PROJECT PROSPECTUS

Part 1 — Project Request (Page 1 of 2)

Key Number:	Jurisdiction:

Section:	Region:	Area:	District:
Chapman Road Bridge No. 13746A	1		2A

State Highway No.:	Highway Name:	Mile Point From: 1.1 To:	Length: (mi) (km)

Urban / Rural	City:	MPO:	Within UGB	Yes / No	County:	Road/Street Name:
Rural				No	Columbia	Chapman Road (County Bridge No. 24)

Route No.:	NHS YES / NO	HPMS:	FC:	Applicant (if other than State):
	NO		Local	Columbia County Road Department

US Congressional District:	State Senate District:	State Representative District:
First	First	First

Cost Estimates (x $ 1,000)			Project Components		Right Of Way		
Preliminary Engineering		$79	Grading	Yes	Files	(#)	4
Right Of Way		$20	Paving	Yes	Hectares	(#)	1
Utility Reimbursement		No	Structures	Yes	Relocations	(#)	0
			Signing	No	Acquisitions	(#)	4
Roadway	$124		Signals	No	Easements	(#)	0
Structures	$126		Illumination	No	Work By: State / Consultant / Applicant		
Signals	$0				Preliminary Engineering	(S,C,A)	Consultant
Illumination	$0				Construction Engineering	(S,C,A)	Consultant
Temp. Protection	$8				Right of Way Descriptions	(S,C,A)	Consultant
Const. Contingencies	$79				Right Of Way Acquisitions	(S,C,A)	Consultant
Const. Engineering	$48		Project Categories		Constructed By		
Remove Exist Bridge	$3		Environmental Class	(1, 2, 3, PCE) 2			
Other	$58		Design Category	(1-7) 7			
Total CE and Construction:		$444	Work Type Code	(1-13) 5			
Total Estimate:		$ 543	Primary STIP Work Type:	5			

Recommended Let Date By Federal Fiscal Year (Quarter-Year): 1st-2006

Constructed By: [x] Contract [ ] County Force [ ] State Force [ ] Other [ ] City Force

PE Fund:	R/W Fund:	UR Fund:	CE-CN Fund:
PE EA:	R/W EA:	UR EA:	CE-CN EA:

Item	Existing	Proposed
Travel Lanes (#)	2	2
Structures (#)	1	1
Signals (#)	0	0
Bike Way (#)	0	0
Average Daily Traffic	370	
Year of ADT	2003	
Throughway Y/N	No	

Define The Problem:

The Chapman Road Bridge #2 is a timber stringer bridge in very poor condition. The original piling and stringers are very decayed. Temporary posts are stringers have been added to help carry loads. The bridge is currently posted at 10 – 23 – 36 for the three standard truck designations. Road provides only access to hundreds of acres of timber. Has potential for heavy truck usage.

Describe Proposed Solution: - Attach Sketch Map

Construct a new single span precast prestressed concrete slab bridge and raise the grade to correct vertical alignment in the roadway.

Prepared By:	Date:	OTC Approval Date:	Program Year:	Funding Amount:
X Aaron Chodlow	10/15/03			

15-2003

PROJECT PROSPECTUS

Part 1 Project Request (Page 2 of 2)

Key Number:	Jurisdiction:

Section:	Region:	Area:	District:
Chapman Road Bridge No. 13746A	1	0	2A

Project Justification

Weight restriction doesn't allow trucks to cross, isolating millions of board feet of timber, or making it much more expensive to harvest timber by using lesser maintained logging roads. Chapman Road would be a major logging route for accessing timber in the Southeast part of the county. There is a fire station directly above the bridge and fire trucks cross this bridge. Also, in case of a forest fire, it would be difficult to get trucks in to suppress fires, putting hundreds of acres of timber at risk. Two large timber companies, Longview Fibre, and Hancock Forest Management, and federal agency BLM, are all impacted by the restrictions placed on this bridge. The bridge has not been replaced because it does not meet the length requirements of the HBRR program. The bridge is undersized by today's standards in terms of width and length. The bridge restricts the flow of the stream and is not wide enough to safely allow two trucks to pass at the same time. There is no detour for this bridge, isolating dozens of residences if the bridge is washed out or collapses.

Additional Information For Project Requested By Local Jurisdictions

Responsible Local Office To Be Contacted For The Following Activities:

1. Public Hearing / Citizen Involvement _____ (Office) _____ (Phone)
2. Environmental / Planning _____ (Office) _____ (Phone)
3. Pre-Engineering _____ (Office) _____ (Phone)

This Official Request is From:

City of: _____ and/or Columbia County

By: _____ By: Dave Hill, Public Works Director

By: _____ By: David A Hill

By: _____

Applicable Intergovernmental Agreements:

IGA Number:	Jurisdiction Name:	Agreement Date:

Administrative Recommendation

Bridge Prospectus Cost Estimate

		NBIS Bridge No.		
Applicant:	Columbia County Road Departi	13746A		
Project / Section	Chapman Road Bridge No. 13746A	Region: 1	Area: 0	District: 2A

New Bridge / Roadway Configuration:			Existing Bridge:		
Left Side Rail	1.5	feet	Bridge Length	19	feet
Left Sidewalk	0	feet	Bridge Width	20	feet
Shoulder	3	feet	Area	380	square ft.
Lane 2	0	feet			
Lane 1	10	feet	New AC Top Width	29	feet
---CL---	0	feet	New AC Depth	4	inches
Lane 1	10	feet	New Base Depth	12	inches
Lane 2	0	feet	Project Length	650	feet
Shoulder	3	feet	Net Road Work Length	600	feet
Right Sidewalk	0	feet	X-S Side Slope	3:01	
Right Side Rail	1.5	feet	AC Avg Width	30	feet
			Base Avg Width	32	feet
Bridge Length	50	feet	Asphalt Density	150	pounds/ cu ft
Bridge Width	29	feet	Base Density	120	pounds/ cu ft
New Area	1450	square ft.	New AC Received	450	tons
			New Base Required	1152	tons

COST ESTIMATE:	Quantity	Unit	Price per unit	Cost ($x1000s)
Right-of-Way	1	Acre	$ 20,000	$20
	==Roadway==			
Clear & Grub	$ 4,951	lump sum		$5
General Excavation	-	cubic yards	$ 12.00	$0
Embankment in Place	4,200	cubic yards	$ 12.00	$50
Pavement Removal	-	square feet	$ 0.45	$0
Aggregate Base	1,152	tons	$ 16.00	$18
Asphalt Concrete	450	tons	$ 56.00	$25
Riprap	175	cubic yards	$ 50.00	$9
Guardrail, Type 2A	100	feet	$ 11.50	$1
Guardrail, Type 3	50	feet	$ 38.00	$2
Guardrail Trans	4	feet	$ 1,600.00	$6
Flared Terminals	4	each	$ 1,600.00	$6
			Subtotal Roadway	$124
Structures	1,450	square feet	$ 87.00	$126
Signals	$ -	lump sum		$0
Illumination	$ -	lump sum		$0
Temporary Protection	$ 6,243	lump sum		$6
Remove Existing Bridge	$ 380	square feet	7.25	$3
Staged Construction	$ 25,000	lump sum		$25
Mob & Erosion Ctrl	33,144	lump sum		$33
			Subtotal Structures	$193
			Subtotal Construction	$317
	==Engineering==			
Construction Engineering	15	percent of construction		$48
Contingency	25	percent of construction		$79
			Subtotal Const. Eng.	$127
Preliminary Engineering				
Consultant	23	percent of construction		$73
State	-	percent of construction		$0
County	2	percent of construction		$6
			Subtotal PE	$79
			Total Estimate	$543

Bridge Project Prospectus
Additional Bridge Information

Applicant: Columbia County Road Department		NBIS Bridge Number: 13746A		
Project Name / Section: Chapman Road Bridge No. 13746A		Region: 1	Area: 0	District: 2A

Funding

Preferred Source:
- [x] OTIA III
- [ ] Federal HBRR

Acceptable Source:
- [x] OTIA III
- [ ] Federal HBRR

Heavy Vehicle Usage

	Existing	Proposed
Truck AADT:	0	10

Fire Truck Usage:
- [x] YES, at least 25% of trips use bridge.
- [ ] No. Less than 25% of trips

Detour

Detour Route:
Length: 99
Map: (Please attach map)

Regional Freight Corridor Analysis:

This road serves several residences and a fire station but also allows access to hundreds of acres of timber land. It connects with Scappoose-Vernonia Rd, a rural minor arterial, allowing quick access to State Hwy 30 or State Hwy 47. According to information gathered from Longview Fibre and Hancock Forest Management, there are about 10 million board feet of timber above this bridge. The road is essential for the transport of logs, logging and road construction equipment as well as rock trucks. Without replacing this bridge it makes it impractable to harvest much of the timber beyond this structure.

Special Consideration:

This bridge is an ideal OTIA III project. The current bridge is load restricted blocking access to timber, there is a fire station just above the bridge on this dead end road, and the road has direct access to one of the major regional freight routes in Columbia County, Scappoose-Vernonia Rd.

Bridge Project Prospectus

Required Data For Bridges Not Listed in the National Bridge Inventory System (NBIS)

(Form Optional)

Applicant:	Columbia County Road Department	Bridge Number: 13746A		
Project Name / Section:	Chapman Road Bridge No. 13746A	Region: 1	Area: 0	District: 2A

This form must be completed for all bridges submitted that are not on the current National Bridge Inventory System (NBIS). The information must be in conformance with the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges, Report No. FHWA-PD-96-001, December 1995.

Item 19	Detour Length	99
Item 26	Functional Classification	09
Item 28	A Lanes on Structure	0200
Item 32	Approach Roadway Width	021
Item 36	Traffic Safety Features	0000
Item 43	Structure Type, Main	702
Item 51	Bridge Roadway Width	0219
Item 53	Vertical Clearance over Deck	9999
Item 54	Underclearance	N0000
Item 55	Minimum Left	N0000
Item 56	Minimum Right	N0000
Item 100	Defense Highway Designation	1

? 0

Items 58, 59, 60, 62, 67, 68, 69, 71 and 72 must be provided by a Certified Bridge Inspector or Licensed Professional Engineer. The inspector's evaluation must be included.

Item 58	Deck Condition	7
Item 59	Superstructure Rating	4
Item 60	Substructure Rating	3
Item 62	Culverts	N
Item 67	Structural Evaluation	6
Item 68	Deck Geometry	4
Item 69	Under-Clearance	N
Item 71	Waterway Adequacy	8
Item 72	Approach Road Alignment	6

The Inventory Rating (Item 66) must be provided by a Licensed Professional Engineer, based on calculations following OOOT's Load Rating Guidelines. The engineer's calculations must be included.

Item 66	Inventory Rating	226

OBEC **CONSULTING ENGINEERS**
EUGENE, OREGON

BRIDGE INSPECTION REPORT

BRIDGE NO. 13746A
Co.# 024

BRIDGE TYPE Timber NAME Chapman Rd. Br. #2 (STATE, FAS, FAU, OS) HWY. NO. C#1034
CROSSING (OVER, ~~UNDER~~) Little Creek COUNTY Columbia INSP. FREQ. 12 mo. MILE POST 1.02
DISTRICT 02A YEAR BUILT 1953 DATE 4/29/03 A.C. (in.) 4-7" INSPECTORS Gary Gilliam

AR - As Repaired
OM - Original Member

SUBSTRUCTURE (60)		AR	OM
1. END BENTS	Caps T.T.		6
	Piles T.T.	7	3
	Footings		
	Footing Piles		
T.T.	Backwalls, Bulkheads		5
U.T.	~~Wings~~ Pile Bents		7
T.T.	3 Struts		7
2. INTERIOR PIERS OR BENTS	Caps		
	Columns, Posts		
	Footings		
	Footing Piles		
	Piles		
	Bracing		
3. Debris on Seats			6
4. Paint			
5. Collision Damage			8
6. Scour			7
7. Settlement (Footing or Piling)			7
INSPECTOR'S CONDITION RATING (60)		7	3
CHANNEL & CHAN. PROTECT. (61)			
1. Channel Scour		7	
2. Embankment Erosion		5	
3. Drift		8	
4. Vegetation		6	
5. Channel Change			
6. Fender System			
7. Spur Dikes & Jetties			
8. Riprap			
9. Adequacy of Opening		8	
INSPECTOR'S CONDITION RATING (61)		5	

OBSERVATIONS

SUPERSTRUCTURE (59)		AR	OM
1. Stringers T.T.		6	4
2. Girder or Beams			
3. Floor beams			
4. TRUSSES	Chords		
	Web Members		
	Portals		
	Bracing		
5. Diaphragms, Bridging U.T.			3
6. Bearing Devices			
7. Paint			
8. Rivets or Bolts			
9. Welds			
10. Collision Damage			8
11. Deflection under Load			
12. Alignment of Members			6
13. Vibrations under Load			
14. Machinery (Movable Spans)			
INSPECTOR'S CONDITION RATING (59)		6	4
CULVERTS & RETAIN. WALLS (62)			
1. Barrel or Wall	Concrete		
	Steel		
	Timber		
2. Headwall & Parapet			
3. Aprons			
4. Wingwalls			
5. Adequacy			
6. Debris			
INSPECTOR'S CONDITION RATING (62)			

DECK (58)	
1. Deck — Structural Condition T.T.	7
2. Wearing Surface ACWS	5
3. Deck Joints	
4. ~~Curbs~~ Felloe Guards T.T.	6
5. Sidewalks	
6. Parapet, Concrete Barrier	
7. Railing, Posts T.T.	5
8. Median Barrier, Railing	
9. Paint Rail	2
10. Drains	
11. Lighting Standards	
12. Utilities Phone Lt.	A
13. Vibrations in Deck	
INSPECTOR'S CONDITION RATING (58)	7
APPROACH ALIGNMENT (65)	
1. Pavement & Embankment	6
2. Shoulder Embankment	3
3. Relief Joints	
4. Approach Slab	
5. Guardrail	
INSPECTOR'S CONDITION RATING (65)	3
SAFETY FEATURES (36)	0 0 0 0
APPR. ALINE. (72)	6
SIGNING	
1. Posted Loading 10-23-36	8
2. Legibility	8
3. Visibility	8
4 2 Boards	8
INSPECTOR'S CONDITION RATING	8

REMARKS (Key-in to item and number above) REVIEW LOAD RATING —

58-1: Ends of deck planks soft & wet
58-2: Several transverse cracks leaking water & dirt & gravel in the gutters & AC is too thick & not full to felloe's.
58-4: Felloe is soft & damaged @ Bt #1 Rt & leaning out 3" from collision damage.
58-7: Light duty, rotten, damaged rail w/ no paint. Leaning out 3" @ Bt #1 Rt.
59-1: Stringers #2, 3, & 5-10 are rotten over caps & along tops. Helpers added to all but #3. Helpers are used material out of yard.
59-5: Blocking @ Bt #1 has failed
60-1: Pile caps solid but show age & soft @ ends. Pile have large splits from movement @ drift pins. Splits to 3/4" wide. Pile 1, 3 & 4 in Bt. #1 are totally decayed, #1 has a replacement pile. Bt #2 pile decayed from splitting exp. pile #3. Shimming loose @ pile #1, Bt. #1. Both backwalls have some decay & are too short.
61-1: Erosion up & downstream @ 4 corners. Exp. load @ Bt #1 Rt. where no shldr & erosion to edge of AC
61-4: Blackberry's & tall grass & brush @ all 4 corners.
65-1: Rdwy AC narrower than bridge & 6" below deck on each end & creates impact on bridge
65-2: Shldrs narrow & steep & Bt #1 Rt. is eroded to edge AC & traffic fall in deep & hits bridge rail - Very dangerous condition.

Gary R. Gilliam
SIGNATURE

UBEC

Date 4/29/03
Inspectors Gary Gilliam

Bridge Name Chapman Rd. Br. #2
Bridge No. Co. # 024 13746 A

County Columbia
Road No. C# 1034

MAINTENANCE RECOMMENDATIONS

DECK (58) RATING [7]

Clean gutters
Seal cracks in AC.
Consider removing AC to only 3" deep.
Brush rail @ Bt #1 Rt. & paint the rail for better visibility

SUPERSTRUCTURE (59) [4]

Replace all rotten stringers & remove helpers.

SUBSTRUCTURE (60) [3]

Replace all rotten piling. Band good split piling.

CHANNEL (61) Repair channel erosion w/ riprap & widen shldrs. [5]

APPROACH CONDITION (65) [3]

Repave approaches to eliminate dips off ends of bridge
Widen shoulders & Rdwy.
Repair erosion around ends of backwalls; esp. Bt #1 Rt.
Cut & control brush & blackberries.

GENERAL CONDITION [3]

FOLLOW UP INSPECTIONS

Consider replacing this bridge & approach guardrail.

Gary A. Gilliam
Signature

Bridge Name: Chapman Rd. Br. #2
Bridge No.: 024 (St. #13746A)
Owner: Columbia County
Date: April 29, 2003

Looking ahead west.

Looking downstream at left side.

Oregon Department of Transportation
Technical Services Branch
Bridge Engineering Section
Local Agency Bridge Load Rating

#24

Do present stringers

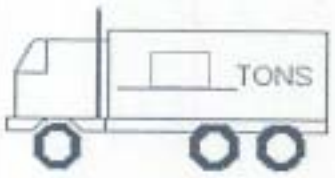
Local Agency: Columbia County

NBIS Bridge Number: 13746A

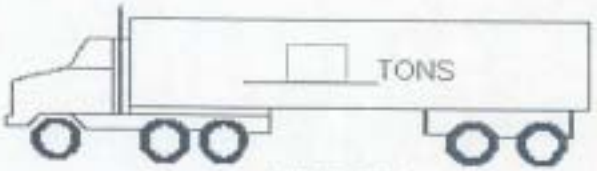
Date: 02/04/97

Truck		Inventory	Operating	Posting Required
HS Equivalent		HS 14.4	HS 20.4	N/A
HS 20	(36 Ton)	25.9 Tons	36.7 Tons	N/A
Type 3	(25 Ton)	21.7 Tons	31.0 Tons	YES
Type 3S2	(40 Ton)	34.8 Tons	49.6 Tons	YES
Type 3-3	(40 Ton)	39.2 Tons	55.6 Tons	YES
Permit 5	(60.25 Ton)	Tons	Tons	N/A
Permit 6	(75.25 Ton)	Tons	Tons	N/A
Permit 7	(92.5 Ton)	Tons	Tons	N/A

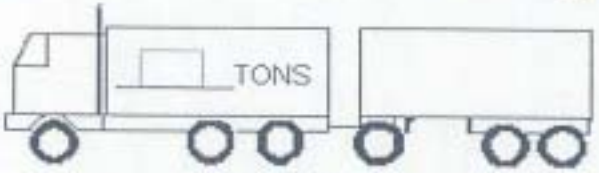
OREGON LEGAL LOADS
RECOMMENDED POSTING



TYPE 3



TYPE 3S2



TYPE 3-3

COMMENTS:
Ratings are for new stringers.
All stringers rotten at supports.

Recommend Posting at 5 Tons until stringers replaced.

8-29-97 10-23-36

REGISTERED PROFESSIONAL ENGINEER 18545 OREGON JULY 10, 1996 JAMES D. KENT

Expiration Date 6/30/97

Chapman Road Bridge #2

IMG_2258

IMG_2259

Chapman Road Bridge #2

IMG_2260

IMG_2261

Chapman Road Bridge #2

IMG_2262

IMG_2263

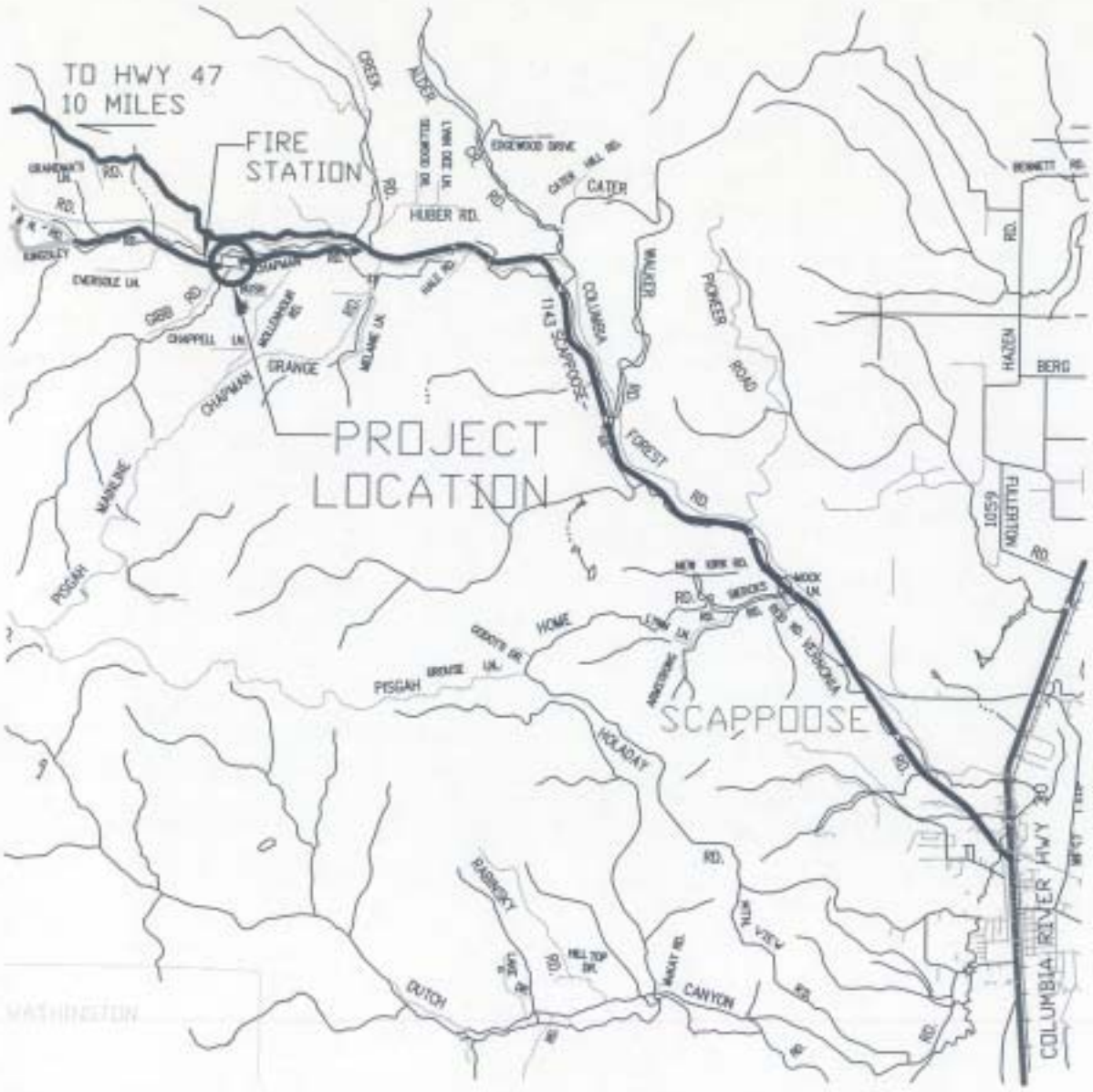
Chapman Road Bridge #2

IMG_2264

IMG_2265

Chapman Road Bridge #2

IMG_2266



DETOUR LENGTH: NO DETOUR

FREIGHT ROUTE: CHAPMAN RD TO SCAPPOOSE-VERNONIA RD TO HWY 30 OR HWY 47

DATE: OCT 2, 2003
DRAWN BY: A. CLODFELTER
CHECKED BY: A. CLODFELTER

COLUMBIA COUNTY ROAD DEPARTMENT

LOCATION MAP

BRIDGE 13746A

SHEET: 1/1

Columbia County Road Department
1054 Oregon Street, St. Helens, OR 97051

Director of Public Works

Phone (503) 397-5090
Fax (503) 397-7215

October 15, 2003

Oregon Department of Transportation
Attn: Bob Thompson, ODOT Bridge Section
355 Capitol Street NE, Room 301
Salem, OR, 97301

RE: OTIA III Candidate Bridge Applications

Dear Bob Thompson:

Please find Columbia County's OTIA III prospectus submittals enclosed with this letter. There are ten all together. Their priority has been written in the upper right corner of the front page of each prospectus. There are seven on system bridges and three off system. Below is a summary of the bridges we are submitting. All bridges have a proposed construction date of 2005.

Priority	Bridge #	Road Name	On/Off System	Length	Posted
1	13746A	Chapman Rd	OFF	<20'	YES
2	09C22	Chapman Grange Rd	OFF	<20'	YES
3	13771A	Scappoose-Vernonia	ON	>20'	NO
4	13764A	Scappoose-Vernonia	ON	>20'	NO
5	13751	JP West Rd	ON	>20'	YES
6	13794A	Lost Creek Rd	OFF	<20'	YES
7	00142	Beaver Falls Rd	ON	>20'	YES
8	13706	Ross Rd	ON	<20'	YES
9	13626A	Anliker Rd	ON	<20'	YES
10	9C158	Old Rainier Rd	ON	>20'	YES

Sincerely,

David A Hill

Dave Hill
Director of Public Works