

P2 Bridge Preservation - Replacement/Rehab Projects

2011-13 Bien Priority Array

(Sorted by Priority Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Length	Future work Description
1	002/005N	SNOHOMISH RIVER BRIDGE	0.18	Northwest	2,980	Rehabilitate Bridge
1	002/006N	EBEY ISLAND VIADUCT	0.75	Northwest	6,923	Rehabilitate Bridge
5	005/670W	STILLAGUAMISH R	209.35	Northwest	859	Replace Deck
10	548/010	DAKOTA CR	11.54	Northwest	182	Replace Bridge

Total Number of Bridges = 4



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5	005/670W	STILLAGUAMISH R	209.35	Northwest	859	Replace Deck
10	548/010	DAKOTA CR	11.54	Northwest	182	Replace Bridge

Total Number of Bridges = 4



2011-13 Bien P2 Bridge Replacements/Rehab Candidate

Bridge Number: 2 / 5N	Structure ID 0008266B	Bridge Name: SNOHOMISH RIVER BRIDGE	Milepost: 0.18	Region: Northwest
Year Built / YR Widened: 1968	Bridge Type: SG CBox CS		Number of Main/Appr span 5 / 33	Sufficiency Rating: 67.12
Bridge Width (curb-curb): 30.0 ft	Bridge Length: 2,980 ft	Max Span: 204 ft	Bridge Deck View	
Average Daily Traffic: 32,660	Truck% 8%	Number of Lanes: 2	NHS: YES	
Vertical Clearance: NA	Detour Length (miles): 2		Appr Rdway Width: 30.0 ft	
Design Load: HS 20	HS: 1.15	Load Restricted Bridge? <input type="checkbox"/>		
Op Rating: 58.00	A1: 1.97	BL Load:		
Inv Rating: 35.00	A2: 1.51	CL-8 Load:		
	A3: 1.48	SA Load:		
Bridge Inspection Information			Bridge Profile View	
Date Inspected: 8/9/2008	Structr Adequacy: 5			
Superstr Code: 5	Safe Load: 5			
Substr Code: 6	Deck Geometry: 4			
Deck Code: 6	Underclearance: 8			
Scour: 5	Waterway: 8			
Proposed Bridge Replacement Information				
New Bridge Width:	ft.	Bridge \$'s:		
New Bridge Length:	ft.	Total \$'s:		
Priority Array #:	1			
PIN Number:	100205E	Repl/Rehab Year:		
WIN Number:		Ad Date:	8/9/2010	
Contract Number:				

Bridge 2/5N has 15 spans of precast concrete girder (PRC) units near Home Acres Road (piers 18 to 33) in need of rehabilitation. There are 6 units across the width of the bridge in each span.

These PRC units were designed with a 1 inch concrete cover around the main reinforcing steel in the stem. Some of these units have rebar that is corroding causing the concrete cover to crack and debond.



2011-13 Bien P2 Bridge Replacements/Rehab Candidate

Bridge Number: 2 / 6N	Structure ID 0008378E	Bridge Name: EBEY ISLAND VIADUCT	Milepost: 0.75	Region: Northwest
Year Built / YR Widened: 1968	Bridge Type: PRCB PCG		Number of Main/Appr span 1 / 178	Sufficiency Rating: 23.35 SD
Bridge Width (curb-curb): 30.0 ft	Bridge Length: 6,923 ft	Max Span: 82 ft	Bridge Deck View	
Average Daily Traffic: 34,331	Truck% 8%	Number of Lanes: 2	NHS: YES	
Vertical Clearance: NA	Detour Length (miles): 2		Appr Rdway Width: 30.0 ft	
Design Load: HS 20	HS: 0.84	Load Restricted Bridge? <input checked="" type="checkbox"/>		
Op Rating: 27.00	A1: 1.06	BL Load: 20,000		
Inv Rating: 17.00	A2: 1.12	CL-8 Load: 21,000		
	A3: 1.30	SA Load:		
Bridge Inspection Information			Bridge Profile View	
Date Inspected: 7/12/2008	Structr Adequacy: 4			
Superstr Code: 4	Safe Load: 5			
Substr Code: 6	Deck Geometry: 4			
Deck Code: 6	Underclearance: 4			
Scour: 8	Waterway: 8			
Proposed Bridge Replacement Information				
New Bridge Width: ft.	Bridge \$'s:			
New Bridge Length: ft.	Total \$'s:			
Priority Array #: 1				
PIN Number: 100205E				
WIN Number: A00205C	Repl/Rehab Year: 2010			
Contract Number:	Ad Date: 8/9/2010			
THIS BRIDGE IS CLASSIFIED "SD" DUE TO A SUPERSTRUCTURE CONDITION.				
<p>Bridge 2/6N has 170 spans of precast concrete girder (PRC) units. These units were designed with a 1 inch concrete cover around the main reinforcing steel in the stem. There are 4 - #10 reinforcing bars located at the bottom of the stems. An in-depth inspection was performed in 1986. Approximately 82% of the T-beam spans have cracks parallel to the #10 bars in the stem. Approximately 34% of the spans have moderate to severe cracking with the main #10 bars exposed. Eight spans of bridge 2/6N were repaired in 1999 (Contract 5550). The deck was repaired and overlaid with an ACP w/membrane in 2001 (C#6157).</p> <p>The concrete superstructure of the bridge from span 60 to bridge 2/7N limits (121 spans) was repaired in 2007 as part of contract 7304. The next project will repair the remaining deteriorated spans 1 to 60.</p>				



2011-13 Bien P2 Bridge Replacements/Rehab Candidate

Bridge Number: 5 / 670W	Structure ID 0001652A	Bridge Name: STILLAGUAMISH R	Milepost: 209.35	Region: Northwest
Year Built / YR Widened: 1933	Bridge Type: STrus CTB		Number of Main/Appr span 3 / 5	Sufficiency Rating: 44.56 SD
Bridge Width (curb-curb): 48.0 ft	Bridge Length: 859 ft	Max Span: 200 ft	Bridge Deck View	
Average Daily Traffic: 39,247	Truck% 13%	Number of Lanes: 3	NHS: YES	
Vertical Clearance: 16 FT 05 in	Detour Length (miles): Appr Rdway Width: 2 58.0 ft			
Design Load: H 15	HS: 1.04	Load Restricted Bridge? <input type="checkbox"/>		
Op Rating: 35.00	A1: 1.38	BL Load:		
Inv Rating: 21.00	A2: 1.52	CL-8 Load:	Bridge Profile View	
	A3: 1.64	SA Load:		
Bridge Inspection Information				
Date Inspected: #####	Structr Adequacy: 4			
Superstr Code: 5	Safe Load: 5			
Substr Code: 6	Deck Geometry: 4			
Deck Code: 4	Underclearance: 2			
Scour: 3	Waterway: 8			
Proposed Bridge Replacement Information				
New Bridge Width: ft.	Bridge \$'s:			
New Bridge Length: ft.	Total \$'s:			
Priority Array #: 5				
PIN Number:				
WIN Number:	Repl/Rehab Year: 2013			
Contract Number:	Ad Date:			

THIS BRIDGE IS CLASSIFIED "SD" BASED ON THE DECK CONDITION.
 A modified concrete overlay was applied in 1992. The length of the 3 truss spans is 606 feet. Transverse hairline cracks in most panel points. Soffit: Transverse and map cracking in soffit, some were leaching or had rust stains throughout all steel truss spans of bridge; see photos #5 and #21. Some movement in the deck was observed under heavy traffic in areas of all truss spans, most notably between Panel Points L0 and L1. There are exposed rusty transverse bars with section loss, up to 6 ft. in length with 2" deep spalls; Some areas of delaminated and honeycombed concrete were observed between the stringers. Spalls, up to 10 ft. long, and longitudinal cracks were observed along the east edge of the deck. Spalls were also observed at the interface of the floorbeams and deck. A future project will replace the concrete deck on the three steel truss spans.



2011-13 Bien P2 Bridge Replacements/Rehab Candidate

Bridge Number: 548 / 10	Structure ID 08061500	Bridge Name: DAKOTA CR	Milepost: 11.54	Region: Northwest
Year Built / YR Widened: 1930 / 1951	Bridge Type: SRB TTC		Number of Main/Appr span 1 / 4	Sufficiency Rating: 34.67 SD
Bridge Width (curb-curb): 23.7 ft	Bridge Length: 182 ft	Max Span: 80 ft	Bridge Deck View	
Average Daily Traffic: 7,152	Truck% 14%	Number of Lanes: 2	NHS: No	
Vertical Clearance: NA	Detour Length (miles): 3		Appr Rdway Width: 27.0 ft	
Design Load: H 15	HS: 0.44	Load Restricted Bridge? <input checked="" type="checkbox"/>		
Op Rating: 24.00	A1: 0.60	BL Load:	21,500	
Inv Rating: 14.00	A2: 0.53	CL-8 Load:	21,500	
	A3: 0.54	SA Load:		
Bridge Inspection Information			Bridge Profile View	
Date Inspected: 7/22/2009	Structr Adequacy:	2		
Superstr Code: 5	Safe Load:	0		
Substr Code: 5	Deck Geometry:	2		
Deck Code: 6	Underclearance:	9		
Scour: 5	Waterway:	8		
Proposed Bridge Replacement Information				
New Bridge Width: 40 ft.	Bridge \$'s:			
New Bridge Length: 190 ft.	Total \$'s:			
Priority Array #: 10				
PIN Number: 154816A				
WIN Number: A54816A	Repl/Rehab Year:	2010		
Contract Number:	Ad Date:			



THIS BRIDGE IS CLASSIFIED "SD" DUE TO THE STRUCTURAL ADEQUACY CODE.

The ownership of this bridge was transferred from Whatcom County to the state as part of the 1992 Route Jurisdictional Transfer.

This bridge has a posted 15 ton weight limit due to the design of the steel and timber girders. The steel beams are rusty with some pitted areas. There are two yellow tagged piles in the treated timber approach spans.



P2 Bridge Preservation - Bridge Repair

2011-13 Bien Priority Array

(Sorted by Priority Number)

11-13 #	Bridge Number	Bridge Name	Region	Repair Description	Bridge Item\$'s
1	2/39	ANDERSON CR	Northwest	Replace East side Br Rail	\$200,000
5	5/537S	EB LANES I-5 OC	Northwest	Repair Conc Box Girder	\$100,000
6	5/537S	EB LANES I-5 OC	Northwest	Replace Exp Jnt	\$40,000
7	5/535E	NB VIADUCT STA 2032	Northwest	Replace Exp Jnt	\$50,000
8	5/536N-W	NB I5 to WB W SEA FRW	Northwest	Replace Exp Jnt	\$15,000
9	5/537E-S	E-S RAMP BR	Northwest	Replace Exp Jnt	\$120,000
10	5/537N	S-E RAMP WB LANES	Northwest	Replace Exp Jnt	\$42,000
11	5/537N-W	N-6TH RAMP BRIDGE	Northwest	Replace Exp Jnt	\$63,000
12	5/538E	NB VIADUCT STA 2075	Northwest	Replace Exp Jnt	\$140,000
13	5/543E	KING-JACKSON ST OC	Northwest	Replace Exp Jnt	\$58,000
14	5/543NCD	NBCD KING JACKSON S	Northwest	Replace Exp Jnt	\$113,000
15	5/543SCD	SBCD KING JACKSON S	Northwest	Replace Exp Jnt	\$150,000
16	5/543W	KING-JACKSON ST OC	Northwest	Replace Exp Jnt	\$56,000
17	5/545NCD	NBCD VIADUCT STA 219	Northwest	Replace Exp Jnt	\$96,000
18	5/545SCD	SBCD VIADUCT STA 219	Northwest	Replace Exp Jnt	\$180,000
19	5/562E	NB LANES VIADUCT	Northwest	Replace Exp Jnt	\$90,000
21	90/25N	HOMER M. HADLEY	Northwest	Replace 10 Anchor Cables	\$2,430,000
22	90/25S	LACEY V. MURROW BR	Northwest	Replace 10 Anchor Cables	\$2,430,000
24	5/647E	UNION SLOUGH	Northwest	Replace Exp Jnt	\$120,000
25	5/647W	UNION SLOUGH	Northwest	Replace Exp Jnt	\$120,000
26	5/648W	STEAMBOAT SLOUGH	Northwest	Replace Exp Jnt	\$144,000
27	5/650E	EBEY SL BN RY SR 529	Northwest	Replace Exp Jnt	\$900,000
28	5/650W	EBEY SL BN RY SR 529	Northwest	Replace Exp Jnt	\$470,000
30	18/9	NP RY OC	Northwest	Replace Exp Jnts @ 6 locations	\$250,000
31	18/9	NP RY OC	Northwest	Paint Steel Hanger and Pin asse	\$309,750
32	90/10W-S	I-5 OC, W-S RAMP	Northwest	Replace Exp Joints	\$164,000
35	405/70E	SR 522 OC SAMMAMISH	Northwest	Replace Exp Joints	\$100,000
36	405/70N-E	N-E RAMP SAMMAMISH	Northwest	Replace Exp Joints	\$34,500
37	405/70N-W	N-W RAMP SAMMAMISH	Northwest	Replace Exp Joints	\$60,000
38	405/70S-E	S-E RAMP BR	Northwest	Replace Exp Joints	\$25,000
39	405/70W	SR 522 OC SAMMAMISH	Northwest	Replace Exp Joints	\$100,000
44	90/25N	HOMER M. HADLEY	Northwest	Replace 10 Anchor Cables	\$2,430,000
51	5/570	LAKE WASH SHIP CANA	Northwest	Replace Exp Jnt	\$360,000



P2 Bridge Preservation - Bridge Repair

2011-13 Bien Priority Array

(Sorted by Priority Number)

11-13 #	Bridge Number	Bridge Name	Region	Repair Description	Bridge Item\$'s
52	20/204	DECEPTION PASS	Northwest	Replace deteriorated steel truss braces	\$250,000
53	90/40N	EAST CHANNEL-LK WAS	Northwest	Install new seals in Modular Joints	\$75,000
59	18/17S	GREEN R (NEELEY BRID	Northwest	Repair cracking in steel stringers	\$250,000
61	20/207	CANOE PASS	Northwest	Replace deteriorated steel truss braces	\$200,000
65	529/15E	UNION SL	Northwest	Repair deteriorated concrete columns	\$3,000,000
66	529/15E	UNION SL	Northwest	Repair deteriorated concrete columns	\$3,000,000
67	530/124	N FK STILLAGUAMISH R	Northwest	Repair cracks in steel elements	\$200,000
69	99/507E	SR 599 OC	Northwest	Replace Exp Jnt	\$74,000
70	99/507S-S	PACIFIC HWY OC	Northwest	Replace Exp Jnt	\$95,000
71	99/507W	S 116TH PL OC	Northwest	Replace Exp Jnt	\$54,000
72	99/508	PACIFIC HWY OC	Northwest	Replace Exp Jnt	\$113,500
75	5/553	I-5 OC, DENNY WAY	Northwest	Replace Exp Jnt	\$42,000
77	9/360	JOHNSON CR	Northwest	Add Sheet Pile Wall	\$100,000
Total Number of Bridges = 46				Totals \$ =	\$19,413,750



P2 Bridge Preservation - Bridge Repair

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(Sorted by Bridge Number)

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1	2/39	ANDERSON CR	Northwest	Replace East side Br Rail	\$200,000
7	5/535E	NB VIADUCT STA 2032	Northwest	Replace Exp Jnt	\$50,000
8	5/536N-W	NB I5 to WB W SEA FRW	Northwest	Replace Exp Jnt	\$15,000
9	5/537E-S	E-S RAMP BR	Northwest	Replace Exp Jnt	\$120,000
10	5/537N	S-E RAMP WB LANES	Northwest	Replace Exp Jnt	\$42,000
11	5/537N-W	N-6TH RAMP BRIDGE	Northwest	Replace Exp Jnt	\$63,000
5	5/537S	EB LANES I-5 OC	Northwest	Repair Conc Box Girder	\$100,000
6	5/537S	EB LANES I-5 OC	Northwest	Replace Exp Jnt	\$40,000
12	5/538E	NB VIADUCT STA 2075	Northwest	Replace Exp Jnt	\$140,000
13	5/543E	KING-JACKSON ST OC	Northwest	Replace Exp Jnt	\$58,000
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16	5/543W	KING-JACKSON ST OC	Northwest	Replace Exp Jnt	\$56,000
17	5/545NCD	NBCD VIADUCT STA 219	Northwest	Replace Exp Jnt	\$96,000
18	5/545SCD	SBCD VIADUCT STA 219	Northwest	Replace Exp Jnt	\$180,000
75	5/553	I-5 OC, DENNY WAY	Northwest	Replace Exp Jnt	\$42,000
19	5/562E	NB LANES VIADUCT	Northwest	Replace Exp Jnt	\$90,000
51	5/570	LAKE WASH SHIP CANA	Northwest	Replace Exp Jnt	\$360,000
24	5/647E	UNION SLOUGH	Northwest	Replace Exp Jnt	\$120,000
25	5/647W	UNION SLOUGH	Northwest	Replace Exp Jnt	\$120,000
26	5/648W	STEAMBOAT SLOUGH	Northwest	Replace Exp Jnt	\$144,000
27	5/650E	EBEY SL BN RY SR 529	Northwest	Replace Exp Jnt	\$900,000
28	5/650W	EBEY SL BN RY SR 529	Northwest	Replace Exp Jnt	\$470,000
77	9/360	JOHNSON CR	Northwest	Add Sheet Pile Wall	\$100,000
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P2 Bridge Preservation - Bridge Repair

2011-13 Bien Priority Array

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71	99/507W	S 116TH PL OC	Northwest	Replace Exp Jnt	\$54,000
72	99/508	PACIFIC HWY OC	Northwest	Replace Exp Jnt	\$113,500
35	405/70E	SR 522 OC SAMMAMISH	Northwest	Replace Exp Joints	\$100,000
36	405/70N-E	N-E RAMP SAMMAMISH	Northwest	Replace Exp Joints	\$34,500
37	405/70N-W	N-W RAMP SAMMAMISH	Northwest	Replace Exp Joints	\$60,000
38	405/70S-E	S-E RAMP BR	Northwest	Replace Exp Joints	\$25,000
39	405/70W	SR 522 OC SAMMAMISH	Northwest	Replace Exp Joints	\$100,000
65	529/15E	UNION SL	Northwest	Repair deteriorated concrete columns	\$3,000,000
66	529/15E	UNION SL	Northwest	Repair deteriorated concrete columns	\$3,000,000
67	530/124	N FK STILLAGUAMISH R	Northwest	Repair cracks in steel elements	\$200,000
Total Number of Bridges = 46				Totals \$ =	\$19,413,750

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 2 / 39	Structure ID 0001706C	Bridge Name: ANDERSON CR	Milepost: 34.25	Region: Northwest
Year Built / YR Widened: 1933	Bridge Type: CTB	Bridge Length: 93 ft	Bridge Width (curb-curb): 25.0 ft	Sufficiency Rating: 59.57 FO
Average Daily Traffic: 6,364	Truck%	Freight Route	Num of Lanes: 2	
Date Inspected:	Structr Adequacy:	Superstr Code:	Safe Load:	
Substr Code:	Scour:			
BMS Element Num: 331	BMS Element Descr: Concrete Bridge Rail			
BMS Element Quantity: 93				
Project Number:	2011-13 Priority#:	1		
Repair Year: 2011	2009-11 Priority#:			
CPMS Ad Date:	Bridge \$'s:	\$300,000		
	Repair Total\$'s:	\$600,000		





Repair Description:
Replace damaged concrete balluster rail

COMMENTS

The concrete bridge rail was damaged in Dec 2009 by a Truck impact. NW Region Bridge Maintenance Crews removed the damaged rail and added a temporary thrie beam on H-Beam posts.

The costs and details for the concrete bridge rail replacement should be similar to those used on Us 2 Deep Creek bridge (contract 7568) in 2008.

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 535E		Structure ID 0007816A		Bridge Name: NB VIADUCT STA 2032		Milepost: 162.19		Region: Northwest	
Year Built / YR Widened: 1966 / 1992		Bridge Type: PCB		Bridge Length: 901 ft		Bridge Width (curb-curb): 76.0 ft		Sufficiency Rating: 87.81	
Average Daily Traffic: 98,250		Truck% 7%		Freight Route T1		Num of Lanes: 5			
Date Inspected: 11/6/2006		Structr Adequacy: 7		Superstr Code: 7		Safe Load: 5			
Substr Code: 7		Scour: N							
BMS Element Num: 408		BMS Element Descr: Exp Jnt - Steel Sliding Plate				BMS Element Quantity: 304 Feet			
Project Number:		2011-13 Priority#: 7		Repair Year: 2012		2009-11 Priority#: 14			
CPMS Ad Date:		Bridge \$'s: \$456,000		Repair Total\$'s: \$760,000					
									
Repair Description:									
Replace the Steel Sliding Plate expansion joints.									
COMMENTS									
Sections of the existing steel sliding plate expansion joints have failed and have been replaced with a poured rubber joint. These expansion joints need to be replaced.									
There are four (4) expansion joint locations (Piers 1, 4, 7, 10)									
Bridge Item cost based on \$1,500 / ft. Total project cost based on \$2,500 / ft.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 536N-W		Structure ID 0007741G		Bridge Name: N-W RAMP I-5 OC		Milepost: 162.98		Region: Northwest	
Year Built / YR Widened: 1967		Bridge Type: CBOX		Bridge Length: 1,722 ft		Bridge Width (curb-curb): 21.0 ft		Sufficiency Rating: 78.89	
Average Daily Traffic: 3,086		Truck% 5%		Freight Route T1		Num of Lanes: 1			
Date Inspected: 10/26/2006		Structr Adequacy: 6		Superstr Code: 6		Safe Load: 5			
Substr Code: 7		Scour: N							
BMS Element Num: 408		BMS Element Descr: Exp Jnt - Steel Sliding Plate				BMS Element Quantity: 150 Feet			
Project Number:		2011-13 Priority#: 8		Repair Year: 2012		2009-11 Priority#: 15			
CPMS Ad Date:		Bridge \$'s: \$150,000		Repair Total\$'s: \$375,000					
									
Repair Description: Replace the Steel Sliding Plate expansion joints.									
COMMENTS									
Sections of the existing steel sliding plate expansion joints have failed and have been replaced with a poured rubber joint. These expansion joints need to be replaced.									
The steel sliding plate has been removed from the expansion joints in spans 2, 13, and 17 creating an open joint.									
Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 537E-S		Structure ID 0007741N		Bridge Name: E-S RAMP BR		Milepost: 162.99		Region: Northwest	
Year Built / YR Widened: 1967		Bridge Type: CBox		Bridge Length: 1,206 ft		Bridge Width (curb-curb): 21.0 ft		Sufficiency Rating: 96.86	
Average Daily Traffic: 7,505		Truck% 5%		Freight Route T1		Num of Lanes: 1			
Date Inspected: 8/23/2006		Structr Adequacy: 6		Superstr Code: 6		Safe Load: 5		Substr Code: 7	
BMS Element Num: 408		BMS Element Descr: Exp Jnt - Steel Sliding Plate							
BMS Element Quantity: 120									
Project Number:		2011-13 Priority#:		9					
Repair Year: 2012		2009-11 Priority#:		16					
CPMS Ad Date:		Bridge \$'s:		\$120,000					
		Repair Total\$'s:		\$300,000					
									
Repair Description: Replace steel plate expansion joints									
COMMENTS									
Sections of the existing steel sliding plate expansion joints have failed and need to be replaced. Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.									

Bridge Preservation Program (P2)

Bridge Repair Form

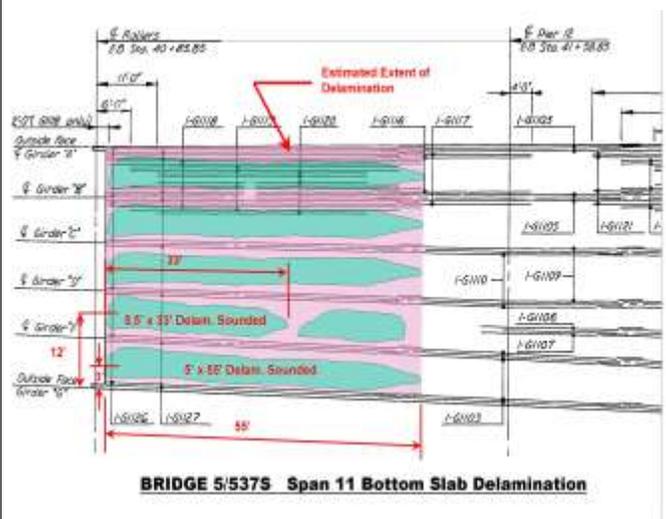
Bridge Number: 5 / 537N		Structure ID 0007741R		Bridge Name: S-E RAMP WB LANES		Milepost: 163.00		Region: Northwest	
Year Built / YR Widened: 1967		Bridge Type: CBOX		Bridge Length: 2,885 ft		Bridge Width (curb-curb): 28.0 ft		Sufficiency Rating: 27.54 SD	
Average Daily Traffic: 79,346		Truck% 7%		Freight Route T1		Num of Lanes: 2			
Date Inspected: 5/9/2006		Structr Adequacy: 4		Superstr Code: 5		Safe Load: 5			
Substr Code: 7		Scour: N		BMS Element Num: 408		BMS Element Descr: Exp Jnt - Steel Sliding Plate			
BMS Element Quantity: 369 feet		Project Number: 100562S		2011-13 Priority#: 10		2009-11 Priority#: 17			
Repair Year: 2012		CPMS Ad Date:		Bridge \$'s: \$553,500		Repair Total\$'s: \$922,500			
									
<p>Repair Description: Replace the existing steel sliding plate expansion joints.</p>									
COMMENTS									
<p>The original steel sliding plate expansion joints are breaking up and in need of replacement. There are ten (10) expansion joint locations (Pier 1, span 5, span 8, span 11, span 15, span 18, span 22, span 26, span 30, span 34)</p> <p>Bridge Item cost based on \$1,500 / ft. Total project cost based on \$2,500 / ft.</p>									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 537N-W		Structure ID 0007741H		Bridge Name: N-6TH RAMP BRIDGE		Milepost: 162.98		Region: Northwest	
Year Built / YR Widened: 1967		Bridge Type: CBox		Bridge Length: 720 ft		Bridge Width (curb-curb): 21.0 ft		Sufficiency Rating: 96.65	
Average Daily Traffic: 8,243		Truck% 30%		Freight Route T1		Num of Lanes: 1			
Date Inspected: 5/9/2006		Structr Adequacy: 6		Superstr Code: 6		Safe Load: 5			
Substr Code: 7		Scour: N		BMS Element Num: 408		BMS Element Descr: Exp Jnt - Steel Sliding Plate			
BMS Element Quantity: 63		Project Number:		2011-13 Priority#: 11		2009-11 Priority#: 18			
Repair Year: 2012		CPMS Ad Date:		Bridge \$'s: \$63,000		Repair Total\$'s: \$157,500			
									
Repair Description: Replace the existing steel sliding plate expansion joints.									
COMMENTS									
The original steel sliding plate expansion joints are breaking up and in need of replacement. Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.									

Bridge Number: 5 / 537S	Structure ID 0007741T	Bridge Name: EB LANES I-5 OC	Milepost: 163.00	Region: Northwest
Year Built / YR Widened: 1966	Bridge Type: CBOX	Bridge Length: 1,793 ft	Bridge Width (curb-curb): 28.0 ft	Sufficiency Rating: 32.00SD
Average Daily Traffic: 30,000	Truck% 30%	Freight Route T1	Num of Lanes: 2	
Date Inspected: 11/6/2006	Structr Adequacy: 4	Superstr Code: 4	Safe Load: 5	
Substr Code: 7	Scour: N			
BMS Element Num: 105	BMS Element Descr: Concrete Box Girder	BMS Element Quantity: 600 feet		
Project Number: 100562S	2011-13 Priority#: 5	Repair Year: 2012	2009-11 Priority#: 12	
CPMS Ad Date:	Bridge \$'s: Repair Total\$'s: \$500,000			



Repair Description:

Repair delaminated concrete areas on the bottom side of the bottom slab.

COMMENTS

The expansion joints allow water and contaminants to flow onto the bottom slab of the Concrete Box superstructure which has caused delaminations in the concrete from the reinforcing steel.

The 10/5/2002 Bridge Inspection recorded the BMS states for Element 105 Concrete Box Girder to be: Condition State 2 = 700LF , Condition State 3 = 500LF , Condition State 4 = 100LF.

Total cost estimated @ \$500,000 until a thorough review can be done.

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 537S	Structure ID 0007741T	Bridge Name: EB LANES I-5 OC	Milepost: 163.00	Region: Northwest
Year Built / YR Widened: 1966	Bridge Type: CBOX	Bridge Length: 1,793 ft	Bridge Width (curb-curb): 28.0 ft	Sufficiency Rating: 32.00SD
Average Daily Traffic: 30,000	Truck% 30%	Freight Route T1	Num of Lanes: 2	
Date Inspected: 11/6/2006	Structr Adequacy: 4	Superstr Code: 4	Safe Load: 5	
Substr Code: 7	Scour: N			
BMS Element Num: 408	BMS Element Descr: Exp Jnt - Steel Sliding Plate			
BMS Element Quantity: 300 Feet				
Project Number: 100562S	2011-13 Priority#: 6			
Repair Year: 2012	2009-11 Priority#: 13			
CPMS Ad Date:	Bridge \$'s: \$450,000			
	Repair Total\$'s: \$750,000			
				
Repair Description: Replace the steel sliding plate expansion joints.				
COMMENTS				
The original steel sliding plate expansion joints are breaking up and allowing water and contaminants to flow onto the bottom slab of the Concrete Box superstructure. This has caused delaminations in the concrete from the reinforcing steel.				
There are seven (7) expansion joint locations (East Abutment, Span 4, Span 7, Span 11, Span 14, Span 17, Span 21).				
Bridge Item cost based on \$1,500 / ft. Total project cost based on \$2,500 / ft.				

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 538E	Structure ID 0007741C	Bridge Name: NB VIADUCT STA 2075	Milepost: 162.98	Region: Northwest
Year Built / YR Widened: 1966 / 1992	Bridge Type: CS	Bridge Length: 872 ft	Bridge Width (curb-curb): 57.7 ft	Sufficiency Rating: 77.49
Average Daily Traffic: 79,346	Truck% 7%	Freight Route T1	Num of Lanes: 4	
Date Inspected: 11/7/2006	Structr Adequacy: 5	Superstr Code: 6	Safe Load: 5	
Substr Code: 7	Scour: N			
BMS Element Num: 408	BMS Element Descr: Exp Jnt - Steel Sliding Plate			
BMS Element Quantity: 140 Feet				
Project Number: 2011-13 Priority#: 12	2009-11 Priority#: 19	Bridge \$'s: \$140,000	Repair Total\$'s: \$350,000	
Repair Year: 2012				
CPMS Ad Date:				
<h2>No Photo Available</h2>		<h2>No Photo Available</h2>		
Repair Description: Replace the steel sliding plate expansion joints at 4 locations.				
COMMENTS				
Sections of the existing steel sliding plate expansion joints are loose. These expansion joints need to be replaced. Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.				

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 543E		Structure ID 0007504A		Bridge Name: KING-JACKSON ST OC		Milepost: 164.41		Region: Northwest	
Year Built / YR Widened: 1965 / 1992		Bridge Type: CBox		Bridge Length: 706 ft		Bridge Width (curb-curb): 58.8 ft		Sufficiency Rating: 67.31	
Average Daily Traffic: 79,500		Truck% 5%		Freight Route T1		Num of Lanes: 4			
Date Inspected: 8/24/2006		Structr Adequacy: 5		Superstr Code: 6		Safe Load: 4			
Substr Code: 7		Scour: N		BMS Element Num: 408		BMS Element Descr: Exp Jnt - Steel Sliding Plate			
BMS Element Quantity: 58		Project Number:		2011-13 Priority#: 13		2009-11 Priority#: 20			
Repair Year: 2012		CPMS Ad Date:		Bridge \$'s: \$58,000		Repair Total\$'s: \$145,000			
									
Repair Description: Replace the steel sliding plate expansion joints at 1 locations.									
COMMENTS									
Sections of the existing steel sliding plate expansion joints are loose. These expansion joints need to be replaced. Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 543NCD		Structure ID 0007504C		Bridge Name: NBCD KING JACKSON ST OC		Milepost: 164.41		Region: Northwest	
Year Built / YR Widened: 1965		Bridge Type: CB _{ox}		Bridge Length: 709 ft		Bridge Width (curb-curb): 48.0 ft		Sufficiency Rating: 56.17 FO	
Average Daily Traffic: 61,357		Truck% 10%		Freight Route T1		Num of Lanes: 4			
Date Inspected: 8/24/2006		Structr Adequacy: 5		Superstr Code: 7		Safe Load: 5			
Substr Code: 7		Scour: N							
BMS Element Num: 408		BMS Element Descr: Exp Jnt - Steel Sliding Plate				BMS Element Quantity: 113			
Project Number:		2011-13 Priority#: 14		Repair Year: 2012		2009-11 Priority#: 21			
CPMS Ad Date:		Bridge \$'s: \$113,000		Repair Total\$'s: \$282,500					
									
Repair Description: Replace the steel sliding plate expansion joints.									
COMMENTS									
Sections of the existing steel sliding plate expansion joints are loose. These expansion joints need to be replaced. Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 543SCD		Structure ID 0007504D		Bridge Name: SBCD KING JACKSON ST OC		Milepost: 164.41		Region: Northwest			
Year Built / YR Widened: 1965		Bridge Type: CBox		Bridge Length: 709 ft		Bridge Width (curb-curb): 60.0 ft		Sufficiency Rating: 64.81			
Average Daily Traffic: 73,582		Truck% 55%		Freight Route T1		Num of Lanes: 4					
Date Inspected: 8/24/2006		Structr Adequacy: 5		Superstr Code: 6		Safe Load: 5					
Substr Code: 7		Scour: N									
BMS Element Num: 408		BMS Element Descr: Exp Jnt - Steel Sliding Plate									
BMS Element Quantity: 150											
Project Number:		2011-13 Priority#:		15							
Repair Year: 2012		2009-11 Priority#:		22							
CPMS Ad Date:		Bridge \$'s:		\$150,000							
		Repair Total\$'s:		\$375,000							
											
Repair Description: Replace the steel sliding plate expansion joints.											
COMMENTS											
Sections of the existing steel sliding plate expansion joints are loose. These expansion joints need to be replaced. Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.											

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 543W	Structure ID 0007504B	Bridge Name: KING-JACKSON ST OC	Milepost: 164.41	Region: Northwest
Year Built / YR Widened: 1965 / 1992	Bridge Type: CBox	Bridge Length: 712 ft	Bridge Width (curb-curb): 55.8 ft	Sufficiency Rating: 92.55
Average Daily Traffic: 79,500	Truck% 5%	Freight Route T1	Num of Lanes: 3	
Date Inspected: 8/24/2006	Structr Adequacy: 6	Superstr Code: 6	Safe Load: 5	
Substr Code: 7	Scour: N			
BMS Element Num: 408	BMS Element Descr: Exp Jnt - Steel Sliding Plate			
BMS Element Quantity: 56				
Project Number:	2011-13 Priority#: 16			
Repair Year: 2012	2009-11 Priority#: 23			
CPMS Ad Date:	Bridge \$'s: \$56,000			
	Repair Total\$'s: \$140,000			
				
Repair Description: Replace the steel sliding plate expansion joints.				
COMMENTS				
Sections of the existing steel sliding plate expansion joints are loose. These expansion joints need to be replaced. Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.				

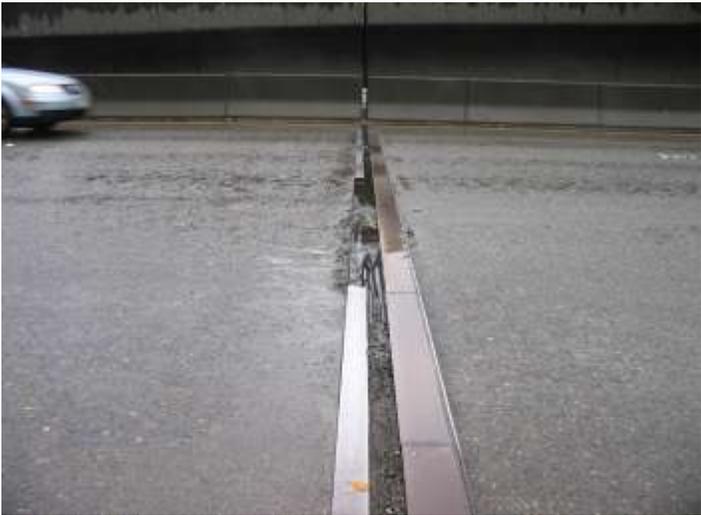
Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 545NCD		Structure ID 0007110F		Bridge Name: NBCD VIADUCT STA 2195		Milepost: 165.69		Region: Northwest	
Year Built / YR Widened: 1964		Bridge Type: CB _{ox}		Bridge Length: 702 ft		Bridge Width (curb-curb): 32.0 ft		Sufficiency Rating: 79.42	
Average Daily Traffic: 29,230		Truck% 5%		Freight Route T1		Num of Lanes: 2			
Date Inspected: 10/23/2005		Structr Adequacy: 5		Superstr Code: 6		Safe Load: 5			
Substr Code: 7		Scour: N							
BMS Element Num: 408		BMS Element Descr: Exp Jnt - Steel Sliding Plate				BMS Element Quantity: 96			
Project Number:		2011-13 Priority#: 17		Repair Year: 2012		2009-11 Priority#: 24			
CPMS Ad Date:		Bridge \$'s: \$96,000		Repair Total\$'s: \$240,000					
									
Repair Description: Replace the steel sliding plate expansion joints.									
COMMENTS									
Sections of the existing steel sliding plate expansion joints are loose. These expansion joints need to be replaced. Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 545SCD	Structure ID 0007110G	Bridge Name: SBCD VIADUCT STA 2195	Milepost: 165.71	Region: Northwest
Year Built / YR Widened: 1964 / 1991	Bridge Type: CB _{ox}	Bridge Length: 806 ft	Bridge Width (curb-curb): 44.9 ft	Sufficiency Rating: 67.67 FO
Average Daily Traffic: 73,582	Truck% 5%	Freight Route T1	Num of Lanes: 3	
Date Inspected: 10/11/2005	Structr Adequacy: 6	Superstr Code: 6	Safe Load: 5	
Substr Code: 7	Scour: N			
BMS Element Num: 406	BMS Element Descr: Comp Seal w/ Steel Header			
BMS Element Quantity: 180				
Project Number:	2011-13 Priority#:	18		
Repair Year: 2012	2009-11 Priority#:	25		
CPMS Ad Date:	Bridge \$'s:	\$180,000		
	Repair Total\$'s:	\$450,000		
				
<p>Repair Description: Replace expansion joints at 4 locations.</p>				
<p>COMMENTS</p>				
<p>Sections of the existing steel sliding plate expansion joints have been repaired by Region Maintenance crews. These expansion joints need to be replaced.</p> <p>Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.</p>				

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 553		Structure ID 0006635B		Bridge Name: I-5 OC, DENNY WAY		Milepost: 166.06		Region: Northwest	
Year Built / YR Widened: 1962		Bridge Type: CBox		Bridge Length: 321 ft		Bridge Width (curb-curb): 42.0 ft		Sufficiency Rating: 69.37 FO	
Average Daily Traffic: 24,000		Truck% 5%		Freight Route		Num of Lanes: 4			
Date Inspected: 10/12/2005		Structr Adequacy: 7		Superstr Code: 7		Safe Load: 5			
Substr Code: 7		Scour: N		BMS Element Num: 415		BMS Element Descr: Rubber bolt down exp jnt			
BMS Element Quantity: 42		Project Number:		2011-13 Priority#: 75		Repair Year:			
CPMS Ad Date:		2009-11 Priority#: 86		Bridge \$'s: \$42,000		Repair Total\$'s: \$84,000			
									
Repair Description: Replace the expansion joint on the east end of the bridge									
COMMENTS									
Sections of the existing expansion joint are broken. This expansion joint needs to be replaced. Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 562E		Structure ID 0006800B		Bridge Name: NB LANES VIADUCT		Milepost: 166.98		Region: Northwest	
Year Built / YR Widened: 1963		Bridge Type: CTB		Bridge Length: 381 ft		Bridge Width (curb-curb): 66.0 ft		Sufficiency Rating: 83.22	
Average Daily Traffic: 108,000		Truck% 5%		Freight Route T1		Num of Lanes: 4			
Date Inspected: 12/7/2005		Structr Adequacy: 6		Superstr Code: 7		Safe Load: 5			
Substr Code: 6		Scour: N							
BMS Element Num: 408		BMS Element Descr: Exp Jnt - Steel Sliding Plate				BMS Element Quantity: 90			
Project Number:		2011-13 Priority#:		19					
Repair Year: 2012		2009-11 Priority#:		26					
CPMS Ad Date:		Bridge \$'s:		\$90,000					
		Repair Total\$'s:		\$225,000					
					<h2 style="font-size: 2em; color: black; opacity: 0.5;">No Photo Available</h2>				
<p>Repair Description: Replace the steel sliding plate expansion joints.</p>									
<p>COMMENTS</p> <p>Sections of the existing steel sliding plate expansion joints have been repaired by Region Maintenance crews. These expansion joints need to be replaced.</p> <p>Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.</p>									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 570		Structure ID 0006080A		Bridge Name: LAKE WASH SHIP CANAL		Milepost: 169.63		Region: Northwest	
Year Built / YR Widened: 1962		Bridge Type: STrus CBox CS		Bridge Length: 4,429 ft		Bridge Width (curb-curb): 174.0 ft		Sufficiency Rating: 53.99FO	
Average Daily Traffic: 200,000		Truck% 6%		Freight Route T1		Num of Lanes: 12			
Date Inspected: 9/10/2005		Structr Adequacy: 3		Superstr Code: 6		Safe Load: 4			
Substr Code: 7		Scour: 8		BMS Element Num: 402		BMS Element Descr: Poured Joints			
BMS Element Quantity: 3,600		Project Number:		2011-13 Priority#: 51		Repair Year:			
CPMS Ad Date:		2009-11 Priority#: 60		Bridge \$'s: \$360,000		Repair Total\$'s: \$500,000			
									
Repair Description: Replace poured joint sealant in deck joints of the lower deck express lanes.									
COMMENTS									
There are deck joints at 60 locations in the Steel Truss span. The poured joint sealant needs to be replaced to prevent water leakage and corrosion of the supporting steel elements. The roadway width is 60 feet. The bridge item cost is estimated to be \$100 per foot of joint									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 647E		Structure ID 0008226B		Bridge Name: UNION SLOUGH		Milepost: 197.09		Region: Northwest			
Year Built / YR Widened: 1968		Bridge Type: PCB CTB		Bridge Length: 396 ft		Bridge Width (curb-curb): 48.0 ft		Sufficiency Rating: 86.56			
Average Daily Traffic: 55,401		Truck% 8%		Freight Route T1		Num of Lanes: 3					
Date Inspected: 10/28/2005		Structr Adequacy: 6		Superstr Code: 7		Safe Load: 5					
Substr Code: 6		Scour: 8									
BMS Element Num: 415		BMS Element Descr: Exp Jnt - Rubber Bolt down									
BMS Element Quantity: 240 Feet											
Project Number:		2011-13 Priority#:		24							
Repair Year: 2012		2009-11 Priority#:		27							
CPMS Ad Date:		Bridge \$'s:		\$120,000							
		Repair Total\$'s:		\$360,000							
											
<p>Repair Description: Replace the Rubber Bolt Down expansion joints.</p>											
<p>COMMENTS</p>											
<p>The rubber bolt down expansion joints were installed in 1985 along with the modified concrete overlay. These joints have been repaired many times by Region Maintenance.</p> <p>Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.</p>											

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 647W		Structure ID 0008226C		Bridge Name: UNION SLOUGH		Milepost: 197.09		Region: Northwest			
Year Built / YR Widened: 1968		Bridge Type: PCB CTB		Bridge Length: 396 ft		Bridge Width (curb-curb): 48.0 ft		Sufficiency Rating: 84.56			
Average Daily Traffic: 55,401		Truck% 8%		Freight Route T1		Num of Lanes: 3					
Date Inspected: 10/28/2005		Structr Adequacy: 6		Superstr Code: 7		Safe Load: 5					
Substr Code: 6		Scour: 8									
BMS Element Num: 415		BMS Element Descr: Exp Jnt - Rubber Bolt down									
BMS Element Quantity: 240 Feet											
Project Number:		2011-13 Priority#: 25		Repair Year: 2012		2009-11 Priority#: 28					
CPMS Ad Date:		Bridge \$'s: \$120,000		Repair Total\$'s: \$360,000							
											
<p>Repair Description: Replace the Rubber Bolt Down expansion joints.</p>											
COMMENTS											
<p>The rubber bolt down expansion joints were installed in 1985 along with the modified concrete overlay. These joints have been repaired many times by Region Maintenance.</p> <p>Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.</p>											

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 648W		Structure ID 0008226E		Bridge Name: STEAMBOAT SLOUGH		Milepost: 197.90		Region: Northwest	
Year Built / YR Widened: 1968		Bridge Type: PCG		Bridge Length: 1,026 ft		Bridge Width (curb-curb): 48.0 ft		Sufficiency Rating: 81.14	
Average Daily Traffic: 63,000		Truck% 8%		Freight Route T1		Num of Lanes: 3			
Date Inspected: 4/22/2006		Structr Adequacy: 6		Superstr Code: 6		Safe Load: 5			
Substr Code: 7		Scour: 7							
BMS Element Num: 412		BMS Element Descr: Strip Seal Expansion Joint				BMS Element Quantity: 96			
Project Number:		2011-13 Priority#:		26					
Repair Year: 2012		2009-11 Priority#:		29					
CPMS Ad Date:		Bridge \$'s:		\$144,000					
		Repair Total\$'s:		\$240,000					
									
<p>Repair Description: Replace strip seal expansion joint at two locations.</p>									
<p>COMMENTS</p>									
<p>Sections of the existing steel sliding plate expansion joints have failed and need to be replaced.</p> <p>Bridge item cost based on \$1,500 per foot. Total project cost based on \$2,500 per foot.</p>									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 650E		Structure ID 0008400A		Bridge Name: EBEY SL BN RY SR 529 OC		Milepost: 198.50		Region: Northwest		
Year Built / YR Widened: 1969		Bridge Type: PCG		Bridge Length: 2,062 ft		Bridge Width (curb-curb): 60.0 ft		Sufficiency Rating: 74.72 FO		
Average Daily Traffic: 52,500		Truck% 8%		Freight Route T1		Num of Lanes: 4				
Date Inspected: 12/3/2006		Superstr Code: 7		Substr Code: 6		Structr Adequacy: 5		Safe Load: 5		Scour: 3
BMS Element Num: 416		BMS Element Descr: Modular Expansion Joint								
BMS Element Quantity: 360										
Project Number:		2011-13 Priority#:		27						
Repair Year: 2014		2009-11 Priority#:		30						
CPMS Ad Date:		Bridge \$'s:		\$900,000						
		Repair Total\$'s:		\$1,800,000						





Repair Description:
Replace Modular Expansion Joints and strip seal joints.

COMMENTS

Sections of the existing steel sliding plate expansion joints have failed and need to be replaced.

Bridge Item cost based on \$1,500 / ft. Total project cost based on \$3,000 / ft.

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 5 / 650W	Structure ID 0004196A	Bridge Name: EBEY SL BN RY SR 529 OC	Milepost: 198.51	Region: Northwest
Year Built / YR Widened: 1954 / 1968	Bridge Type: SG CTB	Bridge Length: 1,920 ft	Bridge Width (curb-curb): 54.0 ft	Sufficiency Rating: 70.10
Average Daily Traffic: 52,500	Truck% 8%	Freight Route T1	Num of Lanes: 4	
Date Inspected: 12/3/2006	Structr Adequacy: 6	Superstr Code: 6	Safe Load: 5	
Substr Code: 7	Scour: 5			
BMS Element Num: 415	BMS Element Descr: Exp Jnt - Rubber Bolt down			
BMS Element Quantity: 924				
Project Number: 2011-13 Priority#: 28	2009-11 Priority#: 31			
Repair Year: 2014	Bridge \$'s: \$470,000			
CPMS Ad Date:	Repair Total\$'s: \$1,386,000			
				
<p>Repair Description: Replace the Rubber Bolt Down expansion joints.</p>				
<p>COMMENTS</p>				
<p>The rubber bolt down expansion joints were installed in 1985 along with the modified concrete overlay. These joints have been repaired many times by Region Maintenance.</p> <p>Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.</p>				

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 9 / 360	Structure ID 0006578A	Bridge Name: JOHNSON CR	Milepost: 97.81	Region: Northwest
Year Built / YR Widened: 1961	Bridge Type: CST	Bridge Length: 104 ft	Bridge Width (curb-curb): 28.0 ft	Sufficiency Rating: 75.51 FO
Average Daily Traffic: 12,662	Truck%:	Freight Route:	Num of Lanes: 2	
Date Inspected: 4/18/2007	Structr Adequacy: 6	Superstr Code: 7	Safe Load: 5	
Substr Code: 6	Scour: 4			
BMS Element Num: 215	BMS Element Descr: Concrete Abutment			
BMS Element Quantity: 56				
Project Number:	2011-13 Priority#: 77			
Repair Year:	2009-11 Priority#: 88			
CPMS Ad Date:	Bridge \$'s: \$100,000	Repair Total\$'s: \$350,000		
				
Repair Description: Add a sheet pile wall around the abutments to contain the approach roadway embankment.				
COMMENTS				

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 18 / 9	Structure ID 0005082A	Bridge Name: NP RY OC	Milepost: 3.82	Region: Northwest
Year Built / YR Widened: 1956 / 1975	Bridge Type: CB _o x	Bridge Length: 1,151 ft	Bridge Width (curb-curb): 69.2 ft	Sufficiency Rating: 86.26
Average Daily Traffic: 44,000	Truck% 6%	Freight Route T1	Num of Lanes: 5	
Date Inspected: 12/20/2005	Structr Adequacy: 6	Superstr Code: 6	Safe Load: 5	
Substr Code: 7	Scour: N			
BMS Element Num: 415	BMS Element Descr: Rubber Bolt Down exp joints			
BMS Element Quantity: 413				
Project Number: Repair Year: 2016	2011-13 Priority#: 2009-11 Priority#:	30 33		
CPMS Ad Date:	Bridge \$'s: Repair Total\$'s:	\$309,750 \$619,500		
				
Repair Description: Replace Expansion Joints at 6 locations.				
COMMENTS				
The rubber bolt down expansion joints are deteriorated. Maintenance has removed and replaced sections of the expansion joint. Bridge Item cost based on \$750 / ft. Total project cost based on \$1,500 / ft.				

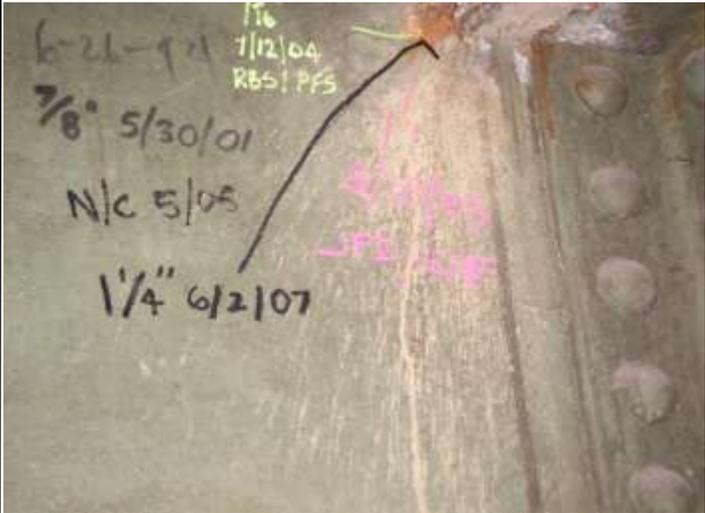
Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 18 / 9		Structure ID 0005082A		Bridge Name: NP RY OC		Milepost: 3.82		Region: Northwest	
Year Built / YR Widened: 1956 / 1975		Bridge Type: CB _{ox}		Bridge Length: 1,151 ft		Bridge Width (curb-curb): 69.2 ft		Sufficiency Rating: 86.26	
Average Daily Traffic: 44,000		Truck% 6%		Freight Route T1		Num of Lanes: 5			
Date Inspected: 12/20/2005		Structr Adequacy: 6		Superstr Code: 6		Safe Load: 5			
Substr Code: 7		Scour: N		BMS Element Num: 161		BMS Element Descr: Steel Hanger Assembly			
BMS Element Quantity: 58		Project Number: 2011-13 Priority#: 31		Repair Year: 2016		2009-11 Priority#: 34			
CPMS Ad Date:		Bridge \$'s: \$250,000		Repair Total\$'s: \$450,000					
									
Repair Description: Clean and Paint Steel Hanger and Pin assembly.									
COMMENTS									
The existing pins and hangers are rusty. They need to be cleaned and painted with an epoxy rust penetrating sealer.									
Use a lump sum bridge Item cost of \$4,000 for each or say \$250,000. Use \$200,000 for Region items. Use \$450,000 for total.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 18 / 17S		Structure ID 0006066B		Bridge Name: GREEN R (NEELEY BRIDGE)		Milepost: 6.62		Region: Northwest	
Year Built / YR Widened: 1959		Bridge Type: STrus CBox		Bridge Length: 371 ft		Bridge Width (curb-curb): 29.5 ft		Sufficiency Rating: 37.45SD	
Average Daily Traffic: 22,000		Truck% 10%		Freight Route T1		Num of Lanes: 2			
Date Inspected: 8/8/2006		Structr Adequacy: 5		Superstr Code: 5		Safe Load: 5			
Substr Code: 5		Scour: 4		BMS Element Num: 356		BMS Element Descr: Steel Stringer			
BMS Element Quantity: 16		Project Number: 2011-13 Priority#: 59		Repair Year: 2009-11 Priority#: 69		CPMS Ad Date: Bridge \$'s: Repair Total\$'s: \$500,000			
		<h2 style="font-size: 2em; opacity: 0.5;">No Photo Available</h2>							
Repair Description: Address cracking in 15 steel stringers.									
COMMENTS									
Repair cope cracks at the following locations: Stringer 1A at Floorbeam 1 , Stringer 1E at Floorbeam 1 , Stringer 2E at Floorbeam 1 , Stringer 3A at Floorbeam 2 , Stringer 3E at Floorbeam 2 , Stringer 4A at Floorbeam 3 , Stringer 4A at Floorbeam 4 , Stringer 5A at Floorbeam 5 , Stringer 6A at Floorbeam 6 , Stringer 6E at Floorbeam 6 , Stringer 7A at Floorbeam 6 , Stringer 7E at Floorbeam 6 , Stringer 7A at Floorbeam 7 , Stringer 8A at Floorbeam 7 , Stringer 8E at Floorbeam 7 .									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 20 / 204		Structure ID 0001929A		Bridge Name: DECEPTION PASS		Milepost: 41.81		Region: Northwest	
Year Built / YR Widened: 1935		Bridge Type: STrus CTB		Bridge Length: 976 ft		Bridge Width (curb-curb): 22.0 ft		Sufficiency Rating: 47.72 FO	
Average Daily Traffic: 14,000		Truck% 6%		Freight Route		Num of Lanes: 2			
Date Inspected: 3/29/2007		Structr Adequacy: 5		Superstr Code: 5		Safe Load: 5			
Substr Code: 7		Scour: 9		BMS Element Num: 131		BMS Element Descr: Steel Deck Truss			
BMS Element Quantity: 0		Project Number:		2011-13 Priority#: 52		Repair Year:			
CPMS Ad Date:		2009-11 Priority#: 61		Bridge \$'s:		Repair Total\$'s: \$500,000		 	
Repair Description: Replace corroded secondary braces.									
COMMENTS									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 20 / 207		Structure ID 0001929B		Bridge Name: CANOE PASS		Milepost: 42.04		Region: Northwest	
Year Built / YR Widened: 1935		Bridge Type: SA CTB		Bridge Length: 511 ft		Bridge Width (curb-curb): 22.0 ft		Sufficiency Rating: 48.21 FO	
Average Daily Traffic: 14,000		Truck% 6%		Freight Route		Num of Lanes: 2			
Date Inspected: 4/11/2007		Structr Adequacy: 5		Superstr Code: 6		Safe Load: 5			
Substr Code: 7		Scour: 9		BMS Element Num: 131		BMS Element Descr: Steel Deck Truss			
BMS Element Quantity: 0		Project Number:		2011-13 Priority#: 61		Repair Year:			
CPMS Ad Date:		2009-11 Priority#: 71		Bridge \$'s: \$200,000		Repair Total\$'s: \$400,000			
									
Repair Description: Replace corroded secondary braces.									
COMMENTS									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 90 / 10W-S		Structure ID 0007565B		Bridge Name: I-5 OC, W-S RAMP		Milepost: 2.40		Region: Northwest	
Year Built / YR Widened: 1965 / 1988		Bridge Type: CBox		Bridge Length: 1,245 ft		Bridge Width (curb-curb): 20.5 ft		Sufficiency Rating: 79.11 FO	
Average Daily Traffic: 13,247		Truck% 5%		Freight Route T1		Num of Lanes: 1			
Date Inspected: 7/11/2005		Structr Adequacy: 6		Superstr Code: 6		Safe Load: 5			
Substr Code: 7		Scour: N		BMS Element Num: 408		BMS Element Descr: Steel Sliding Plate			
BMS Element Quantity: 164		Project Number:		2011-13 Priority#: 32		2009-11 Priority#: 35			
Repair Year: 2016		CPMS Ad Date:		Bridge \$'s: \$164,000		Repair Total\$'s: \$410,000			
				<p>Repair Description: Replace Expansion Joints</p>					
COMMENTS									
<p>Sections of the existing steel sliding plate expansion joints have failed and need to be replaced.</p> <p>Bridge Item cost based on \$1,000 / ft. Total project cost based on \$2,500 / ft.</p>									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 90 / 25N		Structure ID 0012271A		Bridge Name: HOMER M. HADLEY		Milepost: 4.24		Region: Northwest	
Year Built / YR Widened: 1989		Bridge Type: CFP POBX SBOX		Bridge Length: 9,559 ft		Bridge Width (curb-curb): 92.0 ft		Sufficiency Rating: 71.79 FO	
Average Daily Traffic: Truck%		Freight Route		Num of Lanes:					
57,401		T1		7					
Date Inspected: 5/31/2005		Structr Adequacy: 6							
Superstr Code: 6		Safe Load: 5							
Substr Code: 7		Scour: 8							
BMS Element Num: 148		BMS Element Descr: Floating Bridge - Anchor Cable							
BMS Element Quantity: 10									
Project Number:		2011-13 Priority#: 21							
Repair Year: 2014		2009-11 Priority#: 9							
CPMS Ad Date:		Bridge \$'s: \$1,500,000							
		Repair Total\$'s: \$2,000,000							
									
Repair Description:									
Replace 10 anchor cables.									
COMMENTS									
The Bridge Office recommends the following 10 anchor cable be replaced in the 2013-15 biennium: L1n , L2n , L3n , L4n , L5n , L6n , Fn , Jn , Os , Ys									
Bridge Item cost uses \$150,000 for install and cost of each cable ...\$150k x 10 = \$1.5m Use \$500,000 to develop PS&E and construction engineering and contingencies.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 90 / 25N		Structure ID 0012271A		Bridge Name: HOMER M. HADLEY		Milepost: 4.24		Region: Northwest	
Year Built / YR Widened: 1989		Bridge Type: CFP PTCBox SBox		Bridge Length: 9,559 ft		Bridge Width (curb-curb): 92.0 ft		Sufficiency Rating: 71.79 FO	
Average Daily Traffic: 61,500		Truck% 0%		Freight Route T1		Num of Lanes: 7			
Date Inspected: 5/31/2005		Structr Adequacy: 6		Superstr Code: 6		Safe Load: 5			
Substr Code: 7		Scour: 8							
BMS Element Num: 148		BMS Element Descr: Floating Bridge - Anchor Cable				BMS Element Quantity: 10			
Project Number:		2011-13 Priority#: 44		Repair Year: 2016		2009-11 Priority#: 52			
CPMS Ad Date:		Bridge \$'s: \$2,430,000		Repair Total\$'s: \$2,700,000					
									
Repair Description: Replace 10 anchor cables									
COMMENTS									
There are 9 (out of a total of 53) anchor cables that were installed in 1983. These need to be replaced in the 2013-15 biennium. Bridge Item cost uses \$250,000 for install of each cable and \$20,000 cable cost...\$270k x 9 = \$2.43m Use \$300,000 to develop PS&E and construction engineering and contingencies.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 90 / 25S		Structure ID 000000KN		Bridge Name: LACEY V. MURROW BR		Milepost: 4.24		Region: Northwest	
Year Built / YR Widened: 1940 / 1992		Bridge Type: CFP SA ST CBOX S		Bridge Length: 8,981 ft		Bridge Width (curb-curb): 52.0 ft		Sufficiency Rating: 90.80	
Average Daily Traffic: Truck%		Freight Route		Num of Lanes:					
57,401 4%		T1		3					
Date Inspected: 6/5/2007		Structr Adequacy: 6		Safe Load: 5					
Superstr Code: 7		Substr Code: 6		Scour: 8					
BMS Element Num: 148		BMS Element Descr: Floating Bridge - Anchor Cable							
BMS Element Quantity: 10									
Project Number:		2011-13 Priority#: 22							
Repair Year: 2014		2009-11 Priority#: 10							
CPMS Ad Date:		Bridge \$'s: \$1,500,000							
		Repair Total\$'s: \$2,000,000							
									
Repair Description:									
Replace 10 anchor cables.									
COMMENTS									
Recommendation from consultant hired by the Bridge Preservation Office recommends the following anchor cable be replaced: Es , Js , Ks , L1n , L2n , L3n , Ls , Ns , Ps									
Bridge Item cost uses \$250,000 for install of each cable and \$20,000 cable cost...\$270k x 9 = \$2.4m Use \$300,000 to develop PS&E and construction engineering and contingencies.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 90 / 40N		Structure ID 0011490A		Bridge Name: EAST CHANNEL-LK WASH		Milepost: 8.48		Region: Northwest	
Year Built / YR Widened: 1981		Bridge Type: WSBox		Bridge Length: 2,224 ft		Bridge Width (curb-curb): 80.0 ft		Sufficiency Rating: 69.37 FO	
Average Daily Traffic: 67,000		Truck% 0%		Freight Route		Num of Lanes: 5			
Date Inspected: 10/30/2006		Structr Adequacy: 4		Superstr Code: 6		Safe Load: 5			
Substr Code: 7		Scour: 8		BMS Element Num: 416		BMS Element Descr: Modular Expansion Joint			
BMS Element Quantity: 160		Project Number:		2011-13 Priority#: 53		Repair Year:			
CPMS Ad Date:		2009-11 Priority#: 62		Bridge \$'s: \$75,000		Repair Total\$'s: \$150,000			
		Repair Description:		Replace Glands in Modular expansion joints in westbound lanes.		COMMENTS			

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 99 / 507E		Structure ID 0007967A		Bridge Name: SR 599 OC		Milepost: 22.94		Region: Northwest			
Year Built / YR Widened: 1966		Bridge Type: PCB		Bridge Length: 263 ft		Bridge Width (curb-curb): 23.0 ft		Sufficiency Rating: 76.96FO			
Average Daily Traffic: 4,973		Truck% 6%		Freight Route		Num of Lanes: 1					
Date Inspected: 5/10/2006		Structr Adequacy: 5		Superstr Code: 6		Safe Load: 5					
Substr Code: 6		Scour: N									
BMS Element Num: 415		BMS Element Descr: Exp Jnt - Rubber Bolt Down									
BMS Element Quantity: 160 feet											
Project Number:		2011-13 Priority#:		69							
Repair Year:		2009-11 Priority#:		80							
CPMS Ad Date:		Bridge \$'s:		\$74,000							
		Repair Total\$'s:		\$222,000							
											
Repair Description: Replace 160 LF of rubber bolt down expansion joint.											
COMMENTS											
The rubber bolt down expansion joints are deteriorated. Maintenance has removed and replaced sections of the expansion joint. The new Expansion Joint will be RCS with Polyester Concrete headers. Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.											

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 99 / 507S-S		Structure ID 0007967D		Bridge Name: PACIFIC HWY OC		Milepost: 22.94		Region: Northwest	
Year Built / YR Widened: 1966		Bridge Type: PCB		Bridge Length: 236 ft		Bridge Width (curb-curb): 38.0 ft		Sufficiency Rating: 81.78 FO	
Average Daily Traffic: 16,961		Truck% 6%		Freight Route		Num of Lanes: 2			
Date Inspected: 5/10/2006		Structr Adequacy: 6		Superstr Code: 7		Safe Load: 5			
Substr Code: 7		Scour: N		BMS Element Num: 415		BMS Element Descr: Exp Jnt - Rubber Bolt Down			
BMS Element Quantity: 190 feet		Project Number: 2011-13 Priority#: 70		Repair Year: 2009-11 Priority#: 81		CPMS Ad Date: Bridge \$'s: \$95,000			
				Repair Total\$'s: \$285,000					
		<p>Repair Description: Replace 190 LF of rubber bolt down expansion joint.</p>							
COMMENTS									
<p>The rubber bolt down expansion joints are deteriorated. Maintenance has removed and replaced sections of the expansion joint.</p> <p>The new Expansion Joint will be RCS with Polyester Concrete headers.</p> <p>Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.</p>									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 99 / 507W		Structure ID 0007967C		Bridge Name: S 116TH PL OC		Milepost: 22.94		Region: Northwest	
Year Built / YR Widened: 1966		Bridge Type: PCB		Bridge Length: 196 ft		Bridge Width (curb-curb): 23.0 ft		Sufficiency Rating: 81.20 FO	
Average Daily Traffic: 2,447		Truck% 6%		Freight Route		Num of Lanes: 1			
Date Inspected: 5/10/2006		Structr Adequacy: 6		Superstr Code: 7		Safe Load: 5			
Substr Code: 7		Scour: N		BMS Element Num: 415		BMS Element Descr: Exp Jnt - Rubber Bolt Down			
BMS Element Quantity: 108 feet		Project Number: 2011-13 Priority#: 71		Repair Year: 2009-11 Priority#: 82		Bridge \$'s: \$54,000			
CPMS Ad Date:		Repair Total\$'s: \$162,000							
		<h2>No Photo Available</h2>							
Repair Description: Replace 108 LF of rubber bolt down expansion joint.									
COMMENTS									
The rubber bolt down expansion joints are deteriorated. Maintenance has removed and replaced sections of the expansion joint. The new Expansion Joint will be RCS with Polyester Concrete headers. Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 99 / 508		Structure ID 0007967B		Bridge Name: PACIFIC HWY OC		Milepost: 22.94		Region: Northwest	
Year Built / YR Widened: 1966		Bridge Type: PCB		Bridge Length: 248 ft		Bridge Width (curb-curb): 52.0 ft		Sufficiency Rating: 79.25 FO	
Average Daily Traffic: 19,960		Truck% 6%		Freight Route		Num of Lanes: 3			
Date Inspected: 5/10/2006		Structr Adequacy: 6		Superstr Code: 6		Safe Load: 5			
Substr Code: 6		Scour: N		BMS Element Num: 415		BMS Element Descr: Exp Jnt - Rubber Bolt Down			
BMS Element Quantity: 227		Project Number:		2011-13 Priority#: 72		Repair Year:			
CPMS Ad Date:		2009-11 Priority#: 83		Bridge \$'s: \$113,500		Repair Total\$'s: \$340,500			
									
<p>Repair Description: Replace 227 LF of rubber bolt down expansion joint.</p>									
<p>COMMENTS</p>									
<p>The rubber bolt down expansion joints are deteriorated. Maintenance has removed and replaced sections of the expansion joint. The new Expansion Joint will be RCS with Polyester Concrete headers.</p> <p>Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.</p>									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 405 / 70E		Structure ID 0008382A		Bridge Name: SR 522 OC SAMMAMISH R		Milepost: 23.53		Region: Northwest	
Year Built / YR Widened: 1968		Bridge Type: CBox		Bridge Length: 1,352 ft		Bridge Width (curb-curb): 40.0 ft		Sufficiency Rating: 69.28 FO	
Average Daily Traffic: 67,000		Truck% 5%		Freight Route T1		Num of Lanes: 3			
Date Inspected: 9/28/2006		Structr Adequacy: 6		Superstr Code: 6		Safe Load: 5			
Substr Code: 7		Scour: 5		BMS Element Num: 415		BMS Element Descr: Exp Jnt - Rubber Bolt down			
BMS Element Quantity: 200		Project Number:		2011-13 Priority#: 35		2009-11 Priority#: 39			
Repair Year: 2016		CPMS Ad Date:		Bridge \$'s: \$100,000		Repair Total\$'s: \$300,000		 	
<p>Repair Description: Replace all rubber bolt down expansion joints. There are rubber bolt down expansion joints at 5 separate locations on the bridge.</p>									
<p style="text-align: center;">COMMENTS</p> <p>These expansion joints were installed in 1985 with the existing concrete overlay. Many sections of the joints are missing or have been repaired by Region Maintenance crews.</p> <p>Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.</p>									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 405 / 70N-E		Structure ID 0008382C		Bridge Name: N-E RAMP SMMAMISH R		Milepost: 23.53		Region: Northwest			
Year Built / YR Widened: 1968		Bridge Type: CBox		Bridge Length: 709 ft		Bridge Width (curb-curb): 23.0 ft		Sufficiency Rating: 85.23			
Average Daily Traffic: 15,791		Truck% 5%		Freight Route T1		Num of Lanes: 1					
Date Inspected: 4/18/2006		Structr Adequacy: 6		Superstr Code: 6		Safe Load: 5					
Substr Code: 7		Scour: 5									
BMS Element Num: 415		BMS Element Descr: Exp Jnt - Rubber Bolt down									
BMS Element Quantity: 69											
Project Number:		2011-13 Priority#:		36							
Repair Year: 2016		2009-11 Priority#:		40							
CPMS Ad Date:		Bridge \$'s:		\$34,500							
		Repair Total\$'s:		\$103,500							
											
<p>Repair Description:</p> <p>Replace all rubber bolt down expansion joints. There are rubber bolt down expansion joints at 3 separate locations on the bridge.</p>											
<p>COMMENTS</p>											
<p>These expansion joints were installed in 1985 with the existing concrete overlay. Many sections of the joints are missing or have been repaired by Region Maintenance crews.</p> <p>Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.</p>											

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 405 / 70N-W	Structure ID 0008382D	Bridge Name: N-W RAMP SAMMAMISH R	Milepost: 23.53	Region: Northwest
Year Built / YR Widened: 1968	Bridge Type: CBox	Bridge Length: 1,469 ft	Bridge Width (curb-curb): 24.0 ft	Sufficiency Rating: 90.25 FO
Average Daily Traffic: 6,569	Truck% 5%	Freight Route T1	Num of Lanes: 1	
Date Inspected: 9/28/2006	Structr Adequacy: 6	Superstr Code: 6	Safe Load: 5	
Substr Code: 7	Scour: 5	BMS Element Num: 415		
BMS Element Descr: Exp Jnt - Rubber Bolt down		BMS Element Quantity: 120		
Project Number:	2011-13 Priority#:	37		
Repair Year: 2016	2009-11 Priority#:	41		
CPMS Ad Date:	Bridge \$'s:	\$60,000		
	Repair Total\$'s:	\$180,000		
				<p style="text-align: center; font-size: 2em; font-weight: bold; transform: rotate(-10deg);">No Photo Available</p>
<p>Repair Description: Replace all rubber bolt down expansion joints. There are rubber bolt down expansion joints at 5 separate locations on the bridge.</p>				
COMMENTS				
<p>These expansion joints were installed in 1985 with the existing concrete overlay. Many sections of the joints are missing or have been repaired by Region Maintenance crews.</p> <p>Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.</p>				

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 405 / 70S-E		Structure ID 0008382E		Bridge Name: S-E RAMP BR		Milepost: 23.53		Region: Northwest	
Year Built / YR Widened: 1968		Bridge Type: CB _{ox}		Bridge Length: 433 ft		Bridge Width (curb-curb): 25.0 ft		Sufficiency Rating: 95.16FO	
Average Daily Traffic: 8,568		Truck% 5%		Freight Route T1		Num of Lanes: 1			
Date Inspected: 10/19/2005		Structr Adequacy: 6		Superstr Code: 6		Safe Load: 5			
Substr Code: 7		Scour: N		BMS Element Num: 415		BMS Element Descr: Exp Jnt - Rubber Bolt down			
BMS Element Quantity: 50		Project Number:		2011-13 Priority#: 38		2009-11 Priority#: 42			
Repair Year: 2016		CPMS Ad Date:		Bridge \$'s: \$25,000		Repair Total\$'s: \$75,000			
<p>Repair Description: Replace all rubber bolt down expansion joints. There are rubber bolt down expansion joints at 2 separate locations on the bridge.</p>									
<p>COMMENTS</p>									
<p>These expansion joints were installed in 1985 with the existing concrete overlay. Many sections of the joints are missing or have been repaired by Region Maintenance crews.</p> <p>Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.</p>									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 405 / 70W		Structure ID 0008382B		Bridge Name: SR 522 OC SAMMAMISH R		Milepost: 23.53		Region: Northwest			
Year Built / YR Widened: 1968		Bridge Type: CBox		Bridge Length: 1,410 ft		Bridge Width (curb-curb): 34.5 ft		Sufficiency Rating: 56.99FO			
Average Daily Traffic: 67,000		Truck% 5%		Freight Route T1		Num of Lanes: 3					
Date Inspected: 9/27/2006		Structr Adequacy: 5		Superstr Code: 7		Safe Load: 5					
Substr Code: 7		Scour: 5									
BMS Element Num: 415		BMS Element Descr: Exp Jnt - Rubber Bolt down									
BMS Element Quantity: 192											
Project Number:		2011-13 Priority#:		39							
Repair Year: 2016		2009-11 Priority#:		43							
CPMS Ad Date:		Bridge \$'s:		\$100,000							
		Repair Total\$'s:		\$288,000							
											
<p>Repair Description:</p> <p>Replace all rubber bolt down expansion joints. There are rubber bolt down expansion joints at 5 separate locations on the bridge.</p>											
<p>COMMENTS</p>											
<p>These expansion joints were installed in 1985 with the existing concrete overlay. Many sections of the joints are missing or have been repaired by Region Maintenance crews.</p> <p>Bridge Item cost based on \$500 / ft. Total project cost based on \$1,500 / ft.</p>											

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 529 / 15E		Structure ID 0004562A		Bridge Name: UNION SL		Milepost: 5.12		Region: Northwest	
Year Built / YR Widened: 1954		Bridge Type: CTB		Bridge Length: 633 ft		Bridge Width (curb-curb): 28.0 ft		Sufficiency Rating: 55.16FO	
Average Daily Traffic: 11,816		Truck% 5%		Freight Route		Num of Lanes: 2			
Date Inspected: 7/19/2005		Structr Adequacy: 5		Superstr Code: 7		Safe Load: 5			
Substr Code: 5		Scour: 5		BMS Element Num: 227		BMS Element Descr: Concrete Submerged Pile/Column			
BMS Element Quantity: 44		Project Number:		2011-13 Priority#: 65		Repair Year:			
CPMS Ad Date:		2009-11 Priority#: 75		Bridge \$'s: \$3,000,000		Repair Total\$'s: \$3,300,000			
<p>Repair Description: Repair deteriorated columns.</p>									
<p>COMMENTS</p>									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 529 / 15W		Structure ID 0000965B		Bridge Name: UNION SL		Milepost: 5.13		Region: Northwest	
Year Built / YR Widened: 1927		Bridge Type: CTB		Bridge Length: 581 ft		Bridge Width (curb-curb): 24.0 ft		Sufficiency Rating: 40.43SD	
Average Daily Traffic: 11,816		Truck% 5%		Freight Route		Num of Lanes: 2			
Date Inspected: 7/21/2005		Structr Adequacy: 4		Superstr Code: 5		Safe Load: 5			
Substr Code: 4		Scour: 5		BMS Element Num: 227		BMS Element Descr: Concrete Submerged Pile/Column			
BMS Element Quantity:		Project Number:		2011-13 Priority#: 66		Repair Year:			
CPMS Ad Date:		Bridge \$'s: \$3,000,000		Repair Total\$'s: \$3,300,000					
Repair Description: Repair deteriorated columns.									
COMMENTS									
A review of the condition of these columns and a visual inspection indicate that a repair is not required at this time. Monitor condition.									

Bridge Preservation Program (P2)

Bridge Repair Form

Bridge Number: 530 / 124		Structure ID 0007733A		Bridge Name: N FK STILLAGUAMISH R		Milepost: 28.78		Region: Northwest	
Year Built / YR Widened: 1966		Bridge Type: SA PCB		Bridge Length: 377 ft		Bridge Width (curb-curb): 26.0 ft		Sufficiency Rating: 55.27 FO	
Average Daily Traffic: 3,729		Truck% 13%		Freight Route		Num of Lanes: 2			
Date Inspected: 5/20/2007		Structr Adequacy: 5		Superstr Code: 5		Safe Load: 5			
Substr Code: 7		Scour: 7							
BMS Element Num: 356		BMS Element Descr: Steel Stringer		BMS Element Quantity: 12					
Project Number:		2011-13 Priority#: 67		Repair Year:		2009-11 Priority#: 77			
CPMS Ad Date:		Bridge \$'s: \$200,000		Repair Total\$'s: \$400,000					
									
Repair Description: Repair cracking in stringers.									
COMMENTS									
Some cracks have been previously repaired by the Region Maintenance.									

P2 Bridge Preservation - Concrete Deck Repair / Overlay Projects

2011-13 Bien Priority Array

(Sorted by Priority Number)



09-11 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
3	90/78N	SR 18 OC	25.55	Northwest	\$133,768	\$225,400
15	5/534S-W	S-W RAMP LUCILE ST OC	161.28	Northwest	\$378,017	\$1,017,057
16	5/534A	N-W RAMP AIRPORT W. OC	161.27	Northwest	\$606,335	\$1,631,347
17	5/534N-W	N-W RAMP RR OC	161.27	Northwest	\$13,442	\$366,660
18	5/536N-W	NB I5 to WB W SEA FRWY	162.98	Northwest	\$815,174	\$2,057,887
21	203/106	SKYKOMISH R	23.20	Northwest	\$576,380	\$1,223,083
33	9/315	N FK NOOKSACK R U S	78.87	Northwest	\$422,917	\$929,726
36	18/17S	GREEN R (NEELEY BRIDGE)	6.62	Northwest	\$406,047	\$954,562
40	203/104	DRAINAGE OVERFLOW	22.05	Northwest	\$87,090	\$289,946
42	203/3	SLOUGH	0.49	Northwest	\$28,567	\$48,136
43	5/537E-E	6TH-N RAMP BR	162.98	Northwest	\$104,357	\$339,932
50	5/526W	DUWAMISH R BN & UP RR	156.35	Northwest	\$605,568	\$1,020,383
51	5/526E	DUWAMISH R BN & UP RR OC	156.34	Northwest	\$614,843	\$1,036,010
52	5/525.5E	INTERURBAN AVE OC	155.98	Northwest	\$146,584	\$246,994
54	5/539W	SB VIADUCT STA 2075	162.98	Northwest	\$8,470,588	\$11,848,921
55	5/511W	SR 516 OC	149.17	Northwest	\$210,116	\$354,046
57	90/43S	MERCER SL	9.24	Northwest	\$3,990,926	\$6,674,699
59	18/31N	HOLDER CR HOBART RD OC	20.34	Northwest	\$329,899	\$830,030
Total Number of Bridges = 18				Totals \$ =	\$17,940,618	\$31,094,819



P2 Bridge Preservation - Concrete Deck Repair / Overlay Projects

2011-13 Bien Priority Array

(Sorted by Bridge Number)



09-11 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
55	5/511W	SR 516 OC	149.17	Northwest	\$210,116	\$354,046
52	5/525.5E	INTERURBAN AVE OC	155.98	Northwest	\$146,584	\$246,994
51	5/526E	DUWAMISH R BN & UP RR OC	156.34	Northwest	\$614,843	\$1,036,010
50	5/526W	DUWAMISH R BN & UP RR	156.35	Northwest	\$605,568	\$1,020,383
16	5/534A	N-W RAMP AIRPORT W. OC	161.27	Northwest	\$606,335	\$1,631,347
17	5/534N-W	N-W RAMP RR OC	161.27	Northwest	\$13,442	\$366,660
15	5/534S-W	S-W RAMP LUCILE ST OC	161.28	Northwest	\$378,017	\$1,017,057
18	5/536N-W	NB I5 to WB W SEA FRWY	162.98	Northwest	\$815,174	\$2,057,887
43	5/537E-E	6TH-N RAMP BR	162.98	Northwest	\$104,357	\$339,932
54	5/539W	SB VIADUCT STA 2075	162.98	Northwest	\$8,470,588	\$11,848,921
33	9/315	N FK NOOKSACK R U S	78.87	Northwest	\$422,917	\$929,726
36	18/17S	GREEN R (NEELEY BRIDGE)	6.62	Northwest	\$406,047	\$954,562
59	18/31N	HOLDER CR HOBART RD OC	20.34	Northwest	\$329,899	\$830,030
57	90/43S	MERCER SL	9.24	Northwest	\$3,990,926	\$6,674,699
3	90/78N	SR 18 OC	25.55	Northwest	\$133,768	\$225,400
42	203/3	SLOUGH	0.49	Northwest	\$28,567	\$48,136
40	203/104	DRAINAGE OVERFLOW	22.05	Northwest	\$87,090	\$289,946
21	203/106	SKYKOMISH R	23.20	Northwest	\$576,380	\$1,223,083
Total Number of Bridges = 18				Totals \$ =	\$17,940,618	\$31,094,819





BRIDGE NUMBER: 5 / 511W	BRIDGE NAME: SR 516 OC	REGION: Northwest	MILEPOST: 149.17
YEAR BUILT / YR WIDENED: 1962	CONTRACT NO.(S): 06820 , 15968	SUFFICIENCY RATING: 83.30	
BRIDGE TYPE: PCB DECK TYPE: Conc cast-in-place DECK THICKNESS: 7.0 in. <small>(Main Span)</small>		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: <p style="text-align: center;">ACP Overlay Year Applied - 2002</p>	
BRIDGE WIDTH (curb-curb): 71.2 ft.	BRIDGE LENGTH: 259 ft.		
AVERAGE DAILY TRAFFIC (ADT): 94,900	NUMBER OF LANES: 5		
VERTICAL CLEARANCE			
VC Type: NA			
BRIDGE RAIL			
BRIDGE RAIL TYPE: WSDOT CODE - 70.6 Conc Base - Type 1B w/Thrie Beam			
RAIL MEETS CURRENT STANDARDS?: YES	SIDEWALK / CURB WIDTH: 0.0 Lt 0.0 Rt		
EXPANSION JOINTS		DECK PROTECTIVE SYSTEM RECOMMENDATIONS	
Modifications may be required to accommodate a new overlay.		PROTECTIVE OVERLAY RECOMMENDED?: YES TYPE RECOMMENDED: HMA Mill Fill 0.08'	
		RESURFACING COMMENT A 1.5" Modified Concrete overlay was specified as part of the widening project in 2002. The Modified Concrete overlay was deleted by change order and an ACP overlay was applied instead. Resurfacing project must remove and replace 0.08' of HMA, using 3/8" aggregate mix.	
		REVIEWED BY: Bruce Thill DATE: 2/22/2010	



BRIDGE NUMBER: 5 / 525.5E	BRIDGE NAME: INTERURBAN AVE OC	REGION: Northwest	MILEPOST: 155.98
YEAR BUILT / YR WIDENED: 1966	CONTRACT NO.(S): 07618,12291,13182,14543	SUFFICIENCY RATING: 86.61 FO	
BRIDGE TYPE: PCG DECK TYPE: Conc cast-in-place DECK THICKNESS: 7.0 in. <small>(Main Span)</small>		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: <p style="text-align: center;">ACP overlay</p> <p style="text-align: center;">Year Applied - 1982</p> <p style="text-align: center;">Overlay Thickness - 1.8 inches</p>	
BRIDGE WIDTH (curb-curb): 76.0 ft.	BRIDGE LENGTH: 160 ft.		
AVERAGE DAILY TRAFFIC (ADT): 84,210	NUMBER OF LANES: 5		
VERTICAL CLEARANCE			
VC Type: NA			
BRIDGE RAIL			
BRIDGE RAIL TYPE: WSDOT CODE - 60 New Jersey Barrier			
RAIL MEETS CURRENT STANDARDS?: YES	SIDEWALK / CURB WIDTH: 0.0 Lt 0.0 Rt		
EXPANSION JOINTS		DECK PROTECTIVE SYSTEM RECOMMENDATIONS	
Coordinate with your Region's Maintenance Office to determine if any repairs are required.		PROTECTIVE OVERLAY RECOMMENDED?: YES TYPE RECOMMENDED: HMA Mill Fill 0.08'	
		RESURFACING COMMENT	
		If ride improvement is needed We recommend to remove and replace 0.08' of HMA, using 3/8" aggregate mix.	
		REVIEWED BY: Bruce Thill DATE: 2/22/2010	



BRIDGE NUMBER: 5 / 526E	BRIDGE NAME: DUWAMISH R BN & UP RR OC	REGION: Northwest	MILEPOST: 156.34
YEAR BUILT / YR WIDENED: 1964 / 1997	CONTRACT NO.(S): 07171,10342,13182,14543	SUFFICIENCY RATING: 84.49 FO	
BRIDGE TYPE: SB CBOX DECK TYPE: Conc cast-in-place DECK THICKNESS: (Main Span) 9.0 in.		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: ACP overlay Year Applied - 1976 Overlay Thickness - 1.5 inches	
BRIDGE WIDTH (curb-curb): 69.0 ft.	BRIDGE LENGTH: 812 ft.		
AVERAGE DAILY TRAFFIC (ADT): 94,276	NUMBER OF LANES: 5		
VERTICAL CLEARANCE			
VC Type: Minimum VC = 18 FT 08 in			
BRIDGE RAIL			
BRIDGE RAIL TYPE: New Jersey Barrier			
RAIL MEETS CURRENT STANDARDS?: YES	SIDEWALK / CURB WIDTH: 0.0 Lt 0.0 Rt		
EXPANSION JOINTS		DECK PROTECTIVE SYSTEM RECOMMENDATIONS	
Coordinate with your Region's Maintenance Office to determine if any repairs are required.		PROTECTIVE OVERLAY RECOMMENDED?: Yes	TYPE RECOMMENDED: HMA & Memb
		COMMENTS: If asphalt pavement needs replacement, we recommend Removing 1.5" HMA; placing waterproofing membrane; and placing 1.5" of new HMA.	
		REVIEWED BY: Bruce Thill	DATE: 2/26/2010



BRIDGE NUMBER: 5 / 526W	BRIDGE NAME: DUWAMISH R BN & UP RR	REGION: Northwest	MILEPOST: 156.35
YEAR BUILT / YR WIDENED: 1964 / 1996	CONTRACT NO.(S): 07171,10342,13182,14543	SUFFICIENCY RATING: 71.95 FO	
BRIDGE TYPE: SB CBOX DECK TYPE: Conc cast-in-place DECK THICKNESS: (Main Span) 9.0 in.		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: <p style="text-align: center;">ACP overlay Year Applied - 1986 Overlay Thickness - 1.5 inches</p>	
BRIDGE WIDTH (curb-curb): 68.0 ft.	BRIDGE LENGTH: 812 ft.		
AVERAGE DAILY TRAFFIC (ADT): 94,276	NUMBER OF LANES: 5		
VERTICAL CLEARANCE			
VC Type: Minimum VC = 17 FT 03 in			
BRIDGE RAIL			
BRIDGE RAIL TYPE: <p style="text-align: center;">New Jersey Barrier</p> RAIL MEETS CURRENT STANDARDS?: YES		SIDEWALK / CURB WIDTH: 0.0 Lt 0.0 Rt	
EXPANSION JOINTS		DECK PROTECTIVE SYSTEM RECOMMENDATIONS	
Coordinate with your Region's Maintenance Office to determine if any repairs are required.		PROTECTIVE OVERLAY RECOMMENDED?: YES	
		TYPE RECOMMENDED: HMA & Memb	
		COMMENTS: If asphalt pavement needs replacement, we recommend Removing 1.5" HMA; placing waterproofing membrane; and placing 1.5" of new HMA.	
		REVIEWED BY: <p style="text-align: center;"><i>Bruce Thill</i></p>	
		DATE: 2/26/2010	



BRIDGE NUMBER: 5 / 534A	BRIDGE NAME: N-W RAMP AIRPORT W. OC	REGION: Northwest	MILEPOST: 161.27
YEAR BUILT / YR WIDENED: 1967	CONTRACT NO.(S): 07930 , 13737,16695	SUFFICIENCY RATING: 72.51 FO	
BRIDGE TYPE: CBox DECK TYPE: Conc cast-in-place DECK THICKNESS: (Main Span) 7.0 in.		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: original concrete	
BRIDGE WIDTH (curb-curb): 43.0 ft.	BRIDGE LENGTH: 636 ft.		
AVERAGE DAILY TRAFFIC (ADT): 16,113	NUMBER OF LANES: 3		
VERTICAL CLEARANCE			
VC Type: NA			
BRIDGE RAIL			
BRIDGE RAIL TYPE: Conc Base - Type R			
RAIL MEETS CURRENT STANDARDS?: YES	SIDEWALK / CURB WIDTH: 1.5 Lt 1.5 Rt		
EXPANSION JOINTS		DECK PROTECTIVE SYSTEM RECOMMENDATIONS	
Coordinate with your Region's Maintenance Office to determine if any repairs are required. No modifications required at this time.		PROTECTIVE OVERLAY RECOMMENDED?: Yes	TYPE RECOMMENDED: Mod Conc
		COMMENTS:	
		<p>A 3/8 inch polymer overlay was applied in 1990 (Sika-epoxy) and was removed in 2004.</p> <p>This bridge has nearly 0.5% of the deck with patching and delaminations. In other cases we would wait to schedule a protective overlay until the amount is over 2% but this bridge is connected to Bridge 5/534S-W and 5/534N-W so all three bridges must be included together in the same project.</p>	
		REVIEWED BY: Bruce Thill	DATE: 2/26/2010



BRIDGE NUMBER: 5 / 534N-W		BRIDGE NAME: N-W RAMP RR OC		REGION: Northwest	MILEPOST: 161.27
YEAR BUILT / YR WIDENED: 1967		CONTRACT NO.(S): 07930 , 13737,16695			SUFFICIENCY RATING: 91.66
BRIDGE TYPE: CBox DECK TYPE: Conc cast-in-place DECK THICKNESS: (Main Span) 6.5 in.			EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: original concrete		
BRIDGE WIDTH (curb-curb): 21.0 ft.		BRIDGE LENGTH: 291 ft.			
AVERAGE DAILY TRAFFIC (ADT): 4,416		NUMBER OF LANES: 1			
VERTICAL CLEARANCE					
VC Type: NA					
BRIDGE RAIL					
BRIDGE RAIL TYPE: Conc Base - Type R					
RAIL MEETS CURRENT STANDARDS?: YES			SIDEWALK / CURB WIDTH: 1.3 Lt 1.3 Rt		
EXPANSION JOINTS			DECK PROTECTIVE SYSTEM RECOMMENDATIONS		
Coordinate with your Region's Maintenance Office to determine if any repairs are required. No modifications required at this time.			PROTECTIVE OVERLAY RECOMMENDED?: Yes TYPE RECOMMENDED: Mod Concrete COMMENTS: A 3/8 inch polymer overlay was applied in 1990 (Sika-epoxy) and was removed in 2004. This bridge has nearly 0.5% of the deck with patching and delaminations. In other cases we would wait to schedule a protective overlay until the amount is over 2% but this bridge is connected to Bridge 5/534S-W and 5/534N-W so all three bridges must be included together in the same project.		
REVIEWED BY: <i>Bruce Thill</i>			DATE: 2/26/2010		



BRIDGE NUMBER: 5 / 534S-W	BRIDGE NAME: S-W RAMP LUCILE ST OC	REGION: Northwest	MILEPOST: 161.28
YEAR BUILT / YR WIDENED: 1967	CONTRACT NO.(S): 07930 , 13737	SUFFICIENCY RATING: 76.33 SD	
BRIDGE TYPE: CBox DECK TYPE: Conc cast-in-place DECK THICKNESS: 6.5 in. <small>(Main Span)</small> BRIDGE WIDTH (curb-curb): 31.0 ft. BRIDGE LENGTH: 550 ft. AVERAGE DAILY TRAFFIC (ADT): 12,901 NUMBER OF LANES: 2		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: original concrete	
VERTICAL CLEARANCE VC Type: NA			
BRIDGE RAIL BRIDGE RAIL TYPE: WSDOT CODE - 73.2 Conc Base - Type R RAIL MEETS CURRENT STANDARDS?: YES SIDEWALK / CURB WIDTH: 1.5 Lt 1.5 Rt			
EXPANSION JOINTS Coordinate with your Region's Maintenance Office to determine if any repairs are required. No modifications required at this time.		DECK PROTECTIVE SYSTEM RECOMMENDATIONS PROTECTIVE OVERLAY RECOMMENDED?: YES TYPE RECOMMENDED: MC Overlay / Hydro RESURFACING COMMENT Deck Rehabilitation: Place 1.5" modified concrete overlay using hydromilling. Expansion Joint modification is required.	
REVIEWED BY: <i>Bruce Thill</i>		DATE: 2/22/2010	



BRIDGE NUMBER: 5 / 536N-W	BRIDGE NAME: NB I5 to WB W SEA FRWY	REGION: Northwest	MILEPOST: 162.98
YEAR BUILT / YR WIDENED: 1967	CONTRACT NO.(S): 07741	SUFFICIENCY RATING: 77.18 SD	
BRIDGE TYPE: CBOX DECK TYPE: Conc cast-in-place DECK THICKNESS: 6.5 in. (Main Span)	EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: original concrete		
BRIDGE WIDTH (curb-curb): 21.0 ft. BRIDGE LENGTH: 1,722 ft. AVERAGE DAILY TRAFFIC (ADT): 15,185 NUMBER OF LANES: 1			
VERTICAL CLEARANCE VC Type: NA			
BRIDGE RAIL BRIDGE RAIL TYPE: WSDOT CODE - 73.2 Conc Base - Type R RAIL MEETS CURRENT STANDARDS?: YES SIDEWALK / CURB WIDTH: 1.5 Lt 1.5 Rt			
EXPANSION JOINTS The steel sliding expansion joints need to be replaced.	DECK PROTECTIVE SYSTEM RECOMMENDATIONS PROTECTIVE OVERLAY RECOMMENDED?: YES TYPE RECOMMENDED: RSLMC or MCO RESURFACING COMMENT This structure has extremely large laminar spalling that is unique and the cause has yet to be determined. We recommend to remove the delams by Hydromilling and place a 1.5" modified concrete overlay. Rapid Set Latex Modified Concrete overlay may be option for rapid construction and will cost more. Expansion Joints modification is required.		
	REVIEWED BY: <i>Bruce Thill</i>	DATE: 2/22/2010	



BRIDGE NUMBER: 5 / 537E-E	BRIDGE NAME: 6TH-N RAMP BR	REGION: Northwest	MILEPOST: 162.98
YEAR BUILT / YR WIDENED: 1967	CONTRACT NO.(S): 07741	SUFFICIENCY RATING: 79.53 FO	
BRIDGE TYPE: CBOX CS DECK TYPE: Conc cast-in-place DECK THICKNESS: (Main Span) 6.5 in.		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: original concrete	
BRIDGE WIDTH (curb-to-curb): 16.0 ft.	BRIDGE LENGTH: 228 ft.		
AVERAGE DAILY TRAFFIC (ADT): 5,638	NUMBER OF LANES: 1		
VERTICAL CLEARANCE			
VC Type: NA			
BRIDGE RAIL			
BRIDGE RAIL TYPE: Conc Base - Type R			
RAIL MEETS CURRENT STANDARDS?: YES	SIDEWALK / CURB WIDTH: 1.5 Lt 1.5 Rt		
EXPANSION JOINTS		DECK PROTECTIVE SYSTEM RECOMMENDATIONS	
		PROTECTIVE OVERLAY RECOMMENDED?: Yes	TYPE RECOMMENDED: RSLMC
		COMMENTS: The bridge deck has nearly 3% deterioration. We recommend the bridge deck be hydromilled and a rapid set LMC be applied.	
		REVIEWED BY: Bruce Thill	DATE: 2/25/2010



BRIDGE NUMBER: 5 / 539W	BRIDGE NAME: SB VIADUCT STA 2075	REGION: Northwest	MILEPOST: 162.98
YEAR BUILT / YR WIDENED: 1967	CONTRACT NO.(S): 07741	SUFFICIENCY RATING: 64.44	
BRIDGE TYPE: CS DECK TYPE: Conc cast-in-place DECK THICKNESS: (Main Span) 18.0 in.		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: original concrete	
BRIDGE WIDTH (curb-curb): 68.0 ft. BRIDGE LENGTH: 6,622 ft.			
AVERAGE DAILY TRAFFIC (ADT): 109,480 NUMBER OF LANES: 5			
VERTICAL CLEARANCE VC Type: NA			
BRIDGE RAIL BRIDGE RAIL TYPE: New Jersey Barrier RAIL MEETS CURRENT STANDARDS?: YES SIDEWALK / CURB WIDTH: 0.0 Lt 0.0 Rt			
EXPANSION JOINTS The steel plate expansion joints @ 41 locations need to be replaced (2,660 LF).		DECK PROTECTIVE SYSTEM RECOMMENDATIONS PROTECTIVE OVERLAY RECOMMENDED?: Yes TYPE RECOMMENDED: Polyester COMMENTS: A new overlay is needed to address the wheel rutting. A 3/4" Polyester overlay is the most likely solution similar to what was done on bridge 5/539E in 2008.	
REVIEWED BY: Bruce Thill		DATE: 2/26/2010	



BRIDGE NUMBER: 9 / 315		BRIDGE NAME: N FK NOOKSACK R U S		REGION: Northwest	MILEPOST: 78.87		
YEAR BUILT / YR WIDENED: 1954		CONTRACT NO.(S): 04542 , 14264			SUFFICIENCY RATING: 45.66 SD		
BRIDGE TYPE: STrus CTB		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: 3/8" Polymer Overlay Year Applied - 1993 Overlay Thickness - 0.4 inches					
DECK TYPE: Conc cast-in-place							
DECK THICKNESS: (Main Span) 6.5 in.							
BRIDGE WIDTH (curb-to-curb): 26.0 ft.						BRIDGE LENGTH: 410 ft.	
AVERAGE DAILY TRAFFIC (ADT): 1,800						NUMBER OF LANES: 2	
VERTICAL CLEARANCE							
VC Type: NA							
BRIDGE RAIL							
BRIDGE RAIL TYPE: Steel Post - Thrie Beam							
RAIL MEETS CURRENT STANDARDS?: YES			SIDEWALK / CURB WIDTH: 2.5 Lt 2.5 Rt				
EXPANSION JOINTS							
Coordinate with your Region's Maintenance Office to determine if any repairs are required.							
DECK PROTECTIVE SYSTEM RECOMMENDATIONS							
PROTECTIVE OVERLAY RECOMMENDED?: Yes			TYPE RECOMMENDED: Mod Conc				
COMMENTS: A 3/8" Polymer overlay (Degussa-MMA) was applied to the concrete deck in 1993. Bridge Inspection data indicates over 6% of the overlay has deterioration and it is estimated that over 3% of the concrete deck has deterioration. We recommend hydromilling 1" of the existing concrete deck and applying a 1.5" modified concrete overlay.							
REVIEWED BY: Bruce Thill				DATE: 2/26/2010			



BRIDGE NUMBER: 18 / 17S	BRIDGE NAME: GREEN R (NEELEY BRIDGE)	REGION: Northwest	MILEPOST: 6.62
YEAR BUILT / YR WIDENED: 1959	CONTRACT NO.(S): 06066 , 14354	SUFFICIENCY RATING: 37.45 SD	
BRIDGE TYPE: STrus CBox DECK TYPE: Conc cast-in-place DECK THICKNESS: (Main Span) 6.5 in.		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: Original Concrete	
BRIDGE WIDTH (curb-curb): 29.5 ft.	BRIDGE LENGTH: 371 ft.		
AVERAGE DAILY TRAFFIC (ADT): 23,922	NUMBER OF LANES: 2		
VERTICAL CLEARANCE			
VC Type: Minimum VC = 14 FT 06 in			
BRIDGE RAIL			
BRIDGE RAIL TYPE: New Jersey Barrier			
RAIL MEETS CURRENT STANDARDS?: YES		SIDEWALK / CURB WIDTH: 0.0 Lt 0.0 Rt	
EXPANSION JOINTS		DECK PROTECTIVE SYSTEM RECOMMENDATIONS	
Coordinate with the Maintenance office to determine if any repairs are required.		PROTECTIVE OVERLAY RECOMMENDED?: YES	
		TYPE RECOMMENDED: Mod conc	
		COMMENTS: A 3/8" Polymer overlay was applied and then removed. Bridge Inspection data indicates nearly 4% of concrete bridge deck has deterioration. We recommend hydromilling 1" of the existing concrete deck and applying a 1.5" modified concrete overlay.	
		REVIEWED BY: Bruce Thill	
		DATE: 2/26/2010	



BRIDGE NUMBER: 18 / 31N		BRIDGE NAME: HOLDER CR HOBART RD OC		REGION: Northwest	MILEPOST: 20.34
YEAR BUILT / YR WIDENED: 1961		CONTRACT NO.(S): 06541 , 13549		SUFFICIENCY RATING: 76.96	
BRIDGE TYPE: CBOX DECK TYPE: Conc cast-in-place DECK THICKNESS: 6.5 in. (Main Span)			EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: Polyester Overlay Year Applied - 1989 Overlay Thickness - 0.8 inches		
BRIDGE WIDTH (curb-curb): 40.3 ft.		BRIDGE LENGTH: 304 ft.			
AVERAGE DAILY TRAFFIC (ADT): 9,000		NUMBER OF LANES: 2			
VERTICAL CLEARANCE					
VC Type: NA					
BRIDGE RAIL					
BRIDGE RAIL TYPE: WSDOT CODE - 65 Single Slope Barrier					
RAIL MEETS CURRENT STANDARDS?: YES		SIDEWALK / CURB WIDTH: 0.0 Lt 0.0 Rt			
EXPANSION JOINTS			DECK PROTECTIVE SYSTEM RECOMMENDATIONS		
Modifications may be required to accommodate the new overlay.			PROTECTIVE OVERLAY RECOMMENDED?: YES TYPE RECOMMENDED: Mod Concrete		
			RESURFACING COMMENT The existing 3/4" Polyester is developing pot holes above the existing patch locations. We recommend removing the existing overlay with a rotomill, hydromill for deck preparation, and replacing it with a modified concrete overlay.		
REVIEWED BY: <i>Bruce Thill</i>				DATE: 2/22/2010	



BRIDGE NUMBER: 90 / 43S	BRIDGE NAME: MERCER SL	REGION: Northwest	MILEPOST: 9.24
YEAR BUILT / YR WIDENED: 1970	CONTRACT NO.(S): 08610 , 13846	SUFFICIENCY RATING: 68.64 FO	
BRIDGE TYPE: CBox CS DECK TYPE: Conc cast-in-place DECK THICKNESS: (Main Span) 7.2 in.		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: original concrete	
BRIDGE WIDTH (curb-curb): 73.5 ft. BRIDGE LENGTH: 2,669 ft.			
AVERAGE DAILY TRAFFIC (ADT): 60,204 NUMBER OF LANES: 5			
VERTICAL CLEARANCE			
VC Type: NA			
BRIDGE RAIL			
BRIDGE RAIL TYPE: Conc Base - Type R			
RAIL MEETS CURRENT STANDARDS?: YES		SIDEWALK / CURB WIDTH: 0.8 Lt 0.8 Rt	
EXPANSION JOINTS		DECK PROTECTIVE SYSTEM RECOMMENDATIONS	
Coordinate with your Region's Maintenance Office to determine if any repairs are required.		PROTECTIVE OVERLAY RECOMMENDED?: YES TYPE RECOMMENDED: To Be Determined	
		COMMENTS: Deck protection is required due to the amount of exposed reinforcing steel in the bridge deck. The type of overlay will be determined during the project design phase. The overlay will likely be either a 3/4" Polyester or a hydromill and 1.5" Rapid Set LMC.	
		REVIEWED BY: Bruce Thill DATE: 2/26/2010	



BRIDGE NUMBER: 90 / 78N	BRIDGE NAME: I-90 OVER SR 18	REGION: Northwest	MILEPOST: 25.55
YEAR BUILT / YR WIDENED: 1963	CONTRACT NO.(S): 06966 , 13941	SUFFICIENCY RATING: 89.88 SD	
BRIDGE TYPE: PCG DECK TYPE: Conc cast-in-place DECK THICKNESS: 5.8 in. (Main Span)	BRIDGE WIDTH (curb-curb): 70.0 ft. BRIDGE LENGTH: 158 ft. AVERAGE DAILY TRAFFIC (ADT): 19,068 NUMBER OF LANES: 4	EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: MMC Overlay Year Applied - 1991 Overlay Thickness - 6.0 inches	
VERTICAL CLEARANCE VC Type: NA			
BRIDGE RAIL BRIDGE RAIL TYPE: WSDOT CODE - 60 New Jersey Barrier RAIL MEETS CURRENT STANDARDS?: YES SIDEWALK / CURB WIDTH: 0.0 Lt 0.0 Rt			
EXPANSION JOINTS Coordinate with your Region's Maintenance Office to determine if any repairs are required.		DECK PROTECTIVE SYSTEM RECOMMENDATIONS PROTECTIVE OVERLAY RECOMMENDED?: YES TYPE RECOMMENDED: HMA mill only RESURFACING COMMENT We recommend removing the 2"-6" concrete overlay and placing HMA with membrane. The deck is in good condition. ACP overlay was removed and replaced with 2"-6" MMC in 1991 widening project. The MMC overlay is too thick. Overlay has fractured into large pieces and has significant rutting at the joint headers. The Load Rating includes up to 6" of additional overlay Dead Load.	
REVIEWED BY: Bruce Thill		DATE: 2/22/2010	



BRIDGE NUMBER: 203 / 3	BRIDGE NAME: SLOUGH	REGION: Northwest	MILEPOST: 0.49
YEAR BUILT / YR WIDENED: 1945	CONTRACT NO.(S): 02999	SUFFICIENCY RATING: 89.96 FO	
BRIDGE TYPE: TTC DECK TYPE: Conc cast-in-place DECK THICKNESS: (Main Span) 7.5 in.		EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: original concrete	
BRIDGE WIDTH (curb-curb): 36.0 ft.	BRIDGE LENGTH: 52 ft.		
AVERAGE DAILY TRAFFIC (ADT): 7,993	NUMBER OF LANES: 2		
VERTICAL CLEARANCE VC Type: NA			
BRIDGE RAIL			
BRIDGE RAIL TYPE: Balluster Rail w/Thrie Beam			
RAIL MEETS CURRENT STANDARDS?: YES	SIDEWALK / CURB WIDTH: 0.0 Lt 0.0 Rt		
EXPANSION JOINTS		DECK PROTECTIVE SYSTEM RECOMMENDATIONS	
Std. Plan A7, Detail 1 should be used at the end of the bridge deck.		PROTECTIVE OVERLAY RECOMMENDED?: YES	TYPE RECOMMENDED: HMA / Memb
		COMMENTS: Bridge Inspection data indicates nearly 1.5% of the deck is deteriorated. We recommend repairing the deck and applying a membrane and 0.15' of HMA.	
		REVIEWED BY: <i>Bruce Thill</i>	DATE: 2/26/2010



BRIDGE NUMBER: 203 / 104	BRIDGE NAME: DRAINAGE OVERFLOW	REGION: Northwest	MILEPOST: 22.05
YEAR BUILT / YR WIDENED: 1954	CONTRACT NO.(S): 04825	SUFFICIENCY RATING: 60.44 SD	
BRIDGE TYPE: CS DECK TYPE: Conc cast-in-place DECK THICKNESS: 14.0 in. (Main Span)	EXISTING WEARING SURFACE AND DECK PROTECTION TYPE: original concrete		
BRIDGE WIDTH (curb-curb): 26.0 ft. BRIDGE LENGTH: 89 ft. AVERAGE DAILY TRAFFIC (ADT): 11,317 NUMBER OF LANES: 2			
VERTICAL CLEARANCE VC Type: NA			
BRIDGE RAIL BRIDGE RAIL TYPE: WSDOT CODE - 42 Balluster Rail w/Thrie Beam RAIL MEETS CURRENT STANDARDS?: YES SIDEWALK / CURB WIDTH: 2.5 Lt 2.5 Rt			
EXPANSION JOINTS Std. Plan A7, Detail 1 should be used at the end of the bridge deck.	DECK PROTECTIVE SYSTEM RECOMMENDATIONS PROTECTIVE OVERLAY RECOMMENDED?: YES TYPE RECOMMENDED: MC Overlay RESURFACING COMMENT Bridge Inspection reports indicate the deck is more than 5% deteriorated. We recommend placing 1.5" modified concrete overlay with 0.5" hydromill scarification.		
	REVIEWED BY: <i>Bruce Thill</i>	DATE: 2/22/2010	



BRIDGE NUMBER: 203 / 106		BRIDGE NAME: SKYKOMISH R		REGION: Northwest		MILEPOST: 23.20	
YEAR BUILT / YR WIDENED: 1957		CONTRACT NO.(S): 05294 , 14227			SUFFICIENCY RATING: 48.00 FO		
BRIDGE TYPE: ST CBOX				EXISTING WEARING SURFACE AND DECK PROTECTION TYPE:			
DECK TYPE: Conc cast-in-place				3/8in Polymer-Epoxy			
DECK THICKNESS: 6.5 in. (Main Span)				Year Applied - 1993			
				Overlay Thickness - 0.4 inches			
BRIDGE WIDTH (curb-curb): 28.0 ft.		BRIDGE LENGTH: 582 ft.					
AVERAGE DAILY TRAFFIC (ADT): 14,166		NUMBER OF LANES: 2					
VERTICAL CLEARANCE							
VC Type: NA							
BRIDGE RAIL							
BRIDGE RAIL TYPE: WSDOT CODE - 42 Balluster Rail w/Thrie Beam							
RAIL MEETS CURRENT STANDARDS?: YES		SIDEWALK / CURB WIDTH: 2.5 Lt 2.5 Rt					
EXPANSION JOINTS				DECK PROTECTIVE SYSTEM RECOMMENDATIONS			
Coordinate with your Region's Maintenance Office to determine if any repairs are required.				PROTECTIVE OVERLAY RECOMMENDED?: YES			
				TYPE RECOMMENDED: Rapid Set LMC Overlay			
				RESURFACING COMMENT			
				Exclude bridge from resurfacing projects.			
				The existing thin polymer overlay has failed. Deck protection is warranted. P2 project will remove existing polymer overlay and place new Polyester Concrete or RSLMC overlay. Joint modifications will be required to accommodate a new concrete overlay.			
				REVIEWED BY: <i>Bruce Thill</i>		DATE: 2/22/2010	

P2 Bridge Preservation - Steel Bridge Painting Projects

2011-13 Bien Priority Array

(Sorted by Priority Number)



11-13 #	Bridge Number	Bridge Name	Mile Post	Region	Yr Work Planned	Total Project\$
6	5/828W	NOOKSACK R	263.05	Northwest	2012	\$1,407,000
7	5/828E	NOOKSACK R	263.05	Northwest	2012	\$1,554,000
14	18/17S	GREEN R (NEELEY BRIDGE)	6.62	Northwest	2014	\$1,281,000
15	99/560	AURORA AVE-G WASH MEM	34.14	Northwest	2015	\$50,000,000
16	90/25S	LACEY V. MURROW BRIDGE	4.24	Northwest	2015	\$18,850,000
27	9/118	SNOHOMISH R	9.17	Northwest	2015	\$2,240,000
28	202/60	SNOQUALMIE R	26.00	Northwest	2015	\$1,491,000
29	9/122	SR 9 OC, BICKFORD AVE	10.87	Northwest	2015	\$196,000
30	5/670W	STILLAGUAMISH R	209.35	Northwest	2015	\$2,846,250
33	5/532W	SB VIADUCT STA 1918	160.07	Northwest	2017	\$1,146,750
34	5/650W	EBEY SL BN RY SR 529 OC	198.51	Northwest	2017	\$1,223,750
39	410/101	WHITE R	21.99	Northwest	2017	\$1,673,000
40	99/538	SPOKANE ST OC	29.15	Northwest	2017	\$863,500
41	167/127W	BN RR OC (NP)	20.96	Northwest	2017	\$412,500
42	167/127E	BN RR OC (NP)	20.96	Northwest	2017	\$412,500
49	2/40	S FK SKYKOMISH R	35.21	Northwest	2019	\$1,652,000
50	20/204	DECEPTION PASS	41.81	Northwest	2019	\$7,592,000
56	20/244	SCOTT PAPER RD OVR SR 20	76.94	Northwest	2019	\$200,000
57	5/526.1	ARCHIE CODIGA BRIDGE	156.48	Northwest	2019	\$682,000
61	202/66	S FK SNOQUALMIE R	29.50	Northwest	2021	\$214,500
65	20/311	HALF BR STA 155	122.41	Northwest	2021	\$200,000
66	542/33	GLACIER CR	33.49	Northwest	2021	\$200,000
70	530/290	ROCKPORT BRIDGE	67.34	Northwest	2021	\$673,750
74	536/15	SKAGIT R CS2907	4.72	Northwest	2021	\$3,471,000

Total Number of Bridges = 24

Total Project \$ = \$100,482,500



P2 Bridge Preservation - Steel Bridge Painting Projects

2011-13 Bien Priority Array

(Sorted by Bridge Number)



11-13 #	Bridge Number	Bridge Name	Mile Post	Region	Yr Work Planned	Total Project\$
49	2/40	S FK SKYKOMISH R	35.21	Northwest	2019	\$1,652,000
57	5/526.1	ARCHIE CODIGA BRIDGE	156.48	Northwest	2019	\$682,000
33	5/532W	SB VIADUCT STA 1918	160.07	Northwest	2017	\$1,146,750
34	5/650W	EBEY SL BN RY SR 529 OC	198.51	Northwest	2017	\$1,223,750
30	5/670W	STILLAGUAMISH R	209.35	Northwest	2015	\$2,846,250
7	5/828E	NOOKSACK R	263.05	Northwest	2012	\$1,554,000
6	5/828W	NOOKSACK R	263.05	Northwest	2012	\$1,407,000
27	9/118	SNOHOMISH R	9.17	Northwest	2015	\$2,240,000
29	9/122	SR 9 OC, BICKFORD AVE	10.87	Northwest	2015	\$196,000
14	18/17S	GREEN R (NEELEY BRIDGE)	6.62	Northwest	2014	\$1,281,000
50	20/204	DECEPTION PASS	41.81	Northwest	2019	\$7,592,000
56	20/244	SCOTT PAPER RD OVR SR 20	76.94	Northwest	2019	\$200,000
65	20/311	HALF BR STA 155	122.41	Northwest	2021	\$200,000
16	90/25S	LACEY V. MURROW BRIDGE	4.24	Northwest	2015	\$18,850,000
40	99/538	SPOKANE ST OC	29.15	Northwest	2017	\$863,500
15	99/560	AURORA AVE-G WASH MEM	34.14	Northwest	2015	\$50,000,000
42	167/127E	BN RR OC (NP)	20.96	Northwest	2017	\$412,500
41	167/127W	BN RR OC (NP)	20.96	Northwest	2017	\$412,500
28	202/60	SNOQUALMIE R	26.00	Northwest	2015	\$1,491,000
61	202/66	S FK SNOQUALMIE R	29.50	Northwest	2021	\$214,500
39	410/101	WHITE R	21.99	Northwest	2017	\$1,673,000
70	530/290	ROCKPORT BRIDGE	67.34	Northwest	2021	\$673,750
74	536/15	SKAGIT R CS2907	4.72	Northwest	2021	\$3,471,000
66	542/33	GLACIER CR	33.49	Northwest	2021	\$200,000

Total Number of Bridges = 24

Total Project \$ = \$100,482,500



Steel Bridge Paint Form

2011-13 Biennium Priorities

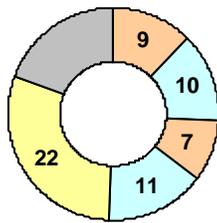


Bridge Number: 2 / 40		Bridge Name: S FK SKYKOMISH R		Milepost: 35.21	Region: Northwest
Year Built 1933	Bridge Type: ST CTB	Steel Span Length: 240 ft.	Width (curb-curb): 24 ft.	Steel Tonnage: 236	
Paint Age: 22	Paint Color: Evergreen	Steel Surf. Area: 35,400 sqft	BMS Cond State 2: 2,500 sqft	BMS Cond State 3: 1,000 sqft	
Next Paint Year: 2019	2011-13 Rank: 49	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$1,652,000

Past Paint History

Years	Cycle
1988	11
1977	7
1970	10
1960	9
1951	

Painting Cycle



■ = Current Paint Age



Bridge Inspection Notes:

Painted stringers, floorbeams, and truss has some peeling and curling paint. Paint protection has failed at the floorbeam and stringer top flange to deck interface. Rust with section loss, up to 5%, in top flanges of the stringers at interface with the deck. Floorbeams top flanges show up to 10% section loss.

Steel Bridge Paint Form

2011-13 Biennium Priorities

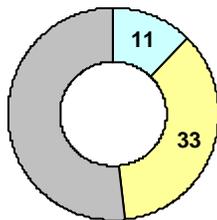


Bridge Number: 5 / 526.1		Bridge Name: ARCHIE CODIGA BRIDGE		Milepost: 156.48	Region: Northwest
Year Built 1966	Bridge Type: SB TTT		Steel Span Length: 645 ft.	Width (curb-curb): 26 ft.	Steel Tonnage: 248
Paint Age: 33	Paint Color: 26307 Light Gray	Steel Surf. Area: 27,280 sqft	BMS Cond State 2: 1,400 sqft	BMS Cond State 3: 1,300 sqft	
Next Paint Year: 2019	2011-13 Rank: 57	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$682,000

Past Paint History

Years	Cycle
1977	11
1966	

Painting Cycle



■ = Current Paint Age



Bridge Inspector's Notes:

Top flange rust in exterior stringers at sidewalk joints. Rust blooms in both top and bottom flanges. Large piles of pigeon guano on bottom lateral gusset plates. Fire damage at east abutment burnt an area of the paint but no significant damage. Peeling paint is more prevalent in Spans 1 and 2.

Bridge Office Recommendation:

Contain steel spans, use a SP7 Sweep blast, overcoat with a 2 coat moisture cured urethane.

Estimate Bridge Item costs using \$20/SF steel area. Total cost = Br\$ x 1.5

Steel Bridge Paint Form

2011-13 Biennium Priorities

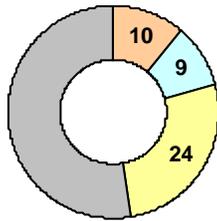


Bridge Number: 5 / 532W		Bridge Name: SB VIADUCT STA 1918		Milepost: 160.07	Region: Northwest
Year Built 1967	Bridge Type: SG		Steel Span Length: 529 ft.	Width (curb-curb): 76.9 ft.	Steel Tonnage: 417
Paint Age: 24	Paint Color: 26307 Light Gray	Steel Surf. Area: 45,870 sqft	BMS Cond State 2: 2,300 sqft	BMS Cond State 3: 800 sqft	
Next Paint Year: 2017	2011-13 Rank: 33	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$1,146,750

Past Paint History

Years	Cycle
1986	9
1977	10
1967	

Painting Cycle



■ = Current Paint Age



No Photo Available

This bridge was widened as part of contract #14543. Two new steel beams were added to the west outside of the bridge (131 tons). These new beams have a paint thickness of 7.0mils and used a "Washington Gray" color. The next paint project on this bridge should exclude the new beam since it was painted with a zinc primer and moisture cured urethane top coat.

Bridge Inspection Notes:

The paint is chalky throughout with areas that are peeling and flaking, especially along the bottom of the girder top flanges. There are many areas of spot rusting.

Steel Bridge Paint Form

2011-13 Biennium Priorities

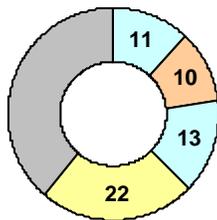


Bridge Number: 5 / 650W		Bridge Name: EBEY SL BN RY SR 529 OC		Milepost: 198.51	Region: Northwest
Year Built 1954	Bridge Type: SG CTB		Steel Span Length: 300 ft.	Width (curb-curb): 54 ft.	Steel Tonnage: 445
Paint Age: 22	Paint Color: 26307 Light Gray	Steel Surf. Area: 48,950 sqft	BMS Cond State 2: 2,500 sqft	BMS Cond State 3: 250 sqft	
Next Paint Year: 2017	2011-13 Rank: 34	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$1,223,750

Past Paint History

Years	Cycle
1988	13
1975	10
1965	11
1954	22

Painting Cycle



■ = Current Paint Age



The inspection report says:

"A few small areas of missing paint on the bottom flanges. Light top flange rust on beams and cross brace channels below the deck slab joint over piers 24 and 25. Pigeon nests and guano on lateral gusset plates and bottom flanges. Center wind locks over plate under south link & pins in span 24 is rusted and jammed with 5/8" of rust pack."

The cost to replace the steel spans is approximately 54'x 300'x \$400/SF = \$6.5 million.

Steel Bridge Paint Form

2011-13 Biennium Priorities

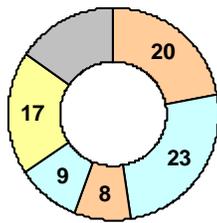


Bridge Number: 5 / 670W		Bridge Name: STILLAGUAMISH R		Milepost: 209.35	Region: Northwest
Year Built 1933	Bridge Type: ST CTB		Steel Span Length: 600 ft.	Width (curb-curb): 48 ft.	Steel Tonnage: 759
Paint Age: 17	Paint Color: Steel Gray	26329	Steel Surf. Area: 113,850 sqft	BMS Cond State 2: 3,500 sqft	BMS Cond State 3: 1,000 sqft
Next Paint Year: 2015	2011-13 Rank: 30	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$2,846,250

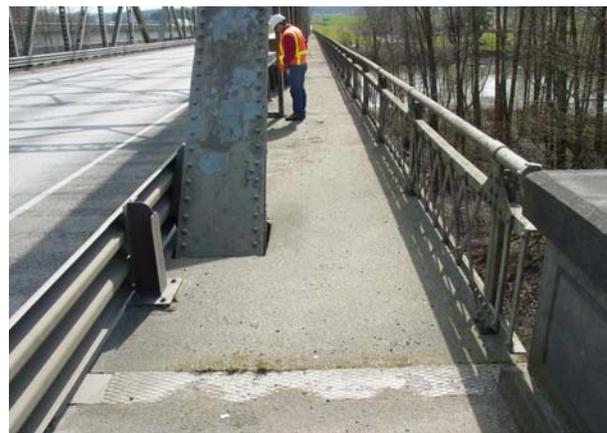
Past Paint History

Years	Cycle
1993	9
1984	8
1976	23
1953	20
1933	

Painting Cycle



■ = Current Paint Age



The 1993 painting contract was one of the first in the state that required the containment and disposal of the abrasives used to prepare the steel surfaces. The inspection report says that there is "small rust blooms scattered throughout. Some rust at bottom gusset connections to the bottom chord. Rust staining on top flanges of stringers and floorbeams." As part of the cost estimate for the next painting project, an assumption of 15% of the total steel area will need abrasive blasting.

The bridge deck is scheduled to be replaced in the 2013-15 biennium. The bridge painting should follow the deck replacement in a separate project.

Steel Bridge Paint Form

2011-13 Biennium Priorities

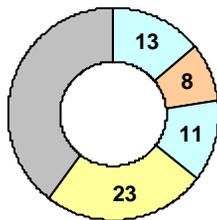


Bridge Number: 5 / 828E		Bridge Name: NOOKSACK R		Milepost: 263.05	Region: Northwest
Year Built 1955	Bridge Type: ST CTB		Steel Span Length: 220 ft.	Width (curb-curb): 28 ft.	Steel Tonnage: 222
Paint Age: 23	Paint Color: 26307 Light Gray	Steel Surf. Area: 33,300 sqft	BMS Cond State 2: 10,000 sqft	BMS Cond State 3: 3,330 sqft	
Next Paint Year: 2012	2011-13 Rank: 7	Past Due / Due / OK Past Due	CPMS Ad date:	Paint Pin Number: 100595E	Future Paint Cost: \$1,554,000

Past Paint History

Years	Cycle
1987	11
1976	8
1968	13
1955	23

Painting Cycle



= Current Paint Age



Bridge Inspection Notes:

The paint system is chalking, peeling, and curling. Paint has peeled up to 10% of area to exposed rusty metal. Paint has peeled up to 30% of area without exposed metal.

Steel Bridge Paint Form

2011-13 Biennium Priorities

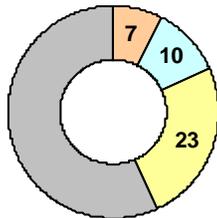


Bridge Number: 5 / 828W		Bridge Name: NOOKSACK R		Milepost: 263.05	Region: Northwest
Year Built 1971	Bridge Type: ST PCB		Steel Span Length: 220 ft.	Width (curb-curb): 38 ft.	Steel Tonnage: 201
Paint Age: 23	Paint Color: 26307 Light Gray	Steel Surf. Area: 30,150 sqft	BMS Cond State 2: 20,000 sqft	BMS Cond State 3: 500 sqft	
Next Paint Year: 2012	2011-13 Rank: 6	Past Due / Due / OK Past Due	CPMS Ad date:	Paint Pin Number: 100595E	Future Paint Cost: \$1,407,000

Past Paint History

Years	Cycle
1987	10
1977	7
1970	

Painting Cycle



■ = Current Paint Age



Bridge Inspection Notes:

STEEL STRINGERS - Some of the ends near the floor beams are rusting in the top flange.

FLOOR BEAMS - Top flange of the floor beams are rusting with up to 5% section loss. The top flange at the ends has the most advanced rusting.

TRUSS BOTTOM CHORD - Pack rust between the bottom lateral gusset plates and the bottom chord with a few starting to bulge. Paint is peeling with over 40% gone exposing the previous paint. The top paint is not adhering to the bottom paint. Pigeon quano noted.

Steel Bridge Paint Form

2011-13 Biennium Priorities

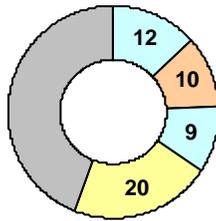


Bridge Number: 9 / 118		Bridge Name: SNOHOMISH R		Milepost: 9.17	Region: Northwest
Year Built 1959	Bridge Type: ST CBOX CTB	Steel Span Length: 300 ft.	Width (curb-curb): 29.3 ft.	Steel Tonnage: 320	
Paint Age: 20	Paint Color: Evergreen	34097	Steel Surf. Area: 48,000 sqft	BMS Cond State 2: 9,435 sqft	BMS Cond State 3: 1,572 sqft
Next Paint Year: 2015	2011-13 Rank: 27	Past Due / Due / OK Past Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$2,240,000

Past Paint History

Years	Cycle
1990	9
1981	10
1971	12
1959	

Painting Cycle



■ = Current Paint Age



No Photo Available

Bridge Inspection Notes:

Truss members are moss covered and have peeling paint. Inside faces have more peeling paint than the outside faces. There is bird guano and dirt accumulations up to 3" deep in joint areas. The gray primer is exposed and peeling paint as noted: Top Chord - 80% gone; Diagonals - 40% gone; Bottom Chord - 50% gone.

Full removal of the paint is warranted based on the condition of the existing paint.

Steel Bridge Paint Form

2011-13 Biennium Priorities

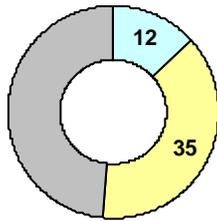


Bridge Number: 9 / 122		Bridge Name: SR 9 OC, BICKFORD AVE		Milepost: 10.87	Region: Northwest
Year Built 1963	Bridge Type: SB TTT		Steel Span Length: 64 ft.	Width (curb-curb): 30 ft.	Steel Tonnage: 28
Paint Age: 35	Paint Color: N/A	N/A	Steel Surf. Area: 3,080 sqft	BMS Cond State 2: 1,500 sqft	BMS Cond State 3: 600 sqft
Next Paint Year: 2015	2011-13 Rank: 29	Past Due / Due / OK Past Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$196,000

Past Paint History

Years	Cycle
1975	12
1963	

Painting Cycle



■ = Current Paint Age



Bridge Inspector's Notes:

Spots of surface rust throughout. Peeled paint and sheet rust on girder end bottom flanges and on flange edges. Rust freckles on many bolts and end cross bracing elements.

Bridge Office Recommendation:

Use a containment system, prepare steel using SP7 Sweep blast, apply a three coat rust penetrating sealer paint system.

Steel Bridge Paint Form

2011-13 Biennium Priorities

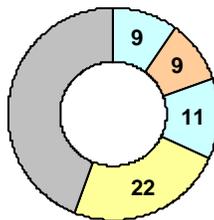


Bridge Number: 18 / 17S		Bridge Name: GREEN R (NEELEY BRIDGE)		Milepost: 6.62	Region: Northwest
Year Built 1959	Bridge Type: ST CBOX	Steel Span Length: 200 ft.	Width (curb-curb): 29.5 ft.	Steel Tonnage: 183	
Paint Age: 22	Paint Color: Evergreen	34097	Steel Surf. Area: 27,450 sqft	BMS Cond State 2: 5,500 sqft	BMS Cond State 3: 3,700 sqft
Next Paint Year: 2014	2011-13 Rank: 14	Past Due / Due / OK Past Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$1,281,000

Past Paint History

Years	Cycle
1988	11
1977	9
1968	9
1959	

Painting Cycle



■ = Current Paint Age



Bridge Inspector's notes:

Rusting in sliding joints at stringers and on top flanges of stringer near floor beams. Rusting in several exposed areas at floor beams.

TRUSS: Mossy growth on paint with a few pits and rust blooms. Rust blooms on portals and top sways throughout. Paint peeling off in sheets on W. portal frame.

FLOOR BEAMS: Mud and rust staining on the top flanges, webs and bottom flanges. Sheet rust on the bottom side of the top flange up to 1/8" deep. Top flange has 5-10% section loss, mostly near the end of the floor beams.

Full removal of the paint is warranted based on existing paint condition.

Steel Bridge Paint Form

2011-13 Biennium Priorities

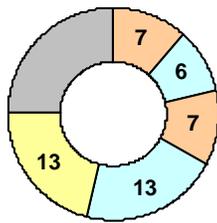


Bridge Number: 20 / 204		Bridge Name: DECEPTION PASS		Milepost: 41.81	Region: Northwest
Year Built 1935	Bridge Type: ST CTB	Steel Span Length: 900 ft.	Width (curb-curb): 22 ft.	Steel Tonnage: 1,168	
Paint Age: 13	Paint Color: Evergreen	Steel Surf. Area: 175,200 sqft	BMS Cond State 2: 87,600 sqft	BMS Cond State 3: 10,260 sqft	
Next Paint Year: 2019	2011-13 Rank: 50	Past Due / Due / OK: Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$7,592,000

Past Paint History

Years	Cycle
1997	13
1984	7
1977	6
1971	7
1954	

Painting Cycle



■ = Current Paint Age



Full removal of the existing paint was required to the floor beams and stringers in the last painting contract.

Up to 10% section loss was noted in the top and bottom flanges of the stringers prior to being painted in 1998. Rust at interface between top flanges and deck. Surface rust with some pitting. Pack rust in the bottom flanges and bearing seats with up to 50% section loss, especially Stringers A and E. There are many areas that are rusting through the paint. Paint preparation and thickness varied greatly throughout the bridge from several layers of paint protection to over spray with no preparation to the metal. Rust stains on several of the members. Surface rust on several of the stringers and truss members.

Steel Bridge Paint Form

2011-13 Biennium Priorities



Bridge Number: 20 / 244		Bridge Name: SCOTT PAPER CO RD UC		Milepost: 76.94	Region: Northwest
Year Built 1967	Bridge Type: SB TTT		Steel Span Length: 41 ft.	Width (curb-curb): 14 ft.	Steel Tonnage: 7
Paint Age: 35	Paint Color: Warm Brown	30099	Steel Surf. Area: 770 sqft	BMS Cond State 2: 77 sqft	BMS Cond State 3: 0 sqft
Next Paint Year: 2019	2011-13 Rank: 56	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$200,000

Past Paint History

Years

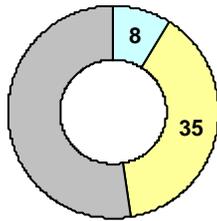
1975

1967

Cycle

8

Painting Cycle



■ = Current Paint Age



No Photo Available

No Photo Available

The last inspection report says there are a few small paint blisters on the web of beam 3C. There is also light top flange rust on all stringers.

Steel Bridge Paint Form

2011-13 Biennium Priorities

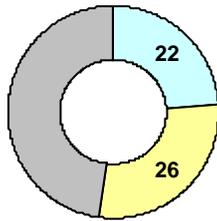


Bridge Number: 20 / 311		Bridge Name: HALF BR STA 155		Milepost: 122.41	Region: Northwest
Year Built 1900	Bridge Type: SB		Steel Span Length: 62 ft.	Width (curb-curb): 28 ft.	Steel Tonnage: 38
Paint Age: 26	Paint Color: Steel Gray	26329	Steel Surf. Area: 4,180 sqft	BMS Cond State 2: 418 sqft	BMS Cond State 3: 41 sqft
Next Paint Year: 2021	2011-13 Rank: 65	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$200,000

Past Paint History

Years	Cycle
1984	22
1962	26

Painting Cycle



■ = Current Paint Age



This bridge has an open grid deck that has been filled with concrete.

Steel Bridge Paint Form

2011-13 Biennium Priorities

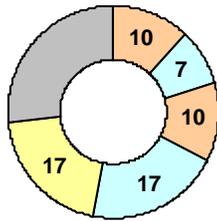


Bridge Number: 90 / 25S		Bridge Name: LACEY V. MURROW BRIDGE		Milepost: 4.24	Region: Northwest
Year Built 1940	Bridge Type: CFP SA ST CBOX S		Steel Span Length: 884 ft.	Width (curb-curb): 52 ft.	Steel Tonnage: 2,900
Paint Age: 17	Paint Color: Wa. Gray	N/A	Steel Surf. Area: 435,000 sqft	BMS Cond State 2: 145,000 sqft	BMS Cond State 3: 0 sqft
Next Paint Year: 2015	2011-13 Rank: 16	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$18,850,000

Past Paint History

Years	Cycle
1993	17
1976	10
1966	7
1959	10
1949	

Painting Cycle



■ = Current Paint Age



The steel truss spans were spread apart and rehabilitated as part of the bridge widening project in 1993. Full containment was used during the painting work.

Bridge Inspection Notes:

Exterior stringers in the deck truss have approximately 30% of the surface paint layer flaking off and areas of freckle rust. Stringers in the tied arch spans have approximately 50% of the top coat peeling throughout. Surface layer of paint is flaking off on approximately 5% of the truss members. Approximately 10% of the top coat of paint is peeling off of the outside flanges of the tied arch hangers, and 5% off of the arch ties. All floorbeams in deck truss have top layer of paint flaking off.

Steel Bridge Paint Form

2011-13 Biennium Priorities

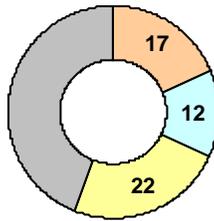


Bridge Number: 99 / 538		Bridge Name: SPOKANE ST OC		Milepost: 29.15	Region: Northwest
Year Built 1959	Bridge Type: SB CBOX TTT	Steel Span Length: 192 ft.	Width (curb-curb): 76 ft.	Steel Tonnage: 314	
Paint Age: 22	Paint Color: 26307 Light Gray	Steel Surf. Area: 34,540 sqft	BMS Cond State 2: 1,500 sqft	BMS Cond State 3: 1,000 sqft	
Next Paint Year: 2017	2011-13 Rank: 40	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$863,500

Past Paint History

Painting Cycle

Years	Cycle
1988	12
1976	17
1959	



■ = Current Paint Age

No Photo Available



No Photo Available

The paint thickness was not specified in contract 13456.

Steel Bridge Paint Form

2011-13 Biennium Priorities

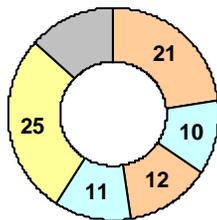


Bridge Number: 99 / 560		Bridge Name: AURORA AVE-G WASH MEM BR		Milepost: 34.14	Region: Northwest
Year Built 1931	Bridge Type: ST CG		Steel Span Length: 1950 ft.	Width (curb-curb): 56.5 ft.	Steel Tonnage: 7,983
Paint Age: 25	Paint Color: 26307 Light Gray	Steel Surf. Area: 1,197,450 sqft	BMS Cond State 2: 957 sqft	BMS Cond State 3: 120 sqft	
Next Paint Year: 2015	2011-13 Rank: 15	Past Due / Due / OK Past Due	CPMS Ad date:	Paint Pin Number: 109947B	Future Paint Cost: \$50,000,000

Past Paint History

Years	Cycle
1985	11
1974	12
1962	10
1952	21
1931	21

Painting Cycle



■ = Current Paint Age



In 1995 (C#14547) 0.75' of the sidewalk and 3.75' of the roadway slab on both sides of the bridge was removed and replaced. The steel supporting this area was rehabilitated and painted with a MC Urethane.

Inspection of the paint is needed to determine if it can be overcoated or not.

Steel Bridge Paint Form

2011-13 Biennium Priorities

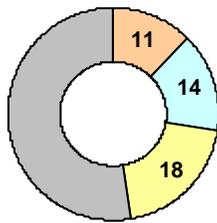


Bridge Number: 167 / 127E		Bridge Name: BN RR OC (NP)		Milepost: 20.96	Region: Northwest
Year Built 1967	Bridge Type: SB		Steel Span Length: 314 ft.	Width (curb-curb): 56 ft.	Steel Tonnage: 150
Paint Age: 18	Paint Color: 26307 Light Gray	Steel Surf. Area: 16,500 sqft	BMS Cond State 2: 2,000 sqft	BMS Cond State 3: 200 sqft	
Next Paint Year: 2017	2011-13 Rank: 42	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$412,500

Past Paint History

Years	Cycle
1992	14
1978	11
1967	

Painting Cycle



 = Current Paint Age



No Photo Available

The thickness of the paint was not specified in contract 14057.

This bridge was widened as part of contract 14771. There are two new girders placed on the north side and one new girder placed on the south side. These girders should be excluded from the next paint contract.

Bridge Inspection Notes:

There are several areas of thin, peeling paint and spots of surface rust.

Steel Bridge Paint Form

2011-13 Biennium Priorities

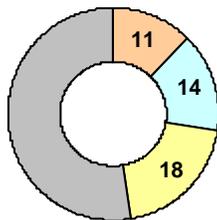


Bridge Number: 167 / 127W		Bridge Name: BN RR OC (NP)		Milepost: 20.96	Region: Northwest
Year Built 1967	Bridge Type: SB		Steel Span Length: 314 ft.	Width (curb-curb): 50 ft.	Steel Tonnage: 150
Paint Age: 18	Paint Color: 26307 Light Gray	Steel Surf. Area: 16,500 sqft	BMS Cond State 2: 800 sqft	BMS Cond State 3: 500 sqft	
Next Paint Year: 2017	2011-13 Rank: 41	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$412,500

Past Paint History

Years	Cycle
1992	14
1978	11
1967	

Painting Cycle



■ = Current Paint Age



The thickness of the paint was not specified in contract 14057. This bridge was widened as part of contract 14771. There are two new girders placed on the south side. These girders should be excluded from the next paint contract.

There are rust blooms throughout, especially on the bottom flanges. There is peeling paint in the webs and bottom flanges. Girders E and F were installed when the bridge was widened in 1998. There are a few spots of rust on the original girders where the paint is thin.

The cost estimate is based on overcoat. The quantity of steel used in 1967 is estimated to be about 14,500 sq ft.

Steel Bridge Paint Form

2011-13 Biennium Priorities

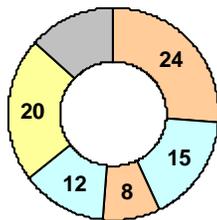


Bridge Number: 202 / 60		Bridge Name: SNOQUALMIE R		Milepost: 26.00	Region: Northwest
Year Built 1931	Bridge Type: ST CTB		Steel Span Length: 220 ft.	Width (curb-curb): 24 ft.	Steel Tonnage: 213
Paint Age: 20	Paint Color: Evergreen	34097	Steel Surf. Area: 31,950 sqft	BMS Cond State 2: 16,000 sqft	BMS Cond State 3: 1,500 sqft
Next Paint Year: 2015	2011-13 Rank: 28	Past Due / Due / OK Past Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$1,491,000

Past Paint History

Years	Cycle
1990	12
1978	8
1970	15
1955	24
1931	

Painting Cycle



■ = Current Paint Age



The last paint contract (13767) did not specify the thickness of the paint.

Bridge Inspection Notes:

Steel truss has peeling and cracking paint throughout, and rusting in some of the members. Rust in the top and bottom flanges of stringers and floorbeams. Some rust staining along web of sidewalk stringers.

Steel Bridge Paint Form

2011-13 Biennium Priorities

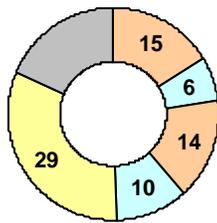


Bridge Number: 202 / 66		Bridge Name: S FK SNOQUALMIE R		Milepost: 29.50	Region: Northwest
Year Built 1936	Bridge Type: SG CS		Steel Span Length: 95 ft.	Width (curb-curb): 24 ft.	Steel Tonnage: 78
Paint Age: 29	Paint Color: 26307 Light Gray	Steel Surf. Area: 8,580 sqft	BMS Cond State 2: 1,000 sqft	BMS Cond State 3: 100 sqft	
Next Paint Year: 2021	2011-13 Rank: 61	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$214,500

Past Paint History

Years	Cycle
1981	10
1971	14
1957	6
1951	15
1936	

Painting Cycle



■ = Current Paint Age



Bridge Inspection Notes:

Paint has failed with many paint blister spots on the steel open girder top flanges over 15 percent of the area. The paint blisters range from 1" to 12" in diameter. The steel open girders have areas of surface rust with no section loss. The bottom flanges and crossbraces have built up debris. Girder 9A at Floorbeam 9-8 has minor pack rust pushing the bottom plate out 1/8". Girder 9A at Floorbeam 9-9 has a rivet with 50 percent section loss (not found in 2006). Girder 9B at Floorbeam 9-9 has a rivet with 15% section loss (not found in 2006)."

Steel Bridge Paint Form

2011-13 Biennium Priorities

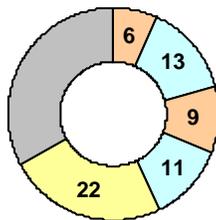


Bridge Number: 410 / 101		Bridge Name: WHITE R		Milepost: 21.99	Region: Northwest
Year Built 1949	Bridge Type: ST CTB	Steel Span Length: 200 ft.	Width (curb-curb): 32 ft.	Steel Tonnage: 239	
Paint Age: 22	Paint Color: Evergreen	Steel Surf. Area: 35,850 sqft	BMS Cond State 2: 17,000 sqft	BMS Cond State 3: 1,000 sqft	
Next Paint Year: 2017	2011-13 Rank: 39	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$1,673,000

Past Paint History

Years	Cycle
1988	11
1977	9
1968	13
1955	6
1949	

Painting Cycle



■ = Current Paint Age



Bridge Inspection Notes:

Paint is failing in several areas. The top flange of the bottom sway braces have areas of peeling paint. The top of truss has many rust blooms and areas of peeling paint - chalky throughout. Paint is chipped and peeling on bottom of diagonals and on verticals. Paint is peeling and failing on the bottom chord, bottom lateral gussets, top chord connections, floor beam to truss connections, and bottom of stringer to floor beam connections. There are areas of blistered and peeling paint on floorbeams.

Assume full paint removal to estimate next painting project cost.

Steel Bridge Paint Form

2011-13 Biennium Priorities

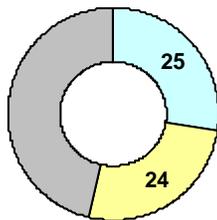


Bridge Number: 530 / 290		Bridge Name: ROCKPORT BRIDGE		Milepost: 67.34	Region: Northwest
Year Built 1961	Bridge Type: SB CTB	Steel Span Length: 456 ft.	Width (curb-curb): 24.2 ft.	Steel Tonnage: 245	
Paint Age: 24	Paint Color: Evergreen	Steel Surf. Area: 26,950 sqft	BMS Cond State 2: 1,000 sqft	BMS Cond State 3: 1,000 sqft	
Next Paint Year: 2021	2011-13 Rank: 70	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$673,750

Past Paint History

Years	Cycle
1986	25
1961	24

Painting Cycle



= Current Paint Age



A LMC overlay was applied to the bridge deck in 1995 (C#14696). The bridge rails and expansion joints were also replaced.

Bridge Inspection Notes:

Girder paint system is starting to peel and flake in some locations. The top flange of the outside girders are starting to rust in few areas.

Light rust in bottom flange and diaphragms at hinges. Areas of rust in top flanges at interface with deck.

Cost estimate based on overcoating the existing paint system.

Steel Bridge Paint Form

2011-13 Biennium Priorities

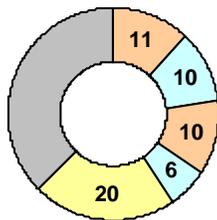


Bridge Number: 536 / 15		Bridge Name: SKAGIT R		Milepost: 4.72	Region: Northwest
Year Built 1953	Bridge Type: SS ST CTB		Steel Span Length: 451 ft.	Width (curb-curb): 28 ft.	Steel Tonnage: 534
Paint Age: 20	Paint Color: 26307 Light Gray	Steel Surf. Area: 80,100 sqft	BMS Cond State 2: 20,000 sqft	BMS Cond State 3: 4,000 sqft	
Next Paint Year: 2021	2011-13 Rank: 74	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$3,471,000

Past Paint History

Years	Cycle
1990	6
1984	10
1974	10
1964	11
1953	

Painting Cycle



= Current Paint Age



Bridge Inspection Notes:

Top layer of paint has failed on the bottom chord. Paint breaking down and steel surface is rusting in hand holds, bottom half of truss diagonals, end posts and portal frames, top chords and sway frames.

Bridge Office Recommendation:

Containment system, Prepare bridge with 3,000psi pressure wash or SP7 Sweep Blast, spot blast rust areas.

Bridge Item cost based on \$25/SF steel surface area. Total Cost = Br\$ x 1.5

Steel Bridge Paint Form

2011-13 Biennium Priorities

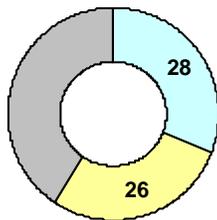


Bridge Number: 542 / 33		Bridge Name: GLACIER CR		Milepost: 33.49	Region: Northwest
Year Built 1956	Bridge Type: SB		Steel Span Length: 84 ft.	Width (curb-curb): 26 ft.	Steel Tonnage: 35
Paint Age: 26	Paint Color: Evergreen	34097	Steel Surf. Area: 3,850 sqft	BMS Cond State 2: 2,050 sqft	BMS Cond State 3: 200 sqft
Next Paint Year: 2021	2011-13 Rank: 66	Past Due / Due / OK Due	CPMS Ad date:	Paint Pin Number:	Future Paint Cost: \$200,000

Past Paint History

Years	Cycle
1984	28
1956	26

Painting Cycle



■ = Current Paint Age



No Photo Available

No Photo Available

The last inspection report indicates that there are many paint chips on the bottom flange of the steel beams. The top flanges have laminar rust near abutments. The top flanges of cross brace channels are rusty.

Many of the roadway rail posts have peeling paint. The bearing plates and bolts are heavily corroded.

P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Priority Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
2	522/138	SNOHOMISH R	20.50	Northwest	\$1,129,000	\$2,691,000
6	9/128	GETCHELL BRIDGE	21.09	Northwest	\$82,000	\$272,000
7	167/111W-N	W-N RAMP N-E RAMP OC	14.28	Northwest	\$88,000	\$295,000
10	410/115	SCATTER CR	31.06	Northwest	\$176,000	\$810,000
12	5/570	LAKE WASH SHIP CANAL	169.63	Northwest		\$5,000,000
17	5/503E	SR 18 OC	142.00	Northwest	\$900,000	\$1,800,000
18	5/503W	SR 18 OC	142.00	Northwest	\$900,000	\$1,800,000
19	5/504W	S 336TH ST OC	142.79	Northwest	\$146,000	\$258,588
20	5/504E	S 336TH ST OC	142.79	Northwest	\$178,000	\$314,048
21	5/506W	MILITARY RD OC	144.65	Northwest	\$183,000	\$322,403
22	5/506E	MILITARY RD OC	144.65	Northwest	\$190,000	\$335,283
23	5/507E	S 288TH ST OC	145.79	Northwest	\$264,000	\$467,973
24	5/507W	S 288TH ST OC	145.79	Northwest	\$246,000	\$436,838
25	5/508W	MILITARY RD OC	146.43	Northwest	\$608,000	\$1,082,466
26	5/508E	MILITARY RD OC	146.44	Northwest	\$434,000	\$772,646
27	5/509W	S 272ND ST OC	146.81	Northwest	\$243,000	\$431,353
28	5/509E	S 272ND ST OC	146.81	Northwest	\$248,000	\$440,451
29	5/510E	S 260TH ST OC	147.64	Northwest	\$153,000	\$271,003
30	5/510W	S 260TH ST OC	147.64	Northwest	\$111,000	\$195,812
31	5/511E	SR 516 OC	149.17	Northwest	\$455,000	\$806,424
32	5/516W	ORILLA RD OC-SO188TH ST	152.26	Northwest	\$388,000	\$685,466
33	5/516E	ORILLA RD OC	152.26	Northwest	\$304,000	\$539,590
34	5/520W	KLICKITAT DR OC	154.13	Northwest	\$220,000	\$389,704
35	5/521W	E-N RAMP OC	154.52	Northwest	\$186,000	\$329,621
36	5/521E	E-N S-N RAMPS OC	154.52	Northwest	\$285,000	\$505,148
37	5/531W	MILITARY RD OC	159.67	Northwest	\$215,000	\$379,932
38	5/531E	MILITARY RD OC	159.67	Northwest	\$235,000	\$416,869
39	5/534W	LUCILE ST OC	161.27	Northwest	\$441,000	\$783,189
40	5/534E	LUCILE ST OC	161.27	Northwest	\$470,000	\$836,699
41	5/535W	SB VIADUCT STA 2032	162.24	Northwest	\$1,638,000	\$2,916,293
42	5/536E	NB VIADUCT STA 2064	162.98	Northwest	\$742,000	\$1,311,067
43	5/536W	SB VIADUCT STA 2064	162.98	Northwest	\$965,000	\$1,702,147
44	5/538E	NB VIADUCT STA 2075	162.98	Northwest	\$1,438,000	\$2,531,717
45	5/539W	SB VIADUCT STA 2075	162.98	Northwest	\$9,795,000	\$17,299,191
46	5/539E	NB VIADUCT STA 2085	163.24	Northwest	\$8,585,000	\$15,166,523
47	5/543SCD	SBCD KING JACKSON ST OC	164.41	Northwest	\$512,105	\$921,789
49	5/543E	KING-JACKSON ST OC	164.41	Northwest	\$384,214	\$691,584
50	5/543W	KING-JACKSON ST OC	164.41	Northwest	\$372,961	\$671,329
51	5/542E	DEARBORN ST OC	164.41	Northwest	\$121,787	\$219,216



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Priority Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
52	5/542W	DEARBORN ST OC	164.41	Northwest	\$108,746	\$195,743
53	5/542SCD	SBCD DEARBORN ST OC	164.41	Northwest	\$221,529	\$398,752
54	5/543NCD	NBCD KING JACKSON ST OC	164.41	Northwest	\$453,195	\$815,750
55	5/539NCD	NBCD RAMP BR	164.41	Northwest	\$70,730	\$127,314
56	5/542NCD	NBCD DEARBORN ST OC	164.41	Northwest	\$153,527	\$276,349
56	405/1	I-5 OC	0.00	Northwest	\$319,539	\$575,170
57	5/539SCD	SBCD VIADUCT STA 2133	164.41	Northwest	\$1,070,091	\$1,926,164
58	5/545W	SB VIADUCT STA 2195	165.69	Northwest	\$398,646	\$717,562
59	5/545E	NB VIADUCT STA 2195	165.69	Northwest	\$4,311,269	\$7,760,283
60	5/545SCD	SBCD VIADUCT STA 2195	165.71	Northwest	\$559,460	\$1,007,028
61	5/566W	DENNY WAY-LAKEVIEW V	166.98	Northwest	\$12,064,641	\$21,716,353
62	5/562E	NB LANES VIADUCT	166.98	Northwest	\$187,798	\$338,036
63	5/588SCD	SBCD NORTHGATE WAY OC	172.76	Northwest	\$200,767	\$361,380
64	5/588W	NORTHGATE WAY OC	172.76	Northwest	\$376,272	\$677,289
65	5/588E	NORTHGATE WAY OC	172.76	Northwest	\$421,702	\$759,063
67	5/501	I-5 OC, S 375TH	140.15	Northwest	\$287,271	\$517,087
68	5/505	I-5 OC, S320TH	143.83	Northwest	\$410,000	\$726,620
69	5/513	I-5 OC, S 216TH	150.33	Northwest	\$247,000	\$437,194
70	5/517A	S-W RAMP OC	152.48	Northwest	\$228,000	\$403,088
71	5/518	I-5 OC, S 178TH ST	153.15	Northwest	\$207,000	\$366,211
72	5/528	I-5 OC, S 107TH ST	158.01	Northwest	\$495,000	\$876,724
73	5/532.1	N-SWIFT RAMP	161.27	Northwest	\$299,442	\$538,996
74	5/534A	N-W RAMP AIRPORT W. OC	161.27	Northwest	\$870,843	\$1,567,517
75	5/533.5W	N-W RAMP OC	161.27	Northwest	\$1,024,111	\$1,843,400
76	5/536N-W	NB I5 to WB W SEA FRWY	162.98	Northwest	\$423,924	\$763,062
77	5/538S-E	S-E RAMP I-5 OC	162.99	Northwest		\$500,000
78	5/537N	S-E RAMP WB LANES	162.99	Northwest	\$1,273,000	\$2,241,707
79	5/537E-S	E-S RAMP BR	162.99	Northwest	\$213,131	\$383,635
80	5/537W-W	W-6TH RAMP BR	163.00	Northwest	\$97,895	\$176,210
81	5/537S	EB LANES I-5 OC	163.00	Northwest	\$919,000	\$1,617,323
82	5/544	I-5 OC, YESLER ST	165.69	Northwest	\$678,513	\$1,221,323
83	5/546	I-5 OC, MADISON ST	165.69	Northwest	\$485,546	\$873,982
84	5/547	I-5 OC, SPRING ST	165.69	Northwest	\$612,150	\$1,101,870
85	5/548	I-5 OC, SENECA ST	165.69	Northwest	\$616,594	\$1,109,869
86	5/549	I-5 UC, 8TH AVE	165.69	Northwest	\$218,609	\$393,495
87	5/550	I-5 OC, PIKE ST	166.06	Northwest	\$723,195	\$1,301,751
88	5/551	I-5 OC, PINE ST-BOREN	166.06	Northwest	\$1,326,650	\$2,387,969
89	5/596	I-5 OC, NE 185TH ST	176.72	Northwest	\$372,444	\$670,398
90	5/629A	BROADWAY AVE UC	192.59	Northwest	\$299,783	\$539,609



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Priority Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
91	405/11	SR 181 OC	0.96	Northwest	\$764,044	\$1,375,278
92	405/12	BN RR OC (CMSTPP & NP)	1.14	Northwest	\$928,439	\$1,671,189
93	405/15	SR 167 OC	2.30	Northwest	\$560,313	\$1,008,563
94	405/16	SR 515 OC	2.77	Northwest	\$318,247	\$572,844
95	405/41E	SE 8TH ST OC	12.78	Northwest	\$144,216	\$259,588
96	405/41W	WILBURTON INTERCHANGE	12.79	Northwest	\$144,799	\$260,637
97	405/45E	N-W N-E RAMP OC	14.82	Northwest	\$106,788	\$192,218
98	405/45W	N-W & N-E RAMPS OC	14.82	Northwest	\$107,569	\$193,624
99	405/46E	SR 520 OC	14.83	Northwest	\$212,993	\$383,387
100	405/46W	SR 520 OC	14.83	Northwest	\$208,093	\$374,567
101	405/47E	NORTHUP WAY OC	14.83	Northwest	\$120,599	\$217,077
102	405/47W	NORTHUP WAY OC	14.83	Northwest	\$327,124	\$588,822
103	405/48E	BNRR & 115th AVE NE OC	15.00	Northwest	\$288,915	\$520,047
104	405/48W	BNRR & 115 AVE NE OC	15.00	Northwest	\$392,293	\$706,127
105	405/52E	SR 908 OC	18.11	Northwest	\$158,142	\$284,655
106	405/52NCD	NBCD, SR 908 OC	17.84	Northwest	\$158,296	\$284,932
107	405/52SCD	SBCD, SR 908 OC	18.11	Northwest	\$236,269	\$425,284
108	405/52W	SR 908 OC	18.11	Northwest	\$156,866	\$282,358
109	405/56E	BN RR OC (NP)	20.05	Northwest	\$252,604	\$454,687
110	405/56W	BN RR OC (NP)	20.05	Northwest	\$73,508	\$132,314
111	405/59E	NE 132ND ST OC	20.90	Northwest	\$163,059	\$293,505
112	405/59W	NE 132ND ST OC	20.90	Northwest	\$138,958	\$250,124
113	405/103E	228TH ST OC	26.31	Northwest	\$206,234	\$371,220
114	405/103W	228TH ST OC	26.33	Northwest	\$191,345	\$344,421
115	405/5	I-405 OC, 61ST AVE S	0.34	Northwest	\$203,880	\$366,983
116	405/44	I-405 OC, 12TH ST	14.12	Northwest	\$263,852	\$474,933
117	405/48S-W	S-W RAMP BNRR OC	14.83	Northwest	\$72,710	\$130,878
118	405/64	I-405 OC, NE 160TH ST	22.62	Northwest	\$188,381	\$339,085
119	405/73	I-405 OC, 195TH ST	24.48	Northwest	\$138,342	\$249,015
144	5/642	I-5 OC, 23RD ST	194.44	Northwest	\$53,614	\$96,505
145	5/645E	SNOHOMISH R BN RR	194.81	Northwest	\$1,317,844	\$2,372,119
146	5/645W	SNOHOMISH R BN RR	194.81	Northwest	\$1,317,844	\$2,372,119
147	5/701	I-5 OC, STARBIRD RD	218.54	Northwest	\$284,086	\$511,355
148	5/707	I-5 OC, BLACKBURN ST	225.64	Northwest	\$243,254	\$437,857
149	18/5	PEASLEY CANYON RD OC	1.86	Northwest	\$833,162	\$1,499,692
150	18/6	W VALLEY HIGHWAY OC	2.30	Northwest	\$268,191	\$482,744
151	18/9	NP RY OC	3.82	Northwest	\$2,730,904	\$4,915,627
152	526/20	CASINO RD OC	3.74	Northwest	\$203,082	\$365,548
153	526/14	HARDESON ROAD OC	2.90	Northwest	\$167,382	\$301,287



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Priority Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
155	167/121E	GREEN R	19.04	Northwest	\$329,670	\$593,406
156	167/121W	GREEN R	19.04	Northwest	\$329,698	\$593,456
159	518/18N	42ND AVE S OC	2.91	Northwest	\$241,434	\$434,580
160	518/18S	42ND AVE S OC	2.91	Northwest	\$176,567	\$317,820
161	167/126E	4TH ST OC	20.70	Northwest	\$112,860	\$203,148
162	167/126W	4TH AVE OC	20.70	Northwest	\$112,596	\$202,673
164	167/124E	JAMES ST OC	20.20	Northwest	\$87,439	\$157,390
165	167/124W	JAMES ST OC	20.20	Northwest	\$94,639	\$170,349
166	167/125E	UP RR OC (CMSTPP)	20.40	Northwest	\$122,540	\$220,572
167	167/125W	UP RR OC (CMSTPP)	20.40	Northwest	\$122,540	\$220,572
168	167/127E	BN RR OC (NP)	20.96	Northwest	\$193,996	\$349,193
169	167/127W	BN RR OC (NP)	20.96	Northwest	\$193,397	\$348,114
174	167/122E	SR 516 OC	19.60	Northwest	\$33,666	\$60,598
175	167/122W	SR 516 OC	19.60	Northwest	\$34,348	\$61,826
176	167/123E	MEEKER ST OC	19.83	Northwest	\$110,831	\$199,495
177	167/123W	MEEKER ST OC	19.83	Northwest	\$76,467	\$137,640
178	167/128E	84TH AVE SOUTH O'XING	21.31	Northwest	\$112,228	\$202,010
179	167/128W	84TH AVE SOUTH O'XING	21.31	Northwest	\$110,682	\$199,228
180	167/133	SR 167 OC, S 180TH ST	24.42	Northwest	\$264,523	\$476,141
181	18/8N	UP RR OC (CMSTPP)	3.49	Northwest	\$403,524	\$726,343
182	18/8S	UP RR OC (CMSTPP)	3.49	Northwest	\$299,371	\$538,867
183	167/112W	SR 18 OC	14.28	Northwest	\$308,022	\$554,440
193	900/30	I-90 OC	21.58	Northwest	\$150,667	\$271,201
200	167/129	SR 167OC S 212TH	22.38	Northwest	\$110,985	\$199,772
203	18/14N	NP RY OC - NORTH	4.95	Northwest	\$112,404	\$202,326
206	167/116	SR 167 OC, 15TH ST NW	15.77	Northwest	\$91,091	\$163,964
207	526/10	AIRPORT RD OC	1.43	Northwest	\$146,603	\$263,885
208	522/136	CATHCART RD OC	20.41	Northwest	\$163,103	\$293,585
209	522/142	W. Main Street OC	23.14	Northwest	\$137,346	\$247,223
216	18/17S	GREEN R (NEELEY BRIDGE)	6.62	Northwest	\$72,600	\$130,680
219	2/17	FRENCH CR	11.41	Northwest	\$322,179	\$579,922
220	2/18	FARM RD OC	11.68	Northwest	\$322,179	\$579,922
221	9/118	SNOHOMISH R	9.17	Northwest	\$904,607	\$1,628,293
222	18/16S	BNRR OC-SOUTH	6.41	Northwest	\$352,176	\$633,917
223	18/20N	KENT-BLACK DIAMOND RD O	10.31	Northwest	\$31,647	\$56,965
224	18/24N	SOOS CR	10.87	Northwest	\$126,187	\$227,136
228	18/34	RAGING RIVER	26.30	Northwest	\$282,557	\$508,603
229	2/26	SULTAN R	22.04	Northwest	\$1,033,720	\$1,860,695
230	2/22	WOODS CR	15.37	Northwest	\$277,717	\$499,891



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Priority Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
233	90/83N	424TH AVE SE OC	31.94	Northwest	\$140,547	\$252,985
234	90/83S	424TH AVE SE OC	31.94	Northwest	\$138,402	\$249,124
237	167/110	SR 167 OC, 15TH ST SW	13.81	Northwest	\$208,632	\$375,537
239	9/121	72ND STREET SE OC	10.69	Northwest	\$258,687	\$465,637
240	532/6	GN RY COUNTY RD OC	4.98	Northwest	\$568,178	\$1,022,720
242	522/144	179TH AVE SE OC	24.14	Northwest	\$160,490	\$288,882
243	522/150	US 2 & BN RR OC	24.65	Northwest	\$383,521	\$690,337
245	18/26	SR 18 OC, SE 231ST ST	15.73	Northwest	\$195,085	\$351,153
246	90/85N	BN RR OC (CMSTPP) TANNER	33.39	Northwest	\$72,919	\$131,254
247	90/85S	BN RR OC (CMSTPP) TANNER	33.39	Northwest	\$73,546	\$132,383
248	529/8E	WALNUT ST OC	4.93	Northwest	\$83,782	\$150,807
249	20/209N	ABANDONED RR OC	49.86	Northwest	\$177,430	\$319,374
250	529/8W	WALNUT ST OC	4.93	Northwest	\$82,489	\$148,480
251	529/15E	UNION SL	5.12	Northwest	\$2,288,370	\$4,119,065
254	9/119	2ND ST OC	9.56	Northwest	\$153,901	\$277,022
258	203/106	SKYKOMISH R	23.20	Northwest	\$46,200	\$83,160
261	530/115	I-5 OC	16.95	Northwest	\$182,903	\$329,225
266	9/130	BN RR (NP) & SSH 1-E OC	28.88	Northwest	\$265,106	\$477,190
267	169/12	BN RR OC (NP)	10.41	Northwest	\$352,831	\$635,095
268	526/12S-E	S-E RAMP, SR 526 OC	1.98	Northwest	\$134,453	\$242,015
272	203/33	CHERRY CR	17.22	Northwest	\$374,693	\$674,447
273	522/28N	NORTH CR	10.85	Northwest	\$89,722	\$161,499
274	522/28S	NORTH CR	10.85	Northwest	\$91,586	\$164,855
278	525/10	BN RR OC (GN)	8.36	Northwest	\$40,700	\$73,260
279	18/4	SR 18 OC, MILITARY RD	1.75	Northwest	\$437,096	\$786,773
280	18/31N	HOLDER CR HOBART RD OC	20.34	Northwest	\$206,525	\$371,745
283	534/1	I-5 OC	0.00	Northwest	\$131,280	\$236,303
284	202/60	SNOQUALMIE R	26.00	Northwest	\$105,600	\$190,080
293	167/130	SR 167 OC, S 208TH ST	22.63	Northwest	\$223,328	\$401,990
294	167/115	SR 167 OC, W MAIN ST	14.77	Northwest	\$278,647	\$501,564
295	99/507E	SR 599 OC	22.94	Northwest	\$92,000	\$163,578
296	18/3	SR 18 OC, 32ND AVE S	0.77	Northwest	\$459,289	\$826,719
299	167/117	SR 167 OC 37TH	17.00	Northwest	\$91,223	\$164,201
302	509/103	JOES CREEK	9.93	Northwest	\$35,200	\$63,360
348	20/259	BAKER R	89.35	Northwest	\$290,114	\$635,036
352	20/280	BACON CR	110.75	Northwest	\$93,005	\$167,409
360	5/712	SKAGIT R	228.25	Northwest	\$1,348,391	\$2,427,104
361	5/708	SR 536 OC KINCAID ST	226.39	Northwest	\$331,887	\$597,396
362	5/711	SR 538 OC	227.73	Northwest	\$252,296	\$454,133



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Priority Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
363	5/710	GN RY OC	226.99	Northwest	\$2,847,125	\$5,124,824
368	5/812	IOWA ST OC	253.79	Northwest	\$329,890	\$593,802
369	5/813	KENTUCKY ST OC	253.88	Northwest	\$411,708	\$741,074
375	5/714	SR 20 & BN RY OC	230.14	Northwest	\$824,527	\$1,484,149
386	161/102	I-5 OC	34.21	Northwest	\$276,172	\$497,109
390	5/810W	MEADOR AVE OC	253.53	Northwest	\$134,739	\$242,530
393	5/806E	SR 11 (CONNELLY AVE)	250.73	Northwest	\$151,470	\$272,646
394	5/806W	SR 11 (CONNELLY AVE)	250.73	Northwest	\$152,653	\$274,775
395	5/801W	NULLE RD OC	242.86	Northwest	\$193,490	\$348,282
396	5/801E	NULLE RD OC	242.86	Northwest	\$204,100	\$367,379
397	5/724W	COLONY RD OC	240.02	Northwest	\$156,514	\$281,724
398	5/724E	COLONY RD OC	240.02	Northwest	\$155,513	\$279,923
401	5/822W	SR 539 OC MERIDIAN ST	256.21	Northwest	\$43,863	\$78,953
402	5/824E	NORTHWEST AVE OC	256.98	Northwest	\$104,638	\$188,348
403	5/824W	NORTHWEST AVE OC	256.98	Northwest	\$109,010	\$196,218
407	536/15	SKAGIT R CS2907	4.72	Northwest	\$427,972	\$770,349
410	5/829W	N FERNDALE OC	263.46	Northwest	\$258,786	\$465,815
411	5/829E	N FERNDALE OC	263.46	Northwest	\$201,636	\$362,944
412	5/828W	NOOKSACK R	263.05	Northwest		
424	20/209S	ABANDONED RR OC	49.86	Northwest	\$165,275	\$297,495
426	529/10W	SNOHOMISH R CS3114	3.85	Northwest		\$10,000,000
428	11/1	I-5 OC	0.00	Northwest	\$214,148	\$385,466
441	5/836W	DAKOTA CR	273.86	Northwest	\$580,261	\$1,044,470
442	5/836E	DAKOTA CR	273.86	Northwest	\$580,261	\$1,044,470
446	9/215	SKAGIT R	54.38	Northwest	\$147,087	\$264,756
448	548/1	I-5 OC	0.00	Northwest	\$284,647	\$512,365
449	5/842E	SR 548 OC	276.20	Northwest	\$76,373	\$137,471
450	5/842W	SR 548 OC	276.20	Northwest	\$95,502	\$171,904
457	543/1	I-5 OC, SR 543	0.00	Northwest	\$135,256	\$243,461
461	5/834	I-5 OC, BIRCH BAY	270.24	Northwest	\$270,947	\$487,704
463	5/841	I-5 OC, H ST	275.81	Northwest	\$207,081	\$372,745
464	5/825.2	I-5 OC, SLATER RD	260.13	Northwest	\$194,178	\$349,520
468	2/119	S FORK SKYKOMISH RIVER	51.02	Northwest	\$390,280	\$702,504
474	530/128	N FK STILLAGUAMISH R OSO	33.86	Northwest	\$30,250	\$54,450
480	5/830	I-5 OC, PORTAL WAY	265.21	Northwest	\$229,389	\$412,899
484	530/132	BOULDER CR	40.13	Northwest	\$55,666	\$100,198
485	5/840	I-5 OC, MITCHEL ST	275.54	Northwest	\$168,949	\$304,108
489	410/123	SLIPPERY CR	42.49	Northwest	\$77,754	\$139,956
490	5/826	I-5 OC, SMITH RD	261.51	Northwest	\$211,272	\$380,289



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Priority Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
491	20/262	JACKMAN CR	91.03	Northwest	\$295,323	\$531,581
492	5/837N-W	N-W RAMP	274.17	Northwest	\$140,756	\$253,361
497	20/268	SWIFT CR	99.67	Northwest	\$78,705	\$141,669
501	9/315	N FK NOOKSACK R U S	78.87	Northwest	\$99,000	\$178,200
502	20/338	GORGE LAKE	126.12	Northwest	\$333,179	\$599,722
505	5/835	I-5 OC, LOOMIS	271.60	Northwest	\$278,834	\$501,900
507	5/833	I-5 OC, CUSTER	268.93	Northwest	\$219,472	\$395,050
508	5/838	I-5 OC, HUGHES AVE	274.52	Northwest	\$248,716	\$447,688
511	5/725	I-5 OC, ALGER RD	240.93	Northwest	\$206,756	\$372,161
514	542/34	N FK NOOKSACK R	35.32	Northwest	\$129,872	\$233,769
516	5/803	I-5 OC, LAKE SAMISH RD	246.24	Northwest	\$286,770	\$516,186
518	5/827	I-5 OC, MAIN ST	262.57	Northwest	\$110,710	\$199,277
530	542/46	GALENA CR UPPER X-ING	53.65	Northwest	\$249,695	\$449,450
531	5/722	I-5 OC, BOW HILL RD	236.39	Northwest	\$164,060	\$295,307
Total Number of Bridges = 248				Total\$ =	\$115,314,362	\$223,885,968

P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Bridge Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
219	2/17	FRENCH CR	11.41	Northwest	\$322,179	\$579,922
220	2/18	FARM RD OC	11.68	Northwest	\$322,179	\$579,922
230	2/22	WOODS CR	15.37	Northwest	\$277,717	\$499,891
229	2/26	SULTAN R	22.04	Northwest	\$1,033,720	\$1,860,695
468	2/119	S FORK SKYKOMISH RIVER	51.02	Northwest	\$390,280	\$702,504
67	5/501	I-5 OC, S 375TH	140.15	Northwest	\$287,271	\$517,087
17	5/503E	SR 18 OC	142.00	Northwest	\$900,000	\$1,800,000
18	5/503W	SR 18 OC	142.00	Northwest	\$900,000	\$1,800,000
20	5/504E	S 336TH ST OC	142.79	Northwest	\$178,000	\$314,048
19	5/504W	S 336TH ST OC	142.79	Northwest	\$146,000	\$258,588
68	5/505	I-5 OC, S320TH	143.83	Northwest	\$410,000	\$726,620
22	5/506E	MILITARY RD OC	144.65	Northwest	\$190,000	\$335,283
21	5/506W	MILITARY RD OC	144.65	Northwest	\$183,000	\$322,403
23	5/507E	S 288TH ST OC	145.79	Northwest	\$264,000	\$467,973
24	5/507W	S 288TH ST OC	145.79	Northwest	\$246,000	\$436,838
26	5/508E	MILITARY RD OC	146.44	Northwest	\$434,000	\$772,646
25	5/508W	MILITARY RD OC	146.43	Northwest	\$608,000	\$1,082,466
28	5/509E	S 272ND ST OC	146.81	Northwest	\$248,000	\$440,451
27	5/509W	S 272ND ST OC	146.81	Northwest	\$243,000	\$431,353
29	5/510E	S 260TH ST OC	147.64	Northwest	\$153,000	\$271,003
30	5/510W	S 260TH ST OC	147.64	Northwest	\$111,000	\$195,812
31	5/511E	SR 516 OC	149.17	Northwest	\$455,000	\$806,424
69	5/513	I-5 OC, S 216TH	150.33	Northwest	\$247,000	\$437,194
33	5/516E	ORILLA RD OC	152.26	Northwest	\$304,000	\$539,590
32	5/516W	ORILLA RD OC-SO188TH ST	152.26	Northwest	\$388,000	\$685,466
70	5/517A	S-W RAMP OC	152.48	Northwest	\$228,000	\$403,088
71	5/518	I-5 OC, S 178TH ST	153.15	Northwest	\$207,000	\$366,211
34	5/520W	KLICKITAT DR OC	154.13	Northwest	\$220,000	\$389,704
36	5/521E	E-N S-N RAMPS OC	154.52	Northwest	\$285,000	\$505,148
35	5/521W	E-N RAMP OC	154.52	Northwest	\$186,000	\$329,621
72	5/528	I-5 OC, S 107TH ST	158.01	Northwest	\$495,000	\$876,724
38	5/531E	MILITARY RD OC	159.67	Northwest	\$235,000	\$416,869
37	5/531W	MILITARY RD OC	159.67	Northwest	\$215,000	\$379,932
73	5/532.1	N-SWIFT RAMP	161.27	Northwest	\$299,442	\$538,996
75	5/533.5W	N-W RAMP OC	161.27	Northwest	\$1,024,111	\$1,843,400
74	5/534A	N-W RAMP AIRPORT W. OC	161.27	Northwest	\$870,843	\$1,567,517
40	5/534E	LUCILE ST OC	161.27	Northwest	\$470,000	\$836,699
39	5/534W	LUCILE ST OC	161.27	Northwest	\$441,000	\$783,189
41	5/535W	SB VIADUCT STA 2032	162.24	Northwest	\$1,638,000	\$2,916,293
42	5/536E	NB VIADUCT STA 2064	162.98	Northwest	\$742,000	\$1,311,067



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Bridge Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
76	5/536N-W	NB I5 to WB W SEA FRWY	162.98	Northwest	\$423,924	\$763,062
43	5/536W	SB VIADUCT STA 2064	162.98	Northwest	\$965,000	\$1,702,147
79	5/537E-S	E-S RAMP BR	162.99	Northwest	\$213,131	\$383,635
78	5/537N	S-E RAMP WB LANES	162.99	Northwest	\$1,273,000	\$2,241,707
81	5/537S	EB LANES I-5 OC	163.00	Northwest	\$919,000	\$1,617,323
80	5/537W-W	W-6TH RAMP BR	163.00	Northwest	\$97,895	\$176,210
44	5/538E	NB VIADUCT STA 2075	162.98	Northwest	\$1,438,000	\$2,531,717
77	5/538S-E	S-E RAMP I-5 OC	162.99	Northwest		\$500,000
46	5/539E	NB VIADUCT STA 2085	163.24	Northwest	\$8,585,000	\$15,166,523
55	5/539NCD	NBCD RAMP BR	164.41	Northwest	\$70,730	\$127,314
57	5/539SCD	SBCD VIADUCT STA 2133	164.41	Northwest	\$1,070,091	\$1,926,164
45	5/539W	SB VIADUCT STA 2075	162.98	Northwest	\$9,795,000	\$17,299,191
51	5/542E	DEARBORN ST OC	164.41	Northwest	\$121,787	\$219,216
56	5/542NCD	NBCD DEARBORN ST OC	164.41	Northwest	\$153,527	\$276,349
53	5/542SCD	SBCD DEARBORN ST OC	164.41	Northwest	\$221,529	\$398,752
52	5/542W	DEARBORN ST OC	164.41	Northwest	\$108,746	\$195,743
49	5/543E	KING-JACKSON ST OC	164.41	Northwest	\$384,214	\$691,584
54	5/543NCD	NBCD KING JACKSON ST OC	164.41	Northwest	\$453,195	\$815,750
47	5/543SCD	SBCD KING JACKSON ST OC	164.41	Northwest	\$512,105	\$921,789
50	5/543W	KING-JACKSON ST OC	164.41	Northwest	\$372,961	\$671,329
82	5/544	I-5 OC, YESLER ST	165.69	Northwest	\$678,513	\$1,221,323
59	5/545E	NB VIADUCT STA 2195	165.69	Northwest	\$4,311,269	\$7,760,283
60	5/545SCD	SBCD VIADUCT STA 2195	165.71	Northwest	\$559,460	\$1,007,028
58	5/545W	SB VIADUCT STA 2195	165.69	Northwest	\$398,646	\$717,562
83	5/546	I-5 OC, MADISON ST	165.69	Northwest	\$485,546	\$873,982
84	5/547	I-5 OC, SPRING ST	165.69	Northwest	\$612,150	\$1,101,870
85	5/548	I-5 OC, SENECA ST	165.69	Northwest	\$616,594	\$1,109,869
86	5/549	I-5 UC, 8TH AVE	165.69	Northwest	\$218,609	\$393,495
87	5/550	I-5 OC, PIKE ST	166.06	Northwest	\$723,195	\$1,301,751
88	5/551	I-5 OC, PINE ST-BOREN	166.06	Northwest	\$1,326,650	\$2,387,969
62	5/562E	NB LANES VIADUCT	166.98	Northwest	\$187,798	\$338,036
61	5/566W	DENNY WAY-LAKEVIEW V	166.98	Northwest	\$12,064,641	\$21,716,353
12	5/570	LAKE WASH SHIP CANAL	169.63	Northwest		\$5,000,000
65	5/588E	NORTHGATE WAY OC	172.76	Northwest	\$421,702	\$759,063
63	5/588SCD	SBCD NORTHGATE WAY OC	172.76	Northwest	\$200,767	\$361,380
64	5/588W	NORTHGATE WAY OC	172.76	Northwest	\$376,272	\$677,289
89	5/596	I-5 OC, NE 185TH ST	176.72	Northwest	\$372,444	\$670,398
90	5/629A	BROADWAY AVE UC	192.59	Northwest	\$299,783	\$539,609
144	5/642	I-5 OC, 23RD ST	194.44	Northwest	\$53,614	\$96,505
145	5/645E	SNOHOMISH R BN RR	194.81	Northwest	\$1,317,844	\$2,372,119



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Bridge Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
146	5/645W	SNOHOMISH R BN RR	194.81	Northwest	\$1,317,844	\$2,372,119
147	5/701	I-5 OC, STARBIRD RD	218.54	Northwest	\$284,086	\$511,355
148	5/707	I-5 OC, BLACKBURN ST	225.64	Northwest	\$243,254	\$437,857
361	5/708	SR 536 OC KINCAID ST	226.39	Northwest	\$331,887	\$597,396
363	5/710	GN RY OC	226.99	Northwest	\$2,847,125	\$5,124,824
362	5/711	SR 538 OC	227.73	Northwest	\$252,296	\$454,133
360	5/712	SKAGIT R	228.25	Northwest	\$1,348,391	\$2,427,104
375	5/714	SR 20 & BN RY OC	230.14	Northwest	\$824,527	\$1,484,149
531	5/722	I-5 OC, BOW HILL RD	236.39	Northwest	\$164,060	\$295,307
398	5/724E	COLONY RD OC	240.02	Northwest	\$155,513	\$279,923
397	5/724W	COLONY RD OC	240.02	Northwest	\$156,514	\$281,724
511	5/725	I-5 OC, ALGER RD	240.93	Northwest	\$206,756	\$372,161
396	5/801E	NULLE RD OC	242.86	Northwest	\$204,100	\$367,379
395	5/801W	NULLE RD OC	242.86	Northwest	\$193,490	\$348,282
516	5/803	I-5 OC, LAKE SAMISH RD	246.24	Northwest	\$286,770	\$516,186
393	5/806E	SR 11 (CONNELLY AVE)	250.73	Northwest	\$151,470	\$272,646
394	5/806W	SR 11 (CONNELLY AVE)	250.73	Northwest	\$152,653	\$274,775
390	5/810W	MEADOR AVE OC	253.53	Northwest	\$134,739	\$242,530
368	5/812	IOWA ST OC	253.79	Northwest	\$329,890	\$593,802
369	5/813	KENTUCKY ST OC	253.88	Northwest	\$411,708	\$741,074
401	5/822W	SR 539 OC MERIDIAN ST	256.21	Northwest	\$43,863	\$78,953
402	5/824E	NORTHWEST AVE OC	256.98	Northwest	\$104,638	\$188,348
403	5/824W	NORTHWEST AVE OC	256.98	Northwest	\$109,010	\$196,218
464	5/825.2	I-5 OC, SLATER RD	260.13	Northwest	\$194,178	\$349,520
490	5/826	I-5 OC, SMITH RD	261.51	Northwest	\$211,272	\$380,289
518	5/827	I-5 OC, MAIN ST	262.57	Northwest	\$110,710	\$199,277
412	5/828W	NOOKSACK R	263.05	Northwest		
411	5/829E	N FERNDALE OC	263.46	Northwest	\$201,636	\$362,944
410	5/829W	N FERNDALE OC	263.46	Northwest	\$258,786	\$465,815
480	5/830	I-5 OC, PORTAL WAY	265.21	Northwest	\$229,389	\$412,899
507	5/833	I-5 OC, CUSTER	268.93	Northwest	\$219,472	\$395,050
461	5/834	I-5 OC, BIRCH BAY	270.24	Northwest	\$270,947	\$487,704
505	5/835	I-5 OC, LOOMIS	271.60	Northwest	\$278,834	\$501,900
442	5/836E	DAKOTA CR	273.86	Northwest	\$580,261	\$1,044,470
441	5/836W	DAKOTA CR	273.86	Northwest	\$580,261	\$1,044,470
492	5/837N-W	N-W RAMP	274.17	Northwest	\$140,756	\$253,361
508	5/838	I-5 OC, HUGHES AVE	274.52	Northwest	\$248,716	\$447,688
485	5/840	I-5 OC, MITCHEL ST	275.54	Northwest	\$168,949	\$304,108
463	5/841	I-5 OC, H ST	275.81	Northwest	\$207,081	\$372,745
449	5/842E	SR 548 OC	276.20	Northwest	\$76,373	\$137,471



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Bridge Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
450	5/842W	SR 548 OC	276.20	Northwest	\$95,502	\$171,904
221	9/118	SNOHOMISH R	9.17	Northwest	\$904,607	\$1,628,293
254	9/119	2ND ST OC	9.56	Northwest	\$153,901	\$277,022
239	9/121	72ND STREET SE OC	10.69	Northwest	\$258,687	\$465,637
6	9/128	GETCHELL BRIDGE	21.09	Northwest	\$82,000	\$272,000
266	9/130	BN RR (NP) & SSH 1-E OC	28.88	Northwest	\$265,106	\$477,190
446	9/215	SKAGIT R	54.38	Northwest	\$147,087	\$264,756
501	9/315	N FK NOOKSACK R U S	78.87	Northwest	\$99,000	\$178,200
428	11/1	I-5 OC	0.00	Northwest	\$214,148	\$385,466
296	18/3	SR 18 OC, 32ND AVE S	0.77	Northwest	\$459,289	\$826,719
279	18/4	SR 18 OC, MILITARY RD	1.75	Northwest	\$437,096	\$786,773
149	18/5	PEASLEY CANYON RD OC	1.86	Northwest	\$833,162	\$1,499,692
150	18/6	W VALLEY HIGHWAY OC	2.30	Northwest	\$268,191	\$482,744
181	18/8N	UP RR OC (CMSTPP)	3.49	Northwest	\$403,524	\$726,343
182	18/8S	UP RR OC (CMSTPP)	3.49	Northwest	\$299,371	\$538,867
151	18/9	NP RY OC	3.82	Northwest	\$2,730,904	\$4,915,627
203	18/14N	NP RY OC - NORTH	4.95	Northwest	\$112,404	\$202,326
222	18/16S	BNRR OC-SOUTH	6.41	Northwest	\$352,176	\$633,917
216	18/17S	GREEN R (NEELEY BRIDGE)	6.62	Northwest	\$72,600	\$130,680
223	18/20N	KENT-BLACK DIAMOND RD O	10.31	Northwest	\$31,647	\$56,965
224	18/24N	SOOS CR	10.87	Northwest	\$126,187	\$227,136
245	18/26	SR 18 OC, SE 231ST ST	15.73	Northwest	\$195,085	\$351,153
280	18/31N	HOLDER CR HOBART RD OC	20.34	Northwest	\$206,525	\$371,745
228	18/34	RAGING RIVER	26.30	Northwest	\$282,557	\$508,603
249	20/209N	ABANDONED RR OC	49.86	Northwest	\$177,430	\$319,374
424	20/209S	ABANDONED RR OC	49.86	Northwest	\$165,275	\$297,495
348	20/259	BAKER R	89.35	Northwest	\$290,114	\$635,036
491	20/262	JACKMAN CR	91.03	Northwest	\$295,323	\$531,581
497	20/268	SWIFT CR	99.67	Northwest	\$78,705	\$141,669
352	20/280	BACON CR	110.75	Northwest	\$93,005	\$167,409
502	20/338	GORGE LAKE	126.12	Northwest	\$333,179	\$599,722
233	90/83N	424TH AVE SE OC	31.94	Northwest	\$140,547	\$252,985
234	90/83S	424TH AVE SE OC	31.94	Northwest	\$138,402	\$249,124
246	90/85N	BN RR OC (CMSTPP) TANNER	33.39	Northwest	\$72,919	\$131,254
247	90/85S	BN RR OC (CMSTPP) TANNER	33.39	Northwest	\$73,546	\$132,383
295	99/507E	SR 599 OC	22.94	Northwest	\$92,000	\$163,578
386	161/102	I-5 OC	34.21	Northwest	\$276,172	\$497,109
237	167/110	SR 167 OC, 15TH ST SW	13.81	Northwest	\$208,632	\$375,537
7	167/111W-N	W-N RAMP N-E RAMP OC	14.28	Northwest	\$88,000	\$295,000
183	167/112W	SR 18 OC	14.28	Northwest	\$308,022	\$554,440



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Bridge Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
294	167/115	SR 167 OC, W MAIN ST	14.77	Northwest	\$278,647	\$501,564
206	167/116	SR 167 OC, 15TH ST NW	15.77	Northwest	\$91,091	\$163,964
299	167/117	SR 167 OC 37TH	17.00	Northwest	\$91,223	\$164,201
155	167/121E	GREEN R	19.04	Northwest	\$329,670	\$593,406
156	167/121W	GREEN R	19.04	Northwest	\$329,698	\$593,456
174	167/122E	SR 516 OC	19.60	Northwest	\$33,666	\$60,598
175	167/122W	SR 516 OC	19.60	Northwest	\$34,348	\$61,826
176	167/123E	MEEKER ST OC	19.83	Northwest	\$110,831	\$199,495
177	167/123W	MEEKER ST OC	19.83	Northwest	\$76,467	\$137,640
164	167/124E	JAMES ST OC	20.20	Northwest	\$87,439	\$157,390
165	167/124W	JAMES ST OC	20.20	Northwest	\$94,639	\$170,349
166	167/125E	UP RR OC (CMSTPP)	20.40	Northwest	\$122,540	\$220,572
167	167/125W	UP RR OC (CMSTPP)	20.40	Northwest	\$122,540	\$220,572
161	167/126E	4TH ST OC	20.70	Northwest	\$112,860	\$203,148
162	167/126W	4TH AVE OC	20.70	Northwest	\$112,596	\$202,673
168	167/127E	BN RR OC (NP)	20.96	Northwest	\$193,996	\$349,193
169	167/127W	BN RR OC (NP)	20.96	Northwest	\$193,397	\$348,114
178	167/128E	84TH AVE SOUTH O'XING	21.31	Northwest	\$112,228	\$202,010
179	167/128W	84TH AVE SOUTH O'XING	21.31	Northwest	\$110,682	\$199,228
200	167/129	SR 167OC S 212TH	22.38	Northwest	\$110,985	\$199,772
293	167/130	SR 167 OC, S 208TH ST	22.63	Northwest	\$223,328	\$401,990
180	167/133	SR 167 OC, S 180TH ST	24.42	Northwest	\$264,523	\$476,141
267	169/12	BN RR OC (NP)	10.41	Northwest	\$352,831	\$635,095
284	202/60	SNOQUALMIE R	26.00	Northwest	\$105,600	\$190,080
272	203/33	CHERRY CR	17.22	Northwest	\$374,693	\$674,447
258	203/106	SKYKOMISH R	23.20	Northwest	\$46,200	\$83,160
56	405/1	I-5 OC	0.00	Northwest	\$319,539	\$575,170
115	405/5	I-405 OC, 61ST AVE S	0.34	Northwest	\$203,880	\$366,983
91	405/11	SR 181 OC	0.96	Northwest	\$764,044	\$1,375,278
92	405/12	BN RR OC (CMSTPP & NP)	1.14	Northwest	\$928,439	\$1,671,189
93	405/15	SR 167 OC	2.30	Northwest	\$560,313	\$1,008,563
94	405/16	SR 515 OC	2.77	Northwest	\$318,247	\$572,844
95	405/41E	SE 8TH ST OC	12.78	Northwest	\$144,216	\$259,588
96	405/41W	WILBURTON INTERCHANGE	12.79	Northwest	\$144,799	\$260,637
116	405/44	I-405 OC, 12TH ST	14.12	Northwest	\$263,852	\$474,933
97	405/45E	N-W N-E RAMP OC	14.82	Northwest	\$106,788	\$192,218
98	405/45W	N-W & N-E RAMPS OC	14.82	Northwest	\$107,569	\$193,624
99	405/46E	SR 520 OC	14.83	Northwest	\$212,993	\$383,387
100	405/46W	SR 520 OC	14.83	Northwest	\$208,093	\$374,567
101	405/47E	NORTHUP WAY OC	14.83	Northwest	\$120,599	\$217,077



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Bridge Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
102	405/47W	NORTHUP WAY OC	14.83	Northwest	\$327,124	\$588,822
103	405/48E	BNRR & 115th AVE NE OC	15.00	Northwest	\$288,915	\$520,047
117	405/48S-W	S-W RAMP BNRR OC	14.83	Northwest	\$72,710	\$130,878
104	405/48W	BNRR & 115 AVE NE OC	15.00	Northwest	\$392,293	\$706,127
105	405/52E	SR 908 OC	18.11	Northwest	\$158,142	\$284,655
106	405/52NCD	NBCD, SR 908 OC	17.84	Northwest	\$158,296	\$284,932
107	405/52SCD	SBCD, SR 908 OC	18.11	Northwest	\$236,269	\$425,284
108	405/52W	SR 908 OC	18.11	Northwest	\$156,866	\$282,358
109	405/56E	BN RR OC (NP)	20.05	Northwest	\$252,604	\$454,687
110	405/56W	BN RR OC (NP)	20.05	Northwest	\$73,508	\$132,314
111	405/59E	NE 132ND ST OC	20.90	Northwest	\$163,059	\$293,505
112	405/59W	NE 132ND ST OC	20.90	Northwest	\$138,958	\$250,124
118	405/64	I-405 OC, NE 160TH ST	22.62	Northwest	\$188,381	\$339,085
119	405/73	I-405 OC, 195TH ST	24.48	Northwest	\$138,342	\$249,015
113	405/103E	228TH ST OC	26.31	Northwest	\$206,234	\$371,220
114	405/103W	228TH ST OC	26.33	Northwest	\$191,345	\$344,421
10	410/115	SCATTER CR	31.06	Northwest	\$176,000	\$810,000
489	410/123	SLIPPERY CR	42.49	Northwest	\$77,754	\$139,956
302	509/103	JOES CREEK	9.93	Northwest	\$35,200	\$63,360
159	518/18N	42ND AVE S OC	2.91	Northwest	\$241,434	\$434,580
160	518/18S	42ND AVE S OC	2.91	Northwest	\$176,567	\$317,820
273	522/28N	NORTH CR	10.85	Northwest	\$89,722	\$161,499
274	522/28S	NORTH CR	10.85	Northwest	\$91,586	\$164,855
208	522/136	CATHCART RD OC	20.41	Northwest	\$163,103	\$293,585
2	522/138	SNOHOMISH R	20.50	Northwest	\$1,129,000	\$2,691,000
209	522/142	W. Main Street OC	23.14	Northwest	\$137,346	\$247,223
242	522/144	179TH AVE SE OC	24.14	Northwest	\$160,490	\$288,882
243	522/150	US 2 & BN RR OC	24.65	Northwest	\$383,521	\$690,337
278	525/10	BN RR OC (GN)	8.36	Northwest	\$40,700	\$73,260
207	526/10	AIRPORT RD OC	1.43	Northwest	\$146,603	\$263,885
268	526/12S-E	S-E RAMP, SR 526 OC	1.98	Northwest	\$134,453	\$242,015
153	526/14	HARDESON ROAD OC	2.90	Northwest	\$167,382	\$301,287
152	526/20	CASINO RD OC	3.74	Northwest	\$203,082	\$365,548
248	529/8E	WALNUT ST OC	4.93	Northwest	\$83,782	\$150,807
250	529/8W	WALNUT ST OC	4.93	Northwest	\$82,489	\$148,480
426	529/10W	SNOHOMISH R CS3114	3.85	Northwest		\$10,000,000
251	529/15E	UNION SL	5.12	Northwest	\$2,288,370	\$4,119,065
261	530/115	I-5 OC	16.95	Northwest	\$182,903	\$329,225
474	530/128	N FK STILLAGUAMISH R OSO	33.86	Northwest	\$30,250	\$54,450
484	530/132	BOULDER CR	40.13	Northwest	\$55,666	\$100,198



P2 Bridge Preservation - Seismic Retrofit

2011-13 Bien Priority Array

(Sorted by Bridge Number)

11-13 #	Bridge Number	Bridge Name	Mile post	Region	Bridge Item\$'s	Total\$'s
240	532/6	GN RY COUNTY RD OC	4.98	Northwest	\$568,178	\$1,022,720
283	534/1	I-5 OC	0.00	Northwest	\$131,280	\$236,303
407	536/15	SKAGIT R CS2907	4.72	Northwest	\$427,972	\$770,349
514	542/34	N FK NOOKSACK R	35.32	Northwest	\$129,872	\$233,769
530	542/46	GALENA CR UPPER X-ING	53.65	Northwest	\$249,695	\$449,450
457	543/1	I-5 OC, SR 543	0.00	Northwest	\$135,256	\$243,461
448	548/1	I-5 OC	0.00	Northwest	\$284,647	\$512,365
193	900/30	I-90 OC	21.58	Northwest	\$150,667	\$271,201
Total Number of Bridges = 248				Total\$ =	\$115,314,362	\$223,885,968



Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006980B		Bridge Name: SNOHOMISH R		Route: 522	Milepost: 20.5	Region: Northwest
Bridge Number: 522/138						County: Snohomish
Location: 6.6 E JCT SR 9	Detour Length: 14 miles	Longitude: 122° 2' 56.6" W	Latitude: 47° 49' 51.8" N	Structure Length: 1679 ft.		Out to Out Width: 35.6 ft.
Feature Intersected: SNOHOMISH R		PGA (500 yr): 27.67 %g	PGA (1000 yr): 36.3% %g	Span Type: SG CBox	Main Spans: 2 Appr. Spans: 7	
Year Built: 1963	ADT: 17027	11-13 Rank: 2	Skew Angle: 0	Pier Type: Single Column Pier	Footing Type:	
Year Rebuilt: 0	Truck Pct: 7 %					



Bridge Notes:

Pier 1 is spill through abutment with two 3'-6" x 3'-3" columns on spread footings. Columns have hinge at top. Piers 2 thru 9 are on spread Piers 2 and 4, each has a 8'-0" dia. Column with #5 hoops @ 6". Piers 5, 6 and 7, each has a 7'-0" dia. column with #4 hoops @ 6". Piers 8 and 9, each has a 6'-0" dia. column with #4 hoops @ 6". Pier 3 has a 10'-0" dia. column with # 6 hoops @ 12". All columns are on spread footings. Vertical bars have staggered field weld splices. Footings have no top mat. In span hinges at spans 2 and 3.

Retrofit Program Notes:

Seismic work needs to be coordinated with Snohomish River Bridge to SR2, Stage 5A Project that will build a parallel bridge. Retrofit programmed under PIN 152236A

Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Install column jackets on columns at piers 2 thru 9.

Overall Retrofit Status: P
Single Column Pier Status: R
Multi Column Pier Status: N
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0005492A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 9/128		GETCHELL BRIDGE		9	21.09	County: Snohomish
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.8 N JCT SR 528	6 miles	122° 6' 36"	48° 4' 48"	243 ft.		34.6 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
PEDESTRAIN TRAIL		26.01 %g	34.1% %g	CBox	Appr. Spans: 0	
Year Built: 1957	ADT: 12000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 15 %	6	0	Single Column Pier		



Bridge Notes:

Piers 2 and 3, each has a 5'-0" diameter column. These columns have #4 hoops @ 12". Vertical #11 bars have 2'-4" min. lap splices at top of footing. Footing without top mat. End piers, 1 and 4, each has two 30" square columns with hinges at top of columns.

Retrofit Program Notes:

Retrofit programmed under PIN 100923C

Completed Retrofit Notes:

Remaining Retrofit Notes:

Install Column Jacket at Piers 2 and 3. Excavate to top of Footings.

Overall Retrofit Status: R
Single Column Pier Status: R
Multi Column Pier Status: N
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0009236D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 167/111W-N		W-N RAMP N-E RAMP OC		167	14.28	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
2.7 N PIERCE CO	1 miles	122 15 12 "	47 17 54 "	273 ft.		29.5 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
SR 167		30.81 %g	40.4% %g	CBox	Appr. Spans: 0	
Year Built: 1975	ADT: 10555	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	7	0	Single Column Pier	Timber pile	



Bridge Notes:

Intermediate Piers, Piers 2 and 3, each has a 5'-0" diameter column on pile footing. #4 hoops spaced at 12" spacing. Vertical #18 bars have staggered field weld splices at 6'-7" above top of footings. Footings have no top mat. End Piers 1 and 4 are stub abutments.

Retrofit Program Notes:

SR 167 - 15th Street SW to 15th Street NW - HOV Nickel Project. Retrofit programmed under PIN 116703T. This bridge was renumbered from 167/112N-E.

Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

The bridge number changed from 167/112N-E. 15th Ave SW to 15th NW HOV Lanes - Stage 3. N-E /W-N Ramp U'x 167/112N-E Widening & Column Seismic Retrofit. Br. Office Shelf.

Overall Retrofit Status: R
Single Column Pier Status: R
Multi Column Pier Status: N
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007789A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 410/115		SCATTER CR		410	31.06	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
6.2 E JCT SR 164	99 miles	121° 52' 24"	47° 9' 42"	250 ft.		32.6 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
SCATTER CR		26.68 %g	35.3% %g	PCG	Appr. Spans: 0	
Year Built: 1965	ADT: 2958	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 16 %	10	0	Single Column Pier		



Bridge Notes:

End piers 1 and 4 are on 45 ton steel pile bents. Intermediate Piers, Piers 2 and 3, each has a 5'-0" diameter column on spread footing. #4 hoops spaced at 12" spacing. Vertical #11 bars have 4'-2" lap splices at top of footings. Footings have no top mat.

Retrofit Program Notes:

Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Install Column Jacket at Piers 2 and 3. Excavate to top of Footings. Replace Riprap.

Overall Retrofit Status: R
Single Column Pier Status: R
Multi Column Pier Status: N
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006080A		Bridge Name: LAKE WASH SHIP CANAL		Route: 5	Milepost: 169.63	Region: Northwest
Bridge Number: 5/570						County: King
Location: 0.7 N JCT SR 520	Detour Length: 2 miles	Longitude: 122° 19' 18"	Latitude: 47° 39' 12"	Structure Length: 4429 ft.		Out to Out Width: 182 ft.
Feature Intersected: LAKE WASH SHIP CANAL		PGA (500 yr): 32.05 %g	PGA (1000 yr): 42.4% %g	Span Type: STrus CBox CS		Main Spans: 6 Appr. Spans: 28
Year Built: 1962	ADT: 200000	11-13 Rank: 12	Skew Angle: 0	Pier Type: Double Column Pier		Footing Type:
Year Rebuilt: 0	Truck Pct: 15 %					

No Photo Available



Bridge Notes:

N.B.: Piers 2, 3, 4, 6, 7, 8, each has three 2'-6" sq. columns (E. cols w/2hinges). Pier 5 has three Split columns (2-2'6"x1'9"&2" gap, E. col. has two hinges). Pier 9 has three Split columns (2'6"x1'9", 2'6"x2'3" &2" gap). S.B.: Piers 2, 3, 4, 6, 7, 8, each has three 2'-6" sq. columns (W. cols w/2hinges). Pier 5 has three Split columns (2-2'6"x1'9"&2" gap). Pier 9 has three Split columns (2'6"x1'9", 2'6"x2'3" &2" gap).

Retrofit Program Notes:

Stage 1 and 2 retrofit completed. Needs Site visit to confirm number of columns to be retrofit in stage 3.

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

1. Stage 1: 11/94, Contract 14599. Install longitudinal restrainers, column bumpers, column restrainers at Piers 18 and 24. Install longitudinal restrainers, compression bumpers, and bearing collars at piers 19, 20, and 23. Install bearing collars at pier 21. Install bearing collars and longitudinal restrainers at pier 22. Reinforce bottom chord connections at panel points L1 and L2.
2. Stage 2: 05/99, Contract 15641. Install steel jackets for columns at piers 10 thru 18, 24 thru 31. Modify columns and replace bearings with TFE/Fabric Pad bearings at piers 11, 27 and 30.

Remaining Retrofit Notes:

Stage 3. Retrofit columns at SB Piers 2-9, 30-32 and NB Piers 31-34 (35 total, column size vary).

Overall Retrofit Status:	P
Single Column Pier Status:	N
Multi Column Pier Status:	N
C=Complete P=Partially Complet	
R=Required N=Not Required	
D=Differed X=Excluded I=In Progress	

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006078A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/503E		SR 18 OC		5	142	County: King
Location: 2.5 N PIERCE CO	Detour Length: 1 miles	Longitude: 122° 18' 22.5"	Latitude: 47° 17' 21.6"	Structure Length: 206 ft.		Out to Out Width: 74 ft.
Feature Intersected: SR 18		PGA (500 yr): 31.03 %g	PGA (1000 yr): 40.6% %g	Span Type: PCG		Main Spans: 4 Appr. Spans: 0
Year Built: 1959	ADT: 77500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 15 %	17	12	Pier with more than two columns		



Bridge Notes:

Piers 2, 3, 4 and 5, each has three 3'-0" diameter columns. #3 hoops @ 12". #10 bars with 2'-2" splices. Footing without top mat. (E-21g)

Retrofit Program Notes:

1. WIN A00505A, PIN 100505A

Completed Retrofit Notes:

Superstructure retrofit completed by Contract 16883.

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 4. (6 ea. 18 total, 3' dia.)

Overall Retrofit Status:	P
Single Column Pier Status:	N
Multi Column Pier Status:	R
C=Complete P=Partially Complet	
R=Required N=Not Required	
D=Differed X=Excluded I=In Progress	

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006078B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/503W		SR 18 OC		5	142	County: King
Location: 2.5 N PIERCE CO	Detour Length: 1 miles	Longitude: ° ' " 122 18 24.6	Latitude: ° ' " 47 17 21.5	Structure Length: 213 ft.		Out to Out Width: 74 ft.
Feature Intersected: SR 18		PGA (500 yr): 31.03 %g	PGA (1000 yr): 40.6% %g	Span Type: PCG		Main Spans: 4 Appr. Spans: 0
Year Built: 1959	ADT: 77500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 15 %	18	12	Pier with more than two columns		
						
Bridge Notes:				Retrofit Program Notes:		
Piers 2, 3 and 4, each has six 3'-0" diameter columns. #3 hoops @ 12". #10 bars with 2'-2" splices. Footing without top mat. (E-21g)				1. WIN A00505A, PIN 100505A		
Completed Retrofit Notes:				Remaining Retrofit Notes:		
Superstructure retrofit completed by Contract 16883.				Retrofit columns at Piers 2, 3 and 4. (6 ea. 18 total, 3' dia.)		
Overall Retrofit Status: P		Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:				
Single Column Pier Status: N						
Multi Column Pier Status: R						
C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006094C		Bridge Name: S 336TH ST OC		Route: 5	Milepost: 142.79	Region: Northwest
Bridge Number: 5/504W						County: King
Location: 0.8 N JCT SR 18	Detour Length: 1 miles	Longitude: 122° 18' 6" W	Latitude: 47° 18' 6" N	Structure Length: 156 ft.		Out to Out Width: 58 ft.
Feature Intersected: S 336TH ST		PGA (500 yr): 31.15 %g	PGA (1000 yr): 40.8% %g	Span Type: CVS	Main Spans: 3 Appr. Spans: 0	
Year Built: 1959	ADT: 77500	11-13 Rank: 19	Skew Angle: 12	Pier Type: Pier with more than two columns	Footing Type:	
Year Rebuilt: 0	Truck Pct: 15 %					



Bridge Notes:

Piers 2 and 3, each has three 3'-0" diameter columns. #4 hoops @ 12". #11 bars with 4'-2" splices. Footing without top mat.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006094B		Bridge Name: S 336TH ST OC		Route: 5	Milepost: 142.79	Region: Northwest
Bridge Number: 5/504E						County: King
Location: 0.8 N JCT SR 18	Detour Length: 1 miles	Longitude: 122° 18' 9.4"	Latitude: 47° 18' 1.1"	Structure Length: 198 ft.		Out to Out Width: 83 ft.
Feature Intersected: S 336TH ST		PGA (500 yr): 31.15 %g	PGA (1000 yr): 40.8% %g	Span Type: CBox	Main Spans: 3 Appr. Spans: 0	
Year Built: 1959	ADT: 77500	11-13 Rank: 20	Skew Angle: 12	Pier Type: Pier with more than two columns	Footing Type:	
Year Rebuilt: 2006	Truck Pct: 15 %					



Bridge Notes:

Piers 2 and 3, each has three 3'-0" diameter columns. #4 hoops @ 12". #8 bars with 3'-0" splices. Footing without top mat.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status:	R
Single Column Pier Status:	N
Multi Column Pier Status:	R
C=Complete P=Partially Complet	
R=Required N=Not Required	
D=Differed X=Excluded I=In Progress	

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006124B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/506W		MILITARY RD OC		5	144.65	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
2.6 N JCT SR 18	1 miles	122 17 38.2	47 19 37.6	199 ft.		80.5 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
MILITARY RD		31.41 %g	41.2% %g	CBox	Appr. Spans: 0	
Year Built: 1959	ADT: 85500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 2002	Truck Pct: 15 %	21	40	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has six columns. Retrofit center four 3'-0" diameter columns only. These columns have #3 hoops @ 12". #11 bars with 4'-2" splices. Footing without top mat.

Retrofit Program Notes:

Bridge widened (c5981). Add one 3'-0" dia. Columns on 5'-0" drilled shafts at Piers 2 and 3 each side of bridge.

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (4 ea. 8 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006124A		Bridge Name: MILITARY RD OC		Route: 5	Milepost: 144.65	Region: Northwest
Bridge Number: 5/506E						County: King
Location: 2.6 N JCT SR 18	Detour Length: 1 miles	Longitude: 122° 17' 36"	Latitude: 47° 19' 36"	Structure Length: 199 ft.		Out to Out Width: 77.4 ft.
Feature Intersected: MILITARY RD		PGA (500 yr): 31.41 %g	PGA (1000 yr): 41.2% %g	Span Type: CBox	Main Spans: 3 Appr. Spans: 0	
Year Built: 1959	ADT: 85500	11-13 Rank: 22	Skew Angle: 40	Pier Type: Pier with more than two columns	Footing Type:	
Year Rebuilt: 2005	Truck Pct: 15 %					



Bridge Notes:

Piers 2 and 3, each has four 3'-0" diameter columns. #3 hoops @ 12". #11 bars with 4'-2" splices. Footing without top mat.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (4 ea. 8 total, 3' dia.)

Overall Retrofit Status:	R
Single Column Pier Status:	N
Multi Column Pier Status:	R
C=Complete P=Partially Complet	
R=Required N=Not Required	
D=Differed X=Excluded I=In Progress	

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006313A		Bridge Name: S 288TH ST OC		Route: 5	Milepost: 145.79	Region: Northwest
Bridge Number: 5/507E						County: King
Location: 3.8 N JCT SR 18	Detour Length: 1 miles	Longitude: 122° 17' 30"	Latitude: 47° 20' 36"	Structure Length: 157 ft.		Out to Out Width: 80.5 ft.
Feature Intersected: S 288TH ST		PGA (500 yr): 31.61 %g	PGA (1000 yr): 41.5% %g	Span Type: PCG	Main Spans: 3 Appr. Spans: 0	
Year Built: 1961	ADT: 85500	11-13 Rank: 23	Skew Angle: 0	Pier Type: Pier with more than two columns	Footing Type:	
Year Rebuilt: 1994	Truck Pct: 15 %					



Bridge Notes:

Piers 2 and 3, each has six 3'-0" diameter columns. Retrofit 5 east columns per pier only, these columns has #3 hoops @ 12". #10 bars with 3'-8" splices. Footing without top mat. (E-23h)

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (5 ea. 10 total, 3' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006313B		Bridge Name: S 288TH ST OC		Route: 5	Milepost: 145.79	Region: Northwest
Bridge Number: 5/507W						County: King
Location: 3.8 N JCT SR 18	Detour Length: 1 miles	Longitude: 122° 17' 34.4"	Latitude: 47° 20' 35.4"	Structure Length: 157 ft.		Out to Out Width: 80.5 ft.
Feature Intersected: S 288TH ST		PGA (500 yr): 31.61 %g	PGA (1000 yr): 41.5% %g	Span Type: PCG		Main Spans: 3 Appr. Spans: 0
Year Built: 1961	ADT: 85500	11-13 Rank: 24	Skew Angle: 0	Pier Type: Pier with more than two columns	Footing Type:	
Year Rebuilt: 2002	Truck Pct: 15 %					



Bridge Notes:

Piers 2 and 3, each has seven columns. Retrofit five center 3'-0" diameter columns per pier only, these columns has #3 hoops @ 12". #10 bars with 3'-8" splices. Footing without top mat. (E-23h)

Retrofit Program Notes:

Bridge widened (c5981). Add one 3'-0" dia. Columns on 4'-6" drilled shafts at Piers 2 and 3 each side of bridge.

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (5 ea. 10 total, 3' dia.)

Overall Retrofit Status:	P
Single Column Pier Status:	N
Multi Column Pier Status:	R
C=Complete P=Partially Complet	
R=Required N=Not Required	
D=Differed X=Excluded I=In Progress	

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006207A		Bridge Name: MILITARY RD OC		Route: 5	Milepost: 146.43	Region: Northwest
Bridge Number: 5/508W						County: King
Location: 4.4 N JCT SR 18	Detour Length: 1 miles	Longitude: 122° 17' 44.5"	Latitude: 47° 21' 7.4"	Structure Length: 243 ft.		Out to Out Width: 97.5 ft.
Feature Intersected: MILITARY RD		PGA (500 yr): 31.76 %g	PGA (1000 yr): 41.7% %g	Span Type: PCG		Main Spans: 3 Appr. Spans: 0
Year Built: 1960	ADT: 80000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 2002	Truck Pct: 15 %	25	40	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has eight columns. Retrofit five center 3'-0" diameter columns. #3 hoops @ 12". #10 bars with 2'-2" splices. Footing without top mat. (E-21g)

Retrofit Program Notes:

Bridge widened (c5981). Add two 3'-0" dia. Columns east side and one 3'-0" column west side on 5'-0" drilled shafts at Piers 2 and 3 each side of bridge.

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (5 ea. 10 total, 3' dia.). Large skew (41 degree), deep excavation (18 ft). Install girder stops at Pier 1 thru 4.

Overall Retrofit Status:	P
Single Column Pier Status:	N
Multi Column Pier Status:	R
C=Complete P=Partially Complet	
R=Required N=Not Required	
D=Differed X=Excluded I=In Progress	

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006207B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/508E		MILITARY RD OC		5	146.44	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
4.4 N JCT SR 18	1 miles	122° 17' 43.8"	47° 21' 8.4"	243 ft.		73 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
MILITARY RD		31.76 %g	41.8% %g	PCG	Appr. Spans: 0	
Year Built: 1960	ADT: 80000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1994	Truck Pct: 15 %	26	41	Pier with more than two columns		



No Photo Available

Bridge Notes:

Piers 2 and 3, each has six columns. Retrofit five east 3'-0" diameter columns. #3 hoops @ 12". #10 bars with 2'-2" splices. Footing without top mat. (E-21g)

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (5 ea. 10 total, 3' dia.). Large skew (41 degree), deep excavation (12 ft). Install girder stops at Pier 1 thru 4.

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
 Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006313D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/509W		S 272ND ST OC		5	146.81	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
4.8 N JCT SR 18	1 miles	122 17 48	47 21 27.6	151 ft.		91.5 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
S 272ND ST		31.83 %g	41.9% %g	PCG	Appr. Spans: 0	
Year Built: 1961	ADT: 80000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 2002	Truck Pct: 15 %	27	4	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has seven columns. Retrofit five east 3'-0" diameter columns. #3 hoops @ 12". #10 bars with 3'-8" splices. Footing without top mat. (E-23h)

Retrofit Program Notes:

Bridge widened (c5981). Add two 3'-0" dia. Columns West side on 4'-6" drilled shafts at Piers 2 and 3 each side of bridge.

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (5 ea. 10 total, 3' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006313C		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/509E		S 272ND ST OC		5	146.81	County: King
Location: 4.8 N JCT SR 18	Detour Length: 1 miles	Longitude: 122 ° 17 ' 46 "	Latitude: 47 ° 21 ' 27.4 "	Structure Length: 151 ft.		Out to Out Width: 76.5 ft.
Feature Intersected: S 272ND ST		PGA (500 yr): 31.83 %g	PGA (1000 yr): 41.9% %g	Span Type: PCG		Main Spans: 3 Appr. Spans: 0
Year Built: 1961	ADT: 80000	11-13 Rank: 28	Skew Angle: 4	Pier Type: Pier with more than two columns	Footing Type:	
Year Rebuilt: 1994	Truck Pct: 15 %					
				<h2 style="font-size: 2em; color: black; text-decoration: underline;">No Photo Available</h2>		
Bridge Notes: Piers 2 and 3, each has six columns. Retrofit five east 3'-0" diameter columns. #3 hoops @ 12". #10 bars with 3'-8" splices. Footing without top mat. (E-23h)			Retrofit Program Notes: Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.			
Completed Retrofit Notes:			Remaining Retrofit Notes: Retrofit columns at Piers 2 and 3. (5 ea. 10 total, 3' dia.)			
Overall Retrofit Status: P		<h3 style="font-size: 1.5em; margin: 0;">Estimated Total Bridge Item Cost:</h3> <h3 style="font-size: 1.5em; margin: 0;">Estimated Total Retrofit Project Cost:</h3>				
Single Column Pier Status: N						
Multi Column Pier Status: R						
C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006186A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/510E		S 260TH ST OC		5	147.64	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
5.6 N JCT SR 18	1 miles	122° 17' 36"	47° 22' 12"	162 ft.		68 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
S 260TH ST		31.99 %g	42.2% %g	CVS	Appr. Spans: 0	
Year Built: 1960	ADT: 80000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1991	Truck Pct: 15 %	29	0	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has four columns. Retrofit three east 2'-9" diameter columns. #4 hoops @ 12". #9 bars with 3'-4" splices. Footing without top mat.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 2'-9" dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006186B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/510W		S 260TH ST OC		5	147.64	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
5.6 N JCT SR 18	1 miles	122 17 36	47 22 12	162 ft.		92.2 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
S 260TH ST		31.99 %g	42.2% %g	CVS	Appr. Spans: 0	
Year Built: 1960	ADT: 80000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 2002	Truck Pct: 15 %	30	0	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has five columns. Retrofit three center 2'-9" diameter columns. #4 hoops @ 12". #9 bars with 3'-4" splices. Footing without top mat.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 2'-9" dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006820A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/511E		SR 516 OC		5	149.17	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
7.2 N JCT SR 18	1 miles	122° 17' 24"	47° 23' 0"	269 ft.		90 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 4	
SR 516		32.15 %g	42.6% %g	PCG	Appr. Spans: 0	
Year Built: 1962	ADT: 85000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1991	Truck Pct: 15 %	31	30	Pier with more than two columns		



Bridge Notes:

Piers 2, 3 and 4, each has seven 3'-0" diameter columns. Retrofit six east columns only. These columns have #3 hoops @ 12". #10 bars with 3'-8" splices. Footing without top mat. (E-23h)

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 4. (6 ea. 18 total, 3' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007090C		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/516W		ORILLA RD OC-SO188TH ST		5	152.26	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
3.1 N JCT SR 516	0 miles	122° 16' 12"	47° 25' 54"	230 ft.		93.8 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
ORILLA RD		32.62 %g	43.8% %g	PCG	Appr. Spans: 0	
Year Built: 1963	ADT: 89500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1997	Truck Pct: 15 %	32	0	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has seven 3'-0" diameter columns. Retrofit six west columns only. These 3'-0" diameter columns have #3 hoops @ 12" and longitudinal bars with lap splices. Footing without top mat. (E-54m)

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (6 ea. 12 total, 3' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007090B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/516E		ORILLA RD OC		5	152.26	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
3.1 N JCT SR 516	0 miles	122° 16' 12"	47° 25' 54"	195 ft.		79 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
ORILLA RD		32.62 %g	43.8% %g	PCG	Appr. Spans: 0	
Year Built: 1963	ADT: 89500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1994	Truck Pct: 15 %	33	1	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has seven 3'-0" diameter columns. Retrofit six east columns only. These 3'-0" diameter columns have #3 hoops @ 12" and longitudinal bars with lap splices. Footing without top mat. (E-54m)

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (6 ea. 12 total, 3' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007401D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/520W		KLICKITAT DR OC		5	154.13	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
5.0 N JCT SR 516	5 miles	122° 15' 52.1"	47° 27' 28.9"	163 ft.		81.7 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
KLICKITAT DR		32.83 %g	44.6% %g	PCG	Appr. Spans: 0	
Year Built: 1965	ADT: 102000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1997	Truck Pct: 15 %	34	0	Pier with more than two columns		



Bridge Notes:

Retrofit five 3'-0" diameter columns at Piers 2 and 3. These columns have #3 hoops @ 12". Longitudinal bars with lap splices. Footing without top mat. (E-54m)

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (5 ea. 10 total, 3' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007401F		Bridge Name: E-N RAMP OC		Route: 5	Milepost: 154.52	Region: Northwest
Bridge Number: 5/521W						County: King
Location: 5.2 N JCT SR 516	Detour Length: 1 miles	Longitude: 122° 15' 54"	Latitude: 47° 27' 42"	Structure Length: 146 ft.		Out to Out Width: 81.6 ft.
Feature Intersected: I-405 E-E RAMP		PGA (500 yr): 32.87 %g	PGA (1000 yr): 44.7% %g	Span Type: PCG	Main Spans: 3 Appr. Spans: 0	
Year Built: 1966	ADT: 102000	11-13 Rank: 35	Skew Angle: 13	Pier Type: Pier with more than two columns	Footing Type: Timber pile	
Year Rebuilt: 0	Truck Pct: 15 %					



Bridge Notes:

Piers 2 and 3, each has four 3'-0" diameter columns. #3 hoops @ 12". Longitudinal #9 bars with 3'-4" lap splices. Footing without top mat.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (4 ea. 8 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007401E		Bridge Name: E-N S-N RAMPS OC		Route: 5	Milepost: 154.52	Region: Northwest
Bridge Number: 5/521E						County: King
Location: 5.2 N JCT SR 516	Detour Length: 1 miles	Longitude: 122° 15' 48"	Latitude: 47° 27' 42"	Structure Length: 217 ft.		Out to Out Width: 71.6 ft.
Feature Intersected: I-405 E-E S-E RAMP		PGA (500 yr): 32.85 %g	PGA (1000 yr): 44.6% %g	Span Type: PCG		Main Spans: 4 Appr. Spans: 0
Year Built: 1966	ADT: 102000	11-13 Rank: 36	Skew Angle: 0	Pier Type: Pier with more than two columns		Footing Type: Timber pile
Year Rebuilt: 0	Truck Pct: 15 %					



Bridge Notes:

Piers 2, 3 and 4, each has four 3'-0" diameter columns. #3 hoops @ 12". longitudinal bars with lap splices. Footing without top mat. (E-54m)

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 4. (4 ea. 12 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007617D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/531W		MILITARY RD OC		5	159.67	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
2.2 N JCT SR 900	1 miles	122° 17' 36"	47° 31' 48"	149 ft.		81 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
MILITARY RD ROSE ST		33.42 %g	46.3% %g	CS	Appr. Spans: 0	
Year Built: 1966	ADT: 106000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1995	Truck Pct: 15 %	37	0	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has five 3'-0" diameter columns. Retrofit four east columns only. These columns have #4 hoops @ 12". longitudinal #9 bars with 3'-4" lap splices. Footings without top mat.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (4 ea. 8 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007617C		Bridge Name: MILITARY RD OC		Route: 5	Milepost: 159.67	Region: Northwest
Bridge Number: 5/531E						County: King
Location: 2.2 N JCT SR 900	Detour Length: 1 miles	Longitude: 122° 17' 37.3"	Latitude: 47° 31' 49.7"	Structure Length: 161 ft.		Out to Out Width: 83 ft.
Feature Intersected: MILITARY RD ROSE ST		PGA (500 yr): 33.42 %g	PGA (1000 yr): 46.3% %g	Span Type: CS	Main Spans: 3 Appr. Spans: 0	
Year Built: 1966	ADT: 106000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1991	Truck Pct: 15 %	38	13	Pier with more than two columns	Steel pile	



Bridge Notes:

Piers 2 and 3, each has five 3'-0" diameter columns. Retrofit four west columns only. These columns have #4 hoops @ 12". longitudinal #9 bars with 3'-4" lap splices. Footings without top mat.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (4 ea. 8 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007734C		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/534W		LUCILE ST OC		5	161.27	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
4.1 N JCT SR 900	1 miles	122 19 6.2	47 33 11.5	190 ft.		79 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
LUCILE ST		33.61 %g	46.7% %g	CS	Appr. Spans: 0	
Year Built: 1966	ADT: 106000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1995	Truck Pct: 15 %	39	22	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has five 3'-0" diameter columns. Retrofit four east columns per pier only. These columns have #4 hoops @ 12". longitudinal #9 bars with 3'-4" lap splices. Footing without top mat.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (4 ea. 8 total, 3' dia.). 12' excavation. Install catchers and stops at Piers 1 and 4 (22 degree skew).

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007734B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/534E		LUCILE ST OC		5	161.27	County: King
Location: 3.9 N JCT SR 900	Detour Length: 1 miles	Longitude: ° ' " 122 19 0	Latitude: ° ' " 47 33 12	Structure Length: 172 ft.		Out to Out Width: 93.6 ft.
Feature Intersected: LUCILE ST		PGA (500 yr): 33.61 %g	PGA (1000 yr): 46.7% %g	Span Type: CS	Main Spans: 3 Appr. Spans: 0	
Year Built: 1966	ADT: 106000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 15 %	40	22	Pier with more than two columns		
				<h2 style="font-size: 2em; transform: rotate(-10deg);">No Photo Available</h2>		
Bridge Notes:			Retrofit Program Notes:			
Piers 2 and 3, each has five 3'-0" diameter columns. #4 hoops @ 12". Longitudinal #9 bars with 3'-4" lap splices. Footing without top mat.			Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.			
Completed Retrofit Notes:			Remaining Retrofit Notes:			
			Retrofit columns at Piers 2 and 3. (5 ea. 10 total, 3' dia.). Install catcher blocks at piers 1 and 4.			
Overall Retrofit Status:		R	Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:			
Single Column Pier Status:		N				
Multi Column Pier Status:		R				
C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007816B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/535W		SB VIADUCT STA 2032		5	162.24	County: King
Location: 4.5 N JCT SR 900	Detour Length: 1 miles	Longitude: 122° 19' 18.8"	Latitude: 47° 33' 47"	Structure Length: 604 ft.		Out to Out Width: 73 ft.
Feature Intersected: SB VIADUCT STA 2032		PGA (500 yr): 33.55 %g	PGA (1000 yr): 46.4% %g	Span Type: PCG		Main Spans: 6 Appr. Spans: 0
Year Built: 1966	ADT: 118000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1992	Truck Pct: 15 %	41	0	Pier with more than two columns		



Bridge Notes:

Piers 2 thru 5, each has six 4'-0" diameter columns. Pier 6 has six 4'-6" diameter columns. Retrofit four center columns per pier at piers 2 thru 5 only. These columns have #4 hoops @ 12". longitudinal bars with lap or/and welded splices. Footing with top mat. Pier 6 has four 4'-6" (O.D.) x 5" wall prestressed concrete piles, filled with cylinder concrete after piles are set in place. No retrofit recommended.

Retrofit Program Notes:

Widened in 1992. Adds one 4'-0" diameter shaft column on each side of the existing 4 columns at piers 2 thru 5 and one 4'-6" diameter shaft column on each side of the existing 4 columns at pier 6.

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3, 4 and 5. (4 ea. 16 total, 4' dia.). Deep excavation (38' max.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007741A		Bridge Name: NB VIADUCT STA 2064		Route: 5	Milepost: 162.98	Region: Northwest	
Bridge Number: 5/536E						County: King	
Location: 5.2 N JCT SR 900		Detour Length: 1 miles		Longitude: 122° 19' 12.5"	Latitude: 47° 34' 10.5"	Structure Length: 746 ft.	
						Out to Out Width: 58.8 ft.	
Feature Intersected: NB VIADUCT STA 2064		PGA (500 yr): 33.42 %g	PGA (1000 yr): 46.1% %g	Span Type: CS		Main Spans: 18 Appr. Spans: 0	
Year Built: 1966	ADT: 98500	11-13 Rank: 42	Skew Angle: 0	Pier Type: Pier with more than two columns		Footing Type: Drilled shaft	
Year Rebuilt: 1992	Truck Pct: 15 %						
<h1 style="font-size: 2em; color: black; opacity: 0.5;">No Photo Available</h1>							
Bridge Notes: Piers 2 thru 8, each has four 3'-0" dia. columns on 3'-6" dia. drilled shafts. Pier 9 thru 18, each has four columns. Retrofit three west columns only. These columns are 3'-0" dia. columns on 3'-6" dia. drilled shafts. Hoops are #4 @ 12". Longitudinal bars insert 5'-0" into drilled shafts. Max. span length = 42'.				Retrofit Program Notes: Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.			
Completed Retrofit Notes:				Remaining Retrofit Notes: Retrofit 51 columns built in 1966 (on drilled shaft, 3' dia.)			
Overall Retrofit Status: P		Single Column Pier Status: N		Multi Column Pier Status: R		Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:	
C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress							

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007741B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/536W		SB VIADUCT STA 2064		5	162.98	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
5.2 N JCT SR 900	1 miles	122° 19' 6"	47° 34' 18"	746 ft.		53.7 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 18	
SB VIADUCT STA 2064		33.42 %g	46.0% %g	CS	Appr. Spans: 0	
Year Built: 1967	ADT: 98500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1992	Truck Pct: 15 %	43	0	Pier with more than two columns	Drilled shaft	

No Photo Available



Bridge Notes:

Piers 2 thru 5, each has four 3'-0" dia. columns on 3'-6" dia. drilled shafts. Pier 6 thru 18, each has three 3'-0" dia. columns on 3'-6" dia. drilled shafts. Hoops are #4 @ 12". Longitudinal bars insert 5'-0" into drilled shafts. Max. span length = 42'.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit 55 columns built in 1967 (on drilled shaft, 3' dia.)

Overall Retrofit Status:	P
Single Column Pier Status:	N
Multi Column Pier Status:	R
C=Complete P=Partially Complet	
R=Required N=Not Required	
D=Differed X=Excluded I=In Progress	

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007741C		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/538E		NB VIADUCT STA 2075		5	162.98	County: King
Location: 5.6 N JCT SR 900	Detour Length: 1 miles	Longitude: 122° 19' 6"	Latitude: 47° 34' 30"	Structure Length: 872 ft.		Out to Out Width: 60.7 ft.
Feature Intersected: NB VIADUCT STA 2075		PGA (500 yr): 33.39 %g	PGA (1000 yr): 45.9% %g	Span Type: CS	Main Spans: 21 Appr. Spans: 0	
Year Built: 1966	ADT: 98500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1992	Truck Pct: 15 %	44	0	Pier with more than two columns	Drilled shaft	



Bridge Notes:

Max. span length = 45'. 4 columns per pier. Retrofit columns built in 1966 only (three west columns per pier). Piers 11 thru 15, each has three 4' dia. columns on 5' dia. drilled shafts. Piers 2 thru 9 and 16 thru 21, each has three 3' dia. columns on 3'-6" dia. drilled shafts. #4 hoops @ 12". Piers 10 thru 17 have horizontal struts.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 thru 21. (3 ea. 60 total, 3' dia. except P11-P15 3-4' dia. ea.)

Overall Retrofit Status:	P
Single Column Pier Status:	N
Multi Column Pier Status:	R
C=Complete P=Partially Complet	
R=Required N=Not Required	
D=Differed X=Excluded I=In Progress	

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007741D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/539W		SB VIADUCT STA 2075		5	162.98	County: King
Location: 5.8 N JCT SR 900	Detour Length: 1 miles	Longitude: 122° 19' 6"	Latitude: 47° 34' 30"	Structure Length: 6622 ft.		Out to Out Width: 71 ft.
Feature Intersected: SB VIADUCT STA 2075		PGA (500 yr): 33.39 %g	PGA (1000 yr): 45.9% %g	Span Type: CS		Main Spans: 157 Appr. Spans: 0
Year Built: 1967	ADT: 98500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1992	Truck Pct: 15 %	45	0	Pier with more than two columns	Drilled shaft	



Bridge Notes:

Columns on drilled shafts. Contract 7741: Piers 2 thru 10, 16 thru 30, retrofit four columns each pier (3' dia. column on 3'-6" dia. drilled shaft), pier 11 thru 15, (four 4' dia. column on 5'-0" dia. drilled shaft). Piers 9 thru 18 have horizontal struts. Contract 7686: piers 25 thru 152, 3' dia. Columns except East columns at Piers 146 thru 152 are 4' diameter. Max. span =42'.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at piers 2 thru 152 (628 total, 3' dia. except P11-P15, 2-4' dia. ea.).

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007741E		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/539E		NB VIADUCT STA 2085		5	163.24	County: King
Location: 5.8 N JCT SR 900	Detour Length: 1 miles	Longitude: ° ' " 122 19 10.9	Latitude: ° ' " 47 34 34	Structure Length: 5825 ft.		Out to Out Width: 73 ft.
Feature Intersected: NB VIADUCT STA 2085		PGA (500 yr): 33.39 %g	PGA (1000 yr): 45.9% %g	Span Type: CS	Main Spans: 138 Appr. Spans: 0	
Year Built: 1966	ADT: 98500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1992	Truck Pct: 15 %	46	0	Pier with more than two columns	Drilled shaft	
<div style="display: flex; justify-content: space-around; font-size: 2em; font-weight: bold; opacity: 0.5;"> No Photo Available No Photo Available </div>						
Bridge Notes:			Retrofit Program Notes:			
<p>Retrofit columns built in 1966 only. Piers 2 thru 10, each has five 3' columns on 4' shafts. Piers 11, 12, 95 thru 103 and 114 thru 127, each has five 3' columns on 3'-6" shafts. Piers 13 thru 94, each has four 3' columns on 3'-6" shafts. Piers 104 thru 114, each has six 3' columns on 3'-6" shafts. Piers 115 thru 120 and 128 thru 138, each has three 3' columns on 3'-6" shafts. #4 hoops @12". Horizontal struts at piers 15 thru 19 and 56 thru 78. Lap splices at top of drilled shafts and top of horizontal struts.</p>			<p>Columns of bridge 5/539NCD are to be included with this bridge.</p> <p>Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.</p>			
Completed Retrofit Notes:			Remaining Retrofit Notes:			
			Retrofit 577 columns. (includes bridge 5/539NCD, 3' dia.)			
Overall Retrofit Status:		<div style="font-size: 1.5em; font-weight: bold;"> Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost: </div>				
Single Column Pier Status:						
Multi Column Pier Status:						
C=Complete P=Partially Complet						
R=Required N=Not Required						
D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007504D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/543SCD		SBCD KING JACKSON ST OC		5	164.41	County: King
Location: 0.3 N JCT I-90	Detour Length: 2 miles	Longitude: 122° 19' 11.7"	Latitude: 47° 35' 53.5"	Structure Length: 709 ft.		Out to Out Width: 64.6 ft.
Feature Intersected: KING JACKSON ST		PGA (500 yr): 33.14 %g	PGA (1000 yr): 45.1% %g	Span Type: CBox	Main Spans: 9 Appr. Spans: 0	
Year Built: 1965	ADT: 73582	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 10 %	47	30	Pier with more than two columns	Drilled shaft	



Bridge Notes:

Piers 2 thru 9, each has three 4'-0" diameter columns on 5'-0" diameter drilled shafts. End pier, pier 1, has three 24"x36" columns on 4' shafts. Columns have double hinges. End pier, pier 10, has three 4' diameter column shafts. These columns have #4 hoops @ 12". Vertical #11 bars have 6'-0" min, lap splices at top of drilled. In span hinges at span 4 near pier 4 and span 7 near pier 8.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 thru 9. (3 ea. 24 total, 4' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007504A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/543E		KING-JACKSON ST OC		5	164.41	County: King
Location: 0.3 N JCT I-90	Detour Length: 1 miles	Longitude: 122° 19' 11.7"	Latitude: 47° 35' 53.5"	Structure Length: 706 ft.		Out to Out Width: 62 ft.
Feature Intersected: KING-JACKSON ST		PGA (500 yr): 33.14 %g	PGA (1000 yr): 45.1% %g	Span Type: CBox	Main Spans: 9 Appr. Spans: 0	
Year Built: 1965	ADT: 79500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1992	Truck Pct: 15 %	49	30	Double Column Pier	Drilled shaft	



Bridge Notes:

Contract 7504: Piers 2 and 3, three 4' columns on 5' shafts. Piers 4 thru 9, two 4' columns on 5' shafts. #4 hoops @ 12". Lap splices at top of shafts.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns built in 1965 at Piers 2 thru 9 (18 total, 4' dia.).

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007504B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/543W		KING-JACKSON ST OC		5	164.41	County: King
Location: 0.3 N JCT I-90	Detour Length: 1 miles	Longitude: ° ' "	Latitude: ° ' "	Structure Length: 712 ft.		Out to Out Width: 58.8 ft.
		122 19 11.7	47 35 53.5			
Feature Intersected: KING-JACKSON ST		PGA (500 yr): 33.14 %g	PGA (1000 yr): 45.1% %g	Span Type: CBox	Main Spans: 9 Appr. Spans: 0	
Year Built: 1965	ADT: 79500	11-13 Rank:	Skew Angle:	Pier Type: Double Column Pier	Footing Type: Drilled shaft	
Year Rebuilt: 1992	Truck Pct: 15 %	50	30			



Bridge Notes:

Piers 2 thru 9, each has three 4'-0" diameter columns on 5'-0" diameter drilled shafts. End pier, pier 1, has three 24"x36" columns on 4' shafts. Columns have double hinges. End pier, pier 10, has three 4' diameter column shafts. Retrofit two east columns at piers 2 thru 9 only. These columns have #4 hoops @ 12". Vertical #11 bars have 6'-0" min, lap splices at top of drilled. In span hinges at span 4 near pier 4 and span 7 near pier 8.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns built in 1965 at Piers 2 thru 9 (16 total, 4' dia.).

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007565F		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/542E		DEARBORN ST OC		5	164.41	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
0.1 N JCT I-90	1 miles	122° 19' 0"	47° 35' 42"	219 ft.		64 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
DEARBORN ST		33.15 %g	45.2% %g	CBox	Appr. Spans: 0	
Year Built: 1965	ADT: 82000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1992	Truck Pct: 15 %	51	0	Multiple Column Pier		



Bridge Notes:

Piers 2 and 3, each has three 4'-0" diameter columns. Retrofit two west columns only (built in 1965). These columns are on spread footings. Ties are #4 hoops @ 12". Vertical #11 bars have 3'-8" lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are spill through abutments. Each has three columns. Columns have hinge near top of column.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3 (2 ea. 4 total, 4' dia.).

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007565G		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/542W		DEARBORN ST OC		5	164.41	County: King
Location: 0.1 N JCT I-90	Detour Length: 1 miles	Longitude: ° ' " 122 19 0	Latitude: ° ' " 47 35 42	Structure Length: 219 ft.		Out to Out Width: 58.5 ft.
Feature Intersected: DEARBORN ST		PGA (500 yr): 33.15 %g	PGA (1000 yr): 45.2% %g	Span Type: CBox	Main Spans: 3 Appr. Spans: 0	
Year Built: 1965	ADT: 82000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1992	Truck Pct: 15 %	52	0	Multiple Column Pier		



Bridge Notes:

Piers 2 and 3, each has three columns. Retrofit 2 east columns per pier only. These columns are 4' diameter columns on spread footings. #4 hoops @12". Longitudinal bars have lap splices at top of footings. Footings do not have top mat.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3 (2 ea. 4 total, 4' dia.).

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007565J		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/542SCD		SBCD DEARBORN ST OC		5	164.41	County: King
Location: 0.1 N JCT I-90	Detour Length: 2 miles	Longitude: 122° 19' 6"	Latitude: 47° 35' 42"	Structure Length: 216 ft.		Out to Out Width: 64.6 ft.
Feature Intersected: SBCD DEARBORN ST		PGA (500 yr): 33.16 %g	PGA (1000 yr): 45.2% %g	Span Type: CBox	Main Spans: 3 Appr. Spans: 0	
Year Built: 1965	ADT: 73582	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	53	2	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has three 4'-0" diameter columns on spread footings. These columns have #4 hoops @ 12". Vertical #11 bars have 3'-9" min. lap splices at top of footing. Footing without top mat. End pier 1 has three 30" square columns with hinges at top of columns and top of footings. End pier 4 has three 30" square columns with hinges at top of columns.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 4' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007504C		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/543NCD		NBCD KING JACKSON ST OC		5	164.41	County: King
Location: 0.3 N JCT I-90	Detour Length: 2 miles	Longitude: ° ' "	Latitude: ° ' "	Structure Length: 709 ft.		Out to Out Width: 52.6 ft.
		122 19 11.7	47 35 53.5			
Feature Intersected: NBCD KING JACKSON ST		PGA (500 yr): 33.14 %g	PGA (1000 yr): 45.1% %g	Span Type: CBox	Main Spans: 9 Appr. Spans: 0	
Year Built: 1965	ADT: 61357	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 10 %	54	30	Double Column Pier	Drilled shaft	



Bridge Notes:

Piers 2 thru 5, each has three 4'-0" diameter columns on 5'-0" diameter drilled shafts. Piers 6 thru 9, each has two 4'-0" diameter columns on 5'-0" diameter drilled shafts. These columns have #4 hoops @ 12". Vertical #11 bars have 6'-0" min, lap splices at top of drilled. In span hinges at span 4 near pier 4 and span 7 near pier 8. End pier, pier 1, has three 24"x36" columns on 4' shafts. Columns have double hinges. End pier, pier 10, has three 4' diameter column shafts.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 thru 9. (20 total, 4' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007686C		Bridge Name: NBCD RAMP BR		Route: 5	Milepost: 164.41	Region: Northwest
Bridge Number: 5/539NCD						County: King
Location: 6.7 N JCT SR 900	Detour Length: 2 miles	Longitude: 122° 19' 12.6"	Latitude: 47° 35' 19.6"	Structure Length: 151 ft.		Out to Out Width: 37.6 ft.
Feature Intersected: NBCD RAMP BR		PGA (500 yr): 33.2 %g	PGA (1000 yr): 45.5% %g	Span Type: CS	Main Spans: 4 Appr. Spans: 0	
Year Built: 1965	ADT: 20459	11-13 Rank: 55	Skew Angle: 0	Pier Type: Pier with more than two columns	Footing Type: Drilled shaft	
Year Rebuilt: 0	Truck Pct: 10 %					



Bridge Notes:

NBCD piers 111B thru 114B. Piers 111B thru 113B, each pier has three 3'-0" diameter columns on 3'-6" diameter drilled shafts. Ties are #4 hoops @ 12".

Retrofit Program Notes:

Columns of bridge 5/539NCD are included in Bridge 5/539E retrofit.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Columns of bridge 5/539NCD are included in Bridge 5/539E retrofit.

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 00075651		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/542NCD		NBCD DEARBORN ST OC		5	164.41	County: King
Location: 0.1 N JCT I-90	Detour Length: 2 miles	Longitude: 122° 19' 8"	Latitude: 47° 35' 45.4"	Structure Length: 216 ft.		Out to Out Width: 40.8 ft.
Feature Intersected: DEARBORN ST		PGA (500 yr): 33.16 %g	PGA (1000 yr): 45.2% %g	Span Type: CBox	Main Spans: 3 Appr. Spans: 0	
Year Built: 1965	ADT: 20459	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	56	0	Double Column Pier		



Bridge Notes:

Piers 2 and 3, each has two 4'-0" diameter columns on spread footings. These columns have #4 hoops @ 12". Vertical #11 bars have 4'-0" min. lap splices at top of footing. Footing without top mat. End piers, 1 and 4, each has two 30" square columns with hinges at top of columns.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (2 ea. 4' total, 4' dia.). 7' excavation.

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007401J		Bridge Name: I-405 OVER I-5		Route: 405	Milepost: 0	Region: Northwest County: King
Bridge Number: 405/1						
Location: JCT I-5	Detour Length: 1 miles	Longitude: ° ' " 122 15 58.4	Latitude: ° ' " 47 27 45.3	Structure Length: 560 ft.		Out to Out Width: 52 ft.
Feature Intersected: I-5		PGA (500 yr): 32.86 %g	PGA (1000 yr): 44.7% %g	Span Type: CBox	Main Spans: 6 Appr. Spans: 0	
Year Built: 1965	ADT: 31740	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 8 %	56	0	Double Column Pier	Concrete Pile	
				<h2 style="font-size: 2em; color: black; text-decoration: underline;">No Photo Available</h2>		
Bridge Notes:			Retrofit Program Notes:			
<p>Piers 2, 3, 4, 5 and 6, each has two 5'-0" diameter columns on pile footings. Columns have #4 hoops @ 12". Vertical #11 bars have 4'-2" lap splices at top of footings. Footings have no top mat. Piers 1 is a "L" abutment with six roller bearings. In span hinge at span 3 near pier 4. Pier 6 has a 23' overhang.</p>						
Completed Retrofit Notes:			Remaining Retrofit Notes:			
			<p>Retrofit columns at Piers 2, 3, 4 and 5. (2 ea. 8 total, 5' dia.) Install catcher blocks.</p>			
Overall Retrofit Status: P		<h3 style="font-size: 1.2em;">Estimated Total Bridge Item Cost:</h3> <h3 style="font-size: 1.2em;">Estimated Total Retrofit Project Cost:</h3>				
Single Column Pier Status: N						
Multi Column Pier Status: R						
<p>C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress</p>						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007686D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/539SCD		SBCD VIADUCT STA 2133		5	164.41	County: King
Location: 6.7 N JCT SR 900	Detour Length: 1 miles	Longitude: ° ' " 122 19 18.3	Latitude: ° ' " 47 35 27.7	Structure Length: 729 ft.		Out to Out Width: 52.6 ft.
Feature Intersected: SBCD VIADUCT STA 2133		PGA (500 yr): 33.2 %g	PGA (1000 yr): 45.4% %g	Span Type: CS		Main Spans: 17 Appr. Spans: 0
Year Built: 1967	ADT: 17104	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 10 %	57	0	Pier with more than two columns	Drilled shaft	
<h1 style="font-size: 2em; color: black; opacity: 0.5;">No Photo Available</h1>						
Bridge Notes:				Retrofit Program Notes:		
<p>South end connects to Bridge 5/539W. North end connects to Bridge 90/10W-S. Piers 140 thru 145, each has three 3' columns on 3'-6" shafts. Piers 146 thru 149, each has three 3' columns on 6' shafts. Piers 150, 151 and 152, each has four 3' columns on 6' shafts. Piers 153 and 154, each has five 3' columns on 6' shafts. Pier 155 has six 3' columns on 6' shafts. Pier 156SCD has three 3' columns on 5' shafts. Pier 156W-S has three 3' columns on 6' shafts. Horizontal struts at piers 146 thru 155. #4 hoops @12". Lap splices at top of shafts.</p>						
Completed Retrofit Notes:				Remaining Retrofit Notes:		
				<p>Retrofit columns at Piers 140 Thru 155 to top of drilled shafts. (58 total, 3' dia.). Piers 146 thru 155 are structured piers.</p>		
Overall Retrofit Status:		P		Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:		
Single Column Pier Status:		N				
Multi Column Pier Status:		R				
C=Complete P=Partially Complet						
R=Required N=Not Required						
D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007110B		Bridge Name: SB VIADUCT STA 2195		Route: 5	Milepost: 165.69	Region: Northwest
Bridge Number: 5/545W						County: King
Location: 0.8 N JCT I-90	Detour Length: 1 miles	Longitude: ° ' " 122 19 36	Latitude: ° ' " 47 36 18	Structure Length: 807 ft.		Out to Out Width: 42 ft.
Feature Intersected: SB VIADUCT STA 2195		PGA (500 yr): 33.08 %g	PGA (1000 yr): 44.9% %g	Span Type: CBox	Main Spans: 11 Appr. Spans: 0	
Year Built: 1964	ADT: 116500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1991	Truck Pct: 15 %	58	0	Double Column Pier	Concrete Pile	

No Photo Available



Bridge Notes:

Piers 2 thru 11, each has two 4' dia. columns. Retrofit east columns for each pier only. These columns are on pile footings. #4 hoops @12". Lap splices at top of footings. Footings have no top mat. Piers 1 and 12 (abutments), each has 5 roller bearings.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns built in 1964 at Piers 2-11 (1 ea. 10 total, 4' dia.). Install catcher blocks.

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
 Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007110A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/545E		NB VIADUCT STA 2195		5	165.69	County: King
Location: 0.8 N JCT I-90	Detour Length: 1 miles	Longitude: ° ' " 122 19 38.1	Latitude: ° ' " 47 36 15.1	Structure Length: 4714 ft.		Out to Out Width: 51.7 ft.
Feature Intersected: JAMES, CHERRY, REVERS		PGA (500 yr): 33.06 %g	PGA (1000 yr): 45.0% %g	Span Type: CBox		Main Spans: 26 Appr. Spans: 34
Year Built: 1964	ADT: 116500	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 15 %	59	0	Double Column Pier	Concrete Pile	



No Photo Available

Bridge Notes:

Piers 2 thru 8, each has two 4' cols. on pile footings. Piers 9 and 10, each has two 4' cols. on spread footings. East columns of Piers 11 thru 57 are embedded in retaining walls. The retrofit schemes and extents should be study before programming of this bridge.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2-57. (74 total, Column size vary.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
 Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007110G		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/545SCD		SBCD VIADUCT STA 2195		5	165.71	County: King
Location: 0.8 N JCT I-90	Detour Length: 2 miles	Longitude: 122° 19' 36"	Latitude: 47° 36' 18"	Structure Length: 806 ft.		Out to Out Width: 47.9 ft.
Feature Intersected: SBCD VIADUCT STA 2195		PGA (500 yr): 33.08 %g	PGA (1000 yr): 44.9% %g	Span Type: CBox	Main Spans: 11 Appr. Spans: 0	
Year Built: 1964	ADT: 73582	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1991	Truck Pct: 10 %	60	0	Double Column Pier	Concrete Pile	



Bridge Notes:

Pier 1 has three 2'-6" square columns with two hinges each column (acts as roller). Piers 2 and 3, each has two columns, retrofit east column only. These columns are 4' dia. column on pile footing. Pier 4 has three columns. Retrofit two 4' dia. east columns only. Piers 5 thru 9 and 11, each has two 4' dia. columns on pile footings. Pier 10 has two 4' dia. columns on tunnel. Pier 12 has 6 roller bearings. #4 hoops @12". Longitudinal bars with lap splices. Footings w/o top mat.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns built in 1964 at Piers 2 thru 11. (18 total, 4' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006800A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/566W		DENNY WAY-LAKEVIEW V		5	166.98	County: King
Location: 2.9 N JCT I-90	Detour Length: 3 miles	Longitude: ° ' " 122 19 36	Latitude: ° ' " 47 37 18	Structure Length: 7077 ft.		Out to Out Width: 64.6 ft.
Feature Intersected: DENNY WAY-LAKEVIEW V		PGA (500 yr): 32.73 %g	PGA (1000 yr): 44.1% %g	Span Type: CBox PCG	Main Spans: 53 Appr. Spans: 32	
Year Built: 1962	ADT: 108000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 15 %	61	45	Double Column Pier		
<div style="display: flex; justify-content: space-around; font-size: 2em; font-weight: bold; opacity: 0.5;"> No Photo Available No Photo Available </div>						
Bridge Notes:			Retrofit Program Notes:			
<p>Contract 6635: Piers 2, 4, has three 3'x4' columns. Pier 3, 7, 9, 10,11, has two 4'x4' columns. Pier 5 has two split columns (4'x2'-8 1/2" & 2"gap). Pier 6 has two 4'x5' columns. Pier 8 has two split columns (4'x2" & 2"gap). Pier 12 has two split columns (4'x2'6" & 2"gap). Pier 13, 14, 15, has two 4'x4'6" columns. Pier 16 has three split columns (4'x3' & 2"gap, three S 1/2, two N-1/2). Pier 17, 18, has two 4'x5'6" columns. Pier 19 has two split columns (4' x 3' & 2"gap) and a (2'-6"x 3' & 2"gap) split column.. Contract 6800: Piers 20, 21, 22, 24, 25, 26, each has two 4'x5'6" columns. Piers 23, 27, 31 each has two split columns (4' x 3' & 2"gap) . Pier 28 has a 4'x6'</p>			<p>Analysis of similar hollow core piles have shown a very low capacity / Demand ratio for a 475 year design level earthquake. There is no known way to retrofit these columns. Replacement of the bridge is likely to be the only way to improve the seismic risk. This bridge has been excluded from the P2 funded Bridge Seismic Retrofit program.</p>			
Completed Retrofit Notes:			Remaining Retrofit Notes:			
			<p>Double deck bridge. Retrofit columns at Piers 1-53 (118 total, column size vary) and outriggers at Piers 4,16,17,18,30, 40,41, 42, 43, 44, 45, 46, 47, 48 (14 total). Not include 180 4'-0" dia. Hollow P/S conc. Piles. Install catcher blocks.</p>			
Overall Retrofit Status:		<div style="font-size: 1.5em; font-weight: bold;"> Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost: </div>				
Single Column Pier Status:						
Multi Column Pier Status:						
C=Complete P=Partially Complet						
R=Required N=Not Required						
D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006800B		Bridge Name: NB LANES VIADUCT		Route: 5	Milepost: 166.98	Region: Northwest
Bridge Number: 5/562E						County: King
Location: 2.4 N JCT I-90	Detour Length: 3 miles	Longitude: 122° 19' 36"	Latitude: 47° 37' 36"	Structure Length: 381 ft.		Out to Out Width: 68 ft.
Feature Intersected: NB LANES VIADUCT		PGA (500 yr): 32.63 %g	PGA (1000 yr): 43.9% %g	Span Type: CTB	Main Spans: 11 Appr. Spans: 0	
Year Built: 1963	ADT: 108000	11-13 Rank: 62	Skew Angle: 0	Pier Type: Crossbeam on Piles	Footing Type: Concrete Pile	
Year Rebuilt: 0	Truck Pct: 15 %					



Bridge Notes:

Piers 2 thru 11, each has a 2' diameter column on pile footing. East ends of X-beams are supported on cylinder wall. Columns have #4 hoops @ 12". #8 bars with 2'-11" splices at top of footings. Footings have no top mat.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 thru 11. (2' diameter, 10 total).

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 00071561		Bridge Name: SBCD NORTHGATE WAY OC		Route: 5	Milepost: 172.76	Region: Northwest
Bridge Number: 5/588SCD						County: King
Location: 2.0 N JCT SR 522	Detour Length: 2 miles	Longitude: 122° 19' 42"	Latitude: 47° 42' 30"	Structure Length: 166 ft.		Out to Out Width: 25.5 ft.
Feature Intersected: SBCD NE110TH ST		PGA (500 yr): 31.1 %g	PGA (1000 yr): 40.7% %g	Span Type: PCG	Main Spans: 3 Appr. Spans: 0	
Year Built: 1964	ADT: 6740	11-13 Rank: 63	Skew Angle: 0	Pier Type: Pier with more than two columns	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %					



Bridge Notes:

Piers 2 and 3, each has three 3' dia. columns on spread footings. These columns have #3 hoops @12", longitudinal bars have lap splices at top of footings. Footings have no top mat. End piers are "L" abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0012197B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/588W		NORTHGATE WAY OC		5	172.76	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
2.0 N JCT SR 522	1 miles	122° 19' 42"	47° 42' 30"	166 ft.		75 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
NE NORTHGATE WAY		31.1 %g	40.7% %g	PCG	Appr. Spans: 0	
Year Built: 1964	ADT: 97000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1983	Truck Pct: 15 %	64	0	Pier with more than two columns		
						
Bridge Notes:			Retrofit Program Notes:			
<p>Piers 2 and 3, each has seven 3' dia. columns on spread footings. Retrofit six W. columns built in 1964 per pier only. These columns have #3 hoops @12", longitudinal bars have lap splices at top of footings. Footings have no top mat. End piers are "L" abutments. Bridge 5/588W is parallel to bridge 5/588SCD. Profile Photo shown is bridge 5/588SCD.</p>						
Completed Retrofit Notes:			Remaining Retrofit Notes:			
			Retrofit columns at Piers 2 and 3. (6 ea. 12 total, 3' dia.)			
Overall Retrofit Status:		R	Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:			
Single Column Pier Status:		N				
Multi Column Pier Status:		R				
C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0012197A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/588E		NORTHGATE WAY OC		5	172.76	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
2.0 N JCT SR 522	1 miles	122° 19' 42"	47° 42' 30"	166 ft.		75 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
NE NORTHGATE WAY		31.1 %g	40.7% %g	PCG	Appr. Spans: 0	
Year Built: 1964	ADT: 97000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1983	Truck Pct: 15 %	65	0	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has seven 3' dia. columns on spread footings. Retrofit six E. columns built in 1964 per pier only. These columns have #3 hoops @12", longitudinal bars have lap splices at top of footings. Footings have no top mat. End piers are "L" abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (6 ea. 12 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006094A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/501		I-5 OC, S 375TH		5	140.15	County: King
Location: 0.7 N PIERCE CO	Detour Length: 5 miles	Longitude: ° ' " 122 19 21.7	Latitude: ° ' " 47 15 55.4	Structure Length: 301 ft.		Out to Out Width: 34 ft.
Feature Intersected: I-5		PGA (500 yr): 30.83 %g	PGA (1000 yr): 40.4% %g	Span Type: PCG		Main Spans: 5 Appr. Spans: 0
Year Built: 1959	ADT: 400	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 1 %	67	0	Pier with more than two columns		



Bridge Notes:

Piers 2, 3, 4 and 5, each has three 3'-0" diameter columns. #3 hoops @ 12". #10 bars with 2'-2" splices. Footing without top mat. (E-21g)

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3, 4 and 5. (3 ea. 12 total, 3' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006262A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/505		I-5 OC, S320TH		5	143.83	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.8 N JCT SR 18	4 miles	122° 17' 48"	47° 18' 54"	332 ft.		76 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 4	
I-5		31.29 %g	41.0% %g	PCG	Appr. Spans: 0	
Year Built: 1960	ADT: 55100	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 1 %	68	15	Pier with more than two columns		

No Photo Available



Bridge Notes:

Piers 2, 3 and 4, each has six 3'-0" diameter columns. #3 hoops @ 12". #10 bars with 3'-8" splices. Footing without top mat. (E-23h)

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 4. (6 ea. 18 total)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007090A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/513		I-5 OC, S 216TH		5	150.33	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.1 N JCT SR 516	4 miles	122° 17' 30"	47° 24' 30"	290 ft.		36 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 4	
I-5		32.51 %g	43.3% %g	PCG	Appr. Spans: 0	
Year Built: 1963	ADT: 12540	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 1 %	69	8	Pier with more than two columns		



Bridge Notes:

Piers 2, 3 and 4, each has three 3'-0" diameter columns. #3 hoops @ 12". Longitudinal bars with lap splices. Footing without top mat. (E-54m)

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 4. (3 ea. 9 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007459A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/517A		S-W RAMP OC		5	152.48	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
3.3 N JCT SR 516	4 miles	122° 16' 12"	47° 26' 6"	227 ft.		37 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 4	
S-W RAMP TO S 188TH ST		32.66 %g	43.9% %g	PCG	Appr. Spans: 0	
Year Built: 1964	ADT: 26700	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 14 %	70	30	Pier with more than two columns		



Bridge Notes:

Piers 2, 3 and 4, each has three 3'-0" diameter columns. #3 hoops @ 12". longitudinal bars with lap splices. Footing without top mat. (E-54m)

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 4. (3 ea. 9 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007401A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/518		I-5 OC, S 178TH ST		5	153.15	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
4.0 N JCT SR 516	4 miles	122° 16' 0"	47° 26' 36"	322 ft.		33.6 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 4	
I-5		32.73 %g	44.2% %g	PCG	Appr. Spans: 0	
Year Built: 1964	ADT: 15000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 1 %	71	99	Pier with three columns	Spread	



Bridge Notes:

Piers 2, 3 and 4, each has three 3'-0" diameter columns. #3 hoops @ 12". longitudinal bars with lap splices. Footing without top mat. (E-54m).

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 4. (3 ea. 9 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007618E		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/528		I-5 OC, S 107TH ST		5	158.01	County: King
Location: 0.5 N JCT SR 900	Detour Length: 4 miles	Longitude: 122° 17' 12"	Latitude: 47° 30' 27"	Structure Length: 337 ft.		Out to Out Width: 89.8 ft.
Feature Intersected: I-5		PGA (500 yr): 33.27 %g	PGA (1000 yr): 46.0% %g	Span Type: PCG		Main Spans: 5 Appr. Spans: 0
Year Built: 1966	ADT: 31000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 1 %	72	22	Pier with more than two columns		



Bridge Notes:

Piers 2, 3, 4 and 5, each has five 3'-0" diameter columns. #3 hoops @ 12". longitudinal #8 bars spliced at top of footing. Footing without top mat.

Retrofit Program Notes:

Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3, 4 and 5. (5 ea. 20 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008568A		Bridge Name: N-SWIFT RAMP		Route: 5	Milepost: 161.27	Region: Northwest	
Bridge Number: 5/532.1						County: King	
Location: 3.2 N JCT SR 900	Detour Length: 5 miles	Longitude: 122° 18' 18"	Latitude: 47° 32' 42"	Structure Length: 391 ft.		Out to Out Width: 35 ft.	
Feature Intersected: N-SWIFT RAMP		PGA (500 yr): 33.54 %g	PGA (1000 yr): 46.6% %g	Span Type: CBox	Main Spans: 8 Appr. Spans: 0		
Year Built: 1969	ADT: 3121	11-13 Rank: 73	Skew Angle: 0	Pier Type: Double Column Pier	Footing Type:		
Year Rebuilt: 0	Truck Pct: 5 %						
				<h2 style="font-size: 2em; color: black; text-decoration: underline;">No Photo Available</h2>			
Bridge Notes: Piers 2 thru 8, each has four 3'-0" diameter columns. #4 hoops @ 12". Longitudinal #9 bars with 3'-4" lap splices. Footings have top mats.			Retrofit Program Notes:				
Completed Retrofit Notes:			Remaining Retrofit Notes: Retrofit columns at Piers 2 thru 8. (2 ea. 14 total, 3' dia.)				
Overall Retrofit Status: P		Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:					
Single Column Pier Status: N							
Multi Column Pier Status: R							
C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress							

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007930B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/534A		N-W RAMP AIRPORT W. OC		5	161.27	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
4.1 N JCT SR 900	4 miles	122 19 13.5	47 33 3.6	636 ft.		47.6 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 8	
AIRPORT WAY		33.61 %g	46.8% %g	CBox	Appr. Spans: 0	
Year Built: 1967	ADT: 20202	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	74	0	Double Column Pier	Steel pile	



Bridge Notes:

Piers 2, 4, 6, 7, 8, each has two 4'-0" diameter columns. Piers 3, each has a 4'-6"x9'-0" elliptical column. Pier 5 has two 4'-0"x 5'-3" elliptical split columns. Pier 9 has two 5'-0"x 6'-3" elliptical split columns. #4 ties @12", longitudinal bars have lap splices. Footings have top mats. (See Bridges 5/534S-W and 5/534N-W)

Retrofit Program Notes:

Superstructure retrofit by contract no.17367

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 4, 5, 6, 7, 8 and 9. (2 ea. 14 total)

Overall Retrofit Status:	P
Single Column Pier Status:	N
Multi Column Pier Status:	R
C=Complete P=Partially Complet	
R=Required N=Not Required	
D=Differed X=Excluded I=In Progress	

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007734A		Bridge Name: N-W RAMP OC		Route: 5	Milepost: 161.27	Region: Northwest
Bridge Number: 5/533.5W						County: King
Location: 4.0 N JCT SR 900	Detour Length: 4 miles	Longitude: 122° 19' 0"	Latitude: 47° 33' 6"	Structure Length: 469 ft.		Out to Out Width: 84.8 ft.
Feature Intersected: N-W RAMP		PGA (500 yr): 33.63 %g	PGA (1000 yr): 46.7% %g	Span Type: CBox	Main Spans: 6 Appr. Spans: 0	
Year Built: 1966	ADT: 212000	11-13 Rank: 75	Skew Angle: 35	Pier Type: Multiple Column Pier	Footing Type:	
Year Rebuilt: 1995	Truck Pct: 15 %					
				<h2 style="font-size: 2em; color: black; opacity: 0.5;">No Photo Available</h2>		
Bridge Notes:		Retrofit Program Notes:				
<p>Piers 2 thru 6, each has three columns. Retrofit two east columns per pier. 5'-0" diameter columns at piers 2, 3, 5 and 5. Pier 4 has 5'-0"x 6'-3" elliptical split columns. #4 ties @12". Lap splices at top of footings. Footings have top mats.</p>						
Completed Retrofit Notes:		Remaining Retrofit Notes:				
		<p>Retrofit columns at Piers 2 thru 6. (2 ea. 10 total, 3' dia.). Max. 40 feet deep excavation.</p>				
<p>Overall Retrofit Status: R</p> <p>Single Column Pier Status: N</p> <p>Multi Column Pier Status: R</p> <p>C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress</p>		<p>Estimated Total Bridge Item Cost:</p> <p>Estimated Total Retrofit Project Cost:</p>				

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007741G		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/536N-W		NB I5 to WB W SEA FRWY		5	162.98	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
5.4 N JCT SR 900	4 miles	122° 19' 12"	47° 34' 30"	1722 ft.		25.6 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 17	
W-S, I5, EB W SEA FRWY		33.4 %g	46.0% %g	CBox	Appr. Spans: 0	
Year Built: 1967	ADT: 16485	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	76	0	Single Column Pier	Drilled shaft	



Bridge Notes:

Pier 2 has a 5'-0" dia. column on 6'-0" dia. drilled shaft. Piers 3, 4, 5 each has a 5'-0"x 8'-0" elliptical column on 8' dia. Drilled shaft. Pier 6 and 7, each has two 5' dia. columns on 6' dia. drilled shafts. Pier 8 has a 5'-0" dia. column on 7'-0" dia. drilled shaft. Piers 9 and 10, each has a 5' dia. column on pile supported footing. Pier 11 and 17, each has a 4' dia. column. Pier 12 thru 16, each has a 4'x5'-6" elliptical column.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns built in 1967 at Piers 6 and 7 on drilled shaft. (2 ea. 4 total, 5'dia., 68-72 ft. tall columns)

Overall Retrofit Status: P
Single Column Pier Status: C
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007741P		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/538S-E		S-E RAMP I-5 OC		5	162.99	County: King
Location: 5.6 N JCT SR 900	Detour Length: 4 miles	Longitude: ° ' " 122 19 6	Latitude: ° ' " 47 34 24	Structure Length: 1422 ft.		Out to Out Width: 25.6 ft.
Feature Intersected: S-E RAMP I-5		PGA (500 yr): 33.41 %g	PGA (1000 yr): 46.0% %g	Span Type: CBox CS	Main Spans: 7 Appr. Spans: 18	
Year Built: 1967	ADT: 23672	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	77	0	Single Column Pier	Drilled shaft	
No Photo Available						
Bridge Notes: Piers 2 and 3, each has a 5' diameter column on 6' diameter drilled shaft. Pier 4 has a 5' column on 7' shaft. Piers 5 thru 8, each has a 6' column on 7' shaft. Piers 9 thru 13, each has two 5' column on 6' shaft with two horizontal struts. Pier 14 has two 4' columns on 5' shafts with two horizontal struts. Piers 15 thru 26, each has two 3' columns on 3'-6" shafts. #4 Hoops @ 12".				Retrofit Program Notes: Pier 4 retrofitted under WIN A00518K/PIN 100518K. Piers 2, 3, 5, 6, 7, and 8 retrofitted by PIN 100518L.		
Completed Retrofit Notes:				Remaining Retrofit Notes: Multi column retrofit of piers 9 to 26 still remain.		
Overall Retrofit Status: P		Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:				
Single Column Pier Status: C						
Multi Column Pier Status: R						
C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007741R		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/537N		S-E RAMP WB LANES		5	162.99	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
5.5 N JCT SR 900	99 miles	122° 19' 6"	47° 34' 24"	2885 ft.		32.6 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 34	
I-5		33.41 %g	46.0% %g	CBox	Appr. Spans: 0	
Year Built: 1967	ADT: 43328	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	78	0	Single Column Pier	Concrete Pile	
<div style="display: flex; justify-content: space-around; font-size: 2em; font-weight: bold; opacity: 0.5;"> No Photo Available No Photo Available </div>						
Bridge Notes:			Retrofit Program Notes:			
<p>Piers 2 thru 9, each has a 5' diameter column on 6' diameter drilled shaft. Piers 10 and 11, each has two 4' diameter column on 5' diameter drilled shaft. Piers 12 thru 17, each has a 5' diameter column on 6' diameter drilled shaft. Pier 18 has two 5'-0" dia. columns on pile foundation. Pier 19 has three 5' dia. columns on pile foundations. Piers 20 and 21, each has three 4' dia. columns on pile foundations. Piers 22, 23, 24, 25, each has two 4' dia. columns on pile foundations. Piers 24 and 26 has a 4' dia. columns on pile foundations. #4 Hoops @12". Splices at top of shafts or footings.</p>			<p>Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.</p>			
Completed Retrofit Notes:			Remaining Retrofit Notes:			
			<p>Retrofit columns built in 1967 at Piers 10, 11, 18-25, and 27-34. (42 total, 4' dia. except 2-5' dia. columns at Pier 18.)</p>			
Overall Retrofit Status:		P	Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:			
Single Column Pier Status:		C				
Multi Column Pier Status:		R				
C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007741N		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/537E-S		E-S RAMP BR		5	162.99	County: King
Location: 5.5 N JCT SR 900	Detour Length: 4 miles	Longitude: 122° 19' 6"	Latitude: 47° 34' 18"	Structure Length: 1206 ft.		Out to Out Width: 25.6 ft.
Feature Intersected: E-S RAMP BR		PGA (500 yr): 33.42 %g	PGA (1000 yr): 46.0% %g	Span Type: CBox	Main Spans: 15 Appr. Spans: 0	
Year Built: 1967	ADT: 7505	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	79	0	Single Column Pier	Concrete Pile	



Bridge Notes:

Pier 1 has a 5' column on 6' shaft. Piers 2 thru 4, each has a 6' column on 7' shaft. Piers 5 and 6, each has two 4' column on 5' shafts. Piers 7 and 8, each has two 4' column on pile foundations. Piers 9 thru 14, each has a 4' column on pile foundation. #4 hoops @ 12". Lap splices at piers 1, 2, and 5 thru 13. Pile foundations have no top mat.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 5, 6, 7 and 8. (2 ea. 8 total, 4' dia.)

Overall Retrofit Status: P
Single Column Pier Status: C
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007741S		Bridge Name: W-6TH RAMP BR		Route: 5	Milepost: 163	Region: Northwest
Bridge Number: 5/537W-W						County: King
Location: 5.5 N JCT SR 900	Detour Length: 4 miles	Longitude: 122° 19' 28"	Latitude: 47° 34' 16"	Structure Length: 398 ft.		Out to Out Width: 25.7 ft.
Feature Intersected: PARKING LOT		PGA (500 yr): 33.46 %g	PGA (1000 yr): 46.2% %g	Span Type: CBox CS	Main Spans: 2 Appr. Spans: 10	
Year Built: 1967	ADT: 18723	11-13 Rank: 80	Skew Angle: 0	Pier Type: Double Column Pier	Footing Type: Concrete Pile	
Year Rebuilt: 0	Truck Pct: 5 %					



Bridge Notes:

Cellular abutment. Expansion joints at Bents 3 (West-6th ramp), 4(north-6th ramp), 7. Seat width = 6". Unit 1 is supported by eight 2' diameter columns. Unit 3 is supported by four 2' diameter columns. Units 2, 4 and 5 are supported by 13" diameter concrete pile bents. 2' diameter columns have #4 hoops @12" and lap splices at top of pile footings. No top mat.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Cellular Abutment. Retrofit columns at Bents 1- 4 (12 total, 2' dia.).

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

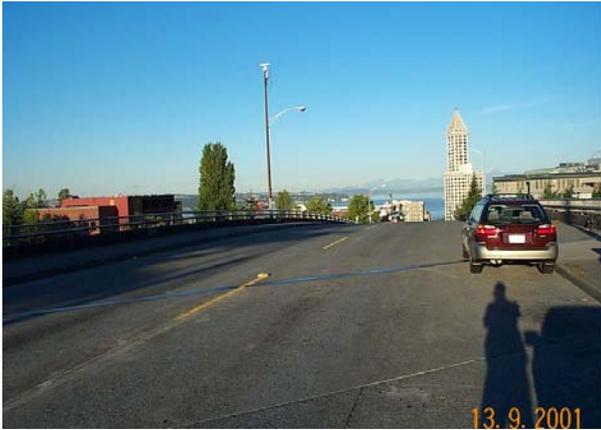
Washington State Department of Transportation

Bridge Seismic Retrofit Information

Structure ID: 0007741T		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/537S		EB LANES I-5 OC		5	163	County: King
Location: 5.5 N JCT SR 900	Detour Length: 4 miles	Longitude: ° ' " 122 19 6	Latitude: ° ' " 47 34 18	Structure Length: 1793 ft.		Out to Out Width: 32.6 ft.
Feature Intersected: I-5		PGA (500 yr): 33.42 %g	PGA (1000 yr): 46.0% %g	Span Type: CBox		Main Spans: 20 Appr. Spans: 0
Year Built: 1966	ADT: 31525	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	81	0	Single Column Pier	Concrete Pile	
<div style="display: flex; justify-content: space-around; font-size: 2em; font-weight: bold; opacity: 0.5;"> No Photo Available No Photo Available </div>						
Bridge Notes:			Retrofit Program Notes:			
<p>Piers 2 thru 4, each has a 5' column on 6' shaft. Pier 5 has three 4' columns on 5' shafts. Piers 6 thru 9, each has two 4' columns on 5' shafts. Piers 10 thru 13, 17, 19 and 20, each has two 4' columns on pile footings. Piers 14 and 18, each has three 4' columns on pile footings. Piers 15, 16 and 21, each has a 5' column on pile footing. #4 hoops @ 12". Lap splices on either top of shafts or pile footings. No top mat.</p>			<p>Engineering analysis is needed to determine which elements of the bridge require retrofit. Cost estimate is based on retrofitting the existing columns with steel jackets.</p>			
Completed Retrofit Notes:			Remaining Retrofit Notes:			
			Retrofit columns at Piers 5-14 and 17-20. (31 total, 4' dia.)			
Overall Retrofit Status:		<div style="font-size: 1.5em; font-weight: bold;"> <p>Estimated Total Bridge Item Cost:</p> <p>Estimated Total Retrofit Project Cost:</p> </div>				
Single Column Pier Status:						
Multi Column Pier Status:						
<p>C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress</p>						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007504E		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/544		I-5 OC, YESLER ST		5	165.69	County: King
Location: 0.6 N JCT I-90	Detour Length: 2 miles	Longitude: 122° 19' 24"	Latitude: 47° 36' 6"	Structure Length: 391 ft.		Out to Out Width: 63.6 ft.
Feature Intersected: I-5		PGA (500 yr): 33.12 %g	PGA (1000 yr): 45.0% %g	Span Type: CBox	Main Spans: 5 Appr. Spans: 0	
Year Built: 1965	ADT: 8100	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	82	41	Pier with more than two columns	Spread footing	



Bridge Notes:

Piers 2 thru 5, each has three 2'-6"x8'-0" columns on spread footings. hoops and ties @ 12". Footings have no top mat. Longitudinal bars have lap splices at top of footings. Pier 1 has three 2'-6" square columns with hinges at top and bottom of columns. Pier 6 has 8 roller bearings.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3, 4 and 5. (3 ea. 12 total, 8'x2'-6")

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007110C		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/546		I-5 OC, MADISON ST		5	165.69	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.1 N JCT I-90	2 miles	122° 19' 48"	47° 36' 30"	280 ft.		75.7 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
I-5		33.04 %g	44.8% %g	CBox	Appr. Spans: 0	
Year Built: 1964	ADT: 16000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	83	99	Single Column Pier	Spread footing	



Bridge Notes:

Piers 2 and 3, each has three 2'-6"x8'-0" columns on spread footings. hoops and ties @ 12". Footings have no top mat. Longitudinal bars have lap splices at top of footings. Piers 1 and 4 are rigid frame abutments. (may not need retrofit).

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit 3 columns at pier 2 to top of retaining wall and 3 columns at pier 3 to top of footing.(6 total, 8'-0" x 2'-6")

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007110D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/547		I-5 OC, SPRING ST		5	165.69	County: King
Location: 1.1 N JCT I-90	Detour Length: 2 miles	Longitude: 122° 19' 48"	Latitude: 47° 36' 30"	Structure Length: 279 ft.		Out to Out Width: 57.6 ft.
Feature Intersected: I-5		PGA (500 yr): 33.04 %g	PGA (1000 yr): 44.8% %g	Span Type: CBox	Main Spans: 3 Appr. Spans: 0	
Year Built: 1964	ADT: 3000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	84	99	Pier with more than two columns	Spread footing	
				<h2 style="font-size: 2em; color: black; text-decoration: underline;">No Photo Available</h2>		
Bridge Notes:			Retrofit Program Notes:			
<p>Piers 2 and 3, each has three 2'-6"x8'-0" columns on spread footings. hoops and ties @ 12". Footings have no top mat. Longitudinal bars have lap splices at top of footings. Piers 1 and 4 are rigid frame abutments. (may not need retrofit).</p>						
Completed Retrofit Notes:			Remaining Retrofit Notes:			
			<p>Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 8'x2'-6") May not require retrofit.</p>			
Overall Retrofit Status:		R	<h3 style="margin: 0;">Estimated Total Bridge Item Cost:</h3> <h3 style="margin: 0;">Estimated Total Retrofit Project Cost:</h3>			
Single Column Pier Status:		N				
Multi Column Pier Status:		R				
<p>C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress</p>						

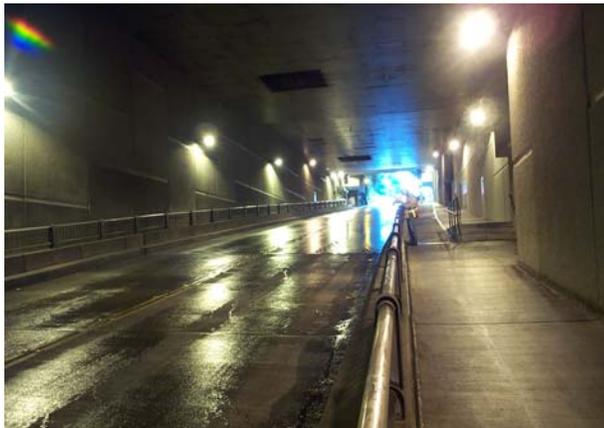
Washington State Department of Transportation

Bridge Seismic Retrofit Information

Structure ID: 0007110E		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/548		I-5 OC, SENECA ST		5	165.69	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.2 N JCT I-90	2 miles	122° 19' 48"	47° 36' 36"	250 ft.		61.6 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
I-5		33.01 %g	44.7% %g	CBox	Appr. Spans: 0	
Year Built: 1964	ADT: 6350	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	85	99	Pier with more than two columns	Spread footing	
<div style="display: flex; justify-content: space-around; font-size: 2em; font-weight: bold; opacity: 0.5;"> No Photo Available No Photo Available </div>						
Bridge Notes:			Retrofit Program Notes:			
<p>Piers 2 and 3, each has three 2'-6"x8'-0" columns on spread footings. hoops and ties @ 12". Footings have no top mat. Longitudinal bars have lap splices at top of footings. Piers 1 and 4 are rigid frame abutments. (may not need retrofit).</p>						
Completed Retrofit Notes:			Remaining Retrofit Notes:			
			Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 8'x2'-6")			
Overall Retrofit Status:		R	Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:			
Single Column Pier Status:		N				
Multi Column Pier Status:		R				
C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007409A		Bridge Name: I-5 UC, 8TH AVE		Route: 5	Milepost: 165.69	Region: Northwest
Bridge Number: 5/549						County: King
Location: 1.3 N JCT I-90	Detour Length: 2 miles	Longitude: 122° 19' 48"	Latitude: 47° 36' 42"	Structure Length: 859 ft.		Out to Out Width: 39 ft.
Feature Intersected: I-5 OVER, CITY ST UNDER		PGA (500 yr): 32.97 %g	PGA (1000 yr): 44.7% %g	Span Type: CBox CS	Main Spans: 8 Appr. Spans: 3	
Year Built: 1964	ADT: 5000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1987	Truck Pct: 5 %	86	0	Single Column Pier	Concrete Pile	



No Photo Available

Bridge Notes:

Piers 2 and 3, each has two 3' dia. columns. Piers 4 and 5, each has a 4'-6" dia. Columns. Pier 7 has two columns. West column and upper portion of east column are 4'-6" dia. columns and lower portion of east column is a 5'-0"x8'-0" column. Pier 9 has a 4' dia. Columns. All columns are on pile footings. #4 hoops @12". Longitudinal rebars have field weld splices. Pile footings have no top mat. Piers 1 and 10 have roller bearings.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 7. (2 ea. 6 total, 3' dia. except P7 2-4'-6" Dia.)

Overall Retrofit Status: P
Single Column Pier Status: C
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
 Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007409C		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/550		I-5 OC, PIKE ST		5	166.06	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.5 N JCT I-90	2 miles	122° 19' 48"	47° 36' 48"	282 ft.		75.6 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 2	
I-5		32.94 %g	44.6% %g	CBox	Appr. Spans: 0	
Year Built: 1964	ADT: 13000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	87	48	Pier with more than two columns	Spread footing	



No Photo Available

Bridge Notes:

Pier 2 has four 3'-1"x14'-4" columns on combined spread footing. #4 hoops and ties @ 12". Footing has top mat. #11 Longitudinal bars have 4'-2" lap splices at top of footings. Piers 1 and 3 are rigid frame abutments. No retrofit recommended.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit 4 columns at Pier 2. (14'-4"x3'-1"). May not require retrofit.

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
 Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007409D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/551		I-5 OC, PINE ST-BOREN		5	166.06	County: King
Location: 1.6 N JCT I-90	Detour Length: 2 miles	Longitude: 122° 19' 42"	Latitude: 47° 36' 54"	Structure Length: 825 ft.		Out to Out Width: 61 ft.
Feature Intersected: I-5		PGA (500 yr): 32.89 %g	PGA (1000 yr): 44.5% %g	Span Type: CBox		Main Spans: 8 Appr. Spans: 0
Year Built: 1965	ADT: 25000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	88	99	Pier with more than two columns	Concrete Pile	



Bridge Notes:

This bridges carries Pine st. and Boren st. Traffics over I-5. Piers 2 and 4 Pine st. and Piers 2 and 4 Boren st., each has three 3'-0"x8'-0" columns on combined pile footing. Retaining walls between columns. Pier 3 has four 3'-0"x8'-0" columns on pile footings. #4 ties @12". Footings w/o top mat except combined footings.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit 6 columns at pier 2 (Pine and Borren St.) , 3 columns at pier 4 Pine st. to top of retaining wall, and 4 columns at pier 3 and 3 columns at pier 4 Borren st. to top of footing. (8'x3' columns.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007299C		Bridge Name: I-5 OC, NE 185TH ST		Route: 5	Milepost: 176.72	Region: Northwest
Bridge Number: 5/596						County: King
Location: 2.1 N JCT SR 523	Detour Length: 2 miles	Longitude: 122° 19' 25"	Latitude: 47° 45' 47.2"	Structure Length: 249 ft.		Out to Out Width: 60 ft.
Feature Intersected: I-5		PGA (500 yr): 30.49 %g	PGA (1000 yr): 39.8% %g	Span Type: CBox	Main Spans: 4 Appr. Spans: 0	
Year Built: 1964	ADT: 8286	11-13 Rank: 89	Skew Angle: 16	Pier Type: Pier with more than two columns	Footing Type:	
Year Rebuilt: 0	Truck Pct: 2 %					
				<h2 style="font-size: 2em; color: black; text-decoration: underline;">No Photo Available</h2>		
Bridge Notes:		Retrofit Program Notes:				
<p>Piers 2, 3 and 4, each has four 2'-6" square columns on spread footings. Retrofit four W. columns only. #3 hoops @ 12". Longitudinal #10 bars have lap splices at top of footing. Footings have no top mat. Piers 1 and 4 (end piers), each has four 2'-6"x1'-6" columns. Each column has a hinge at top of column. Pier 1 (abutment) has four 2'-6"x1'-6" columns with hinges at top and bottom. Pier 5 (abutment) has four 2'-6"x1'-6" columns with hinge at top.</p>						
Completed Retrofit Notes:		Remaining Retrofit Notes:				
		Retrofit columns at Piers 2, 3 and 4. (4 ea. 12 total, 30"x30" at P2&P4, 30"x24" at P3)				
Overall Retrofit Status: R Single Column Pier Status: N Multi Column Pier Status: R C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress		Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:				

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0003842B		Bridge Name: BROADWAY AVE UC		Route: 5	Milepost: 192.59	Region: Northwest
Bridge Number: 5/629A						County: Snohomish
Location: 0.1 N JCT I-5	Detour Length: 2 miles	Longitude: 122° 12' 3"	Latitude: 47° 57' 40"	Structure Length: 161 ft.		Out to Out Width: 23.6 ft.
Feature Intersected: I-5 RAMP		PGA (500 yr): 28.66 %g	PGA (1000 yr): 38.0% %g	Span Type: CTB	Main Spans: 4 Appr. Spans: 0	
Year Built: 1950	ADT: 25028	11-13 Rank: 90	Skew Angle: 30	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %					



Bridge Notes:

Piers 2 thru 4, each has three 20"x30" columns on combined spread footing. #3 hoops @ 12", Longitudinal bars are 1 1/4 sq. bars with 4'-2" splices at top of footing. Pier 1 has five rocker bearings. Pier 5 has three rocker bearings.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

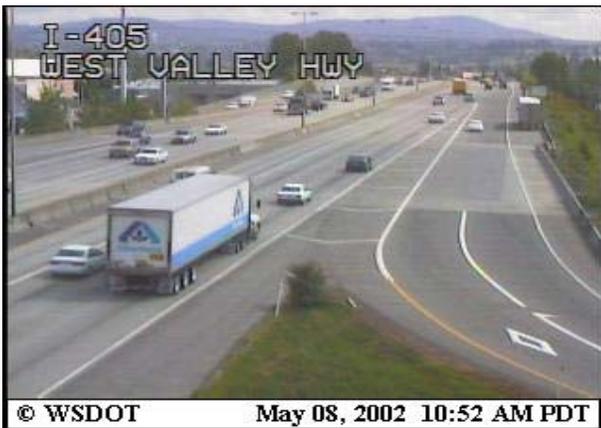
Retrofit columns at Piers 2, 3, and 4 (3 ea. 9 total, 20"x30"). Install catchers and restrainers at Piers 1 and 5.

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007249D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/11		SR 181 OC		405	0.96	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.0 N JCT I-5	5 miles	122° 14' 42"	47° 27' 54"	173 ft.		169.4 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 4	
SR 181		32.68 %g	44.4% %g	PCG	Appr. Spans: 0	
Year Built: 1964	ADT: 114823	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1987	Truck Pct: 8 %	91	3	Pier with more than two columns	Concrete Pile	



No Photo Available

Bridge Notes:

Piers 2 and 3, each has 17- 3'-0" diameter columns. Pier 4 has 16- 3'-0" diameter columns. Retrofit columns built in 1964 only. (total 32 columns). These columns have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footing. Footing without top mat. (E-54m). End piers, 1 and 5, are "L" abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 4. (32 total, 3' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
 Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007606A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/12		BN RR OC (CMSTPP & NP)		405	1.14	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
0.4 N JCT SR 181	1 miles	122° 14' 24"	47° 27' 54"	765 ft.		117.2 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 8	
CMSTPP RR NP RY		32.63 %g	44.3% %g	PCG	Appr. Spans: 0	
Year Built: 1965	ADT: 114823	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1989	Truck Pct: 8 %	92	0	Pier with more than two columns	Concrete Pile	
No Photo Available						
Bridge Notes:			Retrofit Program Notes:			
<p>Piers 2 thru 8, each has six columns. Retrofit four 3'-0" diameter columns built in 1965 only. Four columns per X-beam with gap near centerline of bridge. #3 hoops @ 12". Vertical #11 bars at piers 2, 3 and 8 have 4'-2" lap splices at top of footing. Vertical #14 bars at piers 4 thru 7 have staggered field weld splices. Footing without top mat. (E-54m) End piers, 1 and 9 are stub "L" abutments. Pier 9 is a cantilever "L" abutment. Girders are on bearing pads.</p>						
Completed Retrofit Notes:			Remaining Retrofit Notes:			
			Retrofit columns built in 1965 at piers 2 thru 8. (28 Total, 3' dia.)			
Overall Retrofit Status:		Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:				
Single Column Pier Status:						
Multi Column Pier Status:						
C=Complete P=Partially Complet						
R=Required N=Not Required						
D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007376A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/15		SR 167 OC		405	2.3	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.3 N JCT SR 181	1 miles	122° 13' 0"	47° 28' 6"	188 ft.		189 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 4	
SR 167		32.42 %g	44.0% %g	PCG	Appr. Spans: 0	
Year Built: 1964	ADT: 107403	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1989	Truck Pct: 8 %	93	5	Pier with more than two columns	Timber pile	
				<h2 style="font-size: 2em; color: black; text-decoration: underline;">No Photo Available</h2>		
Bridge Notes:				Retrofit Program Notes:		
<p>Piers 2, 3 and 4, each has twelve 3'-0" diameter columns. Retrofit eight center columns per pier only. These columns have #3 hoops @ 12". Vertical bars have lap splices at top of footing. Footing without top mat. (E-54m)</p>						
Completed Retrofit Notes:				Remaining Retrofit Notes:		
				Retrofit columns at Piers 2, 3 and 4. (8 ea. 24 total, 3' dia.)		
Overall Retrofit Status:		P		Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:		
Single Column Pier Status:		N				
Multi Column Pier Status:		R				
C=Complete P=Partially Complet						
R=Required N=Not Required						
D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007376C		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/16		SR 515 OC		405	2.77	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
0.5 N JCT SR 167	1 miles	122° 12' 29"	47° 28' 8"	215 ft.		109.5 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
BURNETT ST TALBOT RD		32.33 %g	44.0% %g	PCG	Appr. Spans: 0	
Year Built: 1964	ADT: 104327	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1988	Truck Pct: 8 %	94	15	Pier with more than two columns	Steel pile	



Bridge Notes:

Piers 2 and 3, each has nine 3'-0" diameter columns. Retrofit six columns built in 1964 only (columns 2 thru 7 from north). These columns have #3 hoops @ 12". Vertical bars have lap splices at top of footing. Footing without top mat. (E-54m). End piers, 1 and 4, are "L" abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (6 ea. 12 total, 3' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008812B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/41E		SE 8TH ST OC		405	12.78	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.7 N JCT I-90	1 miles	122° 11' 0"	47° 36' 12"	189 ft.		67 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
SE 8TH ST		31.74 %g	43.0% %g	PCG	Appr. Spans: 0	
Year Built: 1971	ADT: 67559	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1995	Truck Pct: 6 %	95	0	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has four 3'-0" diameter columns. Retrofit three west columns, built in 1971, only. These columns have #4 hoops @ 12". Vertical #11 bars have 4'-2" lap splices at top of footing. Footing without top mat. Piers 1 and 4 are stub abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0009267A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/41W		WILBURTON INTERCHANGE OC		405	12.79	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.7 N JCT I-90	1 miles	122° 11' 3.31" W	47° 36' 10.51" N	183 ft.		64 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
SE 8TH ST OC		31.76 %g	43.1% %g	PCG	Appr. Spans: 0	
Year Built: 1972	ADT: 67559	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1995	Truck Pct: 6 %	96	3	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has four 3'-0" diameter columns. Retrofit three east columns, built in 1972, only. These columns have #4 hoops @ 12". Vertical #11 bars have 4'-2" lap splices at top of footing. Footing without top mat. Piers 1 and 4 are stub abutments.

Retrofit Program Notes:

Bridge is being widened and retrofitted with column jackets under UCO design build project - PIN 840509A - Contract No. 17283. A future analysis will be needed to determine if the pier cap should be retrofitted in a future project.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Jacket all columns

Overall Retrofit Status: C
Single Column Pier Status: N
Multi Column Pier Status: I
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007596A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/45E		N-W N-E RAMP OC		405	14.82	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:	Out to Out Width:	
3.6 N JCT I-90	1 miles	122° 11' 17.9"	47° 37' 47.9"	245 ft.	71 ft.	
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
N-W N-E RAMP		31.31 %g	41.9% %g	PCG	Appr. Spans: 0	
Year Built: 1965	ADT: 79098	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1993	Truck Pct: 5 %	97	41	Pier with more than two columns	Spread footing	



Bridge Notes:

Piers 2 and 3, each has four 3'-0" diameter columns on spread footings. Retrofit three East columns built in 1965 only. These columns have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footing. Footing without top mat. (E-54m). End piers, 1 and 4, are stub abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007596B		Bridge Name: N-W & N-E RAMPS OC		Route: 405	Milepost: 14.82	Region: Northwest
Bridge Number: 405/45W						County: King
Location: 3.6 N JCT I-90	Detour Length: 1 miles	Longitude: 122° 11' 19.3"	Latitude: 47° 37' 49.1"	Structure Length: 207 ft.		Out to Out Width: 71 ft.
Feature Intersected: N-W & N-E RAMPS		PGA (500 yr): 31.3 %g	PGA (1000 yr): 41.9% %g	Span Type: PCG	Main Spans: 3 Appr. Spans: 0	
Year Built: 1966	ADT: 79098	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1993	Truck Pct: 5 %	98	34	Pier with more than two columns	Spread footing	



Bridge Notes:

Piers 2 and 3, each has four 3'-0" diameter columns on spread footings. Retrofit three West columns built in 1966 only. These columns have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footing. Footing without top mat. (E-54m). End piers, 1 and 4, are stub abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007596C		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/46E		SR 520 OC		405	14.83	County: King
Location: 3.7 N JCT I-90	Detour Length: 1 miles	Longitude: 122° 11' 17.04" W	Latitude: 47° 37' 55.44" N	Structure Length: 247 ft.		Out to Out Width: 78 ft.
Feature Intersected: SR 520		PGA (500 yr): 31.28 %g	PGA (1000 yr): 41.8% %g	Span Type: PCG		Main Spans: 4 Appr. Spans: 0
Year Built: 1966	ADT: 79098	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1993	Truck Pct: 5 %	99	10	Pier with more than two columns	Spread footing	
				No Photo Available		
Bridge Notes:				Retrofit Program Notes:		
Piers 2, 3 and 4, each has four 3'-0" diameter columns on spread footings. Retrofit three East columns per pier only. These columns have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footing. Footing without top mat. (E-54m). End piers, 1 and 5, are stub "L" abutments.						
Completed Retrofit Notes:				Remaining Retrofit Notes:		
				Retrofit columns at Piers 2, 3 and 4. (3 ea. 9 total, 3' dia.)		
Overall Retrofit Status: P		Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:				
Single Column Pier Status: N						
Multi Column Pier Status: R						
C=Complete P=Partially Complet R=Required N=Not Required D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007596D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/46W		SR 520 OC		405	14.83	County: King
Location: 3.7 N JCT I-90	Detour Length: 1 miles	Longitude: ° ' " 122 11 18.3	Latitude: ° ' " 47 37 55.9	Structure Length: 241 ft.		Out to Out Width: 89 ft.
Feature Intersected: SR 520		PGA (500 yr): 31.28 %g	PGA (1000 yr): 41.8% %g	Span Type: PCG		Main Spans: 4 Appr. Spans: 0
Year Built: 1966	ADT: 79098	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1993	Truck Pct: 5 %	100	16	Pier with more than two columns	Spread footing	



Bridge Notes:

Piers 2, 3 and 4, each has four 3'-0" diameter columns on spread footings. Retrofit three West columns per pier only. These columns have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footing. Footing without top mat. (E-54m). End piers, 1 and 5, are stub "L" abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 4. (3 ea. 9 total, 3' dia.)

Overall Retrofit Status:	P
Single Column Pier Status:	N
Multi Column Pier Status:	R
C=Complete P=Partially Complet	
R=Required N=Not Required	
D=Differed X=Excluded I=In Progress	

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007596E		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/47E		NORTHUP WAY OC		405	14.83	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:	Out to Out Width:	
0.1 N JCT SR 520	1 miles	122 11 13.1 "	47 38 2.1 "	160 ft.	78 ft.	
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
NORTHUP WAY		31.25 %g	41.7% %g	PCG	Appr. Spans: 0	
Year Built: 1965	ADT: 79098	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1993	Truck Pct: 5 %	101	12	Pier with more than two columns	Spread footing	



Bridge Notes:

Piers 2 and 3, each has four 3'-0" diameter columns on spread footings. Retrofit three West columns per pier only. These columns have #3 hoops @ 12". Vertical #11 bars have 4'-2" lap splices at top of footing. Footing without top mat. (E-54m). End piers, 1 and 4, are stub "L" abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 2' dia.). 7' excavation.

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0004609A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/47W		NORTHUP WAY OC		405	14.83	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
0.1 N JCT SR 520	1 miles	122° 11' 12"	47° 38' 0"	149 ft.		71 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
NORTHUP WAY		31.25 %g	41.8% %g	CTB	Appr. Spans: 0	
Year Built: 1954	ADT: 79098	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1993	Truck Pct: 5 %	102	15	Pier with more than two columns	Concrete Pile	



Bridge Notes:

Piers 2 and 3, each has four 38" square columns. Columns 2 and 3 are on spread footings. Columns 1 are on piles. Columns 4 are on 6' dia. drilled shafts. Retrofit three West columns only. These columns have #3 hoops @ 12". Vertical #11 bars have lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are concrete pile bents.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 38"x 38")

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007742A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/48E		BNRR & 115th AVE NE OC		405	15	County: King
Location: 0.2 N JCT SR 520	Detour Length: 1 miles	Longitude: ° ' " 122 11 12.8	Latitude: ° ' " 47 38 6	Structure Length: 296 ft.		Out to Out Width: 78 ft.
Feature Intersected: BNRR & 115th AVE NE		PGA (500 yr): 31.23 %g	PGA (1000 yr): 41.7% %g	Span Type: PCG		Main Spans: 4 Appr. Spans: 0
Year Built: 1965	ADT: 79098	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1993	Truck Pct: 5 %	103	39	Pier with more than two columns		



No Photo Available

Bridge Notes:

Piers 2, 3 and 4, each has five 3'-0" diameter columns. Four east column are on spread footings. West column is on 6' diameter drilled shaft. Retrofit four east columns only. These columns have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footing. Footing without top mat. End piers, 1 and 5, are stub abutments. Piers 2 and 3 have collision walls.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 4. (4 ea. 12 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
 Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0004609B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/48W		BNRR & 115 AVE NE OC		405	15	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
0.2 N JCT SR 520	1 miles	122° 11' 14.41" W	47° 38' 6.36" N	204 ft.		71 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
BNRR & 115 AVE NE		31.23 %g	41.7% %g	CTB	Appr. Spans: 0	
Year Built: 1954	ADT: 79098	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1993	Truck Pct: 5 %	104	42	Pier with more than two columns		



No Photo Available

Bridge Notes:

Piers 2 and 3, each has four 42" square columns. Columns 2 and 3 from West are on spread footings. Pier 2 column 1 from west is on piles. Pier 3 on spread footing. Columns 4 are on 6' dia. drilled shafts. Retrofit three West columns only. These columns have #3 hoops @ 12". Vertical #11 bars have lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are spill through abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 42"x42"). 10' excavation.

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
 Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008674E		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/52E		SR 908 OC		405	18.11	County: King
Location: 3.3 N JCT SR 520	Detour Length: 1 miles	Longitude: ° ' " 122 11 3.9	Latitude: ° ' " 47 40 45	Structure Length: 223 ft.		Out to Out Width: 66.5 ft.
Feature Intersected: SR 908		PGA (500 yr): 30.49 %g	PGA (1000 yr): 40.3% %g	Span Type: PCG		Main Spans: 3 Appr. Spans: 0
Year Built: 1971	ADT: 58995	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1994	Truck Pct: 5 %	105	0	Pier with more than two columns		
				<h2 style="font-size: 2em; color: black; opacity: 0.5;">No Photo Available</h2>		
Bridge Notes:				Retrofit Program Notes:		
<p>Piers 2 and 3, each has four 3'-0" diameter columns on spread footings. Retrofit three east columns only. These columns have #4 hoops @ 12". Vertical #10 bars have 2'-10" min. lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are stub abutments.</p>						
Completed Retrofit Notes:				Remaining Retrofit Notes:		
				Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.). 7' excavation.		
Overall Retrofit Status:		R		Estimated Total Bridge Item Cost: Estimated Total Retrofit Project Cost:		
Single Column Pier Status:		N				
Multi Column Pier Status:		R				
C=Complete P=Partially Complet						
R=Required N=Not Required						
D=Differed X=Excluded I=In Progress						

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008674D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/52NCD		NBCD, SR 908 OC		405	17.84	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
3.3 N JCT SR 520	0 miles	122° 11' 0"	47° 40' 48"	211 ft.		38.5 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
SR 908		30.49 %g	40.2% %g	PCG	Appr. Spans: 0	
Year Built: 1970	ADT: 9986	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	106	0	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has three 3'-0" diameter columns on spread footings. #4 hoops @ 12". Vertical #9 bars have lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are stub abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008674G		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/52SCD		SBCD, SR 908 OC		405	18.11	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
3.3 N JCT SR 520	0 miles	122° 11' 0"	47° 40' 48"	223 ft.		39 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
SBCD, SR 908		30.49 %g	40.2% %g	PCG	Appr. Spans: 0	
Year Built: 1971	ADT: 12046	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	107	0	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has three 3'-0" diameter columns on spread footings. #4 hoops @ 12". Vertical #9 bars have lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are stub abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008674F		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/52W		SR 908 OC		405	18.11	County: King
Location: 3.3 N JCT SR 520	Detour Length: 1 miles	Longitude: ° ' "	Latitude: ° ' "	Structure Length: 219 ft.		Out to Out Width: 66 ft.
Feature Intersected: SR 908		PGA (500 yr): 30.49 %g	PGA (1000 yr): 40.2% %g	Span Type: PCG	Main Spans: 3 Appr. Spans: 0	
Year Built: 1971	ADT: 58995	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1994	Truck Pct: 5 %	108	0	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has four 3'-0" diameter columns on spread footings. Retrofit three west columns only. These columns have #4 hoops @ 12". Vertical #10 bars have 3'-3" min. lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are stub abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.). 7' excavation.

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0004978A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/56E		BN RR OC (NP)		405	20	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.9 N JCT SR 908	1 miles	122 10 48.2	47 42 22.1	199 ft.		107 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
NP RY		30.07 %g	39.5% %g	CTB	Appr. Spans: 0	
Year Built: 1956	ADT: 57543	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1994	Truck Pct: 5 %	109	99	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has six 39" square columns and one 18" square column on spread footings. Retrofit five west columns only. These columns have #3 or #4 hoops @ 12". Vertical #11 bars have 2'-4" min. lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are spill through abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (5 ea. 10 total, 8-39"x39", 2-18"x18"). Retrofit Columns to Top of Collision Wall.

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008615C		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/56W		BN RR OC (NP)		405	19.98	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.9 N JCT SR 908	1 miles	122 10 42	47 42 24	243 ft.		81 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
NP RY		30.07 %g	39.5% %g	PCG	Appr. Spans: 0	
Year Built: 1970	ADT: 57543	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1994	Truck Pct: 5 %	110	33	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has five 3'-0" diameter columns on spread footings. Retrofit four west columns only. These columns have #4 hoops @ 12". Vertical #8 bars have 5'-0" min. lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are cantilever abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (4 ea. 8 total, 3' dia.). Retrofit Columns to Top of Collision Wall.

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008615E		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/59E		NE 132ND ST OC		405	20.9	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
2.8 N JCT SR 908	1 miles	122 11 14.7	47 43 5.9	180 ft.		71 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
NE 132ND ST		30 %g	39.4% %g	PCG	Appr. Spans: 0	
Year Built: 1970	ADT: 53951	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1994	Truck Pct: 5 %	111	21	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has four 3'-0" diameter columns. Retrofit three east columns only. These columns are on spread footings and have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are stub "L" abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008615F		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/59W		NE 132ND ST OC		405	20.9	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
2.8 N JCT SR 908	1 miles	122° 11' 12"	47° 43' 5.9"	168 ft.		68 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
NE 132ND ST		30 %g	39.3% %g	PCG	Appr. Spans: 0	
Year Built: 1970	ADT: 53951	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1994	Truck Pct: 5 %	112	21	Pier with more than two columns		



Bridge Notes:

Piers 2 and 3, each has four 3'-0" diameter columns on spread footings. Retrofit three west columns only. These columns have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are stub "L" abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008375C		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/103E		228TH ST OC		405	26.31	County: Snohomish
Location: 1.3 N KING CO	Detour Length: 1 miles	Longitude: 122° 12' 28.5"	Latitude: 47° 47' 28"	Structure Length: 287 ft.		Out to Out Width: 57.6 ft.
Feature Intersected: 228TH ST		PGA (500 yr): 29.56 %g	PGA (1000 yr): 38.6% %g	Span Type: PCG	Main Spans: 3 Appr. Spans: 0	
Year Built: 1968	ADT: 48000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1998	Truck Pct: 5 %	113	54	Pier with more than two columns		



Bridge Notes:

Intermediate Piers, Piers 2 and 3, each has four 3'-0" diameter columns. Retrofit three east columns only. These columns have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footings. Footings have no top mat. End Piers 1 and 4 are "L" abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008375D		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/103W		228TH ST OC		405	26.33	County: Snohomish
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.3 N KING CO	1 miles	122° 12' 24"	47° 47' 30"	273 ft.		67.5 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 3	
228TH ST		29.56 %g	38.6% %g	PCG	Appr. Spans: 0	
Year Built: 1968	ADT: 48000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1998	Truck Pct: 5 %	114	53	Pier with more than two columns		



Bridge Notes:

Intermediate Piers, Piers 2 and 3, each has four 3'-0" diameter columns. Retrofit three west columns only. These columns have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footings. Footings have no top mat. End Piers 1 and 4 are "L" abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0006968A		Bridge Name: I-405 OC, 61ST AVE S		Route: 405	Milepost: 0.34	Region: Northwest
Bridge Number: 405/5						County: King
Location: 0.3 N JCT I-5	Detour Length: 0 miles	Longitude: ° ' " 122 15 24	Latitude: ° ' " 47 27 48	Structure Length: 205 ft.		Out to Out Width: 65.5 ft.
Feature Intersected: I-405		PGA (500 yr): 32.79 %g	PGA (1000 yr): 44.5% %g	Span Type: PCG	Main Spans: 2 Appr. Spans: 0	
Year Built: 1962	ADT: 10550	11-13 Rank: 115	Skew Angle: 10	Pier Type: Pier with more than two columns	Footing Type: Spread footing	
Year Rebuilt: 0	Truck Pct: 3 %					



Bridge Notes:

Pier 2 has six 3'-0" diameter columns on pile footings. Three columns per x-beam with 1" gap. Three columns built in 1962 are on combined spread footing. Columns have #3 hoops @ 12". Vertical #11 bars have 4'-2" lap splices at top of footings. Three columns in widened portion are on combined spread footing. 2'-0" gap between footings. Columns have #4 hoops @ 12". Vertical # 9 bars have 3'-4" lap splices at top of footings. Both footings have top mats. End piers 1 and 3 are "L" abutments. Girders are on bearing pads.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit 6 columns at Pier 2. (3' dia.)

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 000000OU		Bridge Name: 12TH ST NE OVER I-405		Route: 405	Milepost: 14.12	Region: Northwest
Bridge Number: 405/44						County: King
Location: 3.0 N JCT I-90	Detour Length: 0 miles	Longitude: 122° 11' 18"	Latitude: 47° 37' 18"	Structure Length: 298 ft.	Out to Out Width: 59 ft.	
Feature Intersected: I-405		PGA (500 yr): 31.47 %g	PGA (1000 yr): 42.3% %g	Span Type: PTCBox	Main Spans: 2 Appr. Spans: 0	
Year Built: 1970	ADT: 21900	11-13 Rank: 116	Skew Angle: 37	Pier Type: Pier with more than two columns	Footing Type:	
Year Rebuilt: 0	Truck Pct: 6 %					



Bridge Notes:

Pier 2 has three columns on spread footings. Column section various, 5'-6" x 4'-6" at top of pedestal. #4 ties @ 9" at hinge zone top of pedestal. Others #4 ties @ 12". Vertical #11 bars have 4'-0" lap splices at top of pedestal. Footings have no top mat. End piers, 1 and 3, are cantilever abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit 3 columns at pier 2. (Section vary, 66"x44" at bottom)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0007839A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/48S-W		S-W RAMP BNRR OC		405	14.83	County: King
Location: 0.2 N JCT SR 520	Detour Length: 1 miles	Longitude: 122 ° 10 ' 54 "	Latitude: 47 ° 38 ' 6 "	Structure Length: 232 ft.		Out to Out Width: 44 ft.
Feature Intersected: S-W RAMP NP RY		PGA (500 yr): 31.17 %g	PGA (1000 yr): 41.6% %g	Span Type: PCG	Main Spans: 3 Appr. Spans: 0	
Year Built: 1966	ADT: 11657	11-13 Rank: 117	Skew Angle: 41	Pier Type: Multiple Column Pier	Footing Type:	
Year Rebuilt: 1994	Truck Pct: 5 %					



Bridge Notes:

Piers 2 and 3, each has four 3'-0" diameter columns. Retrofit two east columns only. These columns are on spread footings and have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footing. Footing without top mat. End piers, 1 and 4, are stub abutments. Piers 2 and 3 have collision walls.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (2 ea. 4 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008569A		Bridge Name: I-405 OC, NE 160TH ST		Route: 405	Milepost: 22.62	Region: Northwest
Bridge Number: 405/64						County: King
Location: 4.5 N JCT SR 908	Detour Length: 4 miles	Longitude: 122° 11' 12"	Latitude: 47° 44' 36"	Structure Length: 292 ft.		Out to Out Width: 78.5 ft.
Feature Intersected: I-405		PGA (500 yr): 29.71 %g	PGA (1000 yr): 38.8% %g	Span Type: PTCBox	Main Spans: 2 Appr. Spans: 0	
Year Built: 1969	ADT: 12586	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1996	Truck Pct: 5 %	118	45	Multiple Column Pier		



No Photo Available

Bridge Notes:

Pier 2 has four 6'-0" wide columns. Retrofit two south columns only. Column section various. 6'-0"x 3'-4" at top of pedestal. 12:5/8 tapers. Vertical #11 bars have 4'-2" lap splices at top of footing. #4 hoops & ties @ 12". Footing has no top mat. End piers, 1 and 3, are cantilever abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit two columns at Pier 2. Column section vary, 6'x3'-4" at bottom.

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
 Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008286A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 405/73		I-405 OC, 195TH ST		405	24.48	County: King
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
0.8 N JCT SR 522	1 miles	122° 11' 18"	47° 46' 6"	252 ft.		77.7 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 4	
I-405		29.54 %g	38.5% %g	PCG	Appr. Spans: 0	
Year Built: 1968	ADT: 4592	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 1998	Truck Pct: 6 %	119	7	Multiple Column Pier	Concrete Pile	



No Photo Available

Bridge Notes:

Intermediate Piers, Piers 2, 3 and 4, each has six 3'-0" diameter columns. Retrofit two center columns only. These columns have #3 hoops @ 12". Vertical #9 bars have 3'-4" lap splices at top of footings. Footings have no top mat. End Piers 1 and 5 are "L" abutments.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3 and 4. (2 ea. 6 total, 3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
 Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008085F		Bridge Name: I-5 OC, 23RD ST		Route: 5	Milepost: 194.44	Region: Northwest
Bridge Number: 5/642						County: Snohomish
Location: 0.6 N JCT US 2	Detour Length: 2 miles	Longitude: 122° 10' 57"	Latitude: 47° 59' 12"	Structure Length: 170 ft.		Out to Out Width: 51.9 ft.
Feature Intersected: I-5		PGA (500 yr): 28.39 %g	PGA (1000 yr): 37.0% %g	Span Type: PCG	Main Spans: 2 Appr. Spans: 0	
Year Built: 1967	ADT: 4716	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 5 %	144	0	Pier with more than two columns		



Bridge Notes:

Pier 2 has three 3'-0" diameter columns. #3 hoops @ 12". #9 vertical bars have 3'-4" lap splices at top of footings. Footing without top mat.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit 3 columns at pier 2. (3' dia.)

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008256A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/645E		SNOHOMISH R BN RR		5	194.81	County: Snohomish
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.0 N JCT US 2	1 miles	122° 10' 55.08" W	47° 59' 22.26" N	1622 ft.		51.4 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 8	
SNOHOMISH R GN RY		28.11 %g	37.0% %g	SG	Appr. Spans: 0	
Year Built: 1968	ADT: 63000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 15 %	145	30	Double Column Pier	Timber pile	



Bridge Notes:

Piers 2 thru 8, each has two 6'-0" diameter columns. #4 hoops @ 12". #11 vertical bars have 4'-2" lap splices at top of pedestals or walls. Piers 3 and 4 have 3'-0" infill walls. Footing without top mat.

Retrofit Program Notes:

Good candidate to use isolation bearings.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2-8 (2 ea. 14 total, 6' dia.).

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0008256B		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/645W		SNOHOMISH R BN RR		5	194.81	County: Snohomish
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
1.0 N JCT US 2	1 miles	122 10 55.08	47 59 22.26	1588 ft.		51.4 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 8	
SNOHOMISH R GN RY		28.11 %g	37.0% %g	SG	Appr. Spans: 0	
Year Built: 1968	ADT: 63000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 15 %	146	30	Double Column Pier	Timber pile	



Bridge Notes:

Piers 2 thru 8, each has two 6'-0" diameter columns. #4 hoops @ 12". #11 vertical bars have 4'-2" lap splices at top of pedestals or walls. Piers 3 and 4 have 3'-0" infill walls. Footing without top mat.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2-8 (2 ea. 14 total, 6' dia.).

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0009260A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 5/701		STARBIRD RD OVER I-5		5	218.54	County: Skagit
Location:	Detour Length:	Longitude:	Latitude:	Structure Length:		Out to Out Width:
0.8 N SNOHOMIS	6 miles	122° 18' 54"	48° 18' 30"	363 ft.		41 ft.
Feature Intersected:		PGA (500 yr):	PGA (1000 yr):	Span Type:	Main Spans: 4	
I-5		26.12 %g	34.7% %g	PCG	Appr. Spans: 0	
Year Built: 1972	ADT: 1270	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 0	Truck Pct: 1 %	147	20	Pier with more than two columns	Concrete Pile	



Bridge Notes:

Piers 2, 3 and 4, each has three 3'-0" x 4'-0" columns, #4 hoops @ 12", Vertical #11 bars with 4'-2" lap splices at top of footings. Footings have no top mat.

Retrofit Program Notes:

The 2005 Transportation Partnership Account (TPA) included funding to perform seismic retrofit work on this bridge. A project that includes this bridge is likely to be scheduled in the 2011-13 biennium.

Completed Retrofit Notes:

Remaining Retrofit Notes:

A seismic analysis will be done to determine what work is required. Typical retrofit measures and costs are: Cross-Beam Bolsters = \$1,500/LF of Cross Beam, Girder Stops = \$1,500/Each, Column Jackets (Dry) = \$50,000/Col. (Wet) = \$125,000/Col.

Overall Retrofit Status: P
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0004535A		Bridge Name: I-5 OC, BLACKBURN ST		Route: 5	Milepost: 225.64	Region: Northwest
Bridge Number: 5/707						County: Skagit
Location: 4.7 N JCT SR 534	Detour Length: 6 miles	Longitude: 22° 19' 51.1"	Latitude: 48° 24' 23.6"	Structure Length: 194 ft.		Out to Out Width: 33.8 ft.
Feature Intersected: I-5		PGA (500 yr): 25.17 %g	PGA (1000 yr): 33.7% %g	Span Type: CTB		Main Spans: 5 Appr. Spans: 0
Year Built: 1954	ADT: 1150	11-13 Rank: 148	Skew Angle: 0	Pier Type: Double Column Pier		Footing Type: Concrete Pile
Year Rebuilt: 0	Truck Pct: 1 %					



Bridge Notes:

Piers 2 thru 5, each has two 32"x32" square columns. #3 hoops @ 12", vertical #11 bars with 2'-4" splices. Footings have no top mat.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2, 3, 4 and 5. (2 ea. 8 total, 32"x32")

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0005433A		Bridge Name:		Route:	Milepost:	Region: Northwest
Bridge Number: 18/5		SR 18 OVR PEASLEY CANYON		18	1.86	County: King
Location: 1.9 E JCT I-5	Detour Length: 4 miles	Longitude: 122° 16' 25.9"	Latitude: 47° 18' 12.9"	Structure Length: 360 ft.		Out to Out Width: 81.5 ft.
Feature Intersected: PEASLEY CANYON RD		PGA (500 yr): 31 %g	PGA (1000 yr): 40.6% %g	Span Type: CBox		Main Spans: 3 Appr. Spans: 0
Year Built: 1958	ADT: 44000	11-13 Rank:	Skew Angle:	Pier Type:	Footing Type:	
Year Rebuilt: 2004	Truck Pct: 15 %	149	0	Pier with more than two columns		



Bridge Notes:

Intermediate Piers, Piers 2 and 3, each has three 5'-0" diameter columns on combined spread footings. #3 hoops spaced at 12" spacing. Vertical #11 bars have 2'-4" lap splices at top of pedestal. End Piers 1 and 4 are cantilever "L" abutments. Pier 4 has seven tall rocker bearings.

Retrofit Program Notes:

Retrofit columns at Piers 2 and 3. (3 ea. 6 total, 5' dia.) 85 ft. tall. Catcher blocks for rocker bearings at pier 4 (seven bearings). Install transverse restrainers.

Completed Retrofit Notes:

Remaining Retrofit Notes:

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

Washington State Department of Transportation Bridge Seismic Retrofit Information

Structure ID: 0005433B		Bridge Name: W VALLEY HIGHWAY OC		Route: 18	Milepost: 2.3	Region: Northwest
Bridge Number: 18/6						County: King
Location: 2.7 E JCT I-5	Detour Length: 1 miles	Longitude: 122° 15' 24"	Latitude: 47° 18' 6"	Structure Length: 114 ft.		Out to Out Width: 73 ft.
Feature Intersected: W VALLEY HWY(OLD SR 181)		PGA (500 yr): 30.87 %g	PGA (1000 yr): 40.5% %g	Span Type: CVS	Main Spans: 3 Appr. Spans: 0	
Year Built: 1957	ADT: 44000	11-13 Rank: 150	Skew Angle: 3	Pier Type: Pier with more than two columns	Footing Type: Concrete Pile	
Year Rebuilt: 0	Truck Pct: 15 %					



Bridge Notes:

Intermediate piers, piers 2 and 3, each has six 21" square columns on pile footing. Ties are #3 bars @ 12". Vertical #9 bars have 2'-0" lap splices at top of footings. End piers, piers 1 and 4, are 30 ton concrete pile bents.

Retrofit Program Notes:

Completed Retrofit Notes:

Remaining Retrofit Notes:

Retrofit columns at Piers 2 and 3. (6 ea. 12 total, 21"x21")

Overall Retrofit Status: R
Single Column Pier Status: N
Multi Column Pier Status: R
 C=Complete P=Partially Complet
 R=Required N=Not Required
 D=Differed X=Excluded I=In Progress

Estimated Total Bridge Item Cost:
Estimated Total Retrofit Project Cost:

WSDOT Scour Projects - 2011-13 Bien

(Sorted by Bridge Number)



Bridge Number	Bridge Name	Length	Mile post	Region	PIN #	Year Planned	11-13 #	Project Total\$'s
410/101	WHITE R	292	21.99	Northwest	141001C	2011	1	\$956,000
Total Number of Bridges = 1						Total Bien\$'s =		\$956,000

WSDOT Bridge over Water

Scour Form

Bridge ID: 0003523A	Bridge Number: 410/101	Bridge Name: WHITE R	State Route: 410 Mile Post: 21.99	Northwest Cnty: Pierce	
Year Built: 1949 Rebuilt:	Span Type: STrus CTB	ADT: 16066 ADT Truck Pct: 8 %	Structure Length: 292 ft. Width: 32 ft.	main span 1 aprch: 3	Detour Length: 38 miles
Substructure Stability: Code: 1 Spread footing, simple spans.		Streambed Material: 3 Gravel	Scour History: Code: C Current scour problems.		Last Scour repair Project Yr: C#:
Scour Code: 3	Scour Rating Description: Bridge is scour critical; bridge foundations determined unstable for calculated scour depths: 1) Within limits of footings or piles (Figure WB 76-80B) 2) Below footing base or pile tips (Figure WB 76-80C).		Substr Code: 5	sufficiency_rating: 52.1	



Deficiencies: Pier 2 consists of spread footings 14' x 16' and 2.25' on 4' seals. The as-built plans say the foundation is on cemented sands. The footing at North end of Pier is exposed 1.3ft on the upstream side and 2.4ft on the down stream side. Hydraulics Office 5/28/96 - This bridge is scour critical if the thalweg migrates to Pier 2 or Pier 3. Riprap must be maintained at pier 2. Calc scour depth is 10ft below bottom of footings.	First Noted: 7/18/2005
	BPO Repair List Priority: 1
	Funding - P2 or M: P2
	BPO Repair Num: 12611
	11-13 Priority Rank: 1
Recommended Action: BPO - Place heavy loose riprap, 2 layers thick over footing, at a minimum of 2:1 slope. Bridge Management Unit - The Cn phase for this P2 funded project is scheduled to be constructed in 2011.	WIN: PIN: 141001C
	Total Cost Estimate: \$956,000