

P2 Bridge Preservation - Replacement/Rehab Projects

2009-11 Bien Priority Array

(Sorted by 2009-11 Priority Number)

09-11 #	Bridge Number	Bridge Name	Mile post	Region	Length	Future work Description
5	005/036E	E FK LEWIS R	18.21	Southwest	852	Replace Bridge
11	506/106	LACAMAS CR	8.05	Southwest	170	Replace Bridge
12	097/020	SATUS CR	30.80	Southwest	101	Replace Bridge
21	508/023	ALDER CR	22.65	Southwest	88	Replace Bridge
22	508/012	S FK NEWAUKUM R	13.65	Southwest	197	Replace Bridge
25	508/025	CREEK	24.08	Southwest	26	Replace Bridge
26	507/008	SKOOKUMCHUCK R	2.36	Southwest	186	Replace Bridge

Total Number of Bridges = 7



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2009-11 Bien P2 Bridge Replacements/Rehab Candidates

Bridge Number: 5 / 36E		Structure ID 0002473A		Bridge Name: E FK LEWIS R		Milepost: 18.21		Region: Southwest			
Year Built / YR Widened: 1936		Bridge Type: STrus CTB		Number of Main/Appr span 1 / 12		Sufficiency Rating: 30.84 SD					
Bridge Width (curb-curb): 48.0 ft		Bridge Length: 852 ft		Max Span: 248 ft		Bridge Deck View					
Average Daily Traffic: 33,500		Truck% 35%	Number of Lanes: 3		NHS: YES						
Vertical Clearance: 17 FT 02 in		Detour Length (miles): 2		Appr Rdway Width: 52.0 ft							
Design Load: H 15		HS: 0.70	Load Restricted Bridge? <input checked="" type="checkbox"/>		BL Load: 20,000		Bridge Profile View				
Op Rating: 31.00		A1: 1.02	CL-8 Load: 20,000		SA Load: 35,500						
Inv Rating: 18.00		A2: 1.06	A3: 1.16								
Bridge Inspection Information											
Date Inspected: 11/8/2005		Structr Adequacy: 4		Superstr Code: 4		Safe Load: 5					
Substr Code: 6		Deck Geometry: 4		Deck Code: 5		Underclearance: 3					
Scour: 3		Waterway: 8									
Proposed Bridge Replacement Information											
New Bridge Width: 52 ft.		Bridge \$'s: \$17,825,600		New Bridge Length: 857 ft.		Total \$'s: \$44,564,000					
Priority Array #: 5		PIN Number:		WIN Number:		Repl/Rehab Year: 2015					
Contract Number:		Ad Date:									

THIS BRIDGE IS CLASSIFIED "SD" BASED ON THE SUPERSTRUCTURE CODE.

Many of the steel stringers have cracks. A repair project for the cracked stringers was completed by contract in 2006.

There are 48 locations with bolts, drilled holes, or welded plates. Some of the stringer ends at the floorbeam connections are showing laminar rust and starting to lift the deck off the stringer top flanges. Approximately 8% section loss typical.

This bridge was added to the Bridge Replacement Priority Array due to the existing load restrictions and it is cost prohibitive to rehabilitate the bridge to meet current truck load standards.



2009-11 Bien P2 Bridge Replacements/Rehab Candidates

Bridge Number: 97 / 1	Structure ID 0006539A	Bridge Name: BIGGS RAPIDS-SAM HILL BR	Milepost: 0.00	Region: Southwest	
Year Built / YR Widened: 1962	Bridge Type: STrus SG	Number of Main/Appr span 1 / 12	Sufficiency Rating: 16.35 SD		
Bridge Width (curb-curb): 26.0 ft	Bridge Length: 2,567 ft	Max Span: 340 ft	<p align="center">Bridge Deck View</p> 		
Average Daily Traffic: 4,200	Truck% 32%	Number of Lanes: 2			NHS: YES
Vertical Clearance: 15 FT 11 in	Detour Length (miles): 58				Appr Rdway Width: 28.0 ft
Design Load: HS 20	HS: 0.54	Load Restricted Bridge? <input checked="" type="checkbox"/>			
Op Rating: 22.00	A1: 0.77	BL Load: 17,000			
Inv Rating: 13.00	A2: 0.85	CL-8 Load: 17,000			
	A3: 0.94	SA Load:			
<p align="center">Bridge Inspection Information</p> Date Inspected: 7/24/2006 Structr Adequacy: 3 Superstr Code: 5 Safe Load: 2 Substr Code: 5 Deck Geometry: 3 Deck Code: 3 Underclearance: 9 Scour: 3 Waterway: 8			<p align="center">Bridge Profile View</p> 		
<p align="center">Proposed Bridge Replacement Information</p> New Bridge Width: 28 ft. Bridge \$'s: New Bridge Length: 2,572 ft. Total \$'s: \$14,000,000 Priority Array #: 1 PIN Number: 409703G WIN Number: Repl/Rehab Year: 2008 Contract Number: Ad Date: 8/15/2007					
<p>BRIDGE DECK REPLACEMENT IS WARRANTED BASED ON ITS POOR CONDITION.</p> <p>This bridge has a 6 inch thick lightweight concrete deck. The top mat of steel consists of #5 bars on 12 inch centers. The deck was repaired & overlaid with a modified concrete overlay in 2000. During the overlay project a rotomill damaged many of the reinforcing bars. In 2001, the concrete overlay developed severe cracking and areas of debonding.</p> <p>SW Region Bridge Maintenance sealed the cracks with "Urefast" the weekend of June 14-15, 2003. Many areas in the overlay have required further repair to date. Repairs are needed approximately every two weeks.</p> <p>A Deck Replacement project has been awarded with construction scheduled in 2008.</p>					



2009-11 Bien P2 Bridge Replacements/Rehab Candidates

Bridge Number: 97 / 20		Structure ID 0006113A		Bridge Name: SATUS CR		Milepost: 30.80		Region: Southwest		
Year Built / YR Widened: 1959		Bridge Type: CVS			Number of Main/Appr span 3 / 0		Sufficiency Rating: 27.54 SD			
Bridge Width (curb-curb): 38.0 ft		Bridge Length: 101 ft		Max Span: 40 ft		Bridge Deck View				
Average Daily Traffic: 3,596		Truck% 26%	Number of Lanes: 2		NHS: YES					
Vertical Clearance: NA		Detour Length (miles): 45		Appr Rdway Width: 45.0 ft						
Design Load: HS 20		HS: 0.71	Load Restricted Bridge? <input type="checkbox"/>							
Op Rating: 33.00		A1: 1.00	BL Load:				Bridge Profile View			
Inv Rating: 19.00		A2: 0.98	CL-8 Load:							
		A3: 1.04	SA Load:							
Bridge Inspection Information										
Date Inspected: 10/5/2005		Structr Adequacy: 4								
Superstr Code: 4		Safe Load: 4								
Substr Code: 5		Deck Geometry: 5								
Deck Code: 3		Underclearance: 9								
Scour: 2		Waterway: 6								
Proposed Bridge Replacement Information										
New Bridge Width: 40 ft.		Bridge \$'s: \$1,696,000								
New Bridge Length: 106 ft.		Total \$'s: \$4,800,000								
Priority Array #: 12										
PIN Number:										
WIN Number:		Repl/Rehab Year:								
Contract Number:		Ad Date:								
THE BRIDGE IS CLASSIFIED "SD" DUE TO A SUPERSTRUCTURE AND DECK CONDITION.										
<p>This is a cast-in-place hollow concrete slab. The bridge was constructed with little or no cover over the top mat of steel reinforcing in the deck. The top surface of the slab was first overlaid with a membrane and asphalt in 1974. The deck was repaired extensively and overlaid with asphalt in 1989. The bottom side of the slab has significant cracking with rust staining.</p> <p>Bridge Replacement is warranted since there is no cost effect way of addressing the bridge scour problem and the concrete slab deterioration.</p>										



2009-11 Bien P2 Bridge Replacements/Rehab Candidates

Bridge Number: 506 / 106		Structure ID 0003928A		Bridge Name: LACAMAS CR		Milepost: 8.05		Region: Southwest		
Year Built / YR Widened: 1951		Bridge Type: TTC		Number of Main/Appr span 9 / 0		Sufficiency Rating: 28.32SD				
Bridge Width (curb-curb): 24.0 ft		Bridge Length: 170 ft		Max Span: 19 ft		Bridge Deck View				
Average Daily Traffic: 1,214		Truck% 12%	Number of Lanes: 2		NHS: No					
Vertical Clearance: NA		Detour Length (miles): 11		Appr Rdway Width: 30.0 ft						
Design Load: H 15		HS: 0.84	Load Restricted Bridge? <input checked="" type="checkbox"/>							
Op Rating: 30.00		A1: 0.99	BL Load: 16,500							
Inv Rating: 19.00		A2: 1.08	CL-8 Load: 21,000							
		A3: 1.20	SA Load: 41,000							
Bridge Inspection Information										
Date Inspected: 4/14/2005		Structr Adequacy: 4								
Superstr Code: 5		Safe Load: 4								
Substr Code: 4		Deck Geometry: 4								
Deck Code: 3		Underclearance: 9								
Scour: 5		Waterway: 8								
Proposed Bridge Replacement Information										
New Bridge Width: 36 ft.		Bridge \$'s: \$2,520,000								
New Bridge Length: 175 ft.		Total \$'s: \$5,283,000								
Priority Array #: 11										
PIN Number: 450607A										
WIN Number: D50607A		Repl/Rehab Year: 2011								
Contract Number:		Ad Date:								
Bridge Profile View										
										
<p>THIS BRIDGE IS CLASSIFIED "SD" DUE TO A DECK AND SUBSTRUCTURE CONDITION. This bridge was added to the Bridge Replacement Priority Array in 2000.</p> <p>The Bridge Inspection Report says the deck has a 6" thick ACP overlay has many cracks and patches. Many timber lams in deck (3"x4") have center rot starting from the North edge and continuing 2' to 8' into the deck. The Stringer 10 has been replaced; Stringer 20 and 30 are Red Tagged and have 2" and 1/2" shell on 5" section under scupper. The Piles are checked, weathered, and split. Pile 3D has a 2" shell and a 6" rot pocket near the top (Y.T.); Pile 4D has a 1/4" wide check - 16 feet long; Pile 6D has a 2" shell with a 4" rot pocket ranging from 6' - 15' from the ground and has bug borer holes throughout (Y.T.); Pile 7D has a 2" shell with 4" rot pocket along the top 6 feet (Y.T.).</p>										



2009-11 Bien P2 Bridge Replacements/Rehab Candidates

Bridge Number: 507 / 8	Structure ID 000000HV	Bridge Name: SKOOKUMCHUCK R	Milepost: 2.36	Region: Southwest
Year Built / YR Widened: 1928	Bridge Type: STrus CS	Number of Main/Appr span 1 / 2	Sufficiency Rating: 42.09 FO	
Bridge Width (curb-curb): 20.0 ft	Bridge Length: 186 ft	Max Span: 149 ft	<p align="center">Bridge Deck View</p> 	
Average Daily Traffic: 9,082	Truck% 5%	Number of Lanes: 2		
Vertical Clearance: 14 FT 08 in	Detour Length (miles): Appr Rdway Width: 6 32.0 ft		<p align="center">Bridge Profile View</p> 	
Design Load:	HS: 0.78	Load Restricted Bridge? <input type="checkbox"/>		
Op Rating: 37.00	A1: 1.12	BL Load:		
Inv Rating: 22.00	A2: 1.23	CL-8 Load:	<p align="center">Bridge Inspection Information</p> <p>Date Inspected: 5/21/2007 Structr Adequacy: 5</p> <p>Superstr Code: 5 Safe Load: 5</p> <p>Substr Code: 5 Deck Geometry: 2</p> <p>Deck Code: 6 Underclearance: 9</p> <p>Scour: 5 Waterway: 6</p>	
	A3: 1.19	SA Load:		
<p align="center">Proposed Bridge Replacement Information</p> <p>New Bridge Width: 40 ft. Bridge \$'s: \$3,056,000</p> <p>New Bridge Length: 191 ft. Total \$'s: \$7,640,000</p> <p>Priority Array #: 26</p> <p>PIN Number:</p> <p>WIN Number: Repl/Rehab Year:</p> <p>Contract Number: Ad Date:</p>				
<p>This bridge is on the north city limits of Centralia. The bridge is coded "FO" due to the deck geometry appraisal code. This bridge has the 3rd highest ADT out of the 26 WSDOT owned bridges with a curb to curb width of 20 feet or less.</p> <p>Span 2 is a thru truss. The truss has traffic impacts from 2001 and 2006. All sway bracing were raised 2 ft. in 2002. South portal frame is slightly pushed up. Upper lateral strut at sway frame 3 is bent and rotated up in the north-south plane. North portal hit and pushed 2" to 6" in the north and south directions as well as upward.</p> <p>Superstructure coded a '5' based on Pier 3 diaphragm distress and high load damage to steel truss. Substructure coded '5' due to apparent movement of the soil causing distress in Pier 3 diaphragm.</p>				



2009-11 Bien P2 Bridge Replacements/Rehab Candidates

Bridge Number: 508 / 12		Structure ID 000000IJ		Bridge Name: S FK NEWAUKUM R		Milepost: 13.65		Region: Southwest		
Year Built / YR Widened: 1930		Bridge Type: STrus TTC			Number of Main/Appr span 1 / 7		Sufficiency Rating: 46.90 SD			
Bridge Width (curb-curb): 20.0 ft		Bridge Length: 197 ft		Max Span: 90 ft		Bridge Deck View				
Average Daily Traffic: 1,374		Truck% 14%	Number of Lanes: 2		NHS: No					
Vertical Clearance: NA		Detour Length (miles): 23		Appr Rdway Width: 26.0 ft						
Design Load: Unknown		HS: 0.79	Load Restricted Bridge? <input checked="" type="checkbox"/>							
Op Rating: 37.00		A1: 1.09	BL Load: 16,000							
Inv Rating: 22.00		A2: 0.91	CL-8 Load: 18,000							
		A3: 0.91	SA Load: 34,000							
Bridge Inspection Information					Bridge Profile View					
Date Inspected: 3/7/2006		Structr Adequacy: 5								
Superstr Code: 5		Safe Load: 4								
Substr Code: 5		Deck Geometry: 2								
Deck Code: 3		Underclearance: 9								
Scour: 3		Waterway: 8								
Proposed Bridge Replacement Information										
New Bridge Width: 36 ft.		Bridge \$'s: \$2,908,800								
New Bridge Length: 202 ft.		Total \$'s: \$5,817,600								
Priority Array #: 22										
PIN Number:										
WIN Number:		Repl/Rehab Year: 2015								
Contract Number:		Ad Date:								
<p>THIS BRIDGE IS CLASSIFIED "SD" BASED ON THE DECK CONDITION. The ACP was removed in 2001 as part of contract 6020. The concrete deck is very deteriorated and has over 60% delaminations.</p> <p>There is 15% section loss in the floorbeam webs near the connections to the truss, and 10% section loss in the bottom flanges near the ends. Exterior stringers: Top flanges up to 15% section loss and bottom flanges up to 30% section loss. Worst case is Stringer 7-1A near north truss panel point L1 with about 10 ft. of bottom flange showing laminar rusting and 30% section loss. Floor system lateral bracing between L4-L5 is bent 4" over 9 ft.</p>										



2009-11 Bien P2 Bridge Replacements/Rehab Candidates

Bridge Number: 508 / 23	Structure ID 000000CQ	Bridge Name: ALDER CR	Milepost: 22.65	Region: Southwest
Year Built / YR Widened: 1937	Bridge Type: TTC		Number of Main/Appr span 3 / 0	Sufficiency Rating: 8.21 SD
Bridge Width (curb-curb): 19.6 ft	Bridge Length: 88 ft	Max Span: 29 ft	Bridge Deck View	
Average Daily Traffic: 836	Truck% 14%	Number of Lanes: 2	NHS: No	
Vertical Clearance: NA	Detour Length (miles): 50		Appr Rdway Width: 21.0 ft	
Design Load: Unknown	HS: 1.03	Load Restricted Bridge? <input type="checkbox"/>		
Op Rating: 37.00	A1: 1.29	BL Load:		
Inv Rating: 26.00	A2: 1.31	CL-8 Load:		
	A3: 1.58	SA Load:		
Bridge Inspection Information			Bridge Profile View	
Date Inspected: 3/7/2006	Structr Adequacy: 3			
Superstr Code: 3	Safe Load: 5			
Substr Code: 3	Deck Geometry: 2			
Deck Code: 3	Underclearance: 9			
Scour: 5	Waterway: 8			
Proposed Bridge Replacement Information				
New Bridge Width: 32 ft.	Bridge \$'s: \$1,280,000			
New Bridge Length: 100 ft.	Total \$'s: \$3,200,000			
Priority Array #: 21				
PIN Number: 450804A				
WIN Number: D50804A	Repl/Rehab Year:			
Contract Number:	Ad Date: 7/20/2009			
THIS BRIDGE IS CLASSIFIED "SD" DUE TO A DECK, SUPER AND SUBSTRUCTURE CONDITION.				
<p>The inspection report indicates the timber deck was repaired in 1993 by maintenance forces. During the repair the timber deck was found to have many rotten areas. The maintenance forces indicated that more areas will need to be repaired in the future. There are numerous pot holes in the existing ACP. Column 2D is red tagged due to rot found in the bottom 4'. Column 3D has a helper column next to the original column.</p>				



2009-11 Bien P2 Bridge Replacements/Rehab Candidates

Bridge Number: 508 / 25		Structure ID 000000JV		Bridge Name: CREEK		Milepost: 24.08		Region: Southwest	
Year Built / YR Widened: 1937		Bridge Type: TTC		Number of Main/Appr span 1 / 0		Sufficiency Rating: 34.67 SD			
Bridge Width (curb-curb): 19.7 ft		Bridge Length: 26 ft		Max Span: 24 ft		Bridge Deck View 			
Average Daily Traffic: 697		Truck% 14%	Number of Lanes: 2	NHS: No					
Vertical Clearance: NA		Detour Length (miles): 50		Appr Rdway Width: 20.0 ft					
Design Load: Unknown		HS: 1.14	Load Restricted Bridge? <input checked="" type="checkbox"/>						
Op Rating: 41.00		A1: 1.29	BL Load: 18,000						
Inv Rating: 28.00		A2: 1.37	CL-8 Load: 21,500						
		A3: 1.57	SA Load: 39,000						
Bridge Inspection Information									
Date Inspected: 11/2/2005		Structr Adequacy: 4							
Superstr Code: 4		Safe Load: 5							
Substr Code: 4		Deck Geometry: 2							
Deck Code: 4		Underclearance: 9							
Scour: 3		Waterway: 3							
Proposed Bridge Replacement Information									
New Bridge Width: 32 ft.		Bridge \$'s: \$512,000							
New Bridge Length: 40 ft.		Total \$'s: \$1,044,958							
Priority Array #: 25									
PIN Number: 450807A									
WIN Number: D50807A		Repl/Rehab Year: 2009							
Contract Number:		Ad Date: 7/20/2009							
Bridge Profile View									
									
<p>THIS BRIDGE IS CLASSIFIED "SD" DUE TO A DECK, SUPER AND SUBSTRUCTURE CONDITION.</p> <p>The ACP is breaking up in the east bound lane with open alligator cracking. Water leaks through the deck before it can run off the bridge. The deck planks are wet, spongy and starting to rot in the area of the breaking up ACP. There are 12 lines of stringers, most of them are wet. Most stringers are mud stained with weather checks in a few locations. The north section of the timber cap @ Pier 2 has a 1.5 inch shell over pile 2A and a 1 inch shell over pile 2C. It has been red tagged and needs to be replaced. Pile 1A is wet, soft and punky. Pile 1B has a vertical split on the NW corner with surface insect infestation. Pile 1D has a vertical split on the south face with surface insect rot up to 1/2 inch deep. Pile 2E is red tagged today with a 1.5 inch shell.</p>									

