

Routine Inspection Report

Date: 8/15/2017

Br No 1193 CHOKOSNA RIVER

Fair 70 F

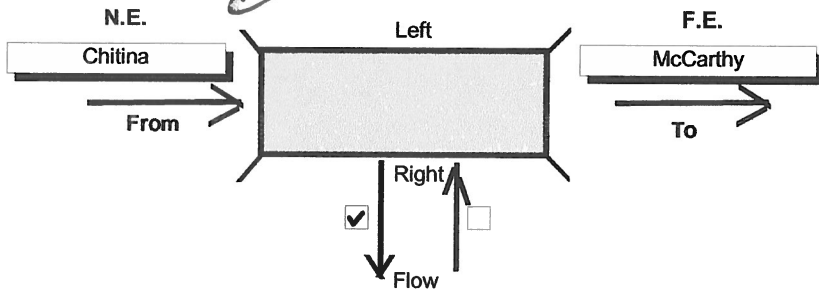
INSPECTOR: Jared Levings

ASSISTANT: Hiram Henry

Initials



Initials



Appr Rdwy Width (ft)	20.00
Est Camber (inch)	0.00
Bridge Length (ft)	103.00
Bridge Width O-O (ft)	20.00
CDS Route	198000
CDS Mile	60.3

Left							
Type	BRIDGE RAIL	Ht (in)	Curb Height (in)	Transition Type	Ht (in)	Approach Type/Post	Leading End Treat
Channel		23.00	0.00	None	0.00	None	none
Right							
Type	BRIDGE RAIL	Ht (in)	Curb Height (in)	Transition Type	Ht (in)	Approach Type/Post	Leading End Treat
Channel		24.00	0.00	None	0.00	None	none

Near End		SIGNS		Far End	
Lt.	Rt.	Load Limit Wording or Other Sign		Lt.	Rt.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<div style="border: 1px solid black; padding: 5px;"> H-type 18 Tons 12T Tandem 13T Triple </div>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
		Load Limit Wording or Other Signs			
		<div style="border: 1px solid black; padding: 5px;"> H-type 18 Tons 12T Tandem 13T Triple </div>			

Deck Material	Thk(Inches)
Glu Lam	5.50
Location Measured	
Edge of Deck	

Wear Surface	Thk (Inches)
Asphalt	0.25
Wear Location	
Sporadic	

Drive Condition	Unsatisfactory
Locality	McCarthy
Route	EDGERTON/MCCARTHY

Utilities

Kind	Size	Location	Owner
none			

Bridge No. 1193, CHOKOSNA RIVER

Work Candidates

Inspected on: 08/15/2017

<i>Priority</i>	<i>Description</i>	<i>Quantity</i>	<i>Work Needed</i>
High	Deck-Replace (SF)	191	Replace bridge deck. Install full-width running planks.
High	Substructure-Replace (EA)	1	Replace abutments. Replace backwalls.
Medium	Deck-Wash (SF)	2060	Clean lower chords prior to Fracture Critical inspection.
Medium	Superstructure-Repair Steel (LF)	63	Replace or tighten the following bolts and replace missing nuts: -U1 US bolt. -L0-FB0 US and DS bolt. -FB1 DS inboard underside bolt. -FB2 four underside bolts at both ends. -FB3 four underside bolts at both ends. -FB3 DS lower chord bolt. -FB2' US underside bolt. -Stringer 2 FB2' connection bolt. -US L2 missing nut. -US U1 missing rivet.
Medium	Bridge-Replacement (EA)	1	Existing bridge has several problems, consider bridge replacement.
Low	Misc-Install Sign (EA)	2	Install name place signs.

Bridge No. 1193, CHOKOSNA RIVER

Element Inspection

Inspected on: 08/15/2017

<i>Element</i>	<i>Description</i>	<i>Observations</i>
31	Timber Deck	End panels broken and covered with gravel. Remaining panels have up to 2 inches of wear in wheel lines; FEUS remaining deck section is 4 inches thick. Soffit is wet and punky even tho weather has been sunny for the last few days. Many deck clips are missing. G3 nailer between L3' and L2' has slid out from above the flange and deck now spans two stringer spaces.
113	Steel Stringer	Surface rust and minor laminar rust on lower half of the stringers. No intermediate diaphragms are present. S2-FB2' connection has one loose bolt.
> 515	Steel Protective Coating	
120	Steel Truss	US truss heat-straightened, gouged, bent, and torn many times; the four sliced diagonals have 3 welded cover plates over the damage. US L1-L2 outboard top leg has a minor bend. US FE lower chord is bowed upward for about 3 panel points. Freckle rust or surface rust throughout.
> 515	Steel Protective Coating	
152	Steel Floorbeam	Freckle rust or surface rust throughout. Up to 1/8 inch laminar rust on lower webs and some rust blooms on upper webs. FB0 bowed toward midspan; backwall is resting against FB. FB1 DS inboard bottom bolt not engaged. FB2 and FB3 missing bottom four bolts at both ends. FB2' US bottom has one loose bolt.
> 515	Steel Protective Coating	
162	Steel Gusset Plate	Freckle or surface rust on each plate. U2 and U2' gussets have gouges adjacent to new bolts. U1 US inboard bolt sheared. LO-FB0 connection, one bolt sheared US and DS. FB3 DS to lower chord bottom bolt not engaged.
> 515	Steel Protective Coating	
216	Timber Abutment	Backwall planks are decayed and sloughing. NE deck-backwall interface is separating and a hole has formed behind the planks; planks pushed out 4 inches near centerline. NEUS sheet pile wall leans toward roadway about 15 degrees. NEUS cribbing settled about 15 inches. FEDS sheet pile wall leans out 3 inches over a 3ft height and is torn 15 inches vertically. FEDS deck-backwall interface is separating and a hole has formed behind the planks; soil built up under hole.

Bridge No. 1193, CHOKOSNA RIVER

311	Movable Bearing	Bearings expanded well past middle 3rd but now rest against the backwall. DS bearing is bending anchor bolts; US bearing has no anchor bolts. US bearing shimmed up but blocking is crushing. US leans about 5 degrees in the transverse direction and 17 degrees in the longitudinal direction. Surface rust throughout.
> 515	<i>Steel Protective Coating</i>	
313	Fixed Bearing	Surface rust throughout. Bearings are tilted toward abutment; US 1 degree and DS 2 degrees.
> 515	<i>Steel Protective Coating</i>	
330	Metal Bridge Railing	3rd panel point from FEUS, rail steps toward truss 1 inch and sags 1/4 inch. Many lower connection brackets are welded rather than bolted. Freckle or surface rust throughout.
> 515	<i>Steel Protective Coating</i>	
600	Signs Smart Flag	No name place signs.
604	Bank Protection Smart Flag	NEUS sheet pile wall exposed an additional 3ft from original construction. NEUS minor bank erosion away from riprap.

Br No 1193

CHOKOSNA RIVER

Date: 8/15/2017

ID

02 Odd 2017 1193

INSPECTOR: Jared Levings

ASSISTANT: Hiram Henry

Weather
Fair

Temperature
70 F

HYDRAULICS REPORT

Inspection To Mudline At All Piers and Abuts?

Apparent HW

Stream
Bottom
Material

AHW Comments

Bank Erosion

Erosion Comments

Drift Comments

Activities

Drift

Riprap Condition

Other Hydraulic
Comments

SOUNDINGS Measured At Surface Location

Soundings Report		All measurements in feet		02 Odd 2017 1193
Horiz Dist from NE	Substr Unit No.	Vert Dist to Water Surface	Vert Dist to Stream Bottom	Remarks
2.00	1	0.0	8.9	NE Front of Cribbing
13.00	1	0.0	10.0	
25.00	1	0.0	11.6	EOW
33.00	1	0.0	12.5	
39.50	1	0.0	12.6	
49.50	1	0.0	13.0	
58.00	1	0.0	12.2	
61.00	1	0.0	11.6	EOW
66.00	1	0.0	9.5	
73.00	1	0.0	9.2	
89.00	1	0.0	9.6	
99.50	1	0.0	9.1	FE Front of Sheet Pile
99.90	1	0.0	5.3	FE Top of Sheet Pile

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 1193 Agency ID: 1193 SR: 39.4 SD/FO: SD

IDENTIFICATION			
State 1:	02 Alaska	Struc Number 8:	1193
Facility Carried 7:	EDGERTON/MCCARTHY	Location 9:	MILE POINT 60 3
Rte (On/Under)5A:	Route On Structure	Rte Signing Prefix 5B:	3 State Hwy
Level of Service 5C:	1 Mainline	Rte Number 5D:	00850
Directional Suffix 5E:	0 N/A (NBI)	% Responsibility:	
SHD District 2:	05 North, S. Central	County Code 3:	Valdez, Cordova
Place Code 4:	Chitina	Mile Post 11:	60.262 mi
Feature Intersected 6:	CHOKOSNA RIVER		
Latitude 16:	61d 27' 19.0 "	Longitude 17:	143d 45' 50.0 "
Border Bridge Code 98:	Unknown (P)		
Border Bridge No. 99:	NA		

INSPECTION			
Frequency 91:	24 months	Inspection Date 90:	08/15/2017
FC Freq 92A:	24 months	FC Insp. Date 93A:	07/13/2017
UW Freq 92B:	NA	UW Insp. Date 93B:	NA
SI Freq 92C:	NA	SI Date 93C:	NA
Next Inspection:	08/15/2019	Next FC Inspection:	07/19/2017
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:	3 1-lane Br for 2-way	Temporary Structure 103:	Unknown (NBI)
Highway System 104:	0 Not on NHS	NBIS Length 112:	Long Enough
Toll Facility 20:	3 On free road	Functional Class 26:	07
Natl. Network 110:	0 Not on truck network	Historical Sig. 37:	5 Not eligible for NRHP
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:			
	3 Steel		10 Truss - Thru
Appr Span 44A/B:			
	0 Other		00 Other
Deck Type 107:			8 Wood or Timber
Wearing Surface 108A:			6 Bituminous
Membrane 108B:			0 None
Deck Protection 108C:			0 None

CONDITION			
Deck 58:	4 Poor	Super 59:	5 Fair
Channel/Ch. Protection 61:		6 Bank Slumping	
Sub 60:	4 Poor	Culvert 62:	N N/A (NBI)

LOAD RATING AND POSTING			
Inventory Method 65:	1 LF Load Factor	Operating Method 63:	1 LF Load Factor
Inventory Rating 66:	HS 12	Operating Rating 64:	HS 28
Design Load 31:	4	Posting 70:	0
Posting Status 41:	P Posted for load		

AGE AND SERVICE			
Year Built 27:	1973	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
ADT 29:	83	Detour Length 19:	124 mi
Truck ADT 109:	1%	Year of ADT 30:	2015

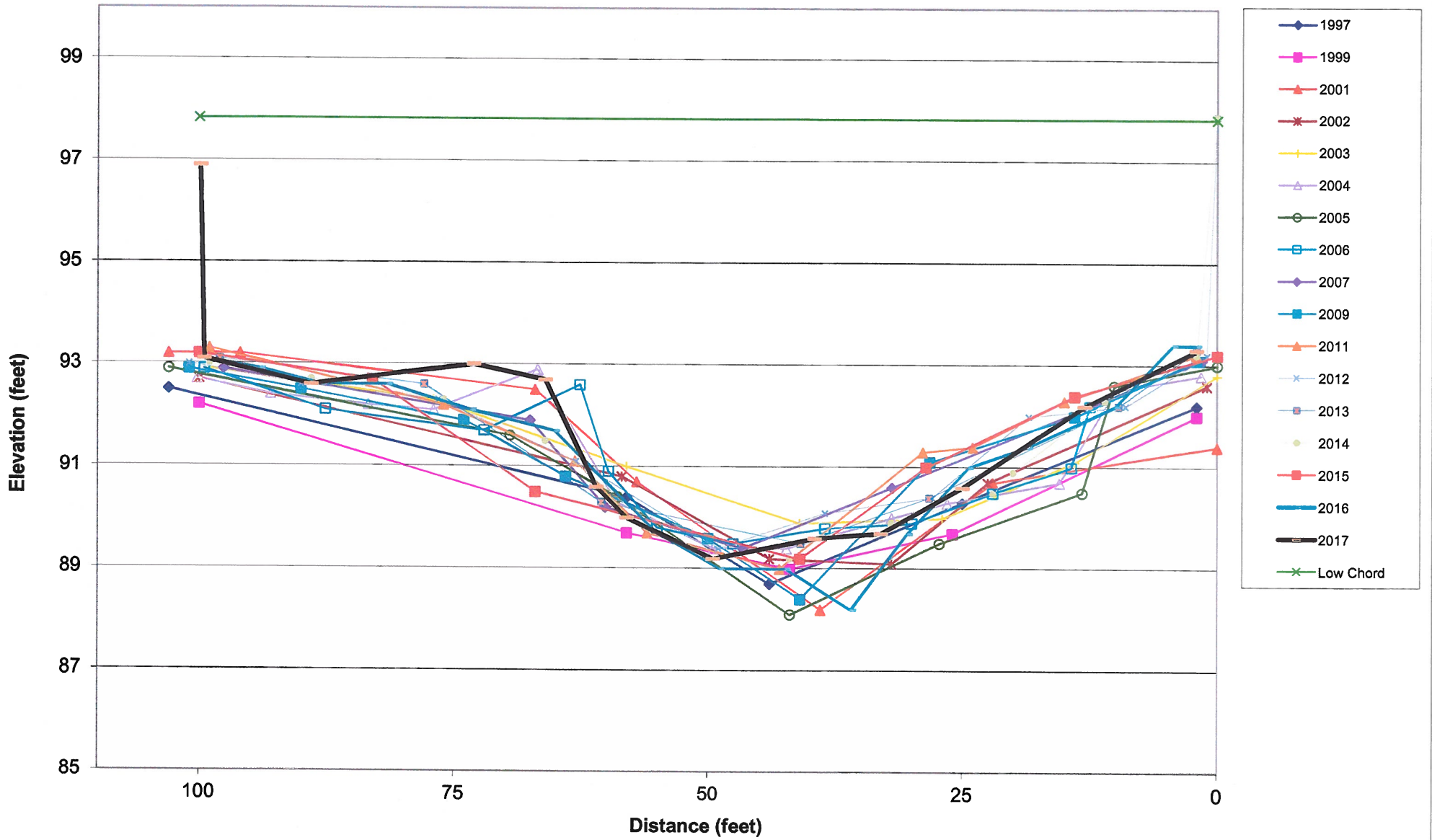
APPRAISAL			
Bridge Rail 36A:	0 Substandard	Approach Rail 36C:	0 Substandard
Transition 36B:	0 Substandard	Approach Rail Ends 36D:	0 Substandard
Str Evaluation 67:	4 Min Tolerable	Deck Geometry 68:	5 Somewhat Better than Min
Underclearance, Vertical and Horizontal 69:	N Not applicable (NBI)		
Waterway Adequacy 71:	6 Equal Min Criteria	Approach Alignment 72:	6 Equal Min Criteria
Scour Critical 113:	3		

GEOMETRIC DATA			
Length Max Span 48:	100 ft	Structure Length 49:	103 ft
Curb/Sdwk Width L 50A:	0.0 ft	Curb/Sidewalk Width R 50B:	0.0 ft
Width Curb to Curb 51:	20.0 ft	Width Out to Out 52:	20.0 ft
Approach Roadway Width 32: (w/ shoulders)	20 ft	Median 33:	0 No median
Deck Area:	2,066.7 sq ft		
Skew 34:	0	Structure Flared 35:	0 No flare
Vertical Clearance 10:	99.99 ft	Horizontal Clearance 47:	19.69 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:	140
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 Protection 111:	1 Not required	Lift Bridge Vertical Clearance 116:	0.0 ft

BN1193 Chokosna River Soundings





Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector		Levings / Henry		Frame	1
NE approach					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector		Levings / Henry		Frame	2
FE approach					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector		Levings / Henry		Frame	3
Elevation looking DS					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector		Levings / Henry		Frame	4
Looking DS					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector		Levings / Henry		Frame	5
	NE DS bank				



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector		Levings / Henry		Frame	6
	Looking US at NE US bank				



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector		Levings / Henry		Frame	7
	FE US bank				



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector		Levings / Henry		Frame	8
	NE DS bank				



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	9	
Deck condition, typical					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	10	
NE begin deck with gravel and erosion of wood					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	11	
FE DS corner, broken timber at approach transition					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	12	
NE DS transition, broken timber plank					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	13	
NE abutment with settlement of US corner					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	14	
NE abutment and DS bearing					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	15	
NE abutment and US bearing					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	16	
NE US bearing, rotated approximately 14 degrees					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	17	
FE abutment and US low chord with vertical bends					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	18	
FE abutment sheet pile wall, torn					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	19	
FE abutment, bearing 1					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	20	
FE abutment, bearing 2					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	21	
US truss, 1 of 4, NE to FE					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	22	
US truss, 2 of 4, NE to FE					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	23	
US truss, 3 of 4, NE to FE					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	24	
US truss, 4 of 4, NE to FE					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	25	
DS truss, 4 of 4, FE to NE					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	26	
DS truss, 3 of 4, FE to NE					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	27	
DS truss, 2 of 4, FE to NE					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	28	
DS truss, 1 of 4, FE to NE					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	29	
Underside, typical, looking towards NE					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	30	
Floorbeam at L1, missing 4 bolts					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	31	
Loose bolt at floorbeam 2', NE, stringer 3					



Bridge No.	1193	Br. Name	Chokosna River	Date	08/15/17
Inspector	Levings / Henry		Frame	32	
Deck nailer board displaced between floorbeam 2'-1', stringer 3					