

Routine Inspection Report

Date: 6/21/2017

Br No 725

HOADLEY CREEK

Rain

50 F

INSPECTOR: Sara Manning

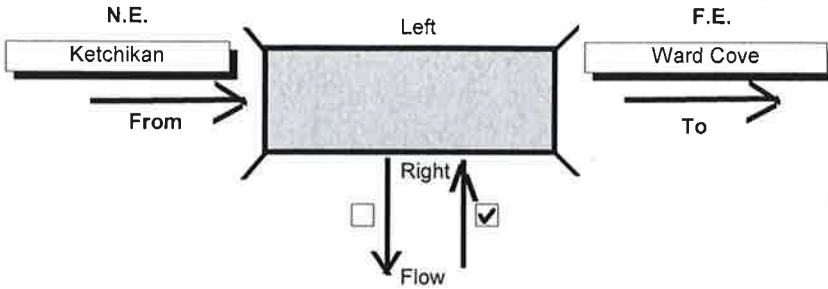
ASSISTANT: Mary McRae

Initials

SEM

Initials

[Signature]



Apprch Rdwy Width (ft)	48.00
Est Camber (inch)	0.00
Bridge Length (ft)	45
Bridge Width O-O (ft)	60.8
CDS Route	291400
CDS Mile Point	0.2

Left							
Type	BRIDGE RAIL	Ht (in)	Curb Height (in)	Transition Type	Ht (in)	Approach Type/Post	Leading End Treat
	2 Tube Top Mount w / Sidewalk	32.00	6.00	None	0.00	None	

Right							
Type	BRIDGE RAIL	Ht (in)	Curb Height (in)	Transition Type	Ht (in)	Approach Type/Post	Leading End Treat
	2 Tube Top Mount w / Sidewalk	32.00	6.00	None	0.00	None	

Lt. Rt. <i>Near End</i>		SIGNS		Lt. Rt. <i>Far End</i>	
<input type="checkbox"/>	<input type="checkbox"/> Object Markers	Load Limit Wording or Other Signs		<input type="checkbox"/>	<input type="checkbox"/> Object Markers
<input type="checkbox"/>	<input type="checkbox"/> Restricted Width			<input type="checkbox"/>	<input type="checkbox"/> Restricted Width
<input type="checkbox"/>	<input type="checkbox"/> Vertical Clear			<input type="checkbox"/>	<input type="checkbox"/> Vertical Clear
<input type="checkbox"/>	<input type="checkbox"/> Load Limit			<input type="checkbox"/>	<input type="checkbox"/> Load Limit
<input type="checkbox"/>	<input type="checkbox"/> Name Place			<input checked="" type="checkbox"/>	<input type="checkbox"/> Name Place

Deck Material	Thk(Inches)
Concrete	6.00
Location Measured	
From Plans	

Wear Surface	Thk (Inches)
Asphalt	3.00
Wear Location	
Deck Drain	

Drive Condition

Good

Locality

Ketchikan

Route

SOUTH TONGASS HWY

Utilities

Kind	Size	Location	Owner
Unknown	1-12" DIP	C/L	Unknown
Unknown	1-20" DIP	1st bay from DS	Unknown
Sewer	1-30" Pipe	On Girder US from bridge.	Unkown

Bridge No. 0725, HOADLEY CREEK

Work Candidates

Inspected on: 06/21/2017

<i>Priority</i>	<i>Description</i>	<i>Quantity</i>	<i>Work Needed</i>
High	Deck-Rehab (SF)	167	Patch spalls with exposed rebar. Repair or replace concrete overhang supports. Epoxy inject concrete deck cracks.
High	Misc-Remove Vegetation (EA)	1	Cut brush at bridge corners and US side.
High	Bridge Rail-Repair	1	Repair spalled concrete at NEUS post.

Bridge No. 0725, HOADLEY CREEK

Element Inspection

Inspected on: 06/21/2017

<i>Element</i>	<i>Description</i>	<i>Observations</i>
12	Reinforced Concrete Deck	Deck retaining water FEUS (Could not verify in 2017). FEUS drains clogged and holding water. Soffit: Exposed rebar and spalling typical under thicker deck sections near backwalls. Minor deck leaks with efflorescence at construction joints and along beams. FEDS 1SF cantilever deck spall with exposed rebar. Cantilever Support: Cracks in soffit on either side of supports, typical. NEDS 1st support: NE crack approximately 1/4 inch wide. FEUS spalls at cantilever backwall. US supports have cracks on the underside, typical. US 2nd support: NE crack extends from a spall underneath about 3/4 the width. FE crack from deck notch extends down about 6 inches. Underside crack at beam extends full width with heavy efflorescence. The support appears to be rotated way from deck about 1/32 inch with clean concrete showing. No reflective cracking observed on top of deck. 2nd support from FEDS, crack full width of support, 0.003" wide.
> 510	<i>Wearing Surfaces</i>	
> 1120	<i>Efflorescence/Rust Staining</i>	
109	Prestressed Concrete Open Girder/Beam	No diaphragms. Girder 4 water running on US face with efflorescence. Soil spilling through backwall at utility and other blockouts and resting against girder ends. Material is wet.
215	Reinforced Concrete Abutment	NE abutment: 2nd bay from US cap has minor cracks. Concrete in-fill present with an exposed vertical bar and a void at least 22 inches deep x 9 inches DS. Utility is supposed to be in this location but was not visible. FE Abutment: Minor cracks in thicker cap portion under 3rd and 4th girders from US. Bay 4 from US hairline diagonal backwall cracks with efflorescence. 1/16 inch crack under 6th girder from US at concrete thickness change. Concrete in-fill wall placed under abutment. FEDS material spilling around wingwall. Timber logs have been placed to retain fill.
313	Fixed Bearing	Metal bearings have surface rust with minor section loss.
> 515	<i>Steel Protective Coating</i>	
330	Metal Bridge Railing	Curb and bridge rail posts covered with moss. Damaged and spalled concrete at NEUS rail post.

Bridge No. 0725, HOADLEY CREEK

> 515 *Steel Protective Coating*

601 Brush Smart Flag

Brush overhangs FEDS bridge rail about 2ft and obscures 2 rail posts.
Brush encroaching roadway at US side.

Br No 725

HOADLEY CREEK

Date: 6/21/2017

ID

12 Odd 2017 725

INSPECTOR: Sara Manning

ASSISTANT: Mary McRae

Weather
RainTemperature
50 F**HYDRAULICS REPORT**

Inspection To Mudline At All Piers and Abuts?

Yes

Apparent HW

No

AHW Comments

Stream
Bottom
Material

Bank Erosion

Yes

Erosion Comments

Material sloughing from under cantilever
and sidewalk at FEDS.

Sand

Gravel

Cobble

Activities

None

Drift

Light

Drift Comments

Branches

Riprap Condition

Adequate

Other Hydraulic
Comments

One metal culvert and one HDPE culvert at FEDS.

SOUNDINGS

Measured At Surface

Top Rail

Location

Upstream

**Soundings
Report**

All measurements in feet

12 Odd 2017 725

Horiz Dist from NE	Substr Unit No.	Vert Dist to Water Surface	Vert Dist to Stream Bottom	Remarks
0.00	1	0.0	3.4	Begin Bridge
4.00	1	0.0	4.9	Back Face Utility Backwall
4.50	1	0.0	2.1	Top of Utility Backwall
5.40	1	0.0	6.6	Front Face of Utility Backwall
9.00	1	0.0	7.8	
12.40	1	0.0	10.7	EOW
17.10	1	0.0	10.1	
24.30	1	0.0	10.3	
33.60	1	0.0	9.8	
36.30	1	0.0	10.0	
45.60	1	0.0	9.2	EOW
48.70	1	0.0	8.1	Face of Backwall
49.70	1	0.0	2.3	End Bridge / Top of Backwall

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 0725 Agency ID: 0725 SR: 70.3 SD/FO: SD

IDENTIFICATION			
State 1:	02 Alaska	Struc Number 8:	0725
Facility Carried 7:	SOUTH TONGASS HWY	Location 9:	MILE POINT 0.2
Rte.(On/Under)5A:	Route On Structure	Rte Signing Prefix 5B:	3 State Hwy
Level of Service 5C:	1 Mainline	Rte. Number 5D:	00902
Directional Suffix 5E:	0 N/A (NBI)	% Responsibility:	
SHD District 2:	03 Southcoast	County Code 3:	Ketchikan Gateway Boro
Place Code 4:	Ketchikan	Mile Post 11:	0.192 mi
Feature Intersected 6:	HOADLEY CREEK		
Latitude 16:	55d 21' 12.0 "	Longitude 17:	131d 41' 17.0 "
Border Bridge Code 98:	Unknown (P)		
Border Bridge No. 99:	NA		

INSPECTION			
Frequency 91:	24 months	Inspection Date 90:	06/21/2017
FC Freq. 92A:	NA	FC Insp. Date 93A:	NA
UW Freq. 92B:	NA	UW Insp. Date 93B:	NA
SI Freq. 92C:	NA	SI Date 93C:	NA
Next Inspection:	06/21/2019	Next FC Inspect on:	NA
Next UW Inspection:	NA	Next SI:	NA

CLASSIFICATION			
Defense Highway 100:	0 Not a STRAHNET hwy	Parallel Structure 101:	No bridge exists
Traffic Direction 102:	2 2-way traffic	Temporary Structure 103:	Unknown (NBI)
Highway System 104:	1 On the NHS	NBIS Length 112:	Long Enough
Toll Facility 20:	3 On free road	Functional Class 26:	16
Natl. Network 110:	0 Not on truck network	Historical Sig 37:	5 Not eligible for NHRP
Owner 22:	01 State Highway Agency		
Custodian 21:	01 State Highway Agency		

STRUCTURE TYPE AND MATERIALS			
Number of Approach Spans 46:	0	Number of Spans Main Unit 45:	1
Main Span 43A/B:			
	1 Concrete		2 Stringer/Girder
Appr Span 44A/B:			
	0 Other		00 Other
Deck Type 107:			9 Other
Wearing Surface 108A:			6 Bituminous
Membrane 108B:			0 None
Deck Protection 108C:			0 None

CONDITION			
Deck 58:	4 Poor	Super 59:	6 Satisfactory
Channel/Ch. Protection 61:	7 Minor repairs needed	Sub 60:	6 Satisfactory
		Culvert 62:	N N/A (NBI)

LOAD RATING AND POST NG			
Inventory Method 65:	1 LF Load Factor	Operating Method 63:	1 LF Load Factor
Inventory Rating 66:	HS 16	Operating Rating 64:	HS 45
Design Load 31:	4	Posting 70:	5 A/Above legal loads
Posting Status 41:	A Open, no restrcn		

AGE AND SERVICE			
Year Built 27:	1957	Year Reconstructed 106:	Unknown
Type of Service on 42A:	1 Highway		
Type of Service under 42B:	5 Waterway		
Lanes on 28A:	3	Lanes under 28B:	0
ADT 29:	13,836	Truck ADT 109:	1%
		Detour Length 19:	124 mi
		Year of ADT 30:	2015

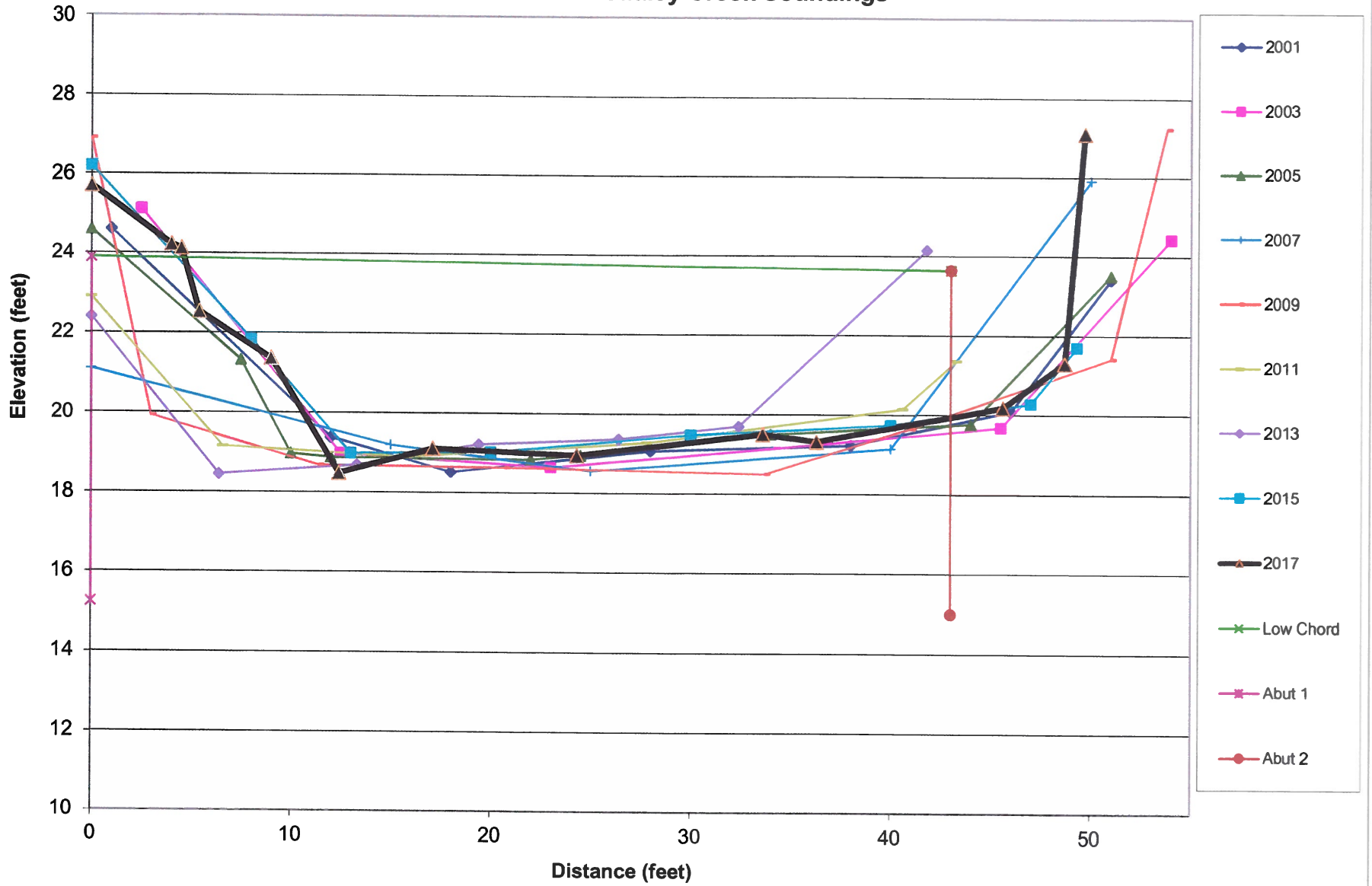
APPRAISAL			
Bridge Rail 36A:	1 Meets Standards	Approach Ra 36C:	0 Substandard
Transition 36B:	0 Substandard	Approach Rail Ends 36D:	0 Substandard
Str Evaluation 67:	6 Equal Min Criteria	Deck Geometry 68:	6 Equal Min Criteria
Underclearance, Vertical and Horizontal 69:	N Not applicab e (NB)		
Waterway Adequacy 71:	7 Better than Min	Approach Alignment 72:	8 Equal Desirable Crit
Scour Critical 113:	8 Stable Above Footing		

GEOMETRIC DATA			
Length Max Span 48:	43 ft	Structure Length 49:	45 ft
Curb/Sdwk Width L 50A:	5.2 ft	Curb/Sidewalk Width R 50B:	5.2 ft
Width Curb to Curb 51:	49.2 ft	Width Out to Out 52:	60.7 ft
Approach Roadway Width 32:	48 ft	Median 33:	0 No median
(w/ shoulders)			
Deck Area:	2,723.3 sq ft		
Skew 34:	33	Structure Flared 35:	0 No flare
Vertical Clearance 10:	99.99 ft	Horizontal Clearance 47:	47.90 ft
Minimum Vertical Clearance Over Bridge 53:	100.0 ft		
Minimum Vertical Underclearance 54A:	N Feature not hwy or RR		
Minimum Vertical Underclearance 54B:	0.0 ft		
Minimum Lateral Underclearance 55A:	N Feature not hwy or RR		
Minimum Lateral Underclearance R 55A:	99.9 ft		
Minimum Lateral Underclearance L 56:	0.0 ft		

PROPOSED IMPROVEMENTS			
Bridge Cost 94:	\$0	Type of Work 75:	Unknown (P)
Roadway Cost 95:	\$0	Length of Improvement 76:	0.0 ft
Total Cost 96:	\$0	Future ADT 114:	21,000
Year of Cost Estimate 97:	Unknown	Year of Future ADT 115:	2035

NAVIGATION DATA			
Navigation Control 38:	0 Permit Not Required		
Vertical Clearance 39:	0.0 ft	Horizontal Clearance 40:	0.0 ft
Pier Protect on 111:	1 Not required	Lift Bndge Vertical Clearance 116:	0.0 ft

BN 725 Hoadley Creek Soundings





Bridge No. 0725 Br. Name Hoadley Creek Date 06/21/17
 Inspector Manning / McRae Frame 1
Ahead at bridge



Bridge No. 0725 Br. Name Hoadley Creek Date 06/21/17
 Inspector Manning / McRae Frame 2
Back at bridge



Bridge No. 0725 Br. Name Hoadley Creek Date 06/21/17
 Inspector Manning / McRae Frame 3
Looking US



Bridge No. 0725 Br. Name Hoadley Creek Date 06/21/17
 Inspector Manning / McRae Frame 4
Looking DS



Bridge No. 0725 Br. Name Hoadley Creek Date 06/21/17
 Inspector Manning / McRae Frame 5
 Elevation Looking US



Bridge No. 0725 Br. Name Hoadley Creek Date 06/21/17
 Inspector Manning / McRae Frame 6
 Elevation Looking DS



Bridge No. 0725 Br. Name Hoadley Creek Date 06/21/17
 Inspector Manning / McRae Frame 7
 Wearing surface condition



Bridge No. 0725 Br. Name Hoadley Creek Date 06/21/17
 Inspector Manning / McRae Frame 8
 Typical bay



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	9	
Backwall typical					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	10	
NE abutment (US)					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	11	
NE abutment (DS)					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	12	
FE abutment (DS)					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	13	
FE abutment (US)					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	14	
Damage and spall at NE US rail post					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	15	
FE US abutment					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	16	
FE US abutment spalls with exposed rebar					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	17	
FE US abutment spalls with exposed rebar					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	18	
FE US abutment spalls with exposed rebar					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	19	
FE US girder at abutment, spall with exposed rebar					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	20	
US cantilever support side 1 overview					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	21	
US cantilever support side 1 spall					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	22	
US cantilever support side 1 crack in soffit					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	23	
US cantilever support side 2 overview					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	24	
US cantilever support side 2 rust stain, cracks					



2017/06/21

Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	25	
US cantilever support side 3 overview					



2017/06/21

Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	26	
US cantilever support side 3 crack					



2017/06/21

Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	27	
US cantilever support side 3 crack					



2017/06/21

Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	28	
US cantilever support side 3 crack					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	29	
Cracks bottom cantilever support #2 (RT/LT faces are sides 3 & 4)					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	30	
US cantilever support side 4 crack					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	31	
US cantilever support side 4 crack and spall					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	32	
US cantilever support side 5 overview					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	33	
US cantilever support side 5 crack					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	34	
Crack bottom US cantilever support #3 (RT/LT faces are sides # 5 & 6)					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	35	
US cantilever support side 6 overview					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	36	
US cantilever supports cracked on underside, typical					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	37	
Crack full width of cantilever support					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	38	
FE DS material spilling around wingwall					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	39	
FE backwall cracks, 3rd bay from US					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	40	
Spall near FE backwall, 3rd bay from US					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	41	
FE DS 1 SF cantilever deck spall with exposed rebar					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	42	
NE abutment, 2nd bay from DS, exposed rebar					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	43	
Metal bearing surface rust and minor section loss typical					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	44	
Wet soil spilling through backwall and resting against girder ends					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	45	
NE abutment, 2nd bay from DS, void 22" deep x 9"					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	46	
Mid-span utility					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	47	
Rocks on FE abutment					



Bridge No.	0725	Br. Name	Hoadley Creek	Date	06/21/17
Inspector	Manning / McRae		Frame	48	
Typical rail and NE DS bank					