS,SIDWLKS/WLK WAYS: Veg. growing.		2
5	RAILING: Dented; spill guards bent; 1 spillguard missing @ NW corner - 1 post loose @ SW; gravel CON'T Deck Notes BELOW		4
7	EXPANSION JOINTS: Seepage.		2
8	DECK SUMMARY:		7
9	STR.ALIGNMENT:		1
10	BEAMS/GIRDERS/SLAB: Widespread surface rust; rusting @ TF		1
11	DIAPHRAGMS/CROSSFRAMES: Rusting.		2
20	LOWER LATERAL BRACING: Rusting; missing bolt @ NW.		2
21	TOP LATERAL BRACING: Rusting; missing bolt @ SW.		2
24	BEARING DEVICES: Anchor bolts loose (lifted) @ SE & NE; spot rust; anchor bolt missing @ NW.		3
28	PROTECTIVE COATING SYSTEM (YEAR/CONDITION): Spot rust; pigeon droppings; dirt on flanges.		Type: 2 Year: 1970
32	SUPERSTRUCTURE SUMMARY: Not fatigue prone, not redundant.		7
33	ABUTMENTS: Seepage on face, esp W; cracking, esp. E; isol. spalls.		2

BRIDGE NAME / INSPECTION ITEM		SFN	RATING
RED BANK EXPRESSWAY RAILAMERICA OVERHEAD		3162672	7 A
Inspected By: REINER M REISING, P.E.		PE:PE Init:RMR	Date:02/12/2010
Signature:			
Reviewed By:		PE:	Init: Date: / /
Signature:			
Bridge #: RR #35	Insp Resp:RR & CITY	Maint Resp: RR (RAILAMER)	
34	ABUTMENT SEATS: Seepage.		1
37	BACKWALLS: Seepage; minor spalling @ SE.		2
38	WINGWALLS: Minor cracking.		1
42	SUBSTRUCTURE SUMMARY:		7
65	VERTICAL CLEARANCE:		1
66	GEN/APPRASIS/OPERATIONS:	Condition:	7 A

Deck Notes:

RAILING CONT: slipping past spillguards; some tubes corr.

General Notes:

Shop drawings: 22-10-45 to 51

Bridge # 12/96

Maintenance Items:

- 1) Repair railing & spillguards.
- 2) Reset loose (lifted) anchor bolts - check for missing anchor bolts.
- 3) Replace spillguard @ NW part of railing.
- 4) Repaint Structural Steel.

Inspection Notes:

South track removed.

Did not attempt to access top of bridge.

BRIDGE NAME / INSPECTION ITEM		SFN	RATING
ERIE AVENUE BRIDGE OVER SORTA		3160939	7 A
Inspected By: REINER M REISING, P.E.		PE:PE	Init:RMR Date:07/02/2010
Signature:			
Reviewed By:		PE:	Init: Date: / /
Signature:			
Bridge #: CITY (ENG) #23		Insp Resp:CITY	Maint Resp: CITY (ENG.)
County: CIN	Route: ERIE	Unit: 0290	BrType (Main/Appr Spans): 322 / Year Built: 4380
Survey: 10111NNN		Needs to be Inventoried By:	
Load Rating %: 150		Load Rating Analyst Initials:AG	Load Rating Analysis Date:09/21/2001
Inspection satisfies AASHTO Manual for Maintenance Inspection of Bridges "Routine Inspection" requirements.			
Not all main structural members were inspected within "arms reach" distance.			
File Location: 19-17-37 TO 42			
1	FLOOR: Cracks w efflor. - part. near abut. w delam; also diag. cracks w efflor. near abuts; CONT BELOW		2
2	WEARING SURFACE: LMC overlayed (2002); portions of edge lines (thermoplastic) obliterated; long. CON'T Deck Notes BELOW		2
3	CURBS,SIDWLKS/WLK WAYS: Trans. cracks; popouts; silane applied (1995); spalled @ NW.		2
5	RAILING: Vert. cracks; map cracking; small spalls; impact damage @ SW; efflor; 8 bolts missing @ NE; CONT BELOW		2
6	DRAINAGE: Street inlets off bridge.		1
7	EXPANSION JOINTS: Sleeper slabs installed (2002); seal broken @ NW.		1
8	DECK SUMMARY:		7
9	STR.ALIGNMENT:		1
10	BEAMS/GIRDERS/SLAB: Spot rust; pitting & minor LOS; corr. @ abut/conc. interface; beams cast into abuts; CON'T BELOW:		2
11	DIAPHRAGMS/CROSSFRAMES: LOS d/t torch cutting @ W; some bent @ abut.; spot rust & minor CON'T BELOW		2
24	BEARING DEVICES: Rockers reset (2002); painted 1988; minor corr; some anchor plt. nuts not completely fastend.		2
28	PROTECTIVE COATING SYSTEM (YEAR/CONDITION): Spot rust; minor corr; flaking on BF & web; CON'T Superstructure Notes BELOW	Type: Year: 1981	5
31	LIVE LOAD RESPONSE: Noticable under truck load.		S
32	SUPERSTRUCTURE SUMMARY: Redundant; not fatigue prone.		7
33	ABUTMENTS: Integral; minor cracking; horiz. cracks @ top w seepage & efflor.		2
35	PIERS: Minor cracks; gunite repairs; hor. cracks in columns of fixed pier center span side.		2
36	PIER SEATS: Minor cracks; spall patched (2002); animal droppings.		1

BRIDGE NAME / INSPECTION ITEM		SFN	RATING
ERIE AVENUE BRIDGE OVER SORTA		3160939	7 A
Inspected By: REINER M REISING, P.E.		PE:PE Init:RMR	Date:07/02/2010
Signature:			
Reviewed By:		PE:	Init: Date: / /
Signature:			
Bridge #: CITY (ENG) #23		Insp Resp: CITY	Maint Resp: CITY (ENG.)
37	BACKWALLS: integral, Not Applicable		
38	WINGWALLS: Seepage @ abut. interface.		1
41	SLOPE PROTECTION:		1
42	SUBSTRUCTURE SUMMARY:		7
55	PAVEMENT: Asphalt overlaid (2002); trans. cracks; breaking up @ app. slab.		2
56	APPROACH SLABS: LMC (2002); long. cracks; gap bet. app. walk & bridge approx. 1.25".		1
57	GUARDRAIL: Minor impact damage @ SW approach; wood posts rotting.		2
58	RELIEF JOINTS: Asphalt overlaid.		1
59	EMBANKMENT: Slight erosion @ WW.		2
60	APPROACHES SUMMARY:		8
65	VERTICAL CLEARANCE:		1
66	GEN/APPRASIS/OPERATIONS:	Condition:	7 A

Deck Notes:

FLOOR CON'T: seepage; spalling along edge of TF of beams; spalling w exp. reinf. steel in center span; rost spots.

WEARING SURFACE CON'T: tending towards diag. cracks near abut; trans. cracks over piers.

RAILING CON'T: minor scratch marks on tubes @ NW.

Superstructure Notes:

BEAMS/GIRDERS/SLAB: corr. @ TF some LOS; 5th beam from N, poss. cracked rivet in E span; 4th beam from S & center span 5th from S, pack rust w poss. LOS C/P in E span.

DIAPHRAGMS/CROSSFRAMES CON'T: corr; x-frames bent @ E abut; welds cracked @ some bent angles.

PROTECTIVE COATING SYSTEM CON'T: rust undercutting paint; white granular mat'l deposited on BF.

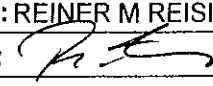
BRIDGE NAME / INSPECTION ITEM	SFN	RATING
ERIE AVENUE BRIDGE OVER SORTA	3160939	7 A
Inspected By: REINER M REISING, P.E.	PE:PE Init:RMR	Date:07/02/2010
Signature:		
Reviewed By:	PE:	Init: Date: / /
Signature:		
Bridge #: CITY (ENG) #23	Insp Resp: CITY	Maint Resp: CITY (ENG.)

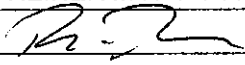
Maintenance Items:

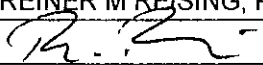
- 1) Remove brush piled against E pier.
- 2) Cut down exp. jt. filler where extended up onto walk @ SW.
- 3) Clean & seal jt. bet. approach slabs & asphalt pvmt, both sides.
- 4) Clean & seal jts. in approach walks.
- 5) Clean & seal gap bet. app. walk & bridge walk @ NE.
- 6) Program guardrail posts & b/o's for replacement.
- 7) Replace 8 bolts @ railing @ NE abut.
- 8) Fix snag @ NW end piece.

Inspection Notes:

1979 Rehab plans state reduced set filed in misc.

BRIDGE NAME / INSPECTION ITEM		SRN	RATING
RED BANK ROAD BRIDGE OVER RAILAMERICA		3160947	1 K
Inspected By: REINER M REISING, P.E.		PE:PE	Init:RMR Date:11/05/2009
Signature: 			
Reviewed By:		PE:	Init: Date: / /
Signature:			
Bridge #: RR #36	Insp Resp: RR & CITY	Maint Resp: RR (RAILAMERICA)	
County: CIN	Route: REDBK	Unit: 4532	BrType (Main/Appr Spans): 363 / Year Built: 1500
Survey: 0000N110		Needs to be Inventoried By:	
Load Rating %: 25	Load Rating Analyst Initials:	Load Rating Analysis Date: / /	
Sent to: Company: RailAmerica			
Title: Assist. General Mgr.			
First Name: Biff		Last Name: Konrad	
Address: 497 Circle Freeway Drive			
Suite 230		Phone: (513)860-1000	
City: Cincinnati		ST: OH	Zip: 45246- Fax: (513)682-4645
Inspection satisfies AASHTO Manual for Maintenance Inspection of Bridges "Routine Inspection" requirements.			
Not all main structural members were inspected within "arms reach" distance.			
File Location:			
1	FLOOR: Wood planks.		2
2	WEARING SURFACE: Long. cracks in asphalt overlay; veg. growing on deck; debris.		3
3	CURBS, SIDWALKS/WLK WAYS: Wood walks; angle missing @ SE; wood curbs w steel angle; some wooden planks loose.		2
5	RAILING: Steel beam railing @ W; metal handrail @ E.		2
6	DRAINAGE: Water drains over the sides; ponding.		2
7	EXPANSION JOINTS: None apparent.		
8	DECK SUMMARY:		6
9	STR.ALIGNMENT: Slight sag in E girder (main span).		2
10	BEAMS/GIRDERS/SLAB: Bottom c/p's completely rusted thru; widespread pack rust & LOS.		4
11	DIAPHRAGMS/CROSSFRAMES: Sev. LOS; gusset plates perf; 1 horiz. member missing CON'T Superstructure Notes BELOW		4
12	JOISTS/STRINGERS: Wood joists function as floor; see FLOOR above.		
13	FLOOR BEAMS: Wood beams; cracking & splitting; general deter; has fungus or mildew.		2
14	FLOOR BEAM CONNECTIONS: Wood seated on steel; cracking & splitting.		2

BRIDGE NAME / INSPECTION ITEM		SPN	RATING
RED BANK ROAD BRIDGE OVER RAILAMERICA		3160947	1 K
Inspected By: REINER M REISING, P.E.		PE: PE	Init: RMR
Date: 11/05/2009			
Signature: 			
Reviewed By:		PE:	Init:
Date: / /			
Signature:			
Bridge #:	RR #36	Insp Resp:	RR & CITY
Maint Resp:	RR (RAILAMERICA)		
20	LOWER LATERAL BRACING: All appear loose (members sagging); 1 member appears to have		4
	CONT Superstructure Notes BELOW		
24	BEARING DEVICES: Corr; debris covered; sig. LOS; no bearings @ some locs.		3
28	PROTECTIVE COATING SYSTEM (YEAR/CONDITION): Corr. & LOS.	Type:	0
		Year: 1980	
31	LIVE LOAD RESPONSE: None noted (bridge closed)		S
32	SUPERSTRUCTURE SUMMARY: Not fatigue prone, not redundant.		1
33	ABUTMENTS: Heavily gunited; cracks; seepage; wood planks @ N displaced; major crack @ NW.		3
34	ABUTMENT SEATS: Mud; cracks; moist.		3
35	PIERS: Corr. & pack rust @ bases; sev. cracks & spalls @ bases; A-bolts pushed up & CONT		3
	Substructure Notes BELOW		
36	PIER SEATS: Corr; pack rust; LOS.		3
37	BACKWALLS: Deter. of stone.		3
38	WINGWALLS: Stone & gunitite deter; timber rails @ NE; cracks @ NW.		2
42	SUBSTRUCTURE SUMMARY:		3
55	PAVEMENT: Slight settlement; cracks in asphalt; utility cuts.		3
57	GUARDRAIL: Steel beam @ S end only; not conn. to bridge; nearly buried @ SE; impact damage & leaning out @ SW.		2
59	EMBANKMENT: Erosion @ NE & SE; utility work seems to have precipitated small slide @ SE; CONT		3
	Approach Notes BELOW		
60	APPROACHES SUMMARY: Settlement @ S.		4
62	WARNING SIGNS: Posted "No Outlet" ahead of bridge on N side; both sides posted "Bridge Closed".		1
64	UTILITIES: Gas main abandoned in place.	Type: NYNNNNN	1
65	VERTICAL CLEARANCE:		N
66	GEN/APPRASIS/OPERATIONS: Bridge closed on 6/20/1997 d/t superstructure deter.	Condition:	1 K

BRIDGE NAME / INSPECTION ITEM	SRN	RATING
RED BANK ROAD BRIDGE OVER RAILAMERICA	3160947	1 K
Inspected By: REINER M REJSING, P.E.	PE: PE	Init: RMR Date: 11/05/2009
Signature: 		
Reviewed By:	PE:	Init: Date: / /
Signature:		
Bridge #: RR #36	Insp Resp: RR & CITY	Maint Resp: RR (RAILAMERICA)

Superstructure Notes:

DIAPHRAMS/CROSSFRAMES: & diag. buckled; 2nd horiz. member no longer attached @ girder & is hanging from rod bracing; 3rd horiz. member no longer attached @ 1 end.

LOWER LATERAL BRACING: buckled; bridge may be wracked.

Substructure Notes:

PIERS CON'T: missing; stone deter. & undermining @ post support @ SE & NW.

Approach Notes:

EMBANKMENT CON'T: piers being undermined by cont. erosion.

Maintenance Items:

- 1) Remove bridge.
- 2) Remove veg. from fence @ S so "Road Closed" sign stays visible.
- 3) Remove "One Lane Bridge" sign @ N.
- 4) Straighten "No Outlet" sign @ N.

Inspection Notes:

Guardrail & CLF across bridge @ each end.