

Routine Inspection Report

Date: 7/21/2020

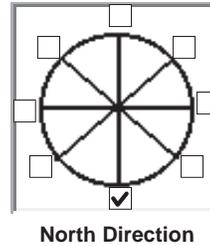
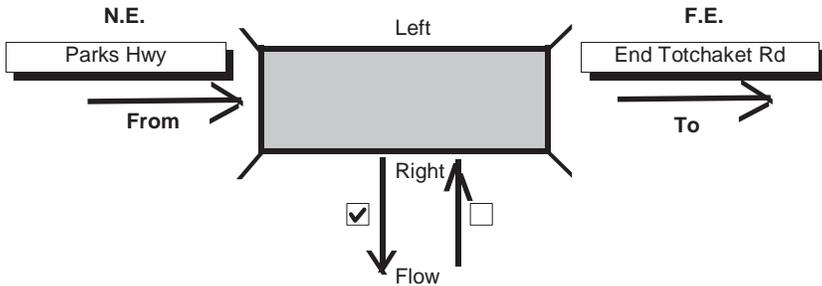
Br No 1559 EAST MIDDLE RIVER

Overcast 56 F

INSPECTOR: Nicholas Murray ASSISTANT: Jasmine Langmann

Initials NWM

Initials _____



Apprh Rdwy Width (ft) 14.00
 Est Camber (inch) 0.00
 Bridge Length (ft) 80.00
 Bridge Width O-O (ft) 14.30
 CDS Route 158000
 CDS Mile 2.1

Left							
Type	BRIDGE RAIL	Ht (in)	Curb Height (in)	Transition Type	Ht (in)	Approach Type/Post	Leading End Treat
	3.5 inch steel tube & bullrail	22.00	8.50	None		None	
Right							
Type	BRIDGE RAIL	Ht (in)	Curb Height (in)	Transition Type	Ht (in)	Approach Type/Post	Leading End Treat
	3.5 inch steel tube & bullrail	22.00	8.50	None		None	

Lt. Rt. Near End		SIGNS		Lt. Rt. Far End	
<input type="checkbox"/>	<input type="checkbox"/> Object Markers	Load Limit Wording or Other Sign		<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 checked="" type="checkbox"/>	<input type="checkbox"/> Name Place			<input type="checkbox"/>	<input type="checkbox"/> Name Place

Deck Material	Thk(Inches)
Timber	3.00
Location Measured	
Edge of Deck	

Wear Surface	Thk (Inches)
Timber Run Pl	3.00
Wear Location	
Edge of Deck	

Drive Condition	
Unsatisfactory	
Locality	Route
Nenana	Totchaket Road

Utilities

Kind	Size	Location	Owner
None			

Abbreviations: FE=Far End, NE=Near End, DS=Downstream, US=Upstream, LT=Left, RT=Right, P=Pier, FB=Floorbeam, G=Girder, S=Span

Bridge No. 1559, EAST MIDDLE RIVER

Work Candidates

Inspected on: 07/21/2020

<i>Priority</i>	<i>Description</i>	<i>Quantity</i>	<i>Work Needed</i>
High	Substructure-Riprap (EA)	1	Stabilize the gabion baskets at the FE DS corner.
High	Bridge Rail-Replace (LF)	1	Replace deteriorated bull rail.
High	Deck-Resurface	1	Replace timber running planks to prevent damage to deck.
Low	Misc-Remove Vegetation (EA)	1	Cut brush around and under bridge.

Bridge No. 1559, EAST MIDDLE RIVER

Element Inspection

Inspected on: 07/21/2020

<i>Element</i>	<i>Description</i>	<i>Observations</i>
31	Timber Deck	Deck planks are rough sawn Number 2 or better, treated with CCA preservative.
> 510	<i>Wearing Surfaces</i>	Untreated, rough sawn running planks. Planks are rotten and deteriorated throughout.
107	Steel Open Girder/Beam	Manufacturer's (Rapid Span) plate on the girder ends. Mud and rocks present on top of DS girder bottom flange. See 2020 FC report for more details.
> 515	<i>Steel Protective Coating</i>	Uniform, protective rust coating. No pack rust observed.
156	Timber Floor Beam	Floorbeams are Number 2 or better, treated with CCA preservative. Approximately 10% of floor beams have full length splits.
216	Timber Abutment	None.
311	Movable Bearing	No anchor bolts on any of the bearings.
330	Metal Bridge Railing	Timber bull rail is rotten and broken in most locations.
> 515	<i>Steel Protective Coating</i>	
601	Brush Smart Flag	Brush encroaching on bridge.
604	Bank Protection Smart Flag	Gabions at both abutments are rotating towards the river.

Br No 1559	EAST MIDDLE RIVER	Date: 7/21/2020	ID	04 Even 2020 1559
INSPECTOR: Nicholas Murray	ASSISTANT: Jasmine Langmann	Weather Overcast	Temperature 56 F	

HYDRAULICS REPORT

Inspection To Mudline At All Piers and Abuts? <input type="text" value="Yes"/>	Apparent HW <input type="text" value="Yes"/>	Stream Bottom Material
Activities <input type="text"/>	AHW Comments <input type="text" value="Debris on top of DS girder bottom flange."/>	<input type="text" value="Silt"/>
Drift <input type="text" value="Light"/>	Bank Erosion <input type="text" value="Yes"/>	<input type="text" value="Sand"/>
Riprap Condition <input type="text" value="None"/>	Erosion Comments <input type="text" value="Gabions at both abutments rotating towards river."/>	<input type="text"/>
	Drift Comments <input type="text" value="Sticks"/>	<input type="text"/>
	Other Hydraulic Comments <input type="text" value="Water is stagnant, flow direction difficult to establish."/>	

SOUNDINGS Measured At Surface Location

Soundings Report		<u>All measurements in feet</u>		<input type="text" value="04 Even 2020 1559"/>
Horiz Dist from	Substr Unit No.	Vert Dist to Water Surface	Vert Dist to Stream Bottom	Remarks
0.00	1	0.0	7.9	Begin Bridge
3.00	1	0.0	7.9	
4.10	1	0.0	8.9	
7.60	1	0.0	9.8	
11.10	1	0.0	11.3	
13.30	1	0.0	10.4	
15.10	1	0.0	13.4	EOW
24.40	1	0.0	17.4	
30.10	1	0.0	18.4	
40.00	1	0.0	18.2	
50.20	1	0.0	18.0	
60.20	1	0.0	15.8	
69.50	1	0.0	13.6	EOW
70.80	1	0.0	9.8	
76.20	1	0.0	8.8	
76.40	1	0.0	7.8	
79.40	1	0.0	7.8	End Bridge

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 1559	Agency ID: 1559	On/Off System: Off System	SR: 75.9	SD/FO/ND: ND
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IDENTIFICATION			
State 1:	02 Alaska	Struc Number 8:	1559
Facility Carried 7:	TOTCHAKET ROAD	Location 9:	MILE POINT 2.1
Rte.(On/Under)5A:	Route On Structure	Rte Signing Prefix 5B:	5 City Street
Level of Service 5C:	0	Rte. Number 5D:	00000
Directional Suffix 5E:	0 N/A	% Responsibility:	
SHD District 2:	02 North., Interior	County Code 3:	Yukon-Koyukuk Census
Place Code 4:	Nenana	Mile Post 11:	2.100 mi
Feature Intersected 6:	EAST MIDDLE RIVER		
Latitude 16:	64d 33' 37.2 "	Longitude 17:	149d 11' 7.5 "
Border Bridge Code 98:	Unknown (P)		
Border Bridge No. 99:	NA		

INSPECTION			
Frequency 91:	24 months	Inspection Date 90:	07/21/2020
Next Inspection:	07/22/2022		
FC Freq. 92A:	24 months	FC Insp. Date 93A:	06/22/2020
Next FC Inspection:	06/22/2022		
UW Freq. 92B:	NA	UW Insp. Date 93B:	NA
Next UW Inspection:	NA		
SI Freq. 92C:	NA	SI Date 93C:	NA
Next SI:	NA		

CLASSIFICATION			
Defense Highway 100:	0 Not a STRAHNET hwy	Parallel Structure 101:	No bridge exists
Traffic Direction 102:	3 1-lane Br for 2-way	Temporary Structure 103:	No
Highway System 104:	0 Not on NHS	NBIS Length 112:	Long Enough
Toll Facility 20:	3 On free road	Functional Class 26:	09 Rural Local
Natl. Network 110:	0 Not on truck network	Historical Sig. 37:	5 Not eligible for NRHP
Owner 22:	City or Municipal Highway Agency		
Custodian 21:	City or Municipal Highway Agency		

STRUCTURE TYPE AND MATERIALS			
Number of Approach Spans 46:	0	Number of Spans Main Unit 45:	1
Main Span Mat'l and Type 43A/B:	3 Steel		
	2 Stringer/Girder		
Appr Span Mat'l and Type 44A/B:	N/A		
Deck Type 107:	8 Wood or Timber		
Wearing Surface 108A:	7 Wood or Timber		
Membrane 108B:	0 None		
Deck Protection 108C:	0 None		

CONDITION			
Deck 58: 7 Good	Super 59: 7 Good	Sub 60:	6 Satisfactory
Channel/Ch. Protection 61:	5 Eroding	Culvert 62:	N/A

AGE AND SERVICE			
Year Built 27:	2013	Year Reconstructed 106:	
Type of Service on 42A:	1 Highway		
Type of Service under 42B:	5 Waterway		
Lanes on 28A:	1	Lanes under 28B: 0	Detour Length 19: 124 mi
ADT 29:	10	Truck ADT 109: 1%	Year of ADT 30: 2018

LOAD RATING AND POSTING			
Operating Rating 64:	HS 33	Operating Method 63:	1 LFR
Inventory Rating 66:	HS 20	Inventory Method 65:	1 LFR
Design Load 31:	C Other	Posting 70:	5 At/Above legal loads
Posting Status 41:	A Open, no restriction		

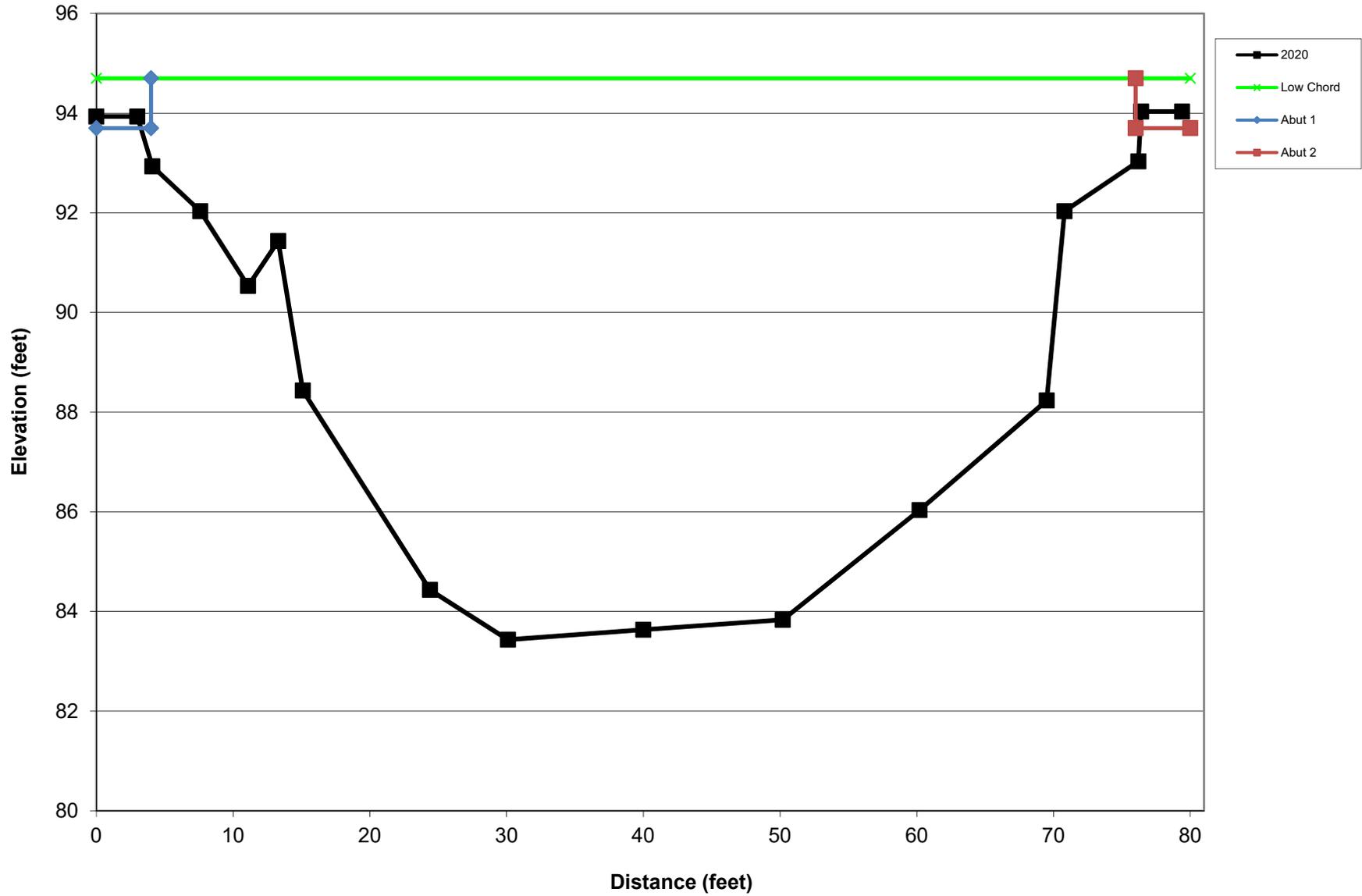
GEOMETRIC DATA			
Length Max Span 48:	77.00 ft	Structure Length 49:	80.00 ft
Curb/Sdwk Width L 50A:	0.0 ft	Curb/Sidewalk Width R 50B:	0.0 ft
Width Curb to Curb 51:	13.3 ft	Deck Width Out to Out 52:	14.3 ft
Approach Roadway Width 32: (w/ shoulders)	14.00 ft	Median 33:	0 No median
Deck Area:	1,144.0 sq ft		
Skew 34:	0	Structure Flared 35:	0 No flare
Route Minimum Vertical Clearance 10:	99.99 ft	Route Horizontal Clearance 47:	14.00 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		

APPRAISAL			
Bridge Rail 36A:	0 Substandard	Approach Rail 36C:	0 Substandard
Transition 36B:	0 Substandard	Approach Rail Ends 36D:	0 Substandard
Str Evaluation 67:	6 Equal Min Criteria	Deck Geometry 68:	5 Somewhat Better than Min
Underclearance, Vertical and Horizontal 69:	N/A		
Waterway Adequacy 71:	7 Better than Min	Approach Alignment 72:	8 Equal Desirable Crit
Scour Critical 113:	3 Scour Critical - Within Limits		

PROPOSED IMPROVEMENTS			
Bridge Cost 94:	\$	Type of Work 75:	Unknown
Roadway Cost 95:	\$	Length of Improvement 76:	0.0 ft
Total Cost 96:	\$	Future ADT 114:	15
Year of Cost Estimate 97:		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 Protection 111:	1 Not required	Lift Bridge Vertical Clearance 116:	0.0 ft

BN 1559 - East Middle River Soundings.





Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 1
 NE Looking at Bridge File P7210851.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 2
 FE Looking Back at Bridge File P7210868.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 3
 Looking US File P7210862.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 4
 Looking DS File P7210865.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 5
 DS NE Bank File P7210866.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 6
 US NE Bank File P7210861.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 7
 US FE Bank File P7210863.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 8
 DS FE Bank File P7210864.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 9
 Abutment 1 File P7210858.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 10
 Abutment 2 File P7210854.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 11
 Elevation Looking US File P7210859.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 12
 Rail Typ File P7210852.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 13
 Deck Typ File P7210853.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 14
 Underside Typ File P7210855.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 15
 Deck Exterior Underside Typ File P7210860.jpg



Bridge No. 1559 Br. Name East Middle River Date 07/21/20
 Inspector Nicholas Murray / Jasmine Langmann Frame 16
 Rocks on Interior Girder File P7210856.jpg



Bridge No.	1559	Br. Name	East Middle River	Date	07/21/20
Inspector	Nicholas Murray / Jasmine Langmann			Frame	17
Abutment 1 US Gabion Basket				File	P7210857.jpg

Bridge No.	1559	Br. Name	East Middle River	Date	07/21/20
Inspector	Nicholas Murray / Jasmine Langmann			Frame	19
				File	



Bridge No.	1559	Br. Name	East Middle River	Date	07/21/20
Inspector	Nicholas Murray / Jasmine Langmann			Frame	18
Fabrication Plaque				File	P7210867.jpg

Bridge No.	1559	Br. Name	East Middle River	Date	07/21/20
Inspector	Nicholas Murray / Jasmine Langmann			Frame	20
				File	