

OKANOGAN COUNTY COMMISSIONERS

RESOLUTION 77 - 2023

WHEREAS, pursuant to RCW 36.81.121, the Legislative Authority of each County, with the advice and assistance of the County Road Engineer, and pursuant to one or more public hearings thereon, shall prepare and adopt a comprehensive program including proposed road, bridge, path and trail construction projects, and any other specified capital outlays for the following six-year period, and;

WHEREAS, the current Priority Programming Array and Bridge Inspection Report have been provided along with the proposed Six-Year Transportation Improvement Program to aid in its evaluation, and;

WHEREAS, the proposed program is based on a realistic assessment of available funding for the program period, and;

WHEREAS, the proposed program is consistent with the goals and objectives of the Transportation Element of the Okanogan County Comprehensive Plan and the Transportation Element is hereby updated to reflect this current adopted Six Year Transportation Improvement Program, and;

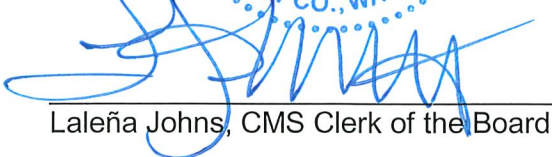
WHEREAS, a public hearing was held on July 11, 2023 at 11:00 a.m. for the purpose of gathering public input on the proposed program;

NOW, THEREFORE BE IT RESOLVED, that the attached Six-Year Transportation Improvement Program for the years 2024 to 2029 is hereby adopted by Okanogan County as required by R.C.W. 36.81.121.

DATED at Okanogan, Washington this 11th day of July, 2023.



ATTEST:


Laleña Johns, CMS Clerk of the Board

**BOARD OF COUNTY COMMISSIONERS
OKANOGAN, WASHINGTON**


Chris Branch, Chairman


Andy Hover, Vice Chairman


Jon Neal, Member



Six Year Transportation Improvement Program From 2024 to 2029

Agency: Okanogan Co.

County: Okanogan

MPO/RTPO: OCOG RTPO

N Inside

Y Outside

Functional Class	Priority Number	A. PIN/Project No. C. Project Title D. Road Name or Number E. Begin & End Termini F. Project Description	B. STIP ID G. Structure ID	Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
07	1	2024 Okanogan County Wide Pavement Preservation varies to varies Crack Seal as needed, Pre-Level as needed, Chip Seal.	STP - P2					05			CE	No

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
P	CN	2024	STP(R)	500,000		0	78,035	578,035
Totals				500,000		0	78,035	578,035

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
CN	578,035	0	0	0	0
Totals	578,035	0	0	0	0



Six Year Transportation Improvement Program From 2024 to 2029

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County: Okanogan

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Functional Class	Priority Number	A. PIN/Project No. C. Project Title D. Road Name or Number E. Begin & End Termini F. Project Description	B. STIP ID G. Structure ID	Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
07	2	/ E243(005) Cameron Lake Road 3R 9309 3.30 to 4.50 Realigned and widen road with HMA or BST, drainage and safety improvements.	9309-13					04	P T	1.200	CE	Yes

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
S	CN	2024	STBG(R)	190,600	CRAB	1,269,200	0	1,459,800
Totals				190,600		1,269,200	0	1,459,800

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
CN	1,459,800	0	0	0	0
Totals	1,459,800	0	0	0	0

Six Year Transportation Improvement Program From 2024 to 2029

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County: Okanogan

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00	3	Bridge Rail Retrofit Varies Varies to Varies Retrofit Bridge Rail	BGRAIL FIT Varies					21	P T		CE	No

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
P	PE	2025	HSIP	54,000		0	6,000	60,000
P	CN	2026	HSIP	746,000		0	0	746,000
Totals				800,000		0	6,000	806,000

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	0	60,000	0	0	0
CN	0	0	651,146	0	0
Totals	0	60,000	651,146	0	0



Six Year Transportation Improvement Program From 2024 to 2029

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08	4	Rodeo Trail (Fairgrounds Section) 3175 0.960 to 2.30 Reconstruct surface lanes and shoulder widths to limit seasonal weight restrictions.	WA-11443					04	O P T	1,340	CE	Yes

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
P	PE	2024	STP(R)	142,725		0	22,275	165,000
P	RW	2025	STP(R)	86,500		0	13,500	100,000
P	CN	2026	STP(R)	1,427,250		0	222,750	1,650,000
Totals				1,656,475		0	258,525	1,915,000

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	165,000	0	0	0	0
RW	0	100,000	0	0	0
CN	0	0	1,650,000	0	0
Totals	165,000	100,000	1,650,000	0	0

Six Year Transportation Improvement Program From 2024 to 2029

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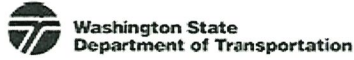
N Inside

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Functional Class	Priority Number	A. PIN/Project No. C. Project Title D. Road Name or Number E. Begin & End Termini F. Project Description	B. STIP ID G. Structure ID	Hearing	Adopted	Amendment	Resolution No.	Improvement Type	Utility Codes	Total Length	Environmental Type	RW Required
08	5	Mazama Intersection Lost River Rd 0.35 to 0.50 Alignment, Base Course, Top Course, HMA or BST Asphalt, Stripe and Sign.	9140-07					03	P T	0.150	CE	Yes

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
P	PE	2024	STP(R)	47,575		0	7,425	55,000
P	RW	2025	STP(R)	12,975		0	2,025	15,000
P	CN	2026	STP(R)	173,000		0	27,000	200,000
Totals				233,550		0	36,450	270,000

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	55,000	0	0	0	0
RW	0	15,000	0	0	0
CN	0	0	200,000	0	0
Totals	55,000	15,000	200,000	0	0



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07	6	Loomis Oroville Road 9425 6.00 to 7.25 Minor realignment, widening, grading, ballast, top course, and HMA or BST.	9425-26					04	P T W	1.250	CE	Yes

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
P	PE	2024		0	CRAB	126,000	14,000	140,000
P	RW	2025		0	CRAB	22,500	2,500	25,000
P	CN	2026		0	CRAB	1,651,500	183,500	1,835,000
Totals				0		1,800,000	200,000	2,000,000

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	140,000	0	0	0	0
RW	0	25,000	0	0	0
CN	0	0	1,835,000	0	0
Totals	140,000	25,000	1,835,000	0	0



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05	7	Loomis Oroville Road Drainage 94250 0.280 to 0.660 Replace 3 Old deteriorated culverts with approximate 10' span culverts. Guardrail modifications maybe required to accommodate the culverts.	WA-12937					04	P T W	0.380	CE	No

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
S	PE	2024		0	CRAB	45,000	5,000	50,000
S	CN	2025		0	CRAB	315,000	35,000	350,000
Totals				0		360,000	40,000	400,000

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	50,000	0	0	0	0
CN	0	350,000	0	0	0
Totals	50,000	350,000	0	0	0



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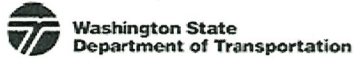
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05	8	Old 97 Plata to Ophir 3R 9155 5.35 to 6.85 Widening, grading, drainage, full depth reclamation or ballast and top course and HMA. Guardrail installed where warranted.	WA-14843					03	P S W	1.500	CE	No

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
S	PE	2024		0	CRAB	143,100	15,900	159,000
S	CN	2028		0	CRAB	1,909,800	212,200	2,122,000
Totals				0		2,052,900	228,100	2,281,000

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	159,000	0	0	0	0
CN	0	0	0	0	2,122,000
Totals	159,000	0	0	0	2,122,000



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07	9	Old 97 3R 6.85 - 8.27 9155 6.85 to 8.27 Minor realignment within existing right of way, widening, grading, drainage, ballast, top course and HMA or BST. Guardrail may be necessary on short grade section.	WA-12940					04	P T W	1.420	CE	No

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
P	PE	2024		0	CRAB	168,300	18,700	187,000
P	CN	2026		0	CRAB	2,345,400	261,000	2,606,400
Totals				0		2,513,700	279,700	2,793,400

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	187,000	0	0	0	0
CN	0	0	2,606,400	0	0
Totals	187,000	0	2,606,400	0	0



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05	10	/ A240(001) Twisp River Road Reconstruction 9114 2.82 to 3.65 Minor realignment, widening, grading, drainage, base improvement and HMA or BST.	WA-12942					04	P T W	0.830	CE	No

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
S	CN	2024	STBG(R)	1,157,000		0	180,572	1,337,572
Totals				1,157,000		0	180,572	1,337,572

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
CN	1,337,572	0	0	0	0
Totals	1,337,572	0	0	0	0



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07	11	Toroda Creek 0.00 - 1.500 RC 9495 0.00 to 1.50 Minor realignment, widening, grading, drainage, base improvements and HMA or BST.	WA-14570					04	P T W	1.500	CE	No

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
P	PE	2024	STBG	100,000		0	13,500	113,500
P	CN	2027	STBG	1,400,000		0	18,900	1,418,900
Totals				1,500,000		0	32,400	1,532,400

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	113,500	0	0	0	0
CN	0	0	0	1,418,900	0
Totals	113,500	0	0	1,418,900	0



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07	12	2025 County Wide Guardrail Safety Project A various various to various County wide safety project for guardrail installation at key location to protect over embankment hazard. Work will include shoulder stabilization and guardrail installation.	WA-15103					21	P T W	0.000	CE	No

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
P	PE	2024	HSIP	49,000		0	5,000	54,000
P	CN	2024	HSIP	730,000		0	0	730,000
Totals				779,000		0	5,000	784,000

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	54,000	0	0	0	0
CN	730,000	0	0	0	0
Totals	784,000	0	0	0	0



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05	13	Eastside Chewuch Road (MP 0.702 - 1.632 Shoulder Widening) 9137 0.702 to 1.632 Reconstruct or repave roadway and widen shoulders	WA-14749					21	P T	0.930	CE	Yes

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
P	PE	2025	STP	121,100		0	18,900	140,000
P	RW	2026	STP	86,500		0	13,500	100,000
P	CN	2028	STP	1,730,000		0	270,000	2,000,000
Totals				1,937,600		0	302,400	2,240,000

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	0	80,000	0	0	0
RW	0	0	50,000	0	0
CN	0	0	0	0	2,070,000
Totals	0	80,000	50,000	0	2,070,000

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05	14	Chesaw Road DR (MP 3.90 - 4.05) 9480 3.90 to 4.05 Replace old deteriorated culvert with a 20'-28' span structure and add guardrail as needed.	WA-14841					04	P T	0.150	CE	Yes

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
S	PE	2024		0	CRAB	76,500	8,500	85,000
S	RW	2024		0	CRAB	18,000	2,000	20,000
S	CN	2028		0	CRAB	765,000	85,000	850,000
Totals				0		859,500	95,500	955,000

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	85,000	0	0	0	0
RW	20,000	0	0	0	0
CN	0	0	0	0	850,000
Totals	105,000	0	0	0	850,000



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05	15	Old 97 2R (MP 18.82 - 20.120 9155 18.82 to 20.12 HMA overlay, resetting guardrail as necessary.	WA-14842					03	P S W	1,300	CE	No

Funding								
Status	Phase	Phase Start Year (YYYY)	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total Funds
P	PE	2024		0	CRAB	91,800	10,200	102,000
P	CN	2027		0	CRAB	860,400	95,600	956,000
Totals				0		952,200	105,800	1,058,000

Expenditure Schedule					
Phase	1st	2nd	3rd	4th	5th & 6th
PE	102,000	0	0	0	0
CN	0	0	0	956,000	0
Totals	102,000	0	0	956,000	0

	Federal Funds	State Funds	Local Funds	Total Funds
Grand Totals for Okanogan Co.	8,754,225	9,807,500	1,848,482	20,410,207

Revenue and Expenditure Analysis

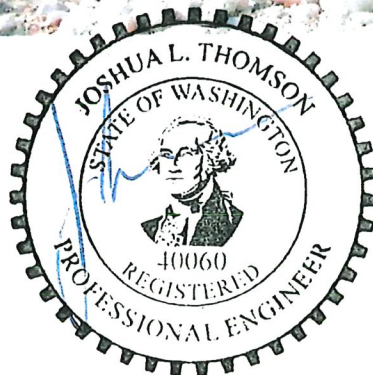
OKANOGAN County SIX-YEAR TRANSPORTATION IMPROVEMENT PROGRAM REVENUE AND EXPENDITURE ANALYSIS

Co Rd/Co Rd Construction:	2024	2025	2026	2027 - 2029
REVENUES:				
BEGINNING FUND BALANCE	4,500,000	3,847,129	2,431,429	1,459,992
REAL & PERSONAL PROPERTY TAX				
LESS CO ROAD DIVERSION	5,390,000	5,470,850	5,552,913	17,158,501
LEVY SHIFT (enter as negative)				
MOTOR VEHICLE FUEL TAX	3,738,951	3,813,700	3,890,000	12,136,800
CO ARTERIAL PRES PROGRAM	630,000	642,600	655,500	2,045,200
RURAL ARTERIAL PROGRAM	1,370,000	370,800	55,800	2,745,000
UATA				
IAC-SALMON RECOVERY FUND				
FEDERAL - HSIP	48,600	657,000	0	0
FEDERAL - BRIDGE REPLACEMENT	0	0		
FEDERAL - STP REGIONAL	1,347,600	0	0	0
FEDERAL - FOREST YIELD	750,000	750,000	750,000	2,250,000
FEDERAL - OTHER				
WSDOT PARTICIPATION				
BRIDGE REPLACEMENT PROGRAM				
HAZARD ELIMINATION PROGRAM				
OTHER INTERGOVERNMENT & STATE SHARED	36,000	36,000	36,000	108,000
CHARGES FOR SERVICES	22,000	24,000	25,000	75,000
LICENSES & PERMITS	18,000	18,000	18,000	54,000
OTHER MISCELLANEOUS REVENUES	34,000	34,000	34,000	102,000
GENERAL OBLIGATION BOND PROCEEDS				
PROCEEDS FROM SALE OF FIXED ASSETS				
SPECIAL PURPOSE PATH				
PUBLIC WORKS TRUST FUND				
CRIDS				
SEPA				
OPERATING TRANSFER	17,000	17,000	17,000	51,000
IMPACT FEES				
TOTAL REVENUES & FUND BALANCES:	\$17,902,151	\$15,681,079	\$13,465,642	\$38,185,493



OKANOGAN COUNTY
DEPARTMENT OF PUBLIC WORKS

2022 BRIDGE CONDITION INSPECTION REPORT



Josh Thomson, P.E.
Director/County Engineer

Bridge Inspection Team Leader, G1614

July 6, 2023

Date

EXPIRES 06/28/ 2024

I. INTRODUCTION

The 2022 Bridge Condition Inspection Report summarizes the status of bridges owned, operated and maintained by Okanogan County, and is prepared under the direction of the County Engineer in accordance with WAC 136-20-060. This Report is for your use during preparation of the Six Year Transportation Improvement Program. This report is based upon the most current data available in our bridge files.

Contained within this report are descriptions of the ongoing bridge inspection efforts and current findings, bridge load restrictions and emergency repairs undertaken through December 31, 2022. Maintenance accomplished and recommended replacement or rehabilitation projects will be described within.

II. BRIDGE INSPECTIONS

Federal Highway Administration (FHWA) requirements mandate that public agencies inspect and report on all bridges (vehicle carrying structures with a span length of greater than twenty feet) at least once every twenty-four months. The purpose of routine inspections is to evaluate and record the current condition of the bridge, determine the degree of wear and deterioration, and recommend repairs or needed services. The inspections are also to ensure and maintain public safety and confidence and to protect the traveling public's investments.

The County Engineer, Josh Thomson, is a licensed Civil Professional Engineer and became certified as a bridge inspector/team leader in 2016.

1. Routine Bridge Inspections

Okanogan County has a total of 52 bridges subject to the National Bridge Inspection Standards (NBIS). Okanogan County also performs NBIS inspections on seven small structure with spans less than 20 feet, and the Similkameen Trail bridge, which is not subject to NBIS inspection standards because it is a non-highway structure. Of those 60 county-owned bridges, inspections were performed on 37 bridges including six small structures during the 2022 inspection season. Inspections are also performed on nine city bridges for the cities of Okanogan, Tonasket and Conconully when scheduled; four were inspected for Conconully and one for Tonasket in 2022. Riverside's two bridges are inspected by WSDOT. Federal regulations require that NBIS bridges receive a routine safety inspection once every 24 months. Certain conditions in the NBIS standards allow less frequent inspection, but Okanogan County has elected to not exceed 24 months. Some of Okanogan County's bridges are inspected every 12 months due to deficiencies or damage that justify more frequent inspection.

When a bridge inspector identifies an actual or potential problem, the bridge must be further evaluated to determine whether or not it should be considered scour critical.

All of Okanogan County's bridges have been evaluated and only bridge, C-5, West Fork Buttermilk Creek Road over Twisp River, is determined to be scour critical at this time. This bridge appears to be stable, but was constructed on a footing from a previous bridge. The depth of the footing is unknown, hence the designation. This bridge is inspected every 12 months, and is monitored after high water to identify any issues.

V. BRIDGE RESTRICTIONS

A load rating is performed for each bridge in the NBIS inventory by a professional structural engineer in accordance with federal and state regulations. A bridge load rating is the measure of the bridge's load carrying capacity. There are two capacity levels that bracket this ability, the Inventory Rating and the Operating Rating. The Inventory Rating is the load that a bridge can carry for an indefinite number of load cycles without detriment to the bridge. The Operating Rating is the maximum load that can be carried on an infrequent basis without detriment to the bridge.

The NBIS requires the posting of load limits or restrictions on a bridge when the load rating factor for the legal load is less than 1. Load ratings have historically been calculated using six standard truck configurations to check the capacity levels. Three of the truck configurations represent common legal loads, the fourth is a national standard truck and the fifth and sixth represent overload vehicles.

Recently the Federal Highway Administration has added truck configurations that must be calculated for bridge load ratings. "Group 1" bridges were required to be load rated for Special Hauling Vehicles (SHVs) by the end of 2017, and "Group 2" bridges by the end of 2022. Okanogan County has 14 group 1 bridges that were load rated in 2017, Okanogan has three, and Tonasket has one. Condonully has three group 1 bridges that were load rated in 2019. Thirty-one group 2 county bridges and one City of Okanogan were load rated in 2022. SHVs are closely spaced multi-axle single unit trucks introduced by the trucking industry in the last decade, and are designated as SU4, SU5, SU6, and SU7 corresponding to the number of axles on the truck. Examples include dump trucks, construction vehicles, solid waste trucks and other hauling trucks with more than two drive axles and/or multiple drop axles not represented in the original six configurations.

Six bridges in Okanogan County and two in the City of Okanogan were posted with load restrictions in 2017, and one in 2022 due to the load ratings required by FHWA. You will note in Appendix A that the Keystone bridge has a sufficiency rating of 58.84, Gate Creek is at 65.68, Similkameen at Oroville is at a 51.68 and the rest are 70 or higher. The reduced load ratings are not necessarily an indication of poor condition, but of loads imposed that the structures were not designed for. The load rating cover sheets for bridges requiring load restrictions are included as Appendix B for reference.

VIII. COMPLETED PROJECTS

Replacement of B-4 on Park City Loop Rd began in October of 2021 and was completed in the spring of 2022.

IX. CURRENT PROJECTS

RAP funding was secured in 2019 to replace an undersized box culvert on Salmon Creek Rd at milepost 3.05. Design work began in late 2019, and construction started in the fall of 2022, with final completion rolling into the following spring. The old concrete box culvert with approximate 11' span and 6' height was replaced with a concrete three-sided box culvert with a 30' span, and will reduce the occurrence of roadway flooding.

Federal bridge funds were secured in 2021 to rehabilitate the deteriorating concrete deck and repaint the steel girders on C-8, the Twisp River bridge on Twisp River Rd. Construction is scheduled in 2023.

RAP funding was applied for in 2022 to replace an 8' culvert carrying Tonasket Creek under Chesaw Rd at milepost 3.97. This new structure will likely be over 20' span.

X. RECOMMENDED PROJECTS

Three temporary culverts were placed under Hosheit Rd in 2017 to reopen the road after Tunk Creek washed out the previous culvert. This temporary situation needs to be remedied with a larger structure which will likely exceed 20' span. This project is likely to cost \$700,000 to \$900,000 based on current WDFW requirements, though there is a possibility a less traditional structure costing less could be permitted.

Appendix A
2022 Bridge Condition Report

Bridge Number	Bridge Name	Status	NBI Reportable	Sufficiency Rating	Deficiency Status	Year Built	Year Rebuilt	Structure Length	Traffic ADT	Last Inspection Date	Inspection Freq. (Mo)	Notes
A-1	GARLIC FARM BOX CULVERT	open	yes	97.61		2022		33	430	20-Jan-23	24	
A-2	SALMON CR. STATLER BRIDGE	open	yes	99.96		2020		68	292	20-Oct-22	24	
A-3	SALMON CR. RANDO MANOR	open	yes	69.13		1949	1976	23	430	10-Oct-22	12	
A-4	SALMON CREEK HAPPY HILL	open	yes	79.81		1969		22	61	10-Oct-22	24	
A-5	SALMON CREEK RUBY-LOWER	open	yes	77.77		1969		26	20	10-Oct-22	24	
A-6	SALMON CREEK RUBY-UPPER	open	yes	92.34		1969		24	20	10-Oct-22	24	
A-7	CONCONULLY SOUTHEND	open	yes	77.69		1949		60	983	10-Oct-22	24	
A-8	SALMON CREEK WEST FORK	open	yes	83.73		1949	1979	70	72	10-Oct-22	24	
A-9	MAIN ST CONCONULLY	open	yes	66		1976		38	235	10-Oct-22	24	Conconully
A-10	LAKE ST CONCONULLY	open	yes	68.78		1973		24	260	10-Oct-22	24	Conconully
A-11	BROADWAY ST CONCONULLY	open	yes	87.92		1982		26	50	10-Oct-22	24	Conconully
A-12	SILVER ST CONCONULLY	open	yes	91.77		1997		28	50	10-Oct-22	24	Conconully
B-1	LITTLE NESPELEM RIVER	open	yes	94.18		2014		63	244	06-Oct-21	24	
B-3	NO.STAR PARK CITY LOWER	open	yes	99.95		2017		70	51	15-Sep-22	24	
B-4	NO. STAR PARK CITY UPPER	open	yes	99.95		2022		71	51	19-Jul-22	24	
B-5	PARK CITY MILL CREEK	open	yes	80.17		1958		26	92	06-Oct-21	24	
B-6	PARK CITY SMITH CREEK	open	yes	69.15		1958		26	92	15-Sep-22	12	
B-10	OMAK-RIVERSIDE EAST SIDE	open	yes	66.91		1968		50	1339	06-Oct-21	24	
B-11	BROOKS TRACT	open	yes	82.14		1973		50	463	06-Oct-21	24	
B-12	OMAK CREEK	open	yes	99.53		2006		31	553	06-Oct-21	24	
B-13	RIVERSIDE	open	yes	79.32		1969		330	650	05-Oct-21	24	Riverside-WSDOT inspects
B-14	KEYSTONE	posted	yes	58.84	FO	1973		32	76	04-Oct-21	24	
B-15	MOSES ROAD	open	yes	99.93		2017		68	42	15-Sep-22	24	
B-17	FIGLENSKI	open	yes	87.93		1976		25	5	04-Oct-21	24	
B-18	MORGAN	open	yes	89.36		1976		30	22	04-Oct-21	24	
B-20	JOHNSON CREEK RIVERSIDE	open	yes	72.63		1976		26	521	04-Oct-21	24	Riverside-WSDOT inspects
C-2	LITTLE BRIDGE CREEK	open	yes	99.46		2008		41	321	11-Oct-21	24	
C-4	BUTTERMILK CREEK	open	yes	84.9		1960	2007	66	74	28-Sep-22	24	
C-5	TWISP RIVER AT BUTTERMILK CR RD	open	yes	59.67		1959		102	53	28-Sep-22	12	
C-6	GOLD CREEK-LOWER	posted	yes	87.76		1972		30	90	22-Oct-21	24	

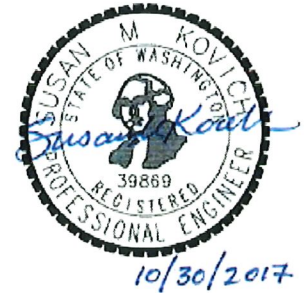
Appendix B

Load Rating Summary Sheets

BRIDGE RATING SUMMARY

Bridge Name: Gold Creek-Lower
Bridge Number: C-6
Agency: Okanogan County
Structure ID: 08201800
Bridge Type: Prestressed Concrete Rib Deck Girders
Length: 30'-0" Long Bridge
Skew: 0° Skew
No. Spans: (1) 29-5" Span
Designed By: Central Pre-Mix Prestress Co., 1972
Design Load: HS-20-44

Ref. Inspection: 10/07/2015
Rating Date: 10/30/2017
Rating Method: LRFR
Rated By: Susan M. Kovich, WA License 39869
 NICHOLLS KOVICH ENGINEERING, PLLC



RESULTS OF RATING

NBI RATING	Rating Factor	γ_L	Controlling Point
HL-93 Inventory	0.73	0.80	Service III - Moment
HL-93 Operating	0.97	1.35	Strength I - Moment

LEGAL LOADS	Rating Factor	γ_L	Allowable Load	Controlling Point
TYPE 3	1.20	1.00	30 Tons	Service III - Moment
TYPE 3-S2	1.21	1.00	44 Tons	Service III - Moment
TYPE 3-3	1.46	1.00	59 Tons	Service III - Moment
Notional Rating Load (NRL)	0.78	1.00	31 Tons	Service III - Moment
Single Unit SHV (SU4)	0.99	1.00	27 Tons	Service III - Moment
Single Unit SHV (SU5)	0.92	1.00	28 Tons	Service III - Moment
Single Unit SHV (SU6)	0.84	1.00	29 Tons	Service III - Moment
Single Unit SHV (SU7)	0.80	1.00	31 Tons	Service III - Moment

PERMIT LOADS				
WSDOT Overload 1	0.83	1.00	40 Tons	Service I - Moment
WSDOT Overload 2	0.70	1.00	72 Tons	Service I - Moment

REMARKS: BRIDGE SHOULD BE POSTED FOR SU4, SU5, SU6 & SU7
 RESTRICT BRIDGE FOR OVERLOAD 1 & OVERLOAD 2
Rating based on 10% impact and ½" asphalt overlay.

NBI CODING				CURRENT REFERENCE			
[70]	Operating Level	(1660)	3	[29]	Avg. Daily Traffic	(1445)	111
[63]	Oper. Rating Method	(1551)	8	[109]	Truck Percent	(1451)	14
[64]	Oper. Rating Tons	(1552)		[58]	Deck Overall	(1663)	8
[64]	Oper. Rating Factor	(1553)	0.97	[59]	Superstructure	(1671)	8
[65]	Inv. Rating Method	(1554)	8	[60]	Substructure	(1676)	8
[66]	Inv. Rating Tons	(1555)			Approach Roadway	(7681)	8
[66]	Inv. Rating Factor	(1556)	0.73				

BRIDGE RATING SUMMARY

Bridge Name: Sinlahekin Creek
Bridge Number: E-5
Agency: Okanogan County
Structure ID: 08180900
Bridge Type: Prestressed Concrete Rib Deck Girders
Length: 30'-0" Long Bridge
Skew: 0° Skew
No. Spans: (1) 29'-5" Span
Designed By: Central Pre-Mix Prestress Co., 1972
Design Load: HS-20-44

Ref. Inspection: 10/25/2016
Rating Date: 10/30/2017
Rating Method: LRFR
Rated By: Susan M. Kovich, WA License 39869
 NICHOLLS KOVICH ENGINEERING, PLLC



10/30/2017

RESULTS OF RATING

NBI RATING	Rating Factor	γ_L	Controlling Point
HL-93 Inventory	0.74	0.80	Service III - Moment
HL-93 Operating	0.97	1.35	Strength I - Moment

LEGAL LOADS	Rating Factor	γ_L	Allowable Load	Controlling Point
TYPE 3	1.21	1.00	30 Tons	Service III - Moment
TYPE 3-S2	1.22	1.00	44 Tons	Service III - Moment
TYPE 3-3	1.48	1.00	59 Tons	Service III - Moment
Notional Rating Load (NRL)	0.79	1.00	32 Tons	Service III - Moment
Single Unit SHV (SU4)	0.99	1.00	27 Tons	Service III - Moment
Single Unit SHV (SU5)	0.93	1.00	29 Tons	Service III - Moment
Single Unit SHV (SU6)	0.85	1.00	29 Tons	Service III - Moment
Single Unit SHV (SU7)	0.81	1.00	31 Tons	Service III - Moment

PERMIT LOADS				
WSDOT Overload 1	0.84	1.00	40 Tons	Service I - Moment
WSDOT Overload 2	0.71	1.00	73 Tons	Service I - Moment

REMARKS: BRIDGE SHOULD BE POSTED FOR SU4, SU5, SU6 & SU7
 RESTRICT BRIDGE FOR OVERLOAD 1 & OVERLOAD 2

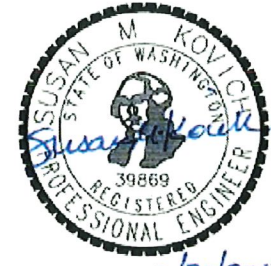
Rating based on 10% impact and no asphalt overlay.

NBI CODING				CURRENT REFERENCE			
[70]	Operating Level	(1660)	3	[29]	Avg. Daily Traffic	(1445)	36
[63]	Oper. Rating Method	(1551)	8	[109]	Truck Percent	(1451)	8
[64]	Oper. Rating Tons	(1552)		[58]	Deck Overall	(1663)	7
[64]	Oper. Rating Factor	(1553)	0.97	[59]	Superstructure	(1671)	8
[65]	Inv. Rating Method	(1554)	8	[60]	Substructure	(1676)	8
[66]	Inv. Rating Tons	(1555)			Approach Roadway	(7681)	8
[66]	Inv. Rating Factor	(1556)	0.74				

BRIDGE RATING SUMMARY

Bridge Name: Nine Mile Creek
Bridge Number: F-8
Agency: Okanogan County
Structure ID: 08188400
Bridge Type: Reinforced Concrete Rib Deck Girders
Length: 28'-0" Long Bridge
Skew: 0 Degree Skew
No. Spans: (1) 27'-4"
Designed By: Central Pre-Mix Prestress Co., 1979
Design Load: HS20-44 + 25 psf Future Asphalt

Ref. Inspection: 10/06/2015
Rating Date: 10/30/2017
Rating Method: LRFR
Rated By: Susan M. Kovich, WA License 39869
 NICHOLLS KOVICH ENGINEERING, PLLC



10/30/2017

RESULTS OF RATING

NBI RATING	Rating Factor	γ_L	Controlling Point
HL-93 Inventory	0.77	0.80	Service III Moment
HL-93 Operating	1.44	1.35	Strength I Shear

LEGAL LOADS	Rating Factor	γ_L	Allowable Load	Controlling Point
TYPE 3	1.26	1.00	32 Tons	Service III Moment
TYPE 3-S2	1.30	1.00	47 Tons	Service III Moment
TYPE 3-3	1.54	1.00	61 Tons	Service III Moment
Notional Rating Load (NRL)	0.85	1.00	34 Tons	Service III Moment
Single Unit SHV (SU4)	1.06	1.00	29 Tons	Service III Moment
Single Unit SHV (SU5)	0.97	1.00	30 Tons	Service III Moment
Single Unit SHV (SU6)	0.89	1.00	31 Tons	Service III Moment
Single Unit SHV (SU7)	0.87	1.00	34 Tons	Service III Moment

PERMIT LOADS				
WSDOT Overload 1	0.92	1.00	44 Tons	Service III Moment
WSDOT Overload 2	0.75	1.00	78 Tons	Service III Moment

REMARKS: BRIDGE SHOULD BE POSTED FOR SU5, SU6 & SU7
 RESTRICT BRIDGE FOR OVERLOAD 1 & OVERLOAD 2

Rating based on 10% impact and no asphalt overlay.

NBI CODING				CURRENT REFERENCE			
[70]	Operating Level	(1660)	3	[29]	Avg. Daily Traffic	(1445)	504
[63]	Oper. Rating Method	(1551)	8	[109]	Truck Percent	(1451)	2
[64]	Oper. Rating Tons	(1552)		[58]	Deck Overall	(1663)	8
[64]	Oper. Rating Factor	(1553)	1.44	[59]	Superstructure	(1671)	8
[65]	Inv. Rating Method	(1554)	8	[60]	Substructure	(1676)	8
[66]	Inv. Rating Tons	(1555)			Approach Roadway	(7681)	8
[66]	Inv. Rating Factor	(1556)	0.77				

BRIDGE RATING SUMMARY

Bridge Name: Salmon Cr-Fifth Ave
Bridge Number: Okanogan3
Agency: City of Okanogan
Structure ID: 08526500
Bridge Type: Prestressed Concrete Rib Deck Girders
Length: 38'-0" Long Bridge
Skew: 0° Skew
No. Spans: (1) 37'-0" Span
Designed By: Unknown, 1971
Design Load: HS-20

Ref. Inspection: 10/15/2015
Rating Date: 10/30/2017
Rating Method: LRFR
Rated By: Susan M. Kovich, WA License 39869
 NICHOLLS KOVICH ENGINEERING, PLLC



RESULTS OF RATING

NBI RATING	Rating Factor	γ_L	Controlling Point
HL-93 Inventory	0.79	0.80	Service III - Moment
HL-93 Operating	1.30	1.35	Strength I - Moment

LEGAL LOADS	Rating Factor	γ_L	Allowable Load	Controlling Point
TYPE 3	1.11	1.00	28 Tons	Service III - Moment
TYPE 3-S2	1.18	1.00	42 Tons	Service III - Moment
TYPE 3-3	1.35	1.00	54 Tons	Service III - Moment
Notional Rating Load (NRL)	0.72	1.00	29 Tons	Service III - Moment
Single Unit SHV (SU4)	0.94	1.00	25 Tons	Service III - Moment
Single Unit SHV (SU5)	0.89	1.00	28 Tons	Service III - Moment
Single Unit SHV (SU6)	0.81	1.00	28 Tons	Service III - Moment
Single Unit SHV (SU7)	0.77	1.00	30 Tons	Service III - Moment

PERMIT LOADS				
WSDOT Overload 1	0.71	1.00	34 Tons	Service I - Moment
WSDOT Overload 2	0.66	1.00	69 Tons	Service I - Moment

REMARKS: BRIDGE SHOULD BE POSTED FOR SU4, SU5, SU6 & SU7
 RESTRICT BRIDGE FOR OVERLOAD 1 & OVERLOAD 2
 Rating based on 20% impact and no asphalt overlay.

NBI CODING				CURRENT REFERENCE			
[70]	Operating Level	(1660)	2	[29]	Avg. Daily Traffic	(1445)	260
[63]	Oper. Rating Method	(1551)	8	[109]	Truck Percent	(1451)	5
[64]	Oper. Rating Tons	(1552)		[58]	Deck Overall	(1663)	7
[64]	Oper. Rating Factor	(1553)	1.30	[59]	Superstructure	(1671)	7
[65]	Inv. Rating Method	(1554)	8	[60]	Substructure	(1676)	5
[66]	Inv. Rating Tons	(1555)			Approach Roadway	(7681)	6
[66]	Inv. Rating Factor	(1556)	0.79				