

# Bridge Inspection Report

**A5629**  
**I 540-SEC 1, WB LN**  
**over**  
**Jenny Lind Street**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

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Inspector:

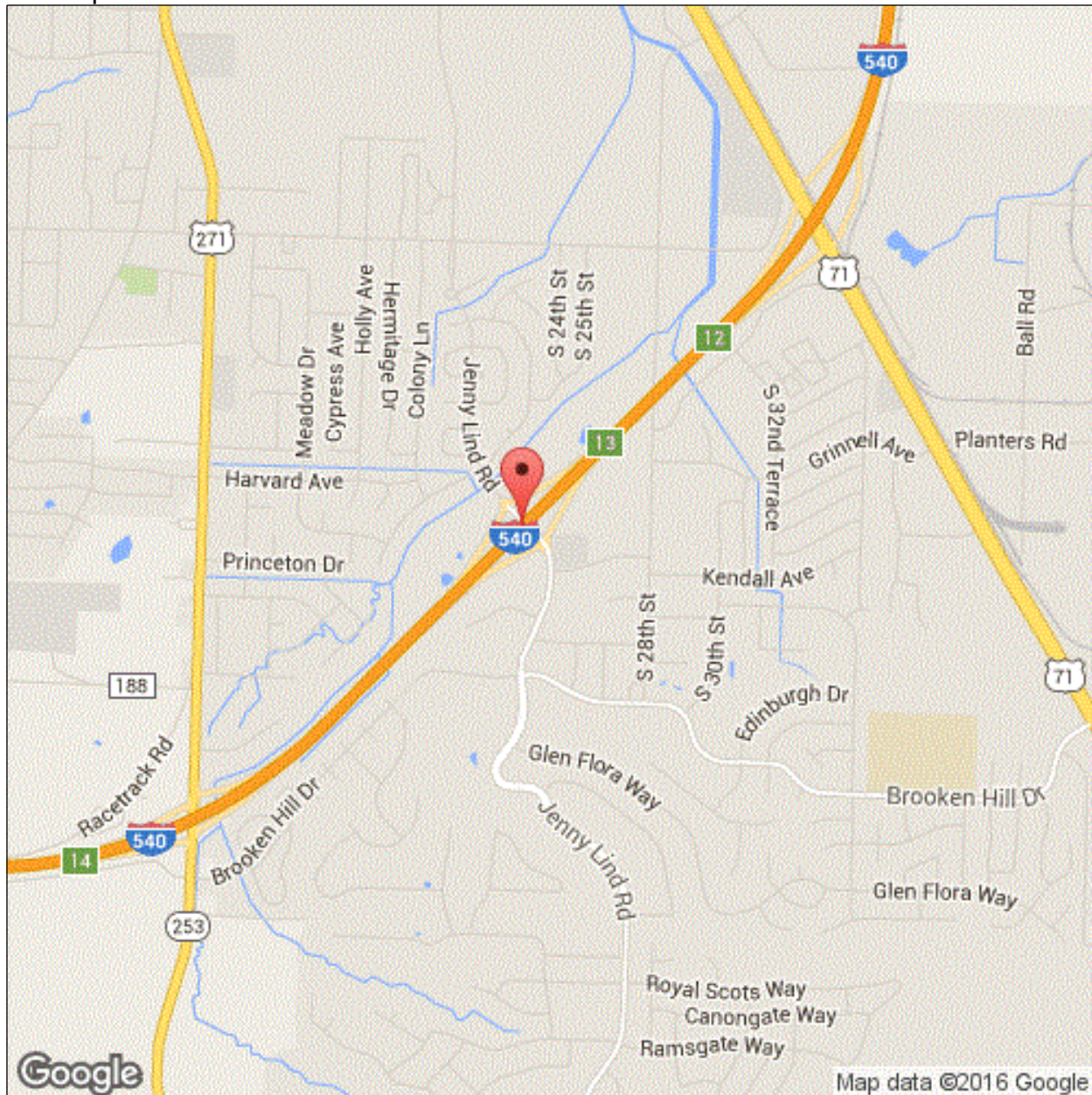
Structure Number: A5629

Inspection Date:

Facility Carried: I 540-SEC 1, WB  
LN

### Bridge Inspection Report

### Location Map



Latitude: 35.30284

Longitude: -94.41045



Inspector:

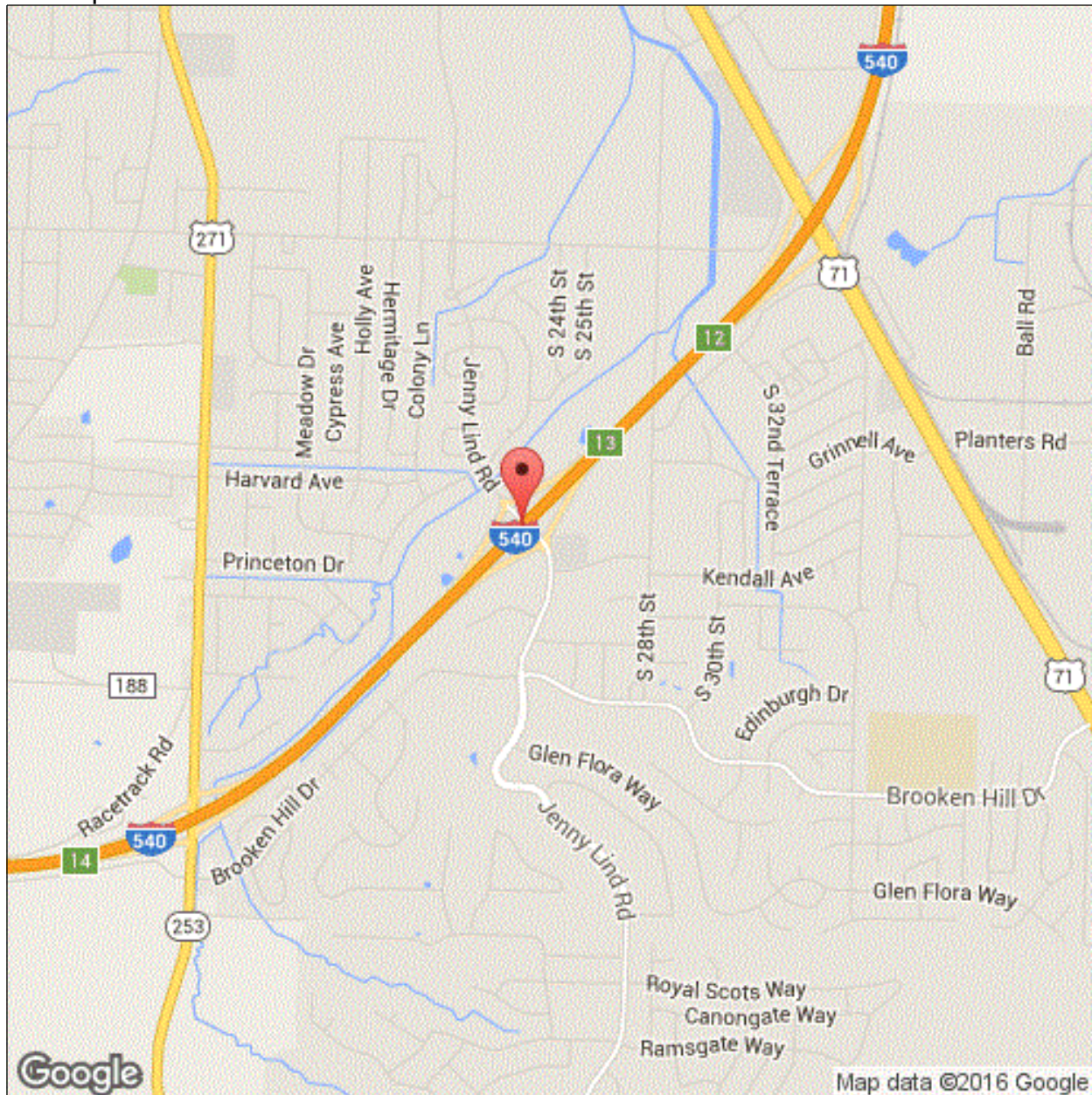
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### Bridge Inspection Report

### Location Map



Latitude: 35.30284

Longitude: -94.41045

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## Bridge Inspection Report

### Executive Summary

07/19/2016 - JCJ & RSM - Underclearance for this structure was actual field measured this date

07/19/2016 - JCJ & RSM - The top of backwall located on the Right side of Bent 2 is delaminated adjacent to the median barrier wall with no repairs since the last inspection.

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## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION				INSPECTIONS			
(1) STATE CODE	056 - Arkansas			(90) INSPECTION DATE	07/19/2016		
(8) STRUCTURE NUMBER	A5629			(91) DESIGNATED INSPECTION FREQUENCY	24		
(5) INV. ROUTE (ON/UNDER)	1	1	1	540	4	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	04	(3) COUNTY CODE	131				
(4) PLACE CODE	24060						
(6) FEATURES INTERSECTED	Jenny Lind Street						
(7) FACILITY CARRIED	I 540-SEC 1, WB LN						
(9) LOCATION	0.95 MI W JCT I540 & 71						
(11) MILEPOINT	1.660	(12) BASE HIGHWAY NETWORK	1				
(13A) LRS INVENTORY ROUTE	0000540010		(13B) SUBROUTE NUMBER	00			
(16) LATITUDE	35.30284	(17) LONGITUDE	-94.41045				
(98A) BORDER BRIDGE CODE							
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT						
STRUCTURE TYPE AND MATERIAL				CONDITION			
(43) STRUCTURE TYPE, MAIN				(58) DECK	7		
A) KIND OF MATERIAL/DESIGN:	3 - Steel			(59) SUPERSTRUCTURE	7	(60) SUBSTRUCTURE	7
B) TYPE OF DESIGN/CONSTR:	02 - Stringer/Multi-beam or Girder			(61) CHANNEL & CHANNEL PROTECTION	N	(62) CULVERT	N
(44) STRUCTURE TYPE, APPROACH SPANS				LOAD RATING AND POSTING			
A) KIND OF MATERIAL/DESIGN:	0 - Other			(31) DESIGN LOAD	6		
B) TYPE OF DESIGN/CONSTR:	00 - Other			(63) METHOD USED TO DETERMINE OPERATING RATING	1		
(45) NUMBER OF SPANS IN MAIN	1	(46) NUMBER OF APPROACH	0				
(107) DECK STRUCTURE TYPE	1	(108A) WEARING SURFACE	1				
(108B) DECK MEMBRANE	0	(108C) DECK PROTECTION	0				
AGE OF SERVICE				APPRAISAL			
(27) YEAR BUILT	1977	(106) YEAR RECONSTRUCTED	0000				
(42) TYPE OF SERVICE	ON 1	UNDER	1				
(28) LANES	ON 02	UNDER	04				
(29) AVERAGE DAILY TRAFFIC	34113	(19) BYPASS DETOUR LENGTH	0				
(30) YEAR OF AVERAGE DAILY TRAFFIC	2013						
(109) AVERAGE DAILY TRUCK TRAFFIC	1						
GEOMETRIC DATA				CLASSIFICATION			
(48) LENGTH OF MAX SPAN (ft.)	78	(49) STRUCTURE LENGTH (ft.)	78				
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 0	RIGHT	0				
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	41.3						
(52) DECK WIDTH, OUT-TO-OUT (ft.)	44.5						
(32) APPROACH ROADWAY WIDTH (ft.)	41.0						
(33) BRIDGE MEDIAN	0	(34) SKEW (DEG.)	0				
(35) STRUCTURE FLARED	0	(10) INV RTE, MIN VERT CLEAR (ft.)	99.99				
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	42.7						
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99						
(54) VERTICAL UNDER CLEARANCE (ft.)	H		16.16				
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	H		11.4				
(56) MIN LATERAL UNDER CLEARANCE (ft.)	11.8						
PROPOSED IMPROVEMENTS				NAVIGATION DATA			
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY			(38) NAVIGATION CONTROL	N		
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	0						
(94) BRIDGE IMPROVEMENT COST (\$)	0						
(95) ROADWAY IMPROVEMENT COST (\$)	0						
(96) TOTAL PROJECT COST	0						
(97) YEAR OF IMPROVEMENT COST ESTIMATE							
(114) FUTURE ADT	21745	(115) YEAR OF FUTURE ADT	2028				
(20) TOLL	3						
(21) MAINTENANCE RESPONSIBILITY	01						
(37) HISTORICAL	5						
(111) PIER OR ABUTMENT PROTECTION	1						
(39) NAV VERT CLEARANCE (ft.)	0						
(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0						
(40) NAV HORIZONTAL CLEARANCE (ft.)	0						

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National Bridge Inventory

UNDER RECORD 2

IDENTIFICATION

(1) STATE CODE	056 - Arkansas	(7) FACILITY CARRIED	I 540-SEC 1, WB LN
(3) COUNTY CODE	131	(8) STRUCTURE NUMBER	A5629
(4) PLACE CODE	24060	(9) LOCATION	0.95 MI W JCT I540 & 71
(5) INV. ROUTE (ON/UNDER)	2 5 1 29350 0	(11) MILEPOINT	4.859 (12) BASE HIGHWAY NETWORK 0
(6) FEATURES INTERSECTED	Jenny Lind Street	(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00
		(16) LATITUDE	35. (17) LONGITUDE -94.410388888889
			3028611111111

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN A) KIND OF MATERIAL/DESIGN: 3 - Steel  
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder

AGE OF SERVICE

(19) BYPASS DETOUR LENGTH	2	(30) YEAR OF AVERAGE DAILY TRAFFIC	1983
(27) YEAR BUILT	1977	(42) TYPE OF SERVICE	ON 1 UNDER 1
(28) LANES	ON 02 UNDER 04	(109) AVERAGE DAILY TRUCK TRAFFIC	1
(29) AVERAGE DAILY TRAFFIC	1534		

GEOMETRIC DATA

(10) INV RTE, MIN VERT CLEARANCE	16.2	(48) LENGTH OF MAXIMUM SPAN	78	(49) STRUCTURE LENGTH	78
(47) TOTAL HORIZONTAL CLEARANCE	70.3				

CLASSIFICATION

(20) TOLL	3	(102) DIRECTION OF TRAFFIC	2
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	16	(103) TEMP STRUCTURE	
(100) STRAHNET HIGHWAY DESIGNATION	0	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(101) PARALLEL STRUCTURE DESIGNATION	L	(110) DESIGNATED NATIONAL NETWORK	0

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## Bridge Inspection Report

## Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	3237	sq. ft.	2009	828	400	0
	07/19/2016 - JCJ & RSM - The driving surface of the deck has sealable longitudinal, transverse, and map cracking. The deck makes contact with the backwall on the right side of both abutments. Minor shale pop outs are visible in the driving surface of the deck. There is light efflorescence visible from the undersurface of the deck.						
1080 - Delamination/Spall/Patched Area		2			2		
1120 - Efflorescence/Rust Staining		26			26		
1130 - Cracking (RC and Other)		1200			800	400	
107 - Steel Open Girder/Beam	1- Ben.	546	ft.	546			
	07/19/2016 - JCJ & RSM - The majority of the paint system appears to be oxidized. With isolated areas of staining.						
515 - Steel Protective Coating		4527	sq. ft.	4504	23	0	0
3440 - Effectiveness (Steel Protective Coatings)		23			23		
215 - Reinforced Concrete Abutment	1- Ben.	90	ft.	42	34	4	10
	07/19/2016 - JCJ & RSM - Bent 1 bay 3 has an 8" area of spalling with exposed reinforcing steel in abutment stem wall. The expansion joint assembly in bay 6 of Bent 1 makes contact with the backwall the full width of the bay between beams 6 and 7. Bent 1 stem wall has areas of diagonal and map cracking under bays 1 and 2. The top of Bent 1 backwall has been repaired with a epoxy based concrete the full width of the backwall. The top of Bent Bent 2 backwall has a 10' section that appears to be delaminated and is protruding above the traveled roadway along the Right edge of deck adjacent to the median parapet wall. The stem wall has vertical cracks at the steps and in the bearing areas under the beams. Bent 2 stem wall has vertical, diagonal and horizontal cracking with staining under bay 2. There are a few isolated delaminated areas in the face of the backwall.						
1080 - Delamination/Spall/Patched Area		17			4	3	10
1090 - Exposed Rebar		1				1	
1130 - Cracking (RC and Other)		30			30		
302 - Compression Joint Seal	1- Ben.	84	ft.	42	0	42	0
	07/19/2016 - JCJ & RSM - The compression joint at Bent 1 has been replaced with a pourable type silicone joint. The compression seal at Bent 2 is deteriorated, cracked with tears and leaks water on the substructure.						
2340 - Seal Cracking		42				42	
311 - Movable Bearing	1- Ben.	7	each	0	6	1	0
	07/19/2016 - JCJ & RSM - Bearing #6 at Bent #2 has visible fretting. Bearings appear to be fully expanded at this inspection. Bearings have minor rust between rockers and masonry plates.						
1000 - Corrosion		2			1	1	
2210 - Movement		2			2		



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## Bridge Inspection Report

## Element Inspection

2220 - Alignment		3			3		
515 - Steel Protective Coating		14	sq. ft.	0	0	7	7
3440 - Effectiveness (Steel Protective Coatings)		14				7	7
313 - Fixed Bearing	1- Ben.	7	each	2	5	0	0
07/19/2016 - JCJ & RSM - Fixed bearings have minor pack rust between the sole plate and the masonry plate.							
1000 - Corrosion		5			5		
515 - Steel Protective Coating		7	sq. ft.	0	7	0	0
3440 - Effectiveness (Steel Protective Coatings)		7			7		
321 - Reinforced Concrete Approach Slab	1- Ben.	2440	sq. ft.	2314	126	0	0
07/19/2016 - JCJ & RSM - The west approach slab has been partially ground to grade in the Right lane. Numerous pop outs through the the slab.							
1080 - Delamination/Spall/Patched Area		6			6		
1190 - Abrasion/Wear (PSC/RC)		120			120		
330 - Metal Bridge Railing	1- Ben.	78	ft.	73	5	0	0
07/19/2016 - JCJ & RSM - The Left bridge railing in Span 1 appears to be loosely attached in locations.							
1020 - Connection		5			5		
331 - Reinforced Concrete Bridge Railing	1- Ben.	78	ft.	73	5	0	0
07/19/2016 - JCJ & RSM - The concrete bridge railing on the Right side of structure has insignificant scrape marks and cracking in isolated areas.							
1130 - Cracking (RC and Other)		5			5		

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## Bridge Inspection Report

Pictures

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## Bridge Inspection Report

Sketches

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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 7/5/2012 12:00:00 AM

Priority: D - Routine

Work Code:

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#### Deficiency Description:

The compression joint seal at Bent # 2 is ripped, torn and leaks water onto the superstructure.

Work Description:

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Date Repairs Completed:

Maintenance Comments:

---

Stage: Assigned



PHOTO 1 Description Bent 2 expansion joint deteriorated.



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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 7/5/2012 12:00:00 AM

Priority: C - Important

Work Code:

---

#### Deficiency Description:

Right side of Bent # 2, top of backwall is delaminated and raised approximately 3" above the driving surface of the deck adjacent to the median parapet wall.

Work Description:

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Date Repairs Completed:

Maintenance Comments:

---

Stage: Assigned



PHOTO 1 Description Bent 2 Right side.

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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 7/2/2014 12:00:00 AM

Priority: D - Routine

Work Code:

---

Deficiency Description:

Deck

Driving surface has sealable transverse and longitudinal cracking.

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Assigned



PHOTO 1      Description      Deck cracking typical

Stage: Assigned



PHOTO 2      Description      Span 1 Left lane Sealable map cracking.