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SURFACE TRANSPORTATION BOARD

STB FINANCE DOCKET NO. 35160

OREGON INTERNATIONAL PORT OF COOS BAY
—FEEDER LINE APPLICATION—
COOS BAY LINE
OF THE CENTRAL OREGON & PACIFIC RAILROAD, INC.

SUPPLEMENTAL REPLY OF THE OREGON INTERNATIONAL PORT OF COOS BAY

VOLUME II-B OF III
Bridge Report Attachments 3 and 4

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September 30, 2008

Coos Bay Rail Link Bridge Condition Assessment

Prepared For:

Oregon International Port of Coos Bay

September 26, 2008

DAVID EVANS AND ASSOCIATES INC

Coos Bay Rail Link Bridge Condition Assessment

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ATTACHMENTS

Attachment 1	Existing 2007 Osmose Railroad Services, Inc (Osmose) Bridge Inspection Reports *(see Volume III of Reply of the Oregon International Port of Coos Bay, filed September 12, 2008)*
Attachment 2	2008 David Evans and Associates, Inc Visual Inspections *(in Volume II of Supplemental Reply, filed September 30 2008)*
Attachment 3	Calculations for Costs (Priority 2-3-4 Repairs, Rehabilitation, Replacement, Removal) *(in Volume II of Supplemental Reply, filed September 30, 2008)*
Attachment 4	Bridge Location Maps *(in Volume II of Supplemental Reply, filed September 30, 2008)*
Attachment 5	Annual Inspection Bridge No 716 40 *(in Volume III of Supplemental Reply, filed September 30, 2008)*

Attachment 3

Calculations for Costs
(Priority 2-3-4 Repairs, Rehabilitation, Replacement, Removal)

Unit Costs for Priority 2-3-4 Repairs

Unit Costs

Timber	
Replace shim	$ 500 00
Replace bent cap	$ 4 600 00
Replace stringer	$ 5,100 00
Replace ALL stringers in a span	$ 12 000 00
Remove drift from bridge	$ 1 500 00
Remove vegetation from under bridge	$ 500 00
Add ballast and tamp	$ 4 000 00
Replace bridge ties	$ 200 00
Replace - walkway grate	$ 500 00
Install wingwall	$ 5,000 00
Tighten handrail cables and install more handrail posts as required	$ 600 00
Replace inspection ladders	$ 1 000 00
Post - Pile	$ 4,500 00
Replace guard timber	$ 50 00
Install rip-rap	$ 4,000 00
Install marine wrap	$ 500 00
Install a subsill	$ 1,000 00
Replace mudblock	$ 5,000 00
Replace headwall	$ 10 000 00
Replace subcap	$ 800 00
Replace bearings	$ 12,000 00
Patch ballast leak	$ 400 00
Surface bridge	$ 100 00
Replace sway braces	$ 500 00
Cut pile top and replace bent cap	$ 4,600 00
Reframe pile bent	$ 20,000 00
Line and surface bridge	$ 100 00
Sway brace replacement	$ 500 00
In-place preservatively treat piles and caps	$ 2,000 00
Steel Truss	
Replace bottom flange angles on floorbeam	$ 5,000 00
Replace top flange angles on floorbeam	$ 5 000 00
Strengthen web on floorbeam	$ 7 000 00
Replace floorbeam-stringer connection	$ 4 000 00
Replace top flange angles on stringer	$ 5 000 00
Replace top and bottom flange angles on stringer	$ 11 000 00
Replace stringer top laterals	$ 4,000 00
Replace coped flange angles on floorbeam	$ 3,000 00
Strengthen/Replace vertical truss members	$ 26 000 00
Strengthen/Replace diagonal truss members	$ 30,000 00
Strengthen/Replace truss bottom chord	$ 36 000 00
Strengthen/Replace truss top chord	$ 39,000 00
Strengthen stringer webs	$ 10,000 00
Strengthen/Replace truss bottom chord diagonal bracing	$ 4 000 00
Strengthen/Replace truss top chord diagonal sway bracing	$ 4,000 00
Strengthen/Replace truss top chord diagonal bracing	$ 5,000 00
Strengthen/Replace gusset plate	$ 5,000 00
Heat shrink loose eyebar	$ 2,000 00
Thru Plate Girder	
Replace lateral bracing on stringer	$ 5 000 00
Replace lower flange angles on floorbeam	$ 11 000 00

Recommended Work – Priority 2

Priority 2 - Recommended Work

Bridge Number	Section name	Mile Post	Recommendation	Quantity	Cost
652 21		652 21	Replace shim on bent 2	1	$ 500 00
652 21		652 21	Replace - Cap on bent 7	1	$ 4 600 00
652 21		652 21	Replace All stringers	8	$ 96 000 00
657 12		657 12	Add ballast and tamp up both sides	2	$ 8 000 00
658 17		658 17	Remove fouled ballast replace and tamp both approaches to correct elevation	2	$ 8 000 00
658 17		658 17	Replace all 97 bridge ties	97	$ 19 400 00
658 17		658 17	Remove drift from bridge as necessary	1	$ 1 500 00
660 89		660 89	Add ballast and tamp up both approaches	2	$ 8 000 00
661 28	North approach	661 28	Add ballast and tamp up approach	1	$ 4 000 00
661 28	South approach	661 28	Add ballast and tamp up approach	1	$ 4 000 00
662 59		662 59	Add ballast and tamp up both approaches	2	$ 8 000 00
662 59		662 59	Post - pile 5 of 7 bent (slight brooming)	1	$ 4 500 00
664 00	Main Section	664 00	Replace bottom truss chord diagonal bracing all panels	8	$ 32 000 00
664 62	North approach	664 62	Add ballast and tamp up approach	1	$ 4 000 00
664 62	South approach	664 62	Add ballast and tamp up approach	1	$ 4 000 00
664 85	Main Section	664 85	Replace ties and walkways	100	$ 20 000 00
665 49	North approach	665 49	Add ballast and tamp up approach	1	$ 4 000 00
665 49	Main Section	665 49	Replace 1 walkway plank	1	$ 500 00
665 49	South approach	665 49	Add ballast and tamp up approach	1	$ 4 000 00
667 40	Main Section	667 40	Replace - All laterals and gusset plates in spans 1 through 4	20	$ 200 000 00
667 40	Main Section	667 40	Replace - Top Flange angles on both girders in span 1 thru 4	8	$ 40 000 00
667 40	Main Section	667 40	Replace - East bottom flange angles and bottom cover plates in Span 4	2	$ 10 000 00
667 40	South Approach	667 40	Post - Pile 1 in Row 2 of Pier 1 Pile 3 in Row 2 of Pier 1 Pile 6 in Row 2 of Pier 1	3	$ 13 500 00
668 50	North Approach	668 50	replace all 154 bridge Ties	154	$ 30 800 00
668 50	North Approach	668 50	Post - Pile 2 of bent 6 failing Pile 3 of bent 6	2	$ 9 000 00
668 50	North Approach	668 50	Add ballast and tamp approach	1	$ 4 000 00
668 50	Main Section	668 50	replace all 104 bridge Ties	104	$ 20 800 00
674 03		674 03	Replace all 31 bridge ties	31	$ 6 200 00
674 03		674 03	Add ballast and tamp on both approaches	2	$ 8 000 00
676 23		676 23	Add ballast and tamp on both approaches	2	$ 8 000 00
676 23	North approach	676 23	Replace all 62 bridge ties	62	$ 12 400 00
678 43		678 43	Replace northwest wingwall	1	$ 5 000 00
680 46		680 46	Replace all lateral bracing on stringer	10	$ 50 000 00
681 08		681 08	Remove fouled ballast replace and tamp up North approach to correct elevation	1	$ 4 000 00
681 45		681 45	Replace 2 sections West handrail cable 2 sections east walkway grate 1 east handrail and walkway support	3	$ 1 500 00
681 45		681 45	Replace - lower flange angles of floor beam 0 at Pier 1 East and West Stiffeners of floor beam 0 at Pier 1	2	$ 10 000 00
681 45		681 45	Remove Fouled ballast replace and tamp up South approach to correct elevation	1	$ 4 000 00
682 18		682 18	Install - wingwall to the Northwest abutment	1	$ 5 000 00
683 36		683 36	Remove Fouled ballast replace and tamp up approach to correct elevation	1	$ 4 000 00
683 36	Main Section	683 36	Replace all 196 bridge ties and guard timbers (both trusses)	196	$ 39 200 00
683 36		683 36	Replace all 57 bridge ties	57	$ 11 400 00
687 88		687 88	Replace Subcap on Bent 3 Bent 4 Bent 7	3	$ 2 400 00
687 88		687 88	Cut piles tops down and - Replace cap and subcap on bent 5 with a double cap	1	$ 4 600 00
690 47		690 47	Remove Fouled ballast replace and tamp up both approach to correct elevation	2	$ 8 000 00
690 47		690 47	Replace - All guard timber	122	$ 5 100 00
690 85		690 85	Replace all 84 bridge ties	84	$ 16 800 00
691 05	Main Span	691 05	Replace stringer top lateral angles and gusset plates both trusses	16	$ 144 000 00
691 05	South approach	691 05	Replace - 2 Elevation shim on bent 10	1	$ 500 00
691 05	South approach	691 05	Replace - 1 section of southeast walkway grate	1	$ 500 00
694 32	North approach	694 32	Add ballast and tamp up approach	1	$ 4 000 00
694 32	Main Span	694 32	Replace truss bottom chord diagonal bracing in panels 1 2 3 4 and 5	5	$ 20 000 00
694 32	Main Span	694 32	Replace truss bottom chord horizontal gusset plates at floor beams 0 1 2 3 and 4	10	$ 50 000 00
694 32	Main Span	694 32	Heat shrink all loose eyebars	10	$ 20 000 00
694 32	Main Span	694 32	Replace stringer top lateral angles and gusset plates all panels	10	$ 90 000 00
694 32	Main Span	694 32	Splice west floor beams 4 and 5 at lower flange angles	2	$ 2 000 00
694 78		694 78	Replace - 6 sections of southeast walkway	6	$ 3 000 00
694 78		694 78	Replace - upper and lower flange at the North abutment - stiffeners over the North Abutment bearing areas	3	$ 15 000 00

694 78		694 78	Tighten handrail cables and install more handrail posts as required	1	$	300 00
694 78		694 78	Replace stringer top lateral angles and gusset plates all panels	10	$	90 000 00
694 78		694 78	Replace - upper and lower flange at the South abutment stiffeners over the South Abutment bearing areas	1	$	10 000 00
696 66	North approach	696 66	Remove drift from bridge as necessary	1	$	1 500 00
700 37		700 37	Replace - 2 stringer chord shims on Bent 5 stringer chord shims on bent 6	2	$	1 000 00
700 37		700 37	Remove vegetation from under bridge	1	$	500 00
702 65		702 65	Spot replace 8 bridge ties all joints	8	$	1 600 00
702 95		702 95	Replace - 2 shim under chord 2 on bent 2	1	$	500 00
710 20		710 20	Frame out bent 8	1	$	20 000 00
716 40		716 40	Repair - Vehicle impact damage to east bottom girder (1 rear)	1	$	3 780 00
716 40	Section 1	716 40	Add ballast and tamp up both approaches	2	$	8 000 00
716 40	Section 3	716 40	Repair or Replace vertical truss members Truss #1 L1-U1 east and west Truss #1 L2-U2 east and west Truss #1 L5-U5 east and west Truss #2 L4-U4 east Truss #2 L5-U5 east and west Truss #3 L1-U1 east Truss #3 L2-U2 east and west Truss #3 L3-U3 west Truss #3 L4-U4 east and west Truss #3 L5-U5 east and west	16	$	416 000 00
716 40	Section 3	716 40	Replace truss-to-floor beam splice plates Truss 1 Floor Beam 2 west	2	$	10 000 00
716 40	Section 3	716 40	Replace stringer top flange angles all trusses all panels	40	$	200 000 00
716 40	Section 3	716 40	Replace top chord sway bracing diagonals struts and interior gusset plates all trusses all panels	20	$	180 000 00
716 40	Section 3	716 40	Replace truss top chord diagonal bracing and gusset plates all trusses all panels	20	$	200 000 00
716 40	Section 3	716 40	Replace truss bottom chord diagonal bracing and horizontal gusset plates Truss #3 all panels	5	$	45 000 00
716 40	Section 3	716 40	Heat shrink all loose eyebars identified in report	10	$	20 000 00
716 40	Section 3	716 40	Replace inspection ladders at the following locations truss #2 north end east side truss #2 both ladders in vicinity of Floor beam #5	1	$	1 000 00
716 40	Section 3	716 40	Repair or Replace the following diagonal truss members Truss #2 L2-U1 East and West	2	$	60 000 00
716 40	Section 3	716 40	Replace stringer top lateral angles and gusset plates all trusses all panels	20	$	180 000 00
716 40	Section 4	716 40	Post Post 4 of Bent 5 (brooming) Post 4 of Bent 17 (failing) Post 1 of Bent 28 Post 5 of Bent 28 (visual) Post 5 of Bent 45 (failing)	5	$	22 500 00
716 40	Section 4	716 40	Replace - Cap on Bent 164	1	$	4 600 00
719 07		719 07	Replace all 106 bridge ties	106	$	21 200 00
719 21		719 21	Replace - South headwall	1	$	10 000 00
719 21		719 21	Replace - 2" shim on Bent 13 2" shim on Bent 14	2	$	1 000 00
719 21		719 21	Add ballast and tamp up both approaches	2	$	8 000 00
725 96		725 96	Add ballast and tamp up both aproaches	2	$	8 000 00
726 31		726 31	Replace - Stringer 2 in Span 4	1	$	5 100 00
726 31		726 31	Replace - Stringer 4 in Span 4	1	$	5 100 00
726 31		726 31	Replace - Stringer 5 in Span 4	1	$	5 100 00
726 31		726 31	Replace - Stringer 7 in Span 4	1	$	5 100 00
726 31		726 31	Replace - Stringer 5 in Span 23	1	$	5 100 00
726 31		726 31	Replace - Stringer 6 in Span 23	1	$	5 100 00
726 31		726 31	Replace - Stringer 7 in Span 23	1	$	5 100 00
726 31		726 31	Replace - Stringer 8 in Span 23	1	$	5 100 00
726 31		726 31	Replace - Stringer 3 in Span 24	1	$	5 100 00
726 31		726 31	Replace - Stringer 4 in Span 24	1	$	5 100 00
726 31		726 31	Replace - Stringer 5 in Span 24	1	$	5 100 00
726 31		726 31	Replace - Stringer 6 in Span 24	1	$	5 100 00
726 31		726 31	Replace - Stringer 9 in Span 24	1	$	5 100 00
726 31		726 31	Replace - Stringer 4 in Span 34	1	$	5 100 00
726 31		726 31	Replace - Stringer 5 in Span 34	1	$	5 100 00
726 31		726 31	Replace - Stringer 7 in Span 34	1	$	5 100 00
726 31		726 31	Replace - Stringer 8 in Span 34	1	$	5 100 00
726 31		726 31	Replace - Stringer 3 in Span 57	1	$	5 100 00
726 31		726 31	Replace - Stringer 5 in Span 57	1	$	5 100 00
726 31		726 31	Replace - Stringer 6 in Span 57	1	$	5 100 00
726 31		726 31	Replace Stringer 8 in Span 57	1	$	5 100 00
726 31		726 31	Replace - Stringer 9 in Span 57	1	$	5 100 00
726 31		726 31	Replace Stringer 2 in Span 83	1	$	5 100 00

726 31		726 31	Replace Stringer 3 in Span 63	1	$ 5 100 00
726 31		726 31	Replace - Stringer 4 in Span 63	1	$ 5 100 00
726 31		726 31	Replace - Stringer 5 in Span 63	1	$ 5 100 00
726 31		726 31	Replace - Stringer 7 in Span 63	1	$ 5 100 00
726 31		726 31	Replace - Stringer 8 in Span 63	1	$ 5 100 00
726 31		726 31	Replace - Stringer 2 in Span 64	1	$ 5 100 00
726 31		726 31	Replace - Stringer 3 in Span 64	1	$ 5 100 00
726 31		726 31	Replace Stringer 4 in Span 64	1	$ 5 100 00
726 31		726 31	Replace - Stringer 5 in Span 64	1	$ 5 100 00
726 31		726 31	Replace - Stringer 6 in Span 64	1	$ 5 100 00
726 31		726 31	Replace - Stringer 8 in Span 64	1	$ 5 100 00
726 31		726 31	Replace - Stringer 2 in Span 65	1	$ 5 100 00
726 31		726 31	Replace Stringer 3 in Span 65	1	$ 5 100 00
726 31		726 31	Replace - Stringer 4 in Span 65	1	$ 5 100 00
726 31		726 31	Replace - Stringer 5 in Span 65	1	$ 5 100 00
726 31		726 31	Replace - Stringer 8 in Span 65	1	$ 5 100 00
727 35		727 35	Patch Ballast leaks in spans 10 11 17 16 22 24 26 27 30 31 & 39	11	$ 4 400 00
728 51		728 51	Replace - cap on bent 3 cap on bent 8	2	$ 9 200 00
729 04		729 04	surface bridge	580	$ 58 000 00
729 04		729 04	Replace 1 1/2 shims on Bent 1 (working out) 1/2" shims on Bent 4 (crushing) 1/2" shims on Bent 7 (crushing) 1/2" shims on Bent 13 (crushing) 1/2" shims on Bent 15 (crushing) 1/2" shims on Bent 20 (crushing) 1/2" shims on Bent 22 (crushing) 1 1/2" shims on Bent 24 (crushing)	8	$ 4 000 00
729 04		729 04	Replace all 309 bridge ties	309	$ 61 800 00
730 56	Section 4	730 56	Replace all remaining bridge ties	100	$ 20 000 00
731 65	North approach	731 65	Replace -Cap on Bent 6 (crushing) -Cap on Bent 51	2	$ 9 200 00
731 65	Main Section	731 65	Replace all 85 bridge ties	85	$ 17 000 00
731 65	South approach	731 65	Cut Pile tops down and -Replace Cap on Bent 15 (crushing)	1	$ 4 600 00
732 84	North approach	732 84	Cut Pile tops down and -Replace Cap on Bent 16 with an oversized cap (crushing under chord 2)	1	$ 4 600 00
732 84	South approach	732 84	Replace -Cap on Bent 10 (crushing under chord 2)	1	$ 4 600 00
735 86		735 86	Replace all 81 bridge ties	81	$ 16 200 00
735 86		735 86	Replace -Both headwalls	2	$ 20 000 00
736 03		736 03	Replace all 81 bridge ties	81	$ 16 200 00
736 03		736 03	Replace -North shim under chord 2 on Bent 3 (crushing) -2" shims under chord 1 on Bent 5 (crushing)	2	$ 1 000 00
738 70	Siding	738 70	Post -Post 3 of Bent 1 -Post 5 of Bent 1 (failed)	2	$ 9 000 00
738 70	Siding	738 70	Replace Cap on Bent 2 (minor crushing)	1	$ 4 600 00
738 70	Siding	738 70	Replace all bridge ties	30	$ 6 000 00
738 70	Siding	738 70	Replace Stringer 1 in Span 2 Stringer 4 in Span 2 Stringer 5 in Span 2	3	$ 16 900 00
738 94		738 94	Reweld Southwest and Southeast steel walkway grating at 4 sections -Northeast steel walkway grating 35 and 45 from approach at 2 sections	6	$ 2 400 00
739 14	North approach	739 14	Add ballast and tamp up approach	1	$ 4 000 00
739 14	North approach	739 14	Replace -Cap on Bent 21 (crushing under chord 2)	1	$ 4 600 00
739 14	Main Span	739 14	Replace Floor Beam 0	1	$ 17 000 00
739 14	Main Span	739 14	Replace -Lower flange angles of floor beam 5	1	$ 5 000 00
739 14	South approach	739 14	Cut down cutoffs -Replace sill with an oversized sill in bents 2 3 5 6 7 8	6	$ 6 000 00

739 14	South approach	739 14	Reframe (4 & 5 post frame bents with piles 1 & 6 or 7 driven on each side) -Existing frame bent in Bent 4 (cutting cutoffs down 1-2 -Existing frame bent in bent 9 (cutting cutoffs down 1-2)	2	$ 40 000 00
739 14	South approach	739 14	Replace -Cap on Bent 2 (crushing) -Cap on Bent 3 (crushing under chord 2) -Cap on Bent 7 (crushing under chord 2) -Cap on Bent 12 (very slight crushing)	4	$ 18 400 00
739 43	North approach	739 43	Add ballast and ramp up approach	1	$ 4 000 00
739 43	North approach	739 43	Post -Post 2 of Bent 7 -Post 4 of Bent 7 -Pile 7 of Bent 7	3	$ 13 800 00
739 43	North approach	739 43	Replace -Cap on Bent 2 (crushing) -Cap on Bent 4 (split) -Cap on Bent 7 (cornering bulging) -Cap on Bent 14 (crushing under chord 1)	4	$ 18 400 00
739 43	North approach	739 43	Replace -Sill in Bent 4 (split)	1	$ 1 000 00
739 43	South approach	739 43	Cut Pile tops down and -Replace Cap with an oversized cap ion Bent 1 (broken)	1	$ 1 000 00
739 68	Main Span	739 68	Replace expansion bearings and masonry plates at the following piers Pier 2 3 5 6 7 & 8	12	$ 144 000 00
739 68	Main Span	739 68	Replace all anchor bolts ALL PIERS	12	$ 12 000 00
739 68	Main Span	739 68	Replace hes at the following trusses Trusses #4 #5 #6 #7 & #8	500	$ 100 000 00
739 68	Main Span	739 68	Repair impact damage on bottom chord, Truss #2 Panel #3 (east) THIS IS A HIGH PRIORITY 2!	1	$ 36 000 00
739 68	Main Span	739 68	Replace access stairway and all timber decking around drum pier Replace all access ladders and walkways all trusses	1	$ 1 000 00
739 68	Main Span	739 68	Replace stringer top lateral angles and gusset plates Truss #5 (all panels)	5	$ 25 000 00
739 68	Main Span	739 68	Install inner guardrail across bridge	1598	$ 79 900 00
739 68	Main Span	739 68	Replace the following truss bottom chord horizontal gusset plates Truss #1 - Floor Beam #5 (both sides) Truss #2 - Floor Beam #3 (west) Truss #3 - Floor Beam #1 (west) Truss #7 - Floor Beam #0 (west) Truss #8 - Floor Beam #0 (west)	10	$ 50 000 00
739 68	Main Span	739 68	Replace truss bottom chord diagonal bracing at the following locations Truss #1 Panel #4 Truss #2 Panel #2 Truss #2 Panel #4 Truss #6 Panel #4	8	$ 32 000 00
739 68	Main Span	739 68	Repair or Replace the following truss members and/or vertical gusset plates Truss #4 vertical gusset plates at Floor Beam #2 L2-U1 and L2-U3 (west) Truss #4 vertical gusset plates at Floor Beam #3 L3-U4 (both sides) Truss #7 vertical gusset plates at Floor Beam #2 L2-U1 (both sides) Truss #8 connection angle at Floor Beam #3 FB-to-L3-U4 (west) Truss #7 vertical truss member L1-U1 (west) Truss #7 diagonal truss member s L2-U1 (both sides) Truss #7 vertical truss member L4-U4 (east) Truss #9 vertical truss member L8-U8 (east) Truss #9 vertical truss member L11-U11 (both sides)	12	$ 312 000 00
739 68	Main Span	739 68	Repair floor beams at the following locations Truss #4 Floor Beam #3 (web outbound from west stringer Truss #6 Floor Beam #3 (web and bottom flange angles outbound form west stringer) Truss #9 Floor Beam #7 (web outbound from west stringerat bottom flange angle connection) Truss #9 Floor Beam #8 (web outbound from west stringerat bottom flange angle connection) Truss #9 Floor Beam #9 (web outbound from west stringerat bottom flange angle connection) Truss #9 Floor Beam #11 (web outbound from both stringerat bottom flange angle connection)	6	$ 30 000 00

739 68	Main Span	739 68	Replace stringer top lateral angles and gusset plates at the following locations Truss #2 Panel #4 Truss #3 Panel #5	4	$ 40 000 00
739 68		739 68	Perform miscellaneous repairs at the following locations Replace bottom chord lacing bars Truss #4 Panel #3 (west) Repair/replace truss bottom chord channels Truss #6 Floor Beam #4 (west side both panels) Repair/replace stringer web at bottom flange angle connection Truss #7 panel #5 (west)	3	$ 108 000 00
739 68	South approach	739 68	Install NEW roadway clearance signs	1	$ 500 00
740 25		740 25	Replace North Headwall	1	$ 10 000 00
741 35		741 35	Cut Pile tops down and replace Cap & Install a 6 - 8" subcap on Bent 5 (crushing)	1	$ 4 600 00
741 74		741 74	Replace Cap on Bent 4 (crushing piles 3 & 4 punching into cap)	1	$ 4 600 00
741 74		741 74	Replace sill in Bent 2 (crushing)	1	$ 1 000 00
741 74		741 74	Replace all 46 bridge ties	46	$ 9 200 00
743 73		743 73	Replace all stringers in Span 6 thru 9	4	$ 48 000 00
743 73		743 73	Spot replace 5 bridges ties at North Approach	5	$ 1 000 00
743 88		743 88	Add ballast and tamp up approaches	2	$ 8 000 00
743 97		743 97	Replace West side Guard timber	103	$ 5 150 00
744 24		744 24	Replace 1 East handrail post	1	$ 250 00
748 06		748 06	Replace Cap on Bent 3 (slight crushing) Cap on Bent 7 (crushing)	2	$ 9 200 00
748 68		748 68	Replace Stringer 1 in Span 2 Stringer 4 in Span 2 Stringer 5 in Span 2 Stringer 1 in Span 3 Stringer 4 in Span 3 Stringer 5 in Span 3 Stringer 8 in Span 3 Stringer 1 in Span 4 Stringer 2 in Span 4 Stringer 6 in Span 4 Stringer 8 in Span 4	11	$ 56 '00 00
749 89		749 89	Replace South headrail inspection cable for lower walkway	1	$ 2 000 00
749 89		749 89	Patch - Ballast leak at Abutment 1	1	$ 400 00
749 89		749 89	Patch ballast leaks at Bents 10 22 23 24 26	5	$ 2 000 00
750 46	North approach	750 46	Add ballast and tamp up approach	1	$ 4 000 00
750 46	Main Span	750 46	Replace Southwest and Northwest flange angles over bearings All struts	2	$ 10 000 00
750 46	South approach	750 46	Add ballast and tamp up approach	1	$ 4 000 00
750 46	South approach	750 46	Replace 1 section of walkway at South approach	1	$ 500 00
751 02		751 02	Replace All stringers with parting lines centered over all "B" Bents Surface bridge and shim accordingly Remove All "A" Bents at waterline	*	$ 20 000 00
753 48		753 48	Remove Fouled ballast replace and tamp up both approaches	2	$ 8 000 00
753 97		753 97	Replace steel walkway supports	1	$ 500 00
755 63		755 63	Replace subcap on Bent 3 (cornering split)	1	$ 4 600 00
756 13		756 13	Add ballast and tamp up both approaches	2	$ 8 000 00
756 55		756 55	Install Wingwalls to the North headwall Wingwalls to the Southeast headwall	4	$ 40 000 00
757 37		757 37	Replace Stringer 1 in Span 2 Stringer 2 in Span 2 Stringer 8 in Span 2 Stringer 1 in Span 4 Stringer 2 in Span 4 Stringer 3 in Span 4 Stringer 8 in Span 4	7	$ 35 700 00
761 13		761 13	Grind off corrosion and install Splice plates to the flanges and webs of H pile on Bents 2 & 3	4	$ 8 000 00
761 13		761 13	Replace all 44 bridge ties	44	$ 8 800 00

Recommended Work – Priority 2
DEA Visual Inspections

Priority 2 - Recommended Work - From DEA 2008 Visual Inspections

Bridge Number	Section Name	Mile Post	Recommendation	Quantity	Cost
662 59		662 59	Replace both headwalls	2	$ 20 000 00
665 49	North Approach	665 49	Replace longitudinal bracing	1	$ 500 00
666 21		666 21	Replace sway bracing bent 2 & 4	2	$ 1,000 00
667 40	North Approach	667 40	Replace sway bracing all bents	7	$ 3 500 00
668 50	South Approach	668 50	Replace walkway panel	1	$ 500 00
677 05		677 05	Remove drift at Bent 3	1	$ 1 500 00
680 77		680 77	Replace bottom lateral bracing	5	$ 25 000 00
681 05		681 05	Replace stringer bottom flanges	12	$ 48 000 00
681 45		681 45	Replace girder top flange angles	10	$ 50 000 00
682 18	North Approach	682 18	Replace lower laterals	10	$ 50 000 00
683 36	Main Span	683 36	Clean debris from gusset plates	1	$ 1 500 00
687 88		687 88	Replace handrail cable	1	$ 600 00
689 23		689 23	Replace ballast retainer (left side)	1	$ 400 00
691 05	South Approach	691 05	Stream debris removal	1	$ 1 500 00
691 05	South Approach	691 05	Spot replace 10 ties	10	$ 2,000 00
691 38		691 38	Replace right wingwall	1	$ 5 000 00
692 06		692 06	Replace both headwalls	2	$ 20 000 00
693 27		693 27	Replace ballast retainer (right side)	1	$ 400 00
694 32	North Approach	694 32	Replace stringer 1 Span 1&2	2	$ 10 200 00
694 32	Main Span	694 32	Heat shrink loose eyebar	28	$ 56 000 00
694 32	South Approach	694 32	Replace headwall	1	$ 10,000 00
694 78	North Approach	694 78	Replace right wingwall	1	$ 5 000 00
696 66	North Approach	696 66	Replace ballast retainer (left side)	1	$ 400 00
700 37		700 37	Replace right wingwall	1	$ 5,000 00
702 65		702 65	Remove debris from track	1	$ 1 500 00
702 65		702 65	Replace stringers 1&8 spans 8&9	4	$ 20 400 00
702 95		702 95	Replace cap Bent 3	1	$ 4 600 00
702 95		702 95	Install rip rap bent 1	1	$ 4 000 00
702 95		702 95	Replace stringer 5 span 3	1	$ 5 100 00
710 20		710 2	Tighten handrail	1	$ 600 00
710 20		710 2	Replace ballast retainer (both sides span 6 & 7)	4	$ 1 600 00
711 37		711 37	Replace South headwall	1	$ 10,000 00
711 37		711 37	Replace ballast retainer (left side)	1	$ 400 00
711 37		711 37	Remove debris from channel	1	$ 1 500 00
711 67		711 67	Replace headwall (Bent 1)	1	$ 10 000 00
711 67		711 67	Replace deck planking	1	$ 500 00
711 67		711 67	Post pile 5 bent 4	1	$ 4 500 00
712 16		712 16	Replace cap bent 2	1	$ 4 600 00
712 16		712 16	Replace ballast retainer (left side span 4)	1	$ 400 00
712 80		712 80	Replace guard timbers span 3 and 4	30	$ 1,500 00
712 80		712 80	Replace both headwalls	2	$ 20 000 00
716 40	Main Span	716 40	Heat shrink loose eyebar	28	$ 56 000 00
718 12		718 12	Replace right wingwall	1	$ 5 000 00
719 07		719 07	Post Pile 1 Bent 5 Pile 1 and 3 Bent 6	2	$ 9 000 00
719 07		719 07	Replace headwall bent 1	1	$ 10 000 00
719 21		719 21	Post 7 piles	7	$ 31 500 00
719 21		719 21	Replace 9 stringers	9	$ 45,900 00
724 22		724 22	Replace left wingwall Bent 4	1	$ 5 000 00
725 96		725 96	Replace both headwalls	2	$ 20 000 00
725 96		725 96	Replace stringer 1 span 5 and stringer 7 span 16	2	$ 10 200 00
726 31		726 31	Replace 20 stringers	20	$ 102,000 00
728 51		728 51	Replace 10 stringers	10	$ 51 000 00
729 17		729 17	Replace cap abutment 2	1	$ 4,600 00
730 56	South Approach	730 56	Replace stringer top and bottom flanges	8	$ 40 000 00
732 84	Main Span	732 84	Replace girder top and bottom flanges	2	$ 10 000 00
733 95		733 95	Patch ballast leaks	10	$ 4 000 00

739 14		739 14	Remove drift debris	1	$ 1 500 00
740 84		740 84	Remove debris on each side of bridge	1	$ 1 500 00
743 73		743 73	Reframe bents 6-10 (fire damage)	5	$ 100 000 00
755 63		755 63	Replace sway brace at Bent 2	1	$ 500 00
756 13		756 13	Post pile 1 bent 1	1	$ 4 500 00

Recommended Work – Priority 2
By Bridge

RAILROAD	LINE	MILE POST	PRIORITY 2 COST	10% Mobilization	40% Contingency	PE&CE	Total
CORP	CO	652 21	$ 101 100 00	$ 10 110 00	$ 40 440 00	$ 10 110 00	$ 161 760 00
CORP	CO	652 58	$ -	$ -	$ -	$ -	$ -
CORP	CO	656 12	$ -	$ -	$ -	$ -	$ -
CORP	CO	657 12	$ 8 000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12 800 00
CORP	CO	657 96	$ -	$ -	$ -	$ -	$ -
CORP	CO	658 17	$ 28 900 00	$ 2 890 00	$ 11 560 00	$ 2 890 00	$ 46 240 00
CORP	CO	660 89	$ 8 000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12 800 00
CORP	CO	661 28	$ 8 000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12 800 00
CORP	CO	661 73	$ -	$ -	$ -	$ -	$ -
CORP	CO	662 59	$ 32 500 00	$ 3 250 00	$ 13 000 00	$ 3,250 00	$ 52 000 00
CORP	CO	664 00	$ 32 000 00	$ 3 200 00	$ 12 800 00	$ 8 000 00	$ 56 000 00
CORP	CO	664 62	$ 8 000 00	$ 800 00	$ 3 200 00	$ 2 000 00	$ 14 000 00
CORP	CO	664 85	$ 20 000 00	$ 2 000 00	$ 8 000 00	$ 5 000 00	$ 35 000 00
CORP	CO	665 49	$ 9 000 00	$ 900 00	$ 3 600 00	$ 2 250 00	$ 15 750 00
CORP	CO	666 21	$ 1 000 00	$ 100 00	$ 400 00	$ 100 00	$ 1 600 00
CORP	CO	667 28	$ -	$ -	$ -	$ -	$ -
CORP	CO	667 40	$ 267 000 00	$ 26 700 00	$ 106 800 00	$ 26,700 00	$ 427 200 00
CORP	CO	668 50	$ 65 100 00	$ 6 510 00	$ 26 040 00	$ 6 510 00	$ 104 160 00
CORP	CO	671 89	$ -	$ -	$ -	$ -	$ -
CORP	CO	674 03	$ 14 200 00	$ 1 420 00	$ 5 680 00	$ 1 420 00	$ 22,720 00
CORP	CO	676 23	$ 20 400 00	$ 2 040 00	$ 8 160 00	$ 2 040 00	$ 32,640 00
CORP	CO	677 05	$ 1 500 00	$ 150 00	$ 600 00	$ 150 00	$ 2 400 00
CORP	CO	677 80	$ -	$ -	$ -	$ -	$ -
CORP	CO	678 43	$ 5 000 00	$ 500 00	$ 2 000 00	$ 500 00	$ 8,000 00
CORP	CO	680 17	$ -	$ -	$ -	$ -	$ -
CORP	CO	680 46	$ 50 000 00	$ 5 000 00	$ 20 000 00	$ 5 000 00	$ 80 000 00
CORP	CO	680 77	$ 25 000 00	$ 2 500 00	$ 10 000 00	$ 2 500 00	$ 40,000 00
CORP	CO	681 05	$ 52,000 00	$ 5 200 00	$ 20 800 00	$ 5 200 00	$ 83 200 00
CORP	CO	681 45	$ 65 500 00	$ 6 550 00	$ 26 200 00	$ 6,550 00	$ 104 800 00
CORP	CO	682 18	$ 55 000 00	$ 5 500 00	$ 22,000 00	$ 5 500 00	$ 88,000 00
CORP	CO	683 36	$ 56 100 00	$ 5,610 00	$ 22 440 00	$ 14,025 00	$ 98 175 00
CORP	CO	687 03	$ -	$ -	$ -	$ -	$ -
CORP	CO	687 88	$ 7 600 00	$ 760 00	$ 3 040 00	$ 760 00	$ 12 160 00
CORP	CO	689 23	$ 400 00	$ 40 00	$ 160 00	$ 40 00	$ 640 00
CORP	CO	690 47	$ 14 100 00	$ 1 410 00	$ 5 640 00	$ 1 410 00	$ 22 560 00
CORP	CO	690 85	$ 16 800 00	$ 1 680 00	$ 6,720 00	$ 4,200 00	$ 29 400 00
CORP	CO	691 05	$ 148 500 00	$ 14 850 00	$ 59 400 00	$ 37 125 00	$ 259 875 00
CORP	CO	691 38	$ 5 000 00	$ 500 00	$ 2 000 00	$ 500 00	$ 8 000 00
CORP	CO	692 06	$ 20 000 00	$ 2 000 00	$ 8 000 00	$ 2 000 00	$ 32 000 00
CORP	CO	693 27	$ 400 00	$ 40 00	$ 160 00	$ 40 00	$ 640 00
CORP	CO	694 32	$ 262 200 00	$ 26 220 00	$ 104 880 00	$ 65,550 00	$ 458 850 00
CORP	CO	694 78	$ 123 600 00	$ 12 360 00	$ 49 440 00	$ 30 900 00	$ 216,300 00
CORP	CO	694 98	$ -	$ -	$ -	$ -	$ -
CORP	CO	696 66	$ 1 900 00	$ 190 00	$ 760 00	$ 475 00	$ 3 325 00
CORP	CO	700 37	$ 6 500 00	$ 650 00	$ 2 600 00	$ 650 00	$ 10 400 00
CORP	CO	702 65	$ 23 500 00	$ 2 350 00	$ 9 400 00	$ 2 350 00	$ 37 600 00
CORP	CO	702 95	$ 14,200 00	$ 1 420 00	$ 5 680 00	$ 1 420 00	$ 22 720 00
CORP	CO	710 20	$ 22 200 00	$ 2 220 00	$ 8 880 00	$ 2 220 00	$ 35,520 00
CORP	CO	711 37	$ 11 900 00	$ 1 190 00	$ 4 760 00	$ 1 190 00	$ 19 040 00
CORP	CO	711 67	$ 15 000 00	$ 1 500 00	$ 6 000 00	$ 1 500 00	$ 24 000 00
CORP	CO	712 16	$ 5 000 00	$ 500 00	$ 2 000 00	$ 500 00	$ 8 000 00
CORP	CO	712 80	$ 21 500 00	$ 2,150 00	$ 8 600 00	$ 2 150 00	$ 34 400 00
CORP	CO	716 40	$ 1 406 880 00	$ 140 688 00	$ 562,752 00	$ 351 720 00	$ 2 462 040 00
CORP	CO	718 12	$ 5,000 00	$ 500 00	$ 2 000 00	$ 500 00	$ 8 000 00
CORP	CO	719 07	$ 40 200 00	$ 4 020 00	$ 16 080 00	$ 4 020 00	$ 64 320 00

CORP	CO	719 21	$ 96 400 00	$ 9 640 00	$ 38 560 00	$ 9 640 00	$ 154 240 00
CORP	CO	724 22	$ 5 000 00	$ 500 00	$ 2 000 00	$ 500 00	$ 8 000 00
CORP	CO	725 96	$ 38 200 00	$ 3,820 00	$ 15 280 00	$ 3 820 00	$ 61 120 00
CORP	CO	726 31	$ 300 900 00	$ 30 090 00	$ 120 360 00	$ 30 090 00	$ 481 440 00
CORP	CO	727 35	$ 4 400 00	$ 440 00	$ 1 760 00	$ 440 00	$ 7 040 00
CORP	CO	728 51	$ 60 200 00	$ 6 020 00	$ 24 080 00	$ 6 020 00	$ 96 320 00
CORP	CO	729 04	$ 123 800 00	$ 12 380 00	$ 49 520 00	$ 12 380 00	$ 198 080 00
CORP	CO	729 17	$ 4 600 00	$ 460 00	$ 1 840 00	$ 460 00	$ 7 360 00
CORP	CO	730 56	$ 60 000 00	$ 6 000 00	$ 24 000 00	$ 6,000 00	$ 96 000 00
CORP	CO	731 65	$ 30 800 00	$ 3 080 00	$ 12 320 00	$ 3 080 00	$ 49 280 00
CORP	CO	732 84	$ 19 200 00	$ 1 920 00	$ 7 680 00	$ 1 920 00	$ 30 720 00
CORP	CO	733 88	$ -	$ -	$ -	$ -	$ -
CORP	CO	733 95	$ 4,000 00	$ 400 00	$ 1 600 00	$ 400 00	$ 6 400 00
CORP	CO	735 86	$ 36 200 00	$ 3 620 00	$ 14 480 00	$ 3,620 00	$ 57 920 00
CORP	CO	736 03	$ 17,200 00	$ 1 720 00	$ 6,880 00	$ 1 720 00	$ 27 520 00
CORP	CO	736 51	$ -	$ -	$ -	$ -	$ -
CORP	CO	737 33	$ -	$ -	$ -	$ -	$ -
CORP	CO	738 70	$ 36,500 00	$ 3 650 00	$ 14 600 00	$ 3 650 00	$ 58 400 00
CORP	CO	738 94	$ 2,400 00	$ 240 00	$ 960 00	$ 240 00	$ 3 840 00
CORP	CO	739 14	$ 96 500 00	$ 9 650 00	$ 38 600 00	$ 9 650 00	$ 154 400 00
CORP	CO	739 43	$ 38 200 00	$ 3 820 00	$ 15,280 00	$ 3,820 00	$ 61 120 00
CORP	CO	739 68	$ 970,400 00	$ 97 040 00	$ 388,160 00	$ 242 600 00	$ 1 698 200 00
CORP	CO	740 25	$ 10,000 00	$ 1 000 00	$ 4 000 00	$ 1 000 00	$ 16 000 00
CORP	CO	740 84	$ 1 500 00	$ 150 00	$ 600 00	$ 150 00	$ 2 400 00
CORP	CO	741 35	$ 4 600 00	$ 460 00	$ 1 840 00	$ 460 00	$ 7 360 00
CORP	CO	741 74	$ 14 800 00	$ 1 480 00	$ 5 920 00	$ 1 480 00	$ 23 680 00
CORP	CO	742 05	$ -	$ -	$ -	$ -	$ -
CORP	CO	742 24	$ -	$ -	$ -	$ -	$ -
CORP	CO	742 72	$ -	$ -	$ -	$ -	$ -
CORP	CO	742 95	$ -	$ -	$ -	$ -	$ -
CORP	CO	743 20	$ -	$ -	$ -	$ -	$ -
CORP	CO	743 73	$ 149,000 00	$ 14 900 00	$ 59 600 00	$ 14 900 00	$ 238 400 00
CORP	CO	743 88	$ 8,000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12 800 00
CORP	CO	743 97	$ 5,150 00	$ 515 00	$ 2 060 00	$ 515 00	$ 8 240 00
CORP	CO	744 24	$ 250 00	$ 25 00	$ 100 00	$ 25 00	$ 400 00
CORP	CO	744 44	$ -	$ -	$ -	$ -	$ -
CORP	CO	744 70	$ -	$ -	$ -	$ -	$ -
CORP	CO	744 83	$ -	$ -	$ -	$ -	$ -
CORP	CO	748 06	$ 9 200 00	$ 920 00	$ 3 680 00	$ 920 00	$ 14 720 00
CORP	CO	748 44	$ -	$ -	$ -	$ -	$ -
CORP	CO	748 68	$ 56 100 00	$ 5 610 00	$ 22 440 00	$ 5 610 00	$ 89 760 00
CORP	CO	749 89	$ 4,400 00	$ 440 00	$ 1 760 00	$ 440 00	$ 7 040 00
CORP	CO	750 46	$ 18 500 00	$ 1,850 00	$ 7 400 00	$ 1 850 00	$ 29 600 00
CORP	CO	751 02	$ 20 000 00	$ 2,000 00	$ 8 000 00	$ 2 000 00	$ 32 000 00
CORP	CO	752 99	$ -	$ -	$ -	$ -	$ -
CORP	CO	753 48	$ 8 000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12 800 00
CORP	CO	753 97	$ 500 00	$ 50 00	$ 200 00	$ 50 00	$ 800 00
CORP	CO	755 63	$ 5 100 00	$ 510 00	$ 2 040 00	$ 510 00	$ 8 160 00
CORP	CO	756 13	$ 12 500 00	$ 1 250 00	$ 5 000 00	$ 1 250 00	$ 20 000 00
CORP	CO	756 55	$ 40 000 00	$ 4 000 00	$ 16 000 00	$ 4 000 00	$ 64 000 00
CORP	CO	757 37	$ 35,700 00	$ 3 570 00	$ 14 280 00	$ 3 570 00	$ 57 120 00
CORP	CO	761 13	$ 16 800 00	$ 1 680 00	$ 6 720 00	$ 1 680 00	$ 26 880 00
						Subtotal	$ 9 211,395 00
						Estimated Increased Repair Costs for 6 Months of Additional Deterioration to Projected Ownership Transfer March 2009	$ 40 775 00
						Total	$ 9 252 170 00

Recommended Work – Priority 3

Priority 3 Recommended Work

Bridge Number	Section Name	Mile Post	Recommendation	Quantity	Cost
652 21		652 21	Replace Shim on Bent 1 Shim on Bent 5 (vertical split crushing under chord 2) Shim on Bent 8	3	$ 1 500 00
652 58		652 58	Install An additional "6" of Ballast retainer to each side of trackbed and Add ballast and cover the ends	2	$ 8 000 00
656 12		656 12	Add Ballast and ramp up both approaches	2	$ 8 000 00
656 12		656 12	Clean both bridge seats and floor beam top flange angles of debris	1	$ 500 00
657 12		657 12	Replace Cap on Bent 3 (minor crushing under chord 1 piles 1 & 2 punching)	1	$ 4 600 00
657 12		657 12	Remove drift from bridge as necessary	1	$ 1 500 00
657 12		657 12	Install Wingwalls to the North headwall	2	$ 10 000 00
658 17		658 17	Perform - Detailed stringer inspection	1	$ 200 00
658 17		658 17	Replace Stringer 1 in Span 6 Stringer 2 in Span 6	2	$ 10 200 00
660 89		660 89	Replace Stringer 1 in Span 1 Stringer 8 in Span 1	2	$ 10 200 00
661 28		661 28	Post -Pile 2 of Bent 2 -Pile 5 of Bent 2 -Pile 1 of Bent 4 Pile 2 of Bent 4	4	$ 18 000 00
661 28		661 28	Remove debris from -Rearing seats -Lower gusset plates and remove pack rust	1	$ 500 00
661 28		661 28	Replace Cap on Bent 1	1	$ 4 600 00
661 28		661 28	Post -Pile 1 of Bent 2 -Pile 5 of Bent 2 -Pile 1 of Bent 5 Pile 3 of Bent 5	4	$ 18 000 00
661 28		661 28	Cut Pile tops down and Replace Cap and install a 8" 8" Subcap on Bent 7	1	$ 8 000 00
661 28		661 28	Install Wingwall to the Northeast headwall	1	$ 5 000 00
661 28		661 28	Replace Stringer 1 in Span 2 Stringer 8 in Span 2	2	$ 10 200 00
661 73		661 73	Post Pile 1 of Bent 4 -Pile 2 of Bent 4	2	$ 9 000 00
661 73		661 73	Add Ballast and tamp up both approaches	2	$ 8 000 00
662 59		662 59	Replace all guard timber	600	$ 14 500 00
662 59		662 59	Install shim under stringer chords on bent 17	1	$ 500 00
662 59		662 59	Spot replace 20 bridge ties under rail joints	20	$ 4 000 00
662 59		662 59	Replace cap on Bent 20 (slight crushing) and 24	2	$ 9 200 00
662 59		662 59	Post -Pile 2 of Bent 11 Pile 5 of Bent 11 -Pile 2 of Bent 12 Pile 3 of Bent 12 -Pile 4 of Bent 17 Pile 1 of Bent 17	6	$ 27 000 00
664 00	Main Section	664 00	Add ballast and tamp up approach	1	$ 4 000 00
664 00	Main Section	664 00	Replace stringer top lateral angles and horizontal gusset plates all panels	5	$ 50 000 00
664 00	Main Section	664 00	Replace bottom flange angles and repair web floorbeams 1 2 3 4	4	$ 20 000 00
664 00	Main Section	664 00	Repair stringer bottom flange angles at truss diagonal bracing connection all panels	5	$ 25 000 00
664 00	Main Section	664 00	Panel 2 and 3 - Replace stringer top and bottom flange angles	4	$ 20 000 00
664 00	Main Section	664 00	Remove vegetation from under bridge	1	$ 500 00
664 00	South Approach	664 00	Add ballast and tamp up approach	1	$ 4 000 00
664 62	North Approach	664 62	Replace shim on Bent 4 and Bent 7	2	$ 1 000 00
664 62	North Approach	664 62	Post - Pile 1 of Bent 3 4 of Bent 1 1 of Bent 4 and 4 of Bent 4	3	$ 13 500 00
664 62	North Approach	664 62	Reaplace approx 15 walkway planks	1	$ 500 00
664 62	North Approach	664 62	Replace guard timber	180	$ 9 000 00
664 62	South Approach	664 62	Replace Stringer 1 in Span 6 and 8 in Span 6	2	$ 10 200 00
664 62	South Approach	664 62	Shim over Pile 3 of Bent 7	1	$ 500 00

664 62	South Approach	664 62	Replace Cap on Bent 7	1	$ 4 600 00
664 62	South Approach	664 62	Post - Pile 3 of Bent 3 - Pile 4 of Bent 3	2	$ 9 000 00
664 62	South Approach	664 62	Replace Approximately 5 walkway planks	5	$ 2 500 00
664 85	North Approach	664 85	Shim - Over Pile 2 of Bent 1	1	$ 500 00
664 85	North Approach	664 85	Add ballast and tamp up approach	1	$ 4 000 00
664 85	Main span	664 85	Pier #1 Chip out deteriorated concrete on backwall - Drill and install dowels and rebar - Form and pour concrete to original lines	1	$ 2 000 00
664 85	South Approach	664 85	Replace All stringers	5	$ 60 000 00
664 85	South Approach	664 85	Replace - Shim on Bent 1 (crushing under both chords) - 1/2" Shim on Bent 5	2	$ 1 000 00
665 49	North Approach	665 49	Cut Pile tops down and - Replace Cap and Install a 6" 8" Subcap on Bent 3 (piles 3 & 5 punching)	1	$ 8 000 00
665 49	North Approach	665 49	Post - Pile 1 of Bent 4 - Pile 3 of Bent 4	2	$ 9 000 00
665 49	South Approach	665 49	Post - Pile 1 of Bent 2 Pile 4 of Bent 2	2	$ 9 000 00
667 28		667 28	Add Ballast and tamp up both approaches	2	$ 8 000 00
667 28		667 28	Replace - Both Sway Braces on Bent 2 - Both Sash Braces on Bent 3 - Both Sway Braces on Bent 3 - Both Sway Braces on Bent 4 Both Sash Braces on Bent 4 - Both Sway Braces on Bent 5	12	$ 6 000 00
667 40	North Approach	667 40	Cut Pile tops down and - Replace Cap & Install a Double Cap on Bent 2 (slight crushing piles punching) - Replace Cap & Install a Double Cap on Bent 4	2	$ 6 000 00
667 40	North Approach	667 40	Post - Pile 2 of Bent 2 - Pile 4 of Bent 2	2	$ 9 000 00
667 40	North Approach	667 40	Replace Walkway planks	6	$ 3 000 00
667 40	North Approach	667 40	Add ballast and tamp up approach	2	$ 8 000 00
667 40	Main Section	667 40	Remove debris from - Tower leg pedestals Pier tops - Laterals and Gusset plates	1	$ 1 500 00
667 40	Main Section	667 40	Replace - Top Tier East side of Tower 2 steel diagonal bracing	1	$ 5 000 00
667 40	Main Section	667 40	Replace - West bottom Flange angles and bottom Cover plates in Span 4	2	$ 10 000 00
667 40	South Approach	667 40	Add ballast and tamp up approach	1	$ 4 000 00
667 40	South Approach	667 40	Post - Pile 2 of Bent 3 - Pile 5 of Bent 3	2	$ 9 000 00
667 40	South Approach	667 40	Replace all walkway boards	3	$ 1 500 00
668 50	North Approach	667 40	Replace or Re-tighten - Stringer packing bolts in Spans 7 & 8	1	$ 200 00
668 50	North Approach	668 50	Replace - Stringer 1 in Span 6 Stringer 8 in Span 6 (horizontal shear)	2	$ 10 200 00
668 50	Main Section	668 50	Remove debris from - Gusset plates laterals and flange angles	1	$ 1 500 00
668 50	South Approach	668 50	Replace - elevation Shim on Steel tower (minor crushing)	1	$ 500 00
668 50	South Approach	668 50	Add ballast and tamp up approach	1	$ 4 000 00
668 50	South Approach	668 50	Replace all bridge ties	90	$ 18 000 00
671 89		671 89	Perform Detailed Stringer inspection	1	$ 500 00
671 89		671 89	Add Ballast and tamp up both approaches	2	$ 8 000 00
671 89		671 89	Replace Stringer 1 in Span 6 - Stringer 4 in Span 6	2	$ 10 200 00

674 03		674 03	Remove debris from Bent 2 (fire hazard)	1	$	200 00
676 23		676 23	Replace 3 North Parapet timbers 3 South Parapet timbers	1	$	500 00
676 23		676 23	Install Wingwall to the Northwest abutment	1	$	5 000 00
676 23		676 23	Remove debris from Both abutment seats - All lower gusset plates and flange angles	1	$	1 500 00
677 05		677 05	Replace Stringer 1 in Span 1 - Stringer 8 in Span 1	2	$	10 200 00
677 05		677 05	Add Ballast and ramp up both approaches	2	$	8 000 00
677 05		677 05	Place Riprap at the Southeast headwall	1	$	4 000 00
677 05		677 05	Replace All Guard timber	120	$	6 000 00
677 80	North Approach	677 80	Add ballast and ramp up approach	1	$	4 000 00
677 80	North Approach	677 80	Post - Pile 1 of Bent 2 - Pile 5 of Bent 2	2	$	9 000 00
677 80	North Approach	677 80	Replace - Stringer 1 in Span 2 - stringer 8 in Span 2 - Stringer 1 in Span 3 Stringer 8 in Span 3	4	$	20 400 00
677 80	Main Section	677 80	Remove debris from Lower gusset plates flange angles and Pier tops	1	$	1 500 00
678 43	North Approach	678 43	Add ballast and ramp up approach	1	$	4 000 00
678 43	North Approach	678 43	Replace Stringer 1 in Span 1 - Stringer 2 in Span 1 - Stringer 9 in Span 1 - Stringer 1 in Span 2 - Stringer 2 in Span 2 - Stringer 9 in Span 2 - Stringer 1 in Span 3 - Stringer 7 in Span 3 - Stringer 8 in Span 3 - Stringer 1 in Span 4 - Stringer 7 in Span 4 Stringer 8 in Span 4	12	$	61 200 00
678 43	North Approach	678 43	Post - Pile 3 of Bent 3 Pile 4 of Bent 3	2	$	9 000 00
678 43	Main Section	678 43	Remove Drift from base of Pier 2	1	$	1 500 00
678 43	South Approach	678 43	Add ballast and ramp up approach	1	$	4 000 00
678 43	South Approach	678 43	Replace - Stringer 1 in Span 1 - Stringer 2 in Span 1 - Stringer 9 in Span 1 - Stringer 1 in Span 2 Stringer 2 in Span 2 Stringer 9 in Span 2 - Stringer 1 in Span 3 - Stringer 8 in Span 3	8	$	40 800 00
678 43	South Approach	678 43	Replace 1/2" Shim on Bent 2 (crushing)	1	$	500 00
680 17		680 17	Replace bottom flange angles on Floor Beam #0 #1 and #2	3	$	15 000 00
680 17		680 17	Replace all 128 bridge ties	128	$	25 600 00
680 46		680 46	Add Ballast and ramp up both approaches	2	$	9 000 00
680 46		680 46	Replace - Lower flange angles in Span 2 at the South abutment	2	$	14 000 00
680 46		680 46	Replace - Bottom cover plates	2	$	14 000 00
680 46		680 46	Replace All stringers	8	$	108 000 00
680 77		680 77	Remove debris from - Lower gusset plates flange angles and floor beam tops Abutment seats	1	$	1 500 00
680 77		680 77	Replace all 84 bridge ties	84	$	16 800 00
680 77		680 77	Add Ballast and ramp up both approaches	2	$	8 000 00
681 06		681 06	Add ballast and ramp up South approach	1	$	4 000 00

681 45		681 45	Replace Upper lateral gusset plates in Span 2	20	$ 100 000 00
681 45		681 45	Add ballast and tamp up North approach	1	$ 500 00
682 18		682 18	Replace all Guard timber	100	$ 5 000 00
682 18		682 18	Remove debris from Gusset plates flange angles floor beams and stringer tops	1	$ 1 500 00
682 18		682 18	Replace Upper Struts in each panel	5	$ 25 000 00
682 18		682 18	Replace Lower flange angles in Span 2 at the South abutment	2	$ 10 000 00
682 18		682 18	Remove debris from - Gusset plates flange angles floor beams and stringer tops abutment seat	1	$ 1 500 00
682 18		682 18	Replace Lower laterals in Span 1	10	$ 50 000 00
683 36		683 36	Remove debris from - Gusset plates flange angles and abutment seats	1	$ 1 500 00
683 36		683 36	Replace - 3 Parapet timbers	1	$ 2 000 00
683 36		683 36	Add ballast and tamp up approach	1	$ 4 000 00
683 36		683 36	Place Rip/rap and add ballast to the Southeast wingwall	1	$ 4 000 00
687 03		687 03	Replace Stringer 1 in Span 1 Stringer 8 in Span 1 - Stringer 5 in Span 3 - Stringer 6 in Span 3 - Stringer 1 in Span 5 - Stringer 8 in Span 5	6	$ 30 600 00
687 03		687 03	Replace Subcap on Bent 2 (slight crushing under chord 2) Cap on Bent 4 (minor crushing)	2	$ 9 200 00
687 88		687 88	Remove drift from bridge as necessary	1	$ 1 500 00
687 88		687 88	Replace Subcap on Bent 1 - Subcap on Bent 2 (slight crushing under chord 2)	2	$ 9 200 00
687 88		687 88	Add Ballast and tamp up both approaches	2	$ 8 000 00
687 88		687 88	Replace - North Guard timber	180	$ 9 000 00
687 88		687 88	Replace - 2 sections of Northwest walkway	2	$ 1 000 00
689 23		689 23	Place - Large Rip/Rap and fill behind Northwest Headwall	1	$ 4 000 00
689 23		689 23	Replace - Southwest Headwall retaining timber	1	$ 1 000 00
690 47		690 47	Remove debris from - Abutment seats Gusset plates lower flange angles stringer and floor beam tops	1	$ 1 500 00
690 85		690 85	Remove debris from - Abutment top - Gusset plates lower flange angles stringer and floor beam tops	1	$ 1 500 00
690 85		690 85	Install Wingwall to the Northeast abutment	1	$ 5 000 00
690 85	Main span	690 85	Remove debris from Pier tops	1	$ 1 500 00
690 85		690 85	Add ballast and tamp up approach	1	$ 4 000 00
690 85		690 85	Remove debris from - Abutment seat - Gusset plates lower flange angles stringer and floor beam tops	1	$ 1 500 00
690 85		690 85	Replace all 44 bridge ties	44	$ 6 800 00
691 05	North Approach	691 05	Remove debris from Abutment seat - Gusset plates and lower flange angles	1	$ 1 500 00
691 05	North Approach	691 05	Replace- Lower laterals	9	$ 45 000 00
691 05	Main span	691 05	Replace stringer top flange angles both trusses	20	$ 100 000 00
691 05	South Approach	691 05	Remove - Fouled ballast replace and tamp up approach to correct elevation	1	$ 4 000 00
691 05	South Approach	691 05	Post Pile 1 of Bent 4 Pile 2 of Bent 4	2	$ 9 000 00
691 38		691 38	Add Ballast and tamp up both approaches	2	$ 9 000 00

693 27		693 27	Replace - sill in Bent 1 (minor crushing)	1	$	1 000 00
693 27		693 27	Replace - Cap on Bent 3	1	$	4 500 00
693 27		693 27	Add ballast and tamp up both approaches	2	$	8 000 00
694 32	North Approach	694 32	Remove - Debris from Stringer tops	1	$	1 500 00
694 32	North Approach	694 32	Replace - Cap on Bent 1	1	$	4 600 00
694 32	Main span	694 32	Replace West Coped flange angles at eyebar connections of Floor Beams 4 & 5	2	$	6 000 00
694 32		694 32	Replace stringer top and bottom flange angles all panels	16	$	176 000 00
694 32		694 32	Add ballast and tamp up approach	2	$	8 000 00
694 32		694 32	Replace - 2 Shim under Chord 1 on Bent 4 (working out)	1	$	500 00
694 78		694 78	Replace all 73 bridge ties	73	$	14 600 00
694 78		694 78	Add ballast and tamp up approach	1	$	4 000 00
694 78		694 78	Replace - Both expansion bearings	2	$	24 000 00
694 78	Main span	694 78	Replace truss bottom chord diagonal bracing all panels	6	$	24 000 00
694 78	Main span	694 78	Replace stringer top flange angles all panels	12	$	60 000 00
694 78	Main span	694 78	Replace - All West Guard lumber	150	$	7 500 00
694 78		694 78	Replace - Both fixed bearings	2	$	24 000 00
694 78		694 78	Add ballast and tamp up approach	2	$	8 000 00
694 78		694 78	Replace - All West Guard lumber	163	$	8 150 00
694 98		694 98	Remove - Fouled ballast replace and tamp up both approaches to correct elevation	2	$	8 000 00
694 98		694 98	Replace - Cap on Bent 1	1	$	4 600 00
696 66	North Approach	696 66	Replace - Cap on Bent 3 (split)	1	$	4 600 00
696 66	Main span	696 66	Replace ties	150	$	30 000 00
696 66	South Approach	696 66	Replace - Sill in Bent 3 (minor crushing)	1	$	1 000 00
700 37		700 37	Replace - Cap on Bent 7 (cornering)	1	$	4 600 00
700 37		700 37	Replace - cap with oversized cap on Bent 4 (slight crushing)	1	$	4 600 00
700 37		700 37	Add Ballast and tamp up both approaches	2	$	8 000 00
700 37		700 37	Replace - Stinger 2 in Span 1 - Stinger 9 in Span 1 - Stinger 7 in Span 6 Stinger 9 in Span 6 - Stinger 1 in Span 7 - Stinger 9 in Span 7	6	$	30 600 00
702 65			Replace - Tapered Shim on Bent 1 (split working out)	1	$	500 00
702 65		702 65	Add Ballast and tamp up both approaches	2	$	8 000 00
702 95		702 95	Add Ballast and tamp up both approaches	2	$	8 000 00
702 95		702 95	Replace - 2 Shim on Bent 3 (slight crushing) Both Shims on Bent 4	2	$	1 000 00
702 95		702 95	Replace - Mud block under Post 5 of Bent 4	1	$	5 000 00
710 20		710 20	Post Pile 4 of Bent 5 Pile 5 of Bent 5	2	$	9 000 00
711 37		711 37	Remove vegetation from under bridge	1	$	500 00
711 67		711 67	Add Ballast and tamp up both approaches	2	$	8 000 00
711 67		711 67	Post Pile 2 of Bent 1 Pile 5 of Bent 1 (split)	2	$	9 000 00
712 16		712 16	Replace Cap on Bent 1	1	$	4 600 00
712 16		712 16	Add Ballast and tamp up both approaches	2	$	8 000 00
712 80		712 80	Add Ballast and tamp up both approaches	2	$	8 000 00
712 80		712 80	Replace - Subcap on bent 2 (decay pocket East end)	1	$	4 600 00
718 40	Section 1		Replace 1 Anchor bolt on concrete abutment	1	$	500 00

716 40	Section 2	716 40	Post Post 1 of Bent 9 - Pile 3 of Bent 9	2	$ 9 000 00
716 40	Section 3	716 40	Replace Floor Beam top flange angles & cover plates (if applicable) at the following locations Truss #1 Floor Beam #0 Truss #1 Floor Beam #1 Truss #1 Floor Beam #2 Truss #2 Floor Beam #0 Truss #2 Floor Beam #1	5	$ 25 000 00
716 40	Section 3	716 40	Repair or replace the following vertical truss members Truss #1 L3-U3 east and west Truss #1 L4-U4 east and west Truss #1 L3-U3 east and west Truss #1 L4-U4 west Truss #1 L7 U7 east and west Truss #1 L8-U8 east and west Truss #1 L3-U3 east	12	$ 312 000 00
716 40	Section 3	716 40	Repair or replace the following diagonal truss members Truss #1 L0-U1 east and west (bottom flange angles and top cover plates) Truss #1 L2 U3 eyebars east and west Truss #1 L3-U2 eyebars east and west Truss #1 L3-U4 eyebars east and west Truss #1 L4-U3 eyebars east and west Truss #1 L5-U4 eyebars east and west Truss #1 L2 U3 eyebars east and west Truss #1 L5-U4 eyebars east and west Truss #1 L5-U6 eyebars east and west Truss #1 L6-U9 eyebars east and west Truss #1 L0-U1 west (top cover plate) Truss #1 L0-U1 east (top cover plate and bottom flange angles) Truss #1 L2-U3 east eyebar Truss #1 L4-U3 east and west Truss #1 L4-U5 east and west Truss #1 L5-U4 east and west	26	$ 780 000 00
716 40	Section 3	716 40	Replace portal braces at the following locations Truss #1 north and south end Truss #2 south end	3	$ 12 000 00
716 40	Section 3	716 40	Repair truss bottom chord members at the following locations Truss #1 Panel #2 west side (at Floor Beam #2) Truss #3 Panel #6 west side Truss #3 Panel #7	4	$ 144 000 00
716 40	Section 3	716 40	Repair stringer webs at the following locations Truss #2 Panel #3 west (at Floor Beam #3 connection) Truss #2 Panel #4 west (at Floor Beam #4 connection) Truss #2 Panel #5 west (at Floor Beam #5 connection)	3	$ 30 000 00
716 40	Section 3	716 40	Repair floor beams at web-to-bottom flange angle connection at the following locations Truss #3 Floor Beam #3 (including bottom chord splice plates) Truss #3 Floor Beam #6 (outboard from stringers – both sides)	2	$ 10 000 00
716 40	Section 3	716 40	Replace truss bottom chord diagonal bracing at the following locations Truss #1 Panel #4 Truss #1 Panel #5	2	$ 8 000 00
716 40	Section 4	716 40	Replace - Cap on Bent 9 - Cap on Bent 11 (slight crushing under both chords) - Cap on Bent 28 - Cap on Bent 70 Cap on Bent 87 - Cap on Bent 135 (slight bulging)	6	$ 27 600 00
716 40	Section 4	716 40	Post - Pile 1 of Bent 64 Pile 5 of Bent 64 - Pile 1 of Bent 114 Pile 5 of Bent 114	4	$ 18 000 00
719 07		719 07	Add Ballast and tamp up both approaches	2	$ 8 000 00
719 07		719 07	Replace - Cap on Bent 1	1	$ 4 600 00
719 07		719 07	Post Pile 2 of Bent 4 Pile 5 of Bent 4 Pile 3 of Bent 5 - Pile 5 of Bent 5 Pile 4 of Bent 7 - Pile 5 of Bent 7	6	$ 27 300 00

719 21		719 21	Replace - Shim on Bent 10 (crushing) - Shim on Bent 15 (slight crushing) Both Shims on Bent 20 (slight crushing)	4	$	2 000 00
719 21		719 21	Cut Pile tops down and - Replace Cap & Shim & Install a 6 8" Subcap on Bent 22 (slight crushing)	1	$	4 600 00
719 21		719 21	Replace all bridge ties	312	$	62 400 00
719 21		719 21	Replace - Cap on Bent1	1	$	4 600 00
724 22		724 22	Add Ballast and tamp up both approaches	2	$	8 000 00
725 96		725 96	Replace - Cap on Bent 15 Cap on Bent 28 - Cap on Bent 29 - Cap on Bent 31	4	$	8 400 00
726 31		726 31	Cut Cutoffs down Install a Subsill on Bent 11 Install a Subsill on Bent 13 Install a Subsill on Bent 17 - Install a Subsill on Bent 23 Install a Subsill on Bent 57	5	$	5 000 00
726 31		726 31	Install Shim under Chord 2 on Bent 8 Stringers 3 & 4 on Bent 23 - Chord 2 on Bent 28	6	$	1 000 00
726 31		726 31	Replace Stringer 4 in Span 20 - Stringer 5 in Span 20 Stringer 6 in Span 20 - Stringer 2 in Span 22 - Stringer 6 in Span 22 - Stringer 7 in Span 22 Stringer 5 in Span 59 - Stringer 6 in Span 59 Stringer 7 in Span 59 - Stringer 2 in Span 62 - Stringer 3 in Span 62 Stringer 7 in Span 62	12	$	61 200 00
726 31		726 31	Replace Top 3 Planks of South headwall	1	$	1 000 00
726 31		726 31	Add Ballast and tamp up both approaches	2	$	8 000 00
727 35		727 35	Remove vegetation from both abutments	1	$	500 00
728 51		728 51	Replace - 2" Shims on Bent 1 - 2" Shim on Bent 18 (working out under chord 2)	2	$	1 000 00
728 51		728 51	Replace Cap on Bent 11	1	$	4 600 00
728 51		728 51	Post - Pile 4 of Bent 7 - Pile 5 of Bent 7 - Pile 2 of Bent 8 Pile 3 of Bent 8 - Pile 1 of Bent 9 - Pile 4 of Bent 9 Pile 2 of Bent 16 - Pile 6 of Bent 16 - Pile 2 of Bent 17 - Pile 5 of Bent 17 (split) - Pile 4 of Bent 18 - Pile 5 of Bent 18	12	$	54 000 00
728 51		728 51	Replace all 216 bridge ties	216	$	43 200 00
728 51		728 51	Add Ballast and tamp up both approaches	2	$	8 000 00
729 04		729 04	Remove Trees & brush from under bridge (fire hazard)	1	$	500 00
729 04		729 04	Replace - Cap on Bent 5 (slight crushing under chord 2) Cap on Bent 27	2	$	9 200 00
729 04		729 04	Post - Post 5 of Bent 10 (usual) - Pile 1 of Bent 17 - Pile 3 of Bent 17	3	$	13 500 00

			Replace			
			Stringer 2 in Span 7			
			Stringer 8 in Span 7			
			Stringer 9 in Span 7			
			Stringer 1 in Span 9			
			Stringer 2 in Span 9			
			- Stringer 9 in Span 9			
			Stringer 2 in Span 17			
			Stringer 9 in Span 17			
			Stringer 3 in Span 20			
729 04		729 04	Stringer 5 in Span 20	10	$	51 000 00
			Replace			
729 04		729 04	Shim on Bent 23 (slight crushing under chord 1)	1	$	500 00
729 04		729 04	Add Ballast and tamp up both approaches	2	$	8 000 00
729 17		729 17	Add Ballast and tamp up both approaches	2	$	8 000 00
730 56	Section 1	730 56	Add ballast and tamp up approach	1	$	4 000 00
			Post			
			- Pile 1 of Bent 4			
			Pile 5 of Bent 4			
			- Pile 1 of Bent 12			
730 56	Section 1	730 56	- Pile 3 of Bent 12	4	$	18 000 00
			Replace			
			Cap on Bent 1 (decay pocket at East end)			
730 56	Section 1	730 56	Elevation Subcap on Bent 1 (decay pocket at East end)	2	$	9 200 00
			Post			
			- Pile 1 of Bent 5			
			Pile 6 of Bent 5			
			Pile 1 of Bent 10			
730 56	Section 3	730 56	Pile 3 of Bent 10	4	$	18 000 00
			Replace			
			- All lateral bracing			
730 56	Section 4	730 56	All upper gusset plates and cross bracing	10	$	100 000 00
			Replace			
730 56	Section 5	730 56	- Headwall	1	$	10 000 00
			Post(frame bents w/ 5 posts + piles 1 & 7 on outside)			
			- Piles 1 & 7 of Bent 5			
			- Post 4 of Bent 5			
			- Piles 1 & 7 of Bent 8			
			- Post 5 of Bent 8			
			- Piles 1 & 7 of Bent 10			
			- Post 3 of Bent 10			
			- Piles 1 & 7 of Bent 12			
			- Post 5 of Bent 12			
			Piles 1 & 7 of Bent 15			
			Post 5 of Bent 15			
			Piles 1 & 7 of Bent 17			
			Post 2 of Bent 17			
			Piles 1 & 7 of Bent 18			
			- Post 4 of Bent 18			
			Piles 1 & 7 of Bent 19			
			- Post 3 of Bent 19			
			- Piles 1 & 7 of Bent 24			
730 56	Section 5	730 56	- Post 3 of Bent 24	27	$	121 500 00
			Replace			
730 56	Section 5	730 56	Shim on Bent 16 (crushing under chord 1)	1	$	500 00
			Replace			
			Stringer 2 in Span 49 (broke)			
731 65	North Approach	731 65	Stringer 7 in Span 49 (breaking)	2	$	151 000 00
731 65	North Approach	731 65	Line and surface bridge	940	$	94 000 00
			Replace			
			Cap on Bent 43 (slight crushing under chord 1 & 2)			
731 65	North Approach	731 65	Cap on Bent 59 (slight crushing under chord 2)	2	$	9 200 00
			Replace			
			- Cap on Bent 35 (crushing under chord 2)			
731 65	South Approach	731 65	- Cap on Bent 83 (crushing)	2	$	9 200 00
			Perform			
731 65	South Approach	731 65	- Detailed stringer inspection	1	$	500 00
731 65	South Approach	731 65	Replace all bridge ties	1242	$	248 400 00
			Replace			
			- Stringer to Cap plywood Shims on Bent 44			
			- Stringer to Cap plywood Shims on Bent 82			
731 65	South Approach	731 65	- Stringer to Cap plywood Shims on Bent 84	3	$	11 800 00

			Post 2 of Bent 21			
			Post 4 of Bent 21			
			Post 5 of Bent 21			
			Post 1 of Bent 23			
			Post 3 of Bent 23			
			- Post 6 of Bent 23			
			Post 1 of Bent 27			
			Post 5 of Bent 27			
			Post 7 of Bent 27			
			- Post 1 of Bent 39			
			Post 5 of Bent 39			
			Post 7 of Bent 39			
			Post 2 of Bent 55			
			- Post 5 of Bent 55			
			Post 8 of Bent 55			
			- Post 2 of Bent 123			
			Post 5 of Bent 123			
			- Post 6 of Bent 123			
			Post 3 of Bent 131			
			- Post 4 of Bent 131			
			- Post 5 of Bent 131			
			- Post 2 of Bent 137			
			- Post 5 of Bent 137			
			Post 8 of Bent 137			
			- Post 3 of Bent 139			
			- Post 5 of Bent 139			
			- Post 7 of Bent 139			
			- Post 5 of Bent 149			
			- Post 8 of Bent 149			
			- Post 7 of Bent 149			
			Post 4 of Bent 159			
731 65	South Approach	731 65	Post 5 of Bent 159	33	$	148 500 00
732 84	North Approach	732 84	Add ballast and tamp up approach	1	$	4 000 00
			Replace			
732 84	North Approach	732 84	- North Headwall	1	$	10 000 00
			Post			
			- Post 4 of Bent 16 (seven pile/post bent)			
			- Post 6 of Bent 16			
			Pile 7 of Bent 16			
			- Pile 1 of Bent 17 (seven pile/post bent)			
			Post 5 of Bent 17			
			- Pile 7 of Bent 17			
			- Pile 1 of Bent 20 (seven pile/post bent)			
			- Post 3 of Bent 20			
			- Pile 7 of Bent 20			
			Pile 1 of Bent 23 (seven pile/post bent)			
			- Post 5 of Bent 23			
732 84	North Approach	732 84	Pile 7 of Bent 23	12	$	54 000 00
			Replace			
732 84	Main span	732 84	- All laterals and gusset plates	6	$	60 000 00
			Replace			
732 84	Main span	732 84	Cap on Row 1 of Pier 2	1	$	4 800 00
			Cut Pile tops down and			
732 84	South Approach	732 84	Install an 8 Subcap on existing Cap of Bent 11	1	$	8 000 00
			Post			
			- Pile 2 of Bent 10 (7 pile bent)			
			- Pile 3 of bent 10			
732 84	South Approach	732 84	Pile 7 of Bent 10	3	$	13 500 00
732 84	South Approach	732 84	Add ballast and tamp up approach	1	$	4 000 00
733 88		733 88	Add Ballast and tamp up both approaches	2	$	8 000 00
			Chip out			
			Cracked and spalled concrete on West walkway			
733 95		733 95	- Patch to original lines	1	$	1 000 00
			Patch			
			- Approximately 17 ballast leaks throughout deck where concrete tubs			
733 95		733 95	join	17	$	4 250 00
733 95		733 95	Add Ballast and tamp up both approaches	2	$	8 000 00
			Post			
			- Pile 5 of Bent 4			
735 88		735 88	- Pile 6 of Bent 4	2	$	9 000 00
735 88		735 88	Add Ballast and tamp up both approaches	2	$	8 000 00
736 03		736 03	Add Ballast and tamp up both approaches	2	$	8 000 00
			Post			
			- Pile 2 of Bent 1			
			- Pile 4 of Bent 1			
			Pile 1 of Bent 4			
736 03		736 03	- Pile 7 of Bent 4	4	$	18 000 00

			Replace		
736 51		736 51	Cap on Bent 1	1	$ 4 600 00
736 51		736 51	Add Ballast and tamp up both approaches	2	$ 8 000 00
			Shim		
736 51		736 51	Under chord 1 on Bent 2	1	$ 500 00
			Post		
736 51		736 51	Pile 1 of Bent 1(visual)	1	$ 4 500 00
			Post		
			Pile 1 of Bent 2		
738 70	Main line	738 70	Pile 2 of Bent 2	2	$ 9 000 00
738 70	Siding	738 70	Add Ballast and tamp up both approaches	2	$ 8 000 00
			Replace		
			Stringer 1 in Span 1		
738 70	Siding	738 70	- Stringer 5 in Span 1	1	$ 5 900 00
738 94		738 94	Remove drift from bridge as necessary	1	$ 1 500 00
			Replace		
			Cap on Bent 14 (slight crushing)		
			- Cap on Bent 19 (slight crushing)		
			Cap on Bent 21		
738 94		738 94	- Cap on Bent 22	4	$ 18 400 00
			Replace		
738 94		738 94	walkway inspection planks & install hand cable	82	$ 41 000 00
			Replace		
739 14	North Approach	739 14	walkway inspection planks & install hand cable	76	$ 38 000 00
739 14	North Approach	739 14	Replace all bridge ties	188	$ 37 600 00
			Post		
			Pile 2 of Bent 3		
			Pile 4 of Bent 3		
			- Pile 1 of Bent 8		
			Pile 4 of Bent 8		
			Pile 1 of Bent 17		
			- Pile 3 of Bent 17		
			- Pile 2 of Bent 23		
739 14	North Approach	739 14	Pile 4 of Bent 23	8	$ 36 000 00
			Replace		
			Cap on Bent 22 (vertical split)		
			Cap on Bent 23 (slight crushing under chord 1)		
739 14	North Approach	739 14	- Cap on Bent 24	3	$ 13 800 00
			Replace		
739 14	Main span	739 14	all Gusset plates	10	$ 50 000 00
			Remove		
			- Pack rust and debris from Flange angles Cover plates and Gusset		
739 14	Main span	739 14	plates	1	$ 2 000 00
739 14	South Approach	739 14	Replace all bridge ties	160	$ 32 000 00
			Reframe (5 post frame bent with piles 1 & 7 driven on each side)		
739 14	South Approach	739 14	- Existing frame bent in bent 10 (cutting cutoffs down 1-2')	1	$ 20 000 00
			Replace		
739 14	South Approach	739 14	Walkway Inspection planks & install hand cable	11	$ 5 500 00
739 14	South Approach	739 14	Add Ballast and tamp up approach	1	$ 4 000 00
			Replace		
			- Cap on Bent 4 (crushing under chord 2)		
739 14	South Approach	739 14	- Cap on Bent 8 (breaking over Posts 5 & 6	2	$ 9 200 00
			Replace		
739 43	North Approach	739 43	Walkway Inspection planks & install hand cable	18	$ 9 000 00
739 43	North Approach	739 43	Remove drift from bridge as necessary	1	$ 1 500 00
			Post		
			- Post 3 of Bent 9		
			- Post 5 of Bent 9		
			Post 4 of Bent 12		
739 43	North Approach	739 43	Post 7 of Bent 12	4	$ 18 000 00
			Replace		
739 43	North Approach	739 43	Cap on Bent 8	1	$ 4 600 00
			Replace		
739 43	Main span	739 43	Stringer shelf brackets on all TPC floor beams	5	$ 20 000 00
739 43	South Approach	739 43	Add Ballast and tamp up approach	1	$ 4 000 00
			Cut Pile tops down and		
			Replace Cap with an oversized cap on Bent 5 (breaking)		
739 43	South Approach	739 43	- Replace Cap with an oversized cap on Bent 6 (breaking)	2	$ 9 200 00
			Post		
			- Pile 1 of Bent 2		
739 43	South Approach	739 43	Post 5 of Bent 2	2	$ 9 000 00
			Replace		
739 43	South Approach	739 43	- Guard timber	234	$ 11 700 00
			Replace		
739 43	South Approach	739 43	Walkway Inspection planks & install hand cable	8	$ 4 000 00

			Replace stringer top lateral angles and/or gusset plates at the following locations Truss #3 Panel #1 angles and gussets Truss #3 Panel #2 angles and gussets Truss #7 Panel #5 gussets Truss #8 Panel #3 angles and gussets Truss #8 Panel #5 angles and gussets Truss #9 Panel #3 angles and gussets Truss #9 Panel #4 gussets Truss #9 Panel #6 angles and gussets Truss #9 Panel #8 gussets Truss #9 Panel #9 gussets Truss #9 Panel #11 gussets			
739.68	Main span	739.68	Truss #9 Panel #12 gussets	12	$	120,000.00
			Repair truss bottom chords at the following locations Truss #1 Panel #4, bottom flange on channels (both sides) Truss #2 Panel #1 top bottom plates at Floor Beam #1 connections (both sides) Truss #2 Panel #5 heavy on channels at floor beams corrosion throughout (both sides) Truss #3 Panel #2 corrosion on channel webs and lacing bars (west) Truss #3 Panel #4 corrosion on lacing bars (both sides) Truss #3 Panel #5 corrosion on webs and lacing bars Truss #4 Panel #4 corrosion on lacing bars (west) Truss #5 Panel #4 corrosion on channels at FB#4 connection (west) Truss #5 Panel #5 corrosion on channels at FB#4 & FB#5 connection (west) Truss #6 Panel #1 corrosion on channels and lacing bars (both sides) Truss #6 Panel #3 corrosion on channels at FB#3 connection (both sides) Truss #7 Panel #3 corrosion on channels channels at FB#3 connection (both sides) Truss #7 Panel #4 corrosion on channels at FB#4 connection (west)			
739.68	Main span	739.68	Truss #9 Panel #11 corrosion on web plate (east)	21	$	756,000.00
			Repair stringers at the following locations Truss #4 Panel #5 corroded web and bottom flange angles at connection (west) Truss #5 Panel #3 corroded web and bottom flange angles at connection (west) Truss #5 Panel #5 corroded web and bottom flange angles at connection (west) Truss #6 Panel #1 corroded web and bottom flange angles at connection (west) Truss #6 Panel #2 corroded web and bottom flange angles at connection (west) Truss #6 Panel #3 corroded web and bottom flange angles at connection (west) Truss #8 Panel #1 corroded web and bottom flange angles at connection (west) Truss #8 Panel #4 corroded web and bottom flange angles at connection (west) Truss #9 Panel #3 corroded bottom flange angles (west) Truss #9 Panel #4 corroded bottom flange angles (both sides) Truss #9 Panel #5 corroded web and bottom flange angles at connection (west) Truss #9 Panel #8 corroded bottom flange angles (west)			
739.68	Main span	739.68		12	$	90,000.00
			Replace stringer top lateral angles and gusset plates at the following locations (unless prioritized at a higher level elsewhere) Truss #1 all panels Truss #4 all panels			
739.68	Main span	739.68	Truss #6 all panels	15	$	75,000.00
			Replace truss bottom chord lacing bars and repair channels as required at the following locations Truss #1 all panels Truss #2 all panels Truss #7 all panels			
739.68	Main span	739.68	Truss #8 all panels	4	$	144,000.00
			Replace stringer self angles at floor beam connection at the following locations Truss #1 all floor beams Truss #2 all floor beams			
739.68	Main span	739.68	Truss #3 all floor beams	15	$	60,000.00

			Repair or replace top chord channels and cover plates at the following locations		
739 68	Main span	739 68	Truss #6 all panels	6	$ 34 000 00
			Repair/replace floor beam members at the following locations		
			Truss #1 Floor Beam #3 top flange angles		
			Truss #2 Floor Beam #0 bottom flange angles & web at horizontal gusset plate connections		
			Truss #2 Floor Beam #2 flange angles & web at stringer to-floor beam connections		
			Truss #3 Floor Beam #1 web at bottom flange angle connection, outboard from stringers		
			Truss #3 Floor Beam #2 web and bottom flange angles outboard from stringers		
			Truss #3 Floor Beam #3 web and bottom flange angles outboard from stringers		
			Truss #4 Floor Beam #0 web outboard from west stringer		
			Truss #4 Floor Beam #3 bottom flange angles		
			Truss #5 Floor Beam #0 web outboard from stringers (particularly west)		
			Truss #6 Floor Beam #0 top and bottom flange angles		
			Truss #6 Floor Beam #2, web and bottom flange angles (at connection)		
			Truss #6, Floor Beam #4 web outboard from west stringer		
			Truss #8 Floor Beam #2 top and bottom flange angles		
			Truss #8 Floor Beam #3 top and bottom flange angles		
			Truss #8 Floor Beam #5 top flange angles		
			Truss #9, Floor Beam #0 top flange angles		
739 68	[illegible]	739 68	Truss #9 Floor Beam #9 bottom flange angles	15	$ 75 000 00
			Replace the following truss bottom chord horizontal gusset plates		
			Truss #1 Floor Beam #4 (west)		
			Truss #2 Floor Beam #1 (west)		
			Truss #2 Floor Beam #2 (both sides)		
			Truss #3 Floor Beam #2 (west)		
			Truss #3 Floor Beam #3 (west)		
			Truss #4 Floor Beam #0 (both sides)		
			Truss #7 Floor Beam #1 (west)		
			Truss #7 Floor Beam #3 (west)		
739 68	Main span	739 68	Truss #7 Floor Beam #5 (both sides)	12	$ 60 000 00
			Replace truss bottom chord diagonal bracing at the following locations		
			Truss #1 Panel #3		
			Truss #2 Panel #3		
			Truss #3 Panel #3		
			Truss #3 Panel #4		
			Truss #5 Panel #3		
739 68		739 68	Truss #6 Panel #3	12	$ 48 000 00
			Repair or replace the following truss members and/or vertical gusset plates		
			Truss #1 L3-U4 (west) corrosion on bottom 10' of web		
			Truss #2 L2-U1 (west) corrosion on bottom 12' of web		
			Truss #5 vertical gusset plates and flange angles L2-U1 (both sides)		
			Truss #6 vertical gusset plates at Floor Beam #3 L3-U2 (both sides)		
			Truss #7, L1-U1 (east) web and flange angles		
			Truss #7 vertical gusset plates at Floor Beam #3 L3-U4 (both sides)		
			Truss #7 L4-U4 (west) web and flange angles		
			Truss #7 L3-U4 (both sides) web and flange angles		
			Truss #8 L2-U2 (both sides) corrosion on web		
			Truss #8, vertical gusset plate at Floor Beam #2, L2-U1 (both sides)		
			Truss #8 L3-U3 (both sides) corrosion on web		
			Truss #8 vertical gusset plate at Floor Beam #3 L3-U4 (west)		
			Truss #9 L2-U1 (both sides) heavy corrosion on web		
			Truss #9 L2-U2 (both sides) corrosion on web		
			Truss #9 L2-U3 (both sides) heavy corrosion on plates		
			Truss #9 L4-U3 (both sides) heavy corrosion on plates and lacing bars		
			Truss #9 L4-U4 (both sides) corrosion on channels		
			Truss #9 L4-U5 (east) heavy corrosion on plates and lacing bars		
			Truss #9 vertical gusset plate at Floor Beam #4 L4-U5 (west)		
			Truss #9 L8-U5 (both sides) heavy corrosion on web and lacing bars		
739 68	Main span	739 68	Truss #9 L8-U8 (both sides) bottom vertical gusset plates	35	$ 1 050 000 00

739 68	Main span	739 68	Repair stringer to-floor beam connections at the following locations Truss #1 Panel #1 stringer top & bottom flange angles (both sides) 12" from FB connections Truss #1 Panel #2 stringer top & bottom flange angles (both sides) 12" from FB connections Truss #1 Panel #3 stringer top & bottom flange angles (both sides) 12" from FB connections Truss #1 Panel #4 stringer top & bottom flange angles (both sides) 12" from FB connections Truss #2 Panel #1 stringer top & bottom flange angles (both sides) 12" from FB connections Truss #2 Panel #2 stringer top & bottom flange angles (both sides) 12" from FB connections Truss #2 Panel #3 stringer top & bottom flange angles (both sides) 12" from FB connections Truss #3 Panel #1 stringer top flange angles (both sides) 24" from FB connections Truss #3 Panel #2 stringer top & bottom flange angles (both sides) 24" from FB connections Truss #3 Panel #4 stringer top & bottom flange angles (both sides) 12" from FB connections Truss #3 Panel #5 stringer top flange angles (both sides) 12" from FB	24	$	56 000 00
739 68	Main span	739 68	Repair truss top chords at the following locations Truss #1 Panel #1 top portal brace bottom strut Truss #1 Panel #5 top portal top and bottom flange angles Truss #9 Panel #8 top chord bracing Truss #9 Panel #9 top chord bracing Truss #9 Panel #10 top chord bracing Truss #9 Panel #11 top chord bracing Truss #10 Panel #1 top chord bracing	7	$	35 000 00
740 25		740 25	Excavate & Inspect Sill and Cutoffs at Bent 4	1	$	2 000 00
740 84		740 84	Add Ballast and tamp up both approaches	2	$	8 000 00
741 35		741 35	Replace - 6 1/2" of Shims on Bent 1	6	$	1 200 00
741 35		741 35	Replace - Sill in Bent 2 (vertical split crushing under post 4)	1	$	1 000 00
741 35		741 35	Replace - top plank on South headwall	1	$	1 000 00
741 35		741 35	Post - Post 2 of Bent 5 (visual reject) - Post 5 of bent 5	2	$	9 000 00
741 35		741 35	Add Ballast and tamp up both approaches	2	$	8 000 00
741 35		741 35	Shim - Under stringer 2 4 6 Bent 3	3	$	1 500 00
741 74		741 74	Replace - Stringer 4 in Span 3 - stringer 8 in Span 3 (horizontal shear)	2	$	10 200 00
741 74		741 74	Re-straighten and Brace - Bent 2 Bent 3	2	$	3 000 00
741 74		741 74	Install - Wingwalls to the Northwest headwall	2	$	10 000 00
742 05		742 05	Replace Stringer 1 in Span 1 - Stringer 8 in Span 1 & 2 Stringer 1 in Span 3 - Stringer 8 in span 3	5	$	25 500 00
742 05		742 05	Add Ballast and tamp up both approaches	2	$	8 000 00
742 05		742 05	Replace all 36 bridge ties	36	$	7 200 00
742 24		742 24	Add Ballast and tamp up both approaches	2	$	8 000 00
742 24		742 24	Replace - 1/4" Shims under both chords on Bent 8	2	$	1 000 00
742 72		742 72	Remove Fouled ballast at North approach replace and tamp to correct elevation	1	$	4 000 00
742 72		742 72	Replace Cap on Bent 1 - cap on Bent 4	2	$	9 200 00
742 95			Replace - Stringer 1 in Span 4 (horizontal shear) Stringer 8 in Span 4 - Stringer 1 in Span 2 - Stringer 5 in Span 2	4	$	20 400 00
742 95			Replace North Headwall top plank	1	$	500 00
742 95			Add Ballast and tamp up both approaches	2	$	8 000 00

742 95			Replace all 61 bridge ties	61	$	12 200 00
743 20			Post - Pile 2 of Bent 2 - Pile 4 of Bent 2 - Pile 2 of Bent 3 - Pile 5 of Bent 3	4	$	18 000 00
743 20			Replace - Cap on Bent 1 (slight crushing)	1	$	4 600 00
743 73			Post - Pile 1 of Bent 2 - Pile 2 of Bent 2 - Pile 1 of Bent 3 - Pile 4 of Bent 3	4	$	18 000 00
743 73			Replace - North headwall - Top 2 planks on South headwall	1	$	10 000 00
743 73			Remove drift from bridge as necessary	1	$	1 500 00
743 73			Replace - Cap on Bent 1	1	$	4 600 00
743 88			Replace all 121 bridge ties	121	$	24 200 00
743 88			Post - Pile 1 of Bent 3 - Pile 3 of Bent 3	2	$	9 000 00
743 88			Replace - Cap on Bent 5 - Cap on Bent 8 (split cornering) - Cap on Bent 9	3	$	13 800 00
743 88			Replace - North headwall	1	$	10 000 00
743 97			Cut Pile tops down and - Replace Cap on Bent 6 with an oversize (crushing)	1	$	8 000 00
743 97			Post - Pile 1 of Bent 2 - Pile 5 of Bent 2	2	$	9 000 00
743 97			Replace all 109 bridge ties	109	$	21 800 00
743 97			Replace - Stringer 1 in Span 1 - Stringer 8 in Span 1 - Stringer 1 in Span 7 - Stringer 3 in span 7	4	$	20 400 00
744 24			Replace - Cap on Bent 2	1	$	4 600 00
744 24			Replace - Both Sway Braces on Bent 2 - Both Sway Braces on Bent 5	4	$	2 000 00
744 44			Post - Post 1 of Bent 1	1	$	4 500 00
744 70		744 70	Replace - Both Sway Braces on Bent 4 - Both Sash Braces on Bent 4	4	$	2 000 00
748 68		748 68	Replace - Mud Blocks 1, 2, & 6 of Bent 6	3	$	15 000 00
748 68		748 68	Replace - 1 1/2" Shim under Chord 2 on Bent 5 (slight crushing)	1	$	500 00
748 68		748 68	Shim - Under Stringer chord 1 of Bent 5 - Under Stringer 4 of Bent 5	2	$	1 000 00
749 89		749 89	Add Ballast and ramp up both approaches	2	$	8 000 00
750 46	North Approach	750 46	Reweld - Walkway welds in Span 63	1	$	2 500 00
750 46	North Approach	750 46	Replace - Missing brace bolts and nuts	1	$	1 000 00
750 46	Main span	750 46	Replace - All Laterals & gusset plates - All Cross bracing	8	$	80 000 00
750 46	South Approach	750 46	Reweld - Walkway in Span 25	1	$	2 500 00
750 46	South Approach	750 46	Replace - Missing brace bolts and nuts	1	$	1 000 00
751 02		751 02	Cut Pile tops down and - Install an 8" Subcap on existing cap of Bent 12B - Replace Cap & Install an 8" Subcap on Bent 20B	2	$	16 000 00
752 99		752 99	Replace - elevation Shim on Bent 4	1	$	500 00
752 99		752 99	Add Ballast and ramp up both approaches	2	$	8 000 00
752 99		752 99	Remove drift from bridge as necessary	1	$	1 500 00
753 48		753 48	Spot replace 17 bridge ties at rail joints	17	$	3 400 00

755 63	755 63	Remove - Fouled ballast, replace and tamp up both approaches	2	$	8 000 00
755 13	755 13	Replace - North headwall and install - Wingwalls	1	$	10 000 00
756 55	756 55	Add Ballast and tamp up both approaches	2	$	8 000 00
756 55	756 55	Replace - Subcap on Bent 3 (slight crushing)	1	$	4 600 00
758 55	758 55	Replace all 78 bridge ties	78	$	15 200 00
756 55	756 55	Replace - Cap on Bent 5 Cap on Bent 6	2	$	9 200 00
757 37	757 37	Add Ballast and tamp up both approaches	2	$	8 000 00
757 37	757 37	Shim Under Chord 1 on Bent 3	1	$	500 00
761 13	761 13	Add Ballast and tamp up both approaches	2	$	8 000 00
761 13	761 13	Replace - Stringer 1 in Span 2 - Stringer 5 in Span 2 Stringer 8 in Span 2 (crushing) - Stringer 1 in Span 3 - Stringer 5 in Span 3 - Stringer 8 in Span 3 (crushing)	8	$	30 600 00

Recommended Work – Priority 3
By Bridge

RAILROAD	LINE	MILE POST	PRIORITY 3 COST	10% Mobilization	40% Contingency	PE&CE	Total
CORP	CO	652 21	$ 1 500 00	$ 150 00	$ 600 00	$ 150 00	$ 2,400 00
CORP	CO	652 58	$ 8 000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12 800 00
CORP	CO	656 12	$ 8 500 00	$ 850 00	$ 3,400 00	$ 2 125 00	$ 14 875 00
CORP	CO	657 12	$ 16,100 00	$ 1,610 00	$ 6 440 00	$ 1 610 00	$ 25,760 00
CORP	CO	657 96	$ -	$ -	$ -	$ -	$ -
CORP	CO	658 17	$ 10,400 00	$ 1 040 00	$ 4,160 00	$ 1 040 00	$ 16 640 00
CORP	CO	660 89	$ 10 200 00	$ 1 020 00	$ 4 080 00	$ 1 020 00	$ 16 320 00
CORP	CO	661 28	$ 64 300 00	$ 6 430 00	$ 25,720 00	$ 6,430 00	$ 102,880 00
CORP	CO	661 73	$ 17 000 00	$ 1 700 00	$ 6,800 00	$ 1 700 00	$ 27 200 00
CORP	CO	662 59	$ 75,200 00	$ 7 520 00	$ 30,080 00	$ 7,520 00	$ 120,320 00
CORP	CO	664 00	$ 123 500 00	$ 12 350 00	$ 49,400 00	$ 30,875 00	$ 216,125 00
CORP	CO	664 62	$ 50 800 00	$ 5,080 00	$ 20 320 00	$ 12 700 00	$ 88,900 00
CORP	CO	664 85	$ 67,500 00	$ 6 750 00	$ 27 000 00	$ 16 875 00	$ 118 125 00
CORP	CO	665 49	$ 26 000 00	$ 2 600 00	$ 10,400 00	$ 6,500 00	$ 45,500 00
CORP	CO	666 21	$ -	$ -	$ -	$ -	$ -
CORP	CO	667 28	$ 14 000 00	$ 1 400 00	$ 5 600 00	$ 1 400 00	$ 22 400 00
CORP	CO	667 40	$ 67,000 00	$ 6 700 00	$ 26 800 00	$ 6,700 00	$ 107,200 00
CORP	CO	668 50	$ 34 400 00	$ 3,440 00	$ 13 760 00	$ 3 440 00	$ 55 040 00
CORP	CO	671 89	$ 18 700 00	$ 1 870 00	$ 7 480 00	$ 1 870 00	$ 29 920 00
CORP	CO	674 03	$ 200 00	$ 20 00	$ 80 00	$ 20 00	$ 320 00
CORP	CO	676 23	$ 7 000 00	$ 700 00	$ 2 800 00	$ 700 00	$ 11,200 00
CORP	CO	677 05	$ 28 200 00	$ 2 820 00	$ 11,280 00	$ 2 820 00	$ 45,120 00
CORP	CO	677 80	$ 34,900 00	$ 3,490 00	$ 13,960 00	$ 3,490 00	$ 55 840 00
CORP	CO	678 43	$ 121,000 00	$ 12,100 00	$ 48 400 00	$ 12 100 00	$ 193 600 00
CORP	CO	680 17	$ 40 600 00	$ 4 060 00	$ 16 240 00	$ 10 150 00	$ 71 050 00
CORP	CO	680 46	$ 204,000 00	$ 20 400 00	$ 81,600 00	$ 20,400 00	$ 326 400 00
CORP	CO	680 77	$ 26,300 00	$ 2 630 00	$ 10 520 00	$ 2 630 00	$ 42 080 00
CORP	CO	681 05	$ 4,000 00	$ 400 00	$ 1,600 00	$ 400 00	$ 6,400 00
CORP	CO	681 45	$ 100 500 00	$ 10,050 00	$ 40,200 00	$ 10,050 00	$ 160 800 00
CORP	CO	682 18	$ 93 000 00	$ 9 300 00	$ 37 200 00	$ 9 300 00	$ 148 800 00
CORP	CO	683 36	$ 11 500 00	$ 1 150 00	$ 4,600 00	$ 2,875 00	$ 20 125 00
CORP	CO	687 03	$ 39,800 00	$ 3 980 00	$ 15 920 00	$ 3 980 00	$ 63 680 00
CORP	CO	687 88	$ 28,700 00	$ 2,870 00	$ 11 480 00	$ 2 870 00	$ 45,920 00
CORP	CO	689 23	$ 5,000 00	$ 500 00	$ 2 000 00	$ 500 00	$ 8,000 00
CORP	CO	690 47	$ 1 500 00	$ 150 00	$ 600 00	$ 150 00	$ 2 400 00
CORP	CO	690 85	$ 22,300 00	$ 2,230 00	$ 8 920 00	$ 5,575 00	$ 39 025 00
CORP	CO	691 05	$ 159 500 00	$ 15 950 00	$ 63,800 00	$ 39,875 00	$ 279 125 00
CORP	CO	691 38	$ 8 000 00	$ 800 00	$ 3,200 00	$ 800 00	$ 12 800 00
CORP	CO	692 06	$ -	$ -	$ -	$ -	$ -
CORP	CO	693 27	$ 13,600 00	$ 1 360 00	$ 5 440 00	$ 1 360 00	$ 21 760 00
CORP	CO	694 32	$ 196 600 00	$ 19 660 00	$ 78 640 00	$ 49 150 00	$ 344,050 00
CORP	CO	694 78	$ 174,250 00	$ 17 425 00	$ 69 700 00	$ 43,562 50	$ 304 937 50
CORP	CO	694 98	$ 12 600 00	$ 1,260 00	$ 5 040 00	$ 1,260 00	$ 20,160 00
CORP	CO	696 66	$ 35 600 00	$ 3,560 00	$ 14 240 00	$ 8 900 00	$ 62 300 00
CORP	CO	700 37	$ 47 800 00	$ 4 780 00	$ 19 120 00	$ 4,780 00	$ 76,480 00
CORP	CO	702 65	$ 8 500 00	$ 850 00	$ 3,400 00	$ 850 00	$ 13 600 00
CORP	CO	702 95	$ 14,000 00	$ 1 400 00	$ 5 600 00	$ 1 400 00	$ 22 400 00
CORP	CO	710 20	$ 9,000 00	$ 900 00	$ 3,600 00	$ 900 00	$ 14,400 00
CORP	CO	711 37	$ 500 00	$ 50 00	$ 200 00	$ 50 00	$ 800 00
CORP	CO	711 67	$ 17 000 00	$ 1 700 00	$ 6 800 00	$ 1 700 00	$ 27,200 00
CORP	CO	712 16	$ 12,600 00	$ 1 260 00	$ 5 040 00	$ 1 260 00	$ 20,160 00
CORP	CO	712 80	$ 12 600 00	$ 1,260 00	$ 5 040 00	$ 1,260 00	$ 20,160 00
CORP	CO	716 40	$ 1 376,100 00	$ 137 610 00	$ 550 440 00	$344 025 00	$ 2 408 175 00
CORP	CO	718 12	$ -	$ -	$ -	$ -	$ -
CORP	CO	719 07	$ 39,600 00	$ 3,960 00	$ 15 840 00	$ 3,960 00	$ 63,360 00

CORP	CO	719 21	$ 73,600 00	$ 7 360 00	$ 29 440 00	$ 7 360 00	$ 117,760 00
CORP	CO	724 22	$ 8 000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12 800 00
CORP	CO	725 96	$ 18,400 00	$ 1 840 00	$ 7 360 00	$ 1 840 00	$ 29,440 00
CORP	CO	726 31	$ 78 200 00	$ 7 820 00	$ 31 280 00	$ 7 820 00	$ 125,120 00
CORP	CO	727 35	$ 500 00	$ 50 00	$ 200 00	$ 50 00	$ 800 00
CORP	CO	728 51	$ 110,800 00	$ 11 080 00	$ 44 320 00	$ 11 080 00	$ 177 280 00
CORP	CO	729 04	$ 82 700 00	$ 8 270 00	$ 33 080 00	$ 8 270 00	$ 132 320 00
CORP	CO	729 17	$ 8,000 00	$ 800 00	$ 3,200 00	$ 800 00	$ 12 800 00
CORP	CO	730 56	$ 281 200 00	$ 28 120 00	$ 112,480 00	$ 28 120 00	$ 449 920 00
CORP	CO	731 65	$ 676 600 00	$ 67 660 00	$ 270,640 00	$ 67 660 00	$ 1 082 560 00
CORP	CO	732 84	$ 158,100 00	$ 15,810 00	$ 63 240 00	$ 15 810 00	$ 252,960 00
CORP	CO	733 88	$ 8 000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12,800 00
CORP	CO	733 95	$ 13 250 00	$ 1,325 00	$ 5 300 00	$ 1 325 00	$ 21 200 00
CORP	CO	735 86	$ 17,000 00	$ 1,700 00	$ 6 800 00	$ 1 700 00	$ 27,200 00
CORP	CO	736 03	$ 26,000 00	$ 2 600 00	$ 10 400 00	$ 2 600 00	$ 41 600 00
CORP	CO	736 51	$ 17,600 00	$ 1 760 00	$ 7 040 00	$ 1,760 00	$ 28 160 00
CORP	CO	737 33	$ -	$ -	$ -	$ -	$ -
CORP	CO	738 70	$ 22 900 00	$ 2 290 00	$ 9 160 00	$ 2 290 00	$ 36 640 00
CORP	CO	738 94	$ 60,900 00	$ 6 090 00	$ 24,360 00	$ 6,090 00	$ 97 440 00
CORP	CO	739 14	$ 248,100 00	$ 24 810 00	$ 99 240 00	$ 24 810 00	$ 396,960 00
CORP	CO	739 43	$ 91 000 00	$ 9,100 00	$ 36 400 00	$ 9 100 00	$ 145,600 00
CORP	CO	739 68	$ 2,813,000 00	$ 281 300 00	$ 1,125 200 00	$703,250 00	$ 4,922 750 00
CORP	CO	740 25	$ 2 000 00	$ 200 00	$ 800 00	$ 200 00	$ 3,200 00
CORP	CO	740 84	$ 8,000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12 800 00
CORP	CO	741 35	$ 21,700 00	$ 2,170 00	$ 8,680 00	$ 2,170 00	$ 34,720 00
CORP	CO	741 74	$ 23 200 00	$ 2 320 00	$ 9 280 00	$ 2 320 00	$ 37,120 00
CORP	CO	742 05	$ 40 700 00	$ 4 070 00	$ 16 280 00	$ 4,070 00	$ 65 120 00
CORP	CO	742 24	$ 9,000 00	$ 900 00	$ 3,600 00	$ 900 00	$ 14,400 00
CORP	CO	742 72	$ 13 200 00	$ 1 320 00	$ 5 280 00	$ 1 320 00	$ 21,120 00
CORP	CO	742 95	$ 41 100 00	$ 4,110 00	$ 16 440 00	$ 4,110 00	$ 65,760 00
CORP	CO	743 20	$ 22,600 00	$ 2 260 00	$ 9 040 00	$ 2 260 00	$ 36,160 00
CORP	CO	743 73	$ 34,100 00	$ 3 410 00	$ 13 640 00	$ 3,410 00	$ 54,560 00
CORP	CO	743 88	$ 57 000 00	$ 5,700 00	$ 22,800 00	$ 5 700 00	$ 91 200 00
CORP	CO	743 97	$ 59,200 00	$ 5 920 00	$ 23 680 00	$ 5,920 00	$ 94,720 00
CORP	CO	744 24	$ 6 600 00	$ 660 00	$ 2,640 00	$ 660 00	$ 10 560 00
CORP	CO	744 44	$ 4 500 00	$ 450 00	$ 1 800 00	$ 450 00	$ 7,200 00
CORP	CO	744 70	$ 2,000 00	$ 200 00	$ 800 00	$ 200 00	$ 3 200 00
CORP	CO	744 83	$ -	$ -	$ -	$ -	$ -
CORP	CO	748 06	$ -	$ -	$ -	$ -	$ -
CORP	CO	748 44	$ -	$ -	$ -	$ -	$ -
CORP	CO	748 68	$ 16 500 00	$ 1 650 00	$ 6 600 00	$ 1 650 00	$ 26,400 00
CORP	CO	749 89	$ 8 000 00	$ 800 00	$ 3,200 00	$ 800 00	$ 12 800 00
CORP	CO	750 46	$ 87 000 00	$ 8 700 00	$ 34 800 00	$ 8 700 00	$ 139,200 00
CORP	CO	751 02	$ 16 000 00	$ 1,600 00	$ 6 400 00	$ 1,600 00	$ 25 600 00
CORP	CO	752 99	$ 10,000 00	$ 1 000 00	$ 4 000 00	$ 1 000 00	$ 16,000 00
CORP	CO	753 48	$ 3 400 00	$ 340 00	$ 1,360 00	$ 340 00	$ 5 440 00
CORP	CO	753 97	$ -	$ -	$ -	$ -	$ -
CORP	CO	755 63	$ 8 000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12,800 00
CORP	CO	756 13	$ 10 000 00	$ 1 000 00	$ 4 000 00	$ 1,000 00	$ 16 000 00
CORP	CO	756 55	$ 37,000 00	$ 3,700 00	$ 14 800 00	$ 3 700 00	$ 59,200 00
CORP	CO	757 37	$ 8 500 00	$ 850 00	$ 3 400 00	$ 850 00	$ 13 600 00
CORP	CO	761 13	$ 38 600 00	$ 3 860 00	$ 15 440 00	$ 3 860 00	$ 61,760 00
						Subtotal	$ 15,039,782 50
						$	81,100 00
						Total	$ 15,120 882 50

Estimated Increased Repair Costs for 8 Months of Additional Deterioration to Projected Ownership Transfer March 2009

Recommended Work – Priority 4

Priority 4 - Recommended Work

Bridge Number	Section Name	Mile Post	Recommendations	Quantity	Cost
652 21		652 21	Post -Pile 1 of Bent 2 -Pile 2 of Bent 6 -Pile 5 of Bent 7	3	$ 13 500 00
652 21		652 21	Replace -Both Sway Braces on Bent 8	2	$ 1 000 00
652 21		652 21	In-place preservatively treat piles and caps	1	$ 2 000 00
652 21		652 21	Add ballast and tamp up both approaches	2	$ 8 000 00
656 12		656 12	Replace -All guard timber	200	$ 10 000 00
656 12		656 12	Reset abutment #2 bearings	2	$ 24 000 00
657 12		657 12	Replace Cap on Bent 8	1	$ 4 600 00
657 12		657 12	In-place preservatively treat piles and caps	1	$ 2 000 00
657 12		657 12	Post -Pile 1 of Bent 3 -Pile 1 of Bent 4 Pile 1 of Bent 8	3	$ 13 500 00
657 12		657 12	Install -An 8" plank to the north headwall	1	$ 500 00
657 96		657 96	Replace stringer 1 in Spans 1 & 2	2	$ 10 200 00
657 96		657 96	Add ballast and tamp up both approaches	2	$ 8 000 00
658 17		658 17	Replace -South headwall top plank	1	$ 500 00
658 17		658 17	Replace -Stringer 8 in Span 5 -Stringer 1 in Span 7	2	$ 10 200 00
660 89		660 89	Replace -Top North headwall plank -Top South headwall plank	2	$ 1 000 00
660 89		660 89	Replace -Stringer 1 in Span 3 -Stringer 1 in Span 5 -Stringer 8 in Span 6	3	$ 15 300 00
661 28	North Approach	661 28	Replace -Stringer 8 in Span 1 -Stringer 1 in Span 4 -Stringer 1 in Span 5 -Stringer 1 in Span 6	4	$ 20 400 00
661 28	North Approach	661 28	Replace -Cap on Bent 6	1	$ 4 600 00
661 28	North Approach	661 28	Post -Pile 1 of Bent 1 -Pile 2 of Bent 3	2	$ 9 000 00
661 28	North Approach	661 28	Spot replace 2 bridge ties	2	$ 400 00
661 28	North Approach	661 28	Replace -Top plank of headwall	1	$ 500 00
661 28	North Approach	661 28	In-place preservatively treat piles caps and stringers	1	$ 2 000 00
661 28	Main Section	661 28	Spot replace 8 bridge ties	8	$ 1 600 00
661 28	South Approach	661 28	Post -Pile 1 of Bent 3 -Pile 1 of Bent 4	2	$ 9 000 00
661 28	South Approach	661 28	In-place preservatively treat piles caps and stringers	1	$ 2 000 00
661 28	South Approach	661 28	Replace -Stringer 1 in Span 1 -Stringer 8 in Span 3 -Stringer 1 in Span 6	3	$ 15 300 00
661 28	South Approach	661 28	Shim or Epoxy -Over Pile 2 of Bent 4 -Over Pile 5 of Bent 4	2	$ 1 000 00
661 73		661 73	Replace -Shim on Bent 5 (slight crushing under chord 1) -Shim on Bent 6 (slight crushing under chords 1 & 2) -Shim on Bent 8 (slight crushing under chord 1)	3	$ 1 500 00
661 73		661 73	Replace -Stringer 4 in Span 1 -Stringer 8 in Span 2	2	$ 10 200 00
661 73		661 73	In-place preservatively treat piles caps and stringers	1	$ 2 000 00

661 73		661 73	Post -Pile 2 of Bent 6 -Pile 1 of Bent 7 -Pile 1 of Bent 8 -Pile 1 of Bent 9	4	$	18 000 00
661 73		661 73	Spot replace 6 bridge ties	6	$	1 200 00
662 59		662 59	Post -Pile 5 of Bent 1 -Pile 3 of Bent 2 -Pile 5 of Bent 3 -Pile 2 of Bent 4 -Pile 4 of Bent 5 -Pile 4 of Bent 8 -Pile 1 of Bent 13 -Pile 4 of Bent 18 -Pile 2 of Bent 20 -Pile 5 of Bent 22	10	$	45 000 00
662 59		662 59	In-place preservatively treat piles caps and stringers	1	$	2 000 00
662 59		662 59	Replace -Cap on Bent 17 (correnng)	1	$	4 600 00
662 59		662 59	Replace -South Sway brace on Bent 2	1	$	1 000 00
662 59		662 59	Shim or Epoxy -Over Pile 1 of Bent 1 -Over Pile 2 of Bent 21 -Over Pile 3 of Bent 21 -Over Pile 4 of Bent 21	4	$	2 000 00
664	South Approach	664	Patch -Ballast leak at Southeast corner of headwall	1	$	1 000 00
664	South Approach	664	In-place preservatively treat piles caps and stringers	1	$	2 000 00
664 62	North Approach	664 62	Spot replace 6 bridge ties	8	$	1 600 00
664 62	North Approach	664 62	POST Pile 1 of Bent 2	1	$	4 500 00
664 62	North Approach	664 62	Replace -Stringer 5 in Span 3 -Stringer 8 in Span 4 -Stringer 1 in Span 5	3	$	15 300 00
664 62	North Approach	664 62	In-place preservatively treat piles caps and stringers	1	$	2 000 00
664 62	North Approach	664 62	Replace -North Sway brace on Bent 3	1	$	500 00
664 62	Main Section	664 62	Replace -Two sections of guard timber on the East Side	2	$	1 200 00
664 62	South Approach	664 62	Spot replace 6 bridge ties	6	$	1 200 00
664 62	South Approach	664 62	Replace -Girt brace 2 in Span 5	1	$	2 000 00
664 62	South Approach	664 62	Post -Pile 1 of Bent 2 -Pile 1 of Bent 4 -Pile 5 of Bent 6	3	$	13 500 00
664 62	South Approach	664 62	In-place preservatively treat piles caps and stringers	1	$	2 000 00
664 85	North Approach	664 85	Replace -Cap on Bent 1	1	$	4 600 00
664 85	North Approach	664 85	Shim Under chord 1 on Bent 6	1	$	500 00
664 85	North Approach	664 85	Post -Pile 2 of Bent 3	1	$	4 500 00
664 85	North Approach	664 85	In-place preservatively treat piles caps and stringers	1	$	2 000 00
664 85	South Approach	664 85	In-place preservatively treat piles caps and stringers	1	$	2 000 00
664 85	South Approach	664 85	Add ballast and tamp up approach	1	$	4 000 00
665 49	North Approach	665 49	In place preservatively treat piles caps and stringers	1	$	2 000 00
665 49	North Approach	665 49	Install -Lower sway braces on Bent 3	2	$	1 000 00
665 49	North Approach	665 49	Spot replace 3 bridge ties	3	$	600 00
665 49	Main Section	665 49	Clean debris off of bridge seals and steel membranes	1	$	1 500 00
665 49	South Approach	665 49	In-place preservatively treat piles caps and stringers	1	$	2 000 00
665 49	South Approach	665 49	Shim or Epoxy -Over Pile 1 of Bent 7	1	$	500 00
665 49	South Approach	665 49	Post -Pile 1 of Bent 6	1	$	4 500 00
665 49	South Approach	665 49	Spot replace 8 bridge ties	8	$	1 600 00
666 21		666 21	Add ballast and tamp on both approaches	2	$	9 000 00
661 21		661 21	In-place preservatively treat piles and caps	1	$	2 000 00
667 28		667 28	In-place preservatively treat piles and caps	1	$	2 000 00

667 28		667 28	Post Pile 4 of Bent 2 -Pile 4 of Bent 3	2	$	9 000 00
667 28		667 28	Spot replace 3 bridge ties	3	$	600 00
667 28		667 28	Replace -Top plank of South Headwall	1	$	500 00
667 28		667 28	Shim or epoxy -Over Pile 2 of Bent 3	1	$	500 00
667 4	North Approach	667 4	Spot replace 6 bridge ties	6	$	1 200 00
667 4	North Approach	667 4	In-place preservatively treat piles and caps	1	$	2,000 00
667 4	North Approach	667 4	Post Pile 1 of Bent 6	1	$	4 500 00
667 4	Main Section	667 4	Replace all 137 bridge ties	137	$	27 400 00
667 4	South Approach	667 4	Replace -Stringer 1 in Span 3	1	$	5 100 00
667 4	South Approach	667 4	In-place preservatively treat piles and caps	1	$	2 000 00
667 4	South Approach	667 4	Replace -Girt brace 1 in Span 1	1	$	2 000 00
668 5	North Approach	668 5	In-place preservatively treat piles and caps	1	$	2 000 00
668 5	North Approach	668 5	Post -Pile 1 of Bent 4 (7 pile bent) -Pile 6 of Bent 4 -Pile 3 of Bent 7	3	$	13 500 00
668 5	North Approach	668 5	Replace -Stringer 8 in Span 1 -Stringer 1 in Span 5 -Stringer 8 in Span 7	3	$	15 300 00
668 5	North Approach	668 5	Shim -Over Pile 1 of Bent 1	1	$	500 00
668 5	South Approach	668 5	In-place preservatively treat piles and caps	1	$	2 000 00
668 5	South Approach	668 5	Replace -Southwest lower brace in Tier 2 of Span 2	1	$	1 000 00
671 89		671 89	In-place preservatively treat piles and caps	1	$	2 000 00
671 89		671 89	Post -Pile 1 of Bent 7	1	$	4 500 00
671 89		671 89	Replace -Stringer 1 in Span 1 -Stringer 1 in Span 2 -Stringer 1 in Span 4(22" Deep Stringer) -Stringer 4 in Span 5	4	$	20 400 00
671 89		671 89	Shim or Epoxy -Over Pile 4 of Bent 7	1	$	500 00
671 89		671 89	Replace -South Wingwalls	2	$	10 000 00
671 89		671 89	Replace -Girt Brace 1 & 2 in Span 3 -Girt 1 in Span 5 -East Sash Brace on Bent 5	4	$	5,000 00
674 03		674 03	Replace -Stringer 8 in Span 2	1	$	5 100 00
674 03		674 03	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
674 03		674 03	Post -Pile 5 of Bent 2	1	$	4 500 00
677 05		677 8	Replace -Stringer 8 in Span 2 -Stringer 8 in Span 3	2	$	10 200 00
677 8		677 8	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
677 8		677 8	Replace -Stringer 1 in Span 4	1	$	5 100 00
677 8		677 8	Add ballast and amp up approach	1	$	4 000 00
677 8		677 8	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
677 8		677 8	Replace -Stringer 8 in Span 2	1	$	5 100 00
678 43		678 43	Replace Pile 3 of Bent 1 -Pile 3 of Bent 2 Pile 5 of Bent 5	3	$	13 500 00
687 43		687 43	Replace -Stringer 8 in Span 5	1	$	5 100 00
678 43		678 43	In-place preservatively treat the piles caps	1	$	2 000 00
678 43		678 43	Remove debris from -Lower gusset plates flange angles and pier caps	1	$	1 500 00

678 43		678 43	In-place preservatively treat the piles caps	1	$	2 000 00
678 43		678 43	Replace Cap on Bent 2 (cornering) -Cap on Bent 4	2	$	9 200 00
680 17		680 17	Add ballast and tamp up both approaches	2	$	8 000 00
680 17		680 17	Remove debris from -Top of Flange angles at floor beams 0 1 5 & 6	4	$	6 000 00
680 46		680 46	Remove debris from -Lower gusset plates flange angles floor beam top and abutment seats	1	$	1 500 00
681 08		681 08	Remove debris from -Lower gusset plates flange angles floor beam top and abutment seats	1	$	1 500 00
681 08		681 08	Replace -Bottom Laterals in Span 2	10	$	50 000 00
681 45		681 45	Remove debris from -Lower gusset plates flange angles floor beam top and abutment seats	1	$	1 500 00
682 18		682 18	Remove debris from -Abutment seat	1	$	1 500 00
682 18		682 18	Replace -Lower laterals	12	$	60 000 00
682 18		682 18	Add ballast and tamp up approach	1	$	4 000 00
682 18		682 18	Replace -Upper flange angles in Span 2	2	$	7 000 00
683 36		683 36	Spot replace 14 bridge ties	14	$	2 800 00
683 36	Main Section	683 36	Remove debris from -Bearing areas	1	$	1 500 00
683 36		683 36	Remove debris from -Gusset plates, flange angles and abutment seats	1	$	1 500 00
687 03		687 03	Add ballast and tamp up both approaches	2	$	8 000 00
687 03		687 03	Replace -Cap on Bent 1	1	$	4 600 00
687 03		687 03	Replace Stringer 8 in Span 2 (visual reject)	1	$	5 100 00
687 03		687 03	Shim or Epoxy -Over Post 3 of Bent 3	1	$	500 00
687 03		687 03	In-place preservatively treat the piles caps	1	$	2 000 00
687 88		687 88	In-place preservatively treat the piles caps, and stringers	1	$	2 000 00
687 88		687 88	Post -Pile 5 of Bent 2 -Post 5 of Bent 6	2	$	9 000 00
687 88		687 88	Replace -Top plank on east headwall	1	$	500 00
687 88		687 88	Replace Subcap on Bent 6	1	$	4 600 00
689 23		689 23	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
690 85		690 85	Replace -West Knee brace 2 in Span 1 -West knee brace 4 in Span 1	2	$	1 000 00
690 85		690 85	Replace -Lower Laterals	8	$	40 000 00
690 85	Main Span	690 85	Add ballast and tamp up approach	1	$	4 000 00
690 85		690 85	Spot replace 6 bridge ties	6	$	1 200 00
690 85		690 85	Replace -Lower gusset -Gusset Plates	16	$	80 000 00
691 05	North Approach	691 05	Replace -Upper gusset plates -Cross braces	10	$	100 000 00
691 05	North Approach	691 05	Replace -Upper and lower flange angles at the North Abutment -Upper 8' of stiffeners at the North Abutment	1	$	10 000 00
691 05	Main Span	691 05	Replace stringer bottom flanges both trusses	20	$	100 000 00
691 05	Main Span	691 05	Replace truss bottom chord diagonal bracing both trusses	10	$	40 000 00
691 05	South Approach	691 05	Replace -Stringer 8 in Spans 5 & 6 (crushing horizontal shear) Stringer 1 in Span 7	2	$	11 000 00
691 05	South Approach	691 05	Post -Pile 5 of Bent 2 -Pile 4 of Bent 9	2	$	9 000 00
691 05	South Approach	691 05	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
691 38		691 38	Replace 1 East Side section of guard timber	1	$	600 00

692 06		692 06	Add ballast and tamp up both approaches	1	$	8 000 00
693 27		693 27	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
693 27		693 27	Replace -Sill in Bent 4	1	$	1 000 00
693 27		693 27	Replace -Stringer 1 in Span 5	1	$	5 100 00
694 32	North Approach	694 32	Shim or Epoxy -Over Pile 1 of Bent 2 -Over Pile 2 of Bent 2	2	$	1 000 00
694 32	North Approach	694 32	Replace -Cap on Bent 8	1	$	4 600 00
694 32	North Approach	694 32	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
694 32	North Approach	694 32	Post -Pile 1 of Bent 5 Pile 5 of Bent 6 Pile 1 of Bent 7	3	$	13 500 00
694 32	Main Span	694 32	Replace floor beam bottom flange angles all floor beams	8	$	40 000 00
694 32	South Approach	694 32	Post -Post 1 of Bent 3 -Pile 1 of Bent 5	2	$	9 000 00
694 32	South Approach	694 32	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
694 78		694 78	Remove debris from -Gusset plates lower laterals floor beams and stringer tops -Abutment seat	1	$	1 500 00
694 78		694 78	Replace -Cross braces -Upper laterals -Lower laterals -Gusset plates	10	$	190 000 00
694 78	Main Span	694 78	Replace stringer bottom flange angles, all panels	10	$	50,000 00
694 78	Main Span	694 78	Replace floor beam bottom flange angles all floor beams	6	$	30 000 00
694 78		694 78	Remove debris from -Gusset plates lower laterals floor beams and stringer tops -Abutment seat	1	$	1 500 00
694 78		694 78	Replace -Cross braces -Upper laterals -Lower laterals -Gusset Plates	10	$	190 000 00
696 66	North Approach	696 66	Replace -Cap on Bent 4	1	$	4 600 00
696 66	North Approach	696 66	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
696 66	North Approach	696 66	Post Post 1 of Bent 6	1	$	4 500 00
696 66	Main Span	696 66	Replace stringer top lateral gusset plates	12	$	60 000 00
696 66	South Approach	696 66	Add ballast and tamp up approach	1	$	4 000 00
696 66	South Approach	696 66	Replace -Sill in Bent 4 -Sill in Bent 5 (split)	2	$	2 000 00
696 66	South Approach	696 66	Post -Post 5 of Bent 2 -Pile 4 of Bent 7	2	$	9 000 00
696 66	South Approach	696 66	In-place preservatively treat the piles caps	1	$	2 000 00
700 37		700 37	Shim or Epoxy -Over Pile 3 of Bent 7	1	$	500 00
700 37		700 37	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
700 37		700 37	Post -Pile 5 of Bent 3 -Post 1 of Bent 6	2	$	9 000 00
700 37		700 37	Replace -Stringer 1 in Span 5	1	$	5 100 00
702 65		702 65	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
702 65		702 65	Replace -2 Sections of Guard timber	2	$	1 200 00
702 65		702 65	Replace -6" Shim on Bent 6 (vertical split)	1	$	500 00
702 65		702 65	Replace -Stringer 1 in Span 1	1	$	5 100 00
702 65		702 65	In-place preservatively treat the piles caps, and stringers	1	$	2 000 00
710 2		710 2	Replace -Cap on Bent 5	1	$	4 600 00
710 2		710 2	Post -Pile 2 of Bent 2	1	$	4 500 00

710 2		710 2	Replace Stringer 1 in Span 1 -Stringer 1 in Span 2	2	$	10 200 00
711 37		711 37	Replace -Stringer 1 in Span 1 -Stringer 1 in Span 4 -Stringer 1 in Span 5	3	$	15 300 00
711 37		711 37	Shim or Epoxy -Over Pile 5 of Bent 1	1	$	500 00
711 37		711 37	Replace -South Sway brace on Bent 2 -Both Sway braces on Bent 3	3	$	3 000 00
711 67		711 67	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
711 67		711 67	Post -Pile 2 of Bent 3 -Pile 1 of Bent 4	2	$	9 000 00
711 67		711 67	Shim or Epoxy Over Pile 3 of Bent 4	1	$	500 00
711 67		711 67	Replace -Stringer 6 in Span 1 -Stringer 12 in Span 1	1	$	10 000 00
712 16		712 16	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
712 16		712 16	Replace -North headwall (undermining)	1	$	10 000 00
712 16		712 16	Post - Pile 2 of Bent 5	1	$	4 500 00
712 16		712 16	Replace -Stringer 1 in Span 3 -Stringer 1 in Span 4	2	$	10 200 00
712 8		712 8	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
712 8		712 8	Post -Pile 1 of Bent 1 -Pile 1 of Bent 2	2	$	9 000 00
712 8		712 8	Replace -South sway brace on Bent 3	1	$	1 000 00
716 4		716 4	Post -Post 5 of Bent 1 -Post 1 of Bent 3 -Pile 5 of Bent 6 -Pile 5 of Bent 7	4	$	18 000 00
716 4		716 4	In-place preservatively treat the piles caps	1	$	2 000 00
716 4		716 4	Repair the following vertical truss members Truss # 1 L1-U1 East Truss # 1 L6-U6 East Truss # 2 L1-U1 East Truss # 2 L2-U2 East Truss # 2 L6-U6 East Truss # 2 L6-U6 West	6	$	156 000 00
716 4		716 4	Repair the following vertical truss members Truss # 2 L7-U6 East and West Truss # 3 L4-U5 West Truss # 3 L5-U6 West	3	$	78 000 00
716 4		716 4	Repair floor beams at the following locations Truss #1 Floor beam #2 (Web at bottom of stringer to floor beam connection) Truss #1 Floor Beam #3 (top flange angles) Truss #1 Floor Beam #4 (top flange angles) Truss #1, Floor Beam #5 (top flange angles) Truss #1 Floor Beam #6(top flange angles) Truss #1 Floor Beam #7 (top flange angles) Truss #2 Floor Beam #2 (top and bottom flange angles) Truss #2 Floor Beam #4 (top and bottom flange angles) Truss #2 Floor Beam #7 (top and bottom flange angles) Truss #2 Floor Beam #8 (top and bottom flange angles web at bottom flange angle connection) Truss #2, Floor Beam #9 (top and bottom flange angles web at bottom flange angle connection) Truss #2, Floor Beam #10 (top flange angles) Truss #3 Floor Beam #5 (bottom flange angles)	17	$	85 000 00
716 4		716 4	Add ballast and temp up approach	1	$	4 000 00

716 4		716 4	Post -Post 3 of Bent 6 -Post 5 of Bent 7 -Post 5 of Bent 10 -Post 2 of Bent 13 -Post 5 of Bent 14 Post 5 of Bent 16 -Post 1 of Bent 18 -Post 5 of Bent 19 -Post 1 of Bent 20 -Post 5 of Bent 21 -Post 5 of Bent 29 -Post 1 of Bent 92 -Post 5 of Bent 93 -Post 5 of Bent 94 -Post 5 of Bent 100 -Post 5 of Bent 105 -Post 5 of Bent 107 -Post 1 of Bent 109 -Post 5 of Bent 110 -Post 1 of Bent 112 -Post 5 of Bent 119 -Post 5 of Bent 127 -Post 1 of Bent 129 -Post 4 of Bent 136 -Post 5 of Bent 149 -Post 7 of Bent 151 -Post 7 of Bent 153	27	$	121 500 00
716 4		716 4	In-place preservatively treat the piles caps	1	$	2 000 00
716 4		716 4	Replace Tower Brace In Span 9 West Tower Brace In Span 17 Both Tower Brace In Span 24 East Tower Brace In Span 38 East Tower Brace In Span 39 West Tower Brace In Span 45 West Tower Brace In Span 54 West Tower Brace In Span 86 Both Tower Braces In Span 102	11	$	5 500 00
716 4		716 4	Cap on Bent 4 Cap on Bent 22 (Slight crushing under chord 1) Cap on Bent 25 Cap on Bent 37 Cap on Bent 38 Cap on Bent 159 (Slight crushing under chord 1 & 2) Cap on Bent 165 (Slight crushing under chord 1)	7	$	32 200 00
716 4		716 4	Spot replace 6 bridge ties	6	$	1 200 00
718 12		718 12	Add ballast and tamp up both approaches	2	$	8 000 00
719 07		719 07	Replace -South Sash Brace on Bent 2	1	$	1 000 00
719 07		719 07	Replace -Cap on Bent 3	1	$	4 600 00
719 07		719 07	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
719 07		719 07	Post -Pile 1 of Bent 2 Pile 4 of Bent 6	2	$	9 000 00
719 21		719 21	Replace Girt Bracing in Span 3 Girt Bracing in Span 7 Girt Bracing in Span 21	3	$	7 500 00
719 21		719 21	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
719 21		719 21	Post -Pile 4 of Bent 4 -Pile 5 of Bent 5 -Pile 1 of Bent 8 -Pile 1 of Bent 11 -Pile 2 of Bent 12 -Pile 5 of Bent 15 -Pile 1of Bent 21	7	$	31 500 00
719 21		719 21	Replace -Sash Brace on Bent 19	1	$	1 000 00
719 21		719 21	Replace -Cap on Bent 13 Cap on Bent 17	2	$	9 200 00

719 21		719 21	Replace -Stringer 8 in Span 1 -Stringer 3 in Span 18	2	$	10 200 00
725 96		725 96	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
725 96		725 96	Post -Pile 6 of Bent 1- -Pile 6 of Bent 11	2	$	9 000 00
726 31		726 31	Cut Cutoff down and install block over -Cutoff 1 of Bent 3 -Cutoff 1 of Bent 8 -Cutoff 2 of Bent 14 -Cutoff 2 of Bent 28 -Cutoff 2 of Bent 46	5	$	6 000 00
726 31		726 31	Replace -Cap on Bent 58 (very minor cornering)	1	$	4 600 00
726 31		726 31	Replace -Stringer 8 in Span 1 -Stringer 2 in Span 3 -Stringer 4 in Span 3 -Stringer 4 in Span 5 -Stringer 4 in Span 17 -Stringer 4 in Span 19 -Stringer 6 in Span 19 -Stringer 2 in Span 21 -Stringer 5 in Span 25 -Stringer 6 in Span 27 -Stringer 4 in Span 28 -Stringer 6 in Span 28 -Stringer 7 in Span 31 -Stringer 9 in Span 31 -Stringer 6 in Span 32 -Stringer 9 in Span 32 -Stringer 4 in Span 33 -Stringer 8 in Span 33 -Stringer 7 in Span 35 -Stringer 7 in Span 36 -Stringer 2 in Span 49 -Stringer 2 in Span 50 -Stringer 6 in Span 53 -Stringer 6 in Span 54 -Stringer 8 in Span 55 -Stringer 7 in Span 56 -Stringer 7 in Span 58 -Stringer 9 in Span 60 -Stringer 9 in Span 61	29	$	147 900 00
726 31		726 31	Replace -Post 2 of Bent 33	1	$	4 500 00
728 51		728 51	Shim or Epoxy -Over Pile 2 in Bent 2A -Over Pile 3 in Bent 2A -Over Pile 4 in Bent 2A	3	$	1 500 00
728 51		728 51	Post -Pile 2 of Bent 4 -Pile 5 of Bent 6 -Pile 2 of Bent 10 Pile 2 of Bent 12 -Pile 1 of Bent 15	5	$	22 500 00
728 51		728 51	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
728 51		728 51	Replace -Cap on Bent 8	1	$	4 600 00
728 51		728 51	Replace -Stringer 4 in Span 10	1	$	5 100 00
729 04		729 04	Replace -Cap on Bent 17	1	$	4 600 00

729 04		729 04	Post -Pile 2 of Bent 4 -Pile 1 of Bent 5 -Pile 1 of Bent 9 -Pile 4 of Bent 11 -Pile 2 of Bent 20 -Pile 1 of Bent 22 -Pile 5 of Bent 23 -Post 5 of Bent 26	8	$	16 000 00
729 04		729 04	Shim or Epoxy Over Pile 2 of Bent 2	1	$	500 00
729 04		729 04	In-place preservatively treat the piles caps and stringers	1	$	2 000 00
729 04		729 04	Replace -Stringer 2 of Span 1 -Stringer 9 of Span 2 -Stringer 9 of Span 3 -Stringer 9 of Span 4 -Stringer 9 of Span 5 -Stringer 2 of Span 6 -Stringer 2 of Span 21 -Stringer 9 of Span 23 -Stringer 2 of Span 24 -Stringer 2 of Span 25	10	$	51 000 00
729 04		729 04	Replace -Tower Bracing in Span 11 Tower Bracing in Span 22	2	$	10 000 00
730 56		730 56	In-place preservatively treat the piles caps	1	$	2 000 00
730 56		730 56	Post Pile 1 of Bent 2 Pile 6 of Bent 6 Pile 1 of Bent 10 Pile 6 of Bent 11 Pile 1 of Bent 13	5	$	22 500 00
730 56		730 56	In-place preservatively treat the piles caps	1	$	2 000 00
730 56		730 56	Post Pile 1 of Bent 6 Pile 6 of Bent 8 Pile 1 of Bent 9 Pile 6 of Bent 17 Pile 2 of Bent 18	5	$	22 500 00
730 56		730 56	In-place preservatively treat the piles caps	1	$	2 000 00
730 56		730 56	Post (frame bents w/ 5 posts + piles 1 & 7 on outside) -Piles 1 & 7 of Bent 2 -Piles 1 & 7 of Bent 3 -Piles 1 & 7 of Bent 4 -Piles 1 & 7 of Bent 7 -Piles 1 & 7 of Bent 9 -Piles 1 & 7 of Bent 11 -Piles 1 & 7 of Bent 13 -Piles 1 & 7 of Bent 14 -Pile 1 of Bent 16 -Piles 1 & 7 of Bent 20 -Piles 1 & 7 of Bent 21 -Piles 1 & 7 of Bent 23 -Pile 1 of Bent 25 -Post 3 of Bent 25 -Pile 1 of Bent 26 -Post 5 of Bent 26 -Post 5 of Bent 28 -Pile 1 of Bent 29 -Post 3 of Bent 29 -Post 3 & 5 of Bent 30 -Pile 7 of Bent 30 -Post 4 of Bent 32 -Pile 7 of Bent 32 -Post 3 of Bent 33 -Post 5 of Bent 33 -Pile 5 of Bent 34	38	$	171 000 00
730 56		730 56	Replace -Cap on Bent 8	1	$	4 600 00
730 56		730 56	Spot replace 25 bridge ties	25	$	5 000 00
730 56		730 56	Add ballast and tamp up approach	1	$	4 000 00

731 65		731 65	Replace -Stringer 4 in Span 38 Stringer 4 in Span 39 Stringer 7 in Spans 50 &51 (broken)	4	$	20 400 00
731 65		731 65	Replace -Cap on Bents 40 & 48 Cap on Bent 63 (slight crushing)	3	$	13 800 00
731 65		731 65	Replace Tower Brace 1 In Span 16	1	$	4 000 00
731 65		731 65	Replace -Upper gusset plates	20	$	100 000 00
731 65		731 65	In-place preservatively treat the piles posts sills, and caps	1	$	2 000 00
731 65		731 65	Replace -Cap on Bent 13 -Cap on Bent 41 (slight crushing under chord 1) -Cap on Bent 81 (slight crushing under chord 1) Cap on Bent 97 (slight crushing under chord 2)	4	$	18 400 00
731 65		731 65	Replace -Stringer 2 of Span 4 -Stringer 2 of Span 5 -Stringer 2 of Span 9 -Stringer 2 of Span 10 -Stringer 2 of Span 12 -Stringer 2 of Span 16 -Stringer 2 of Span 19 -Stringer 8 of Span 19 -Stringer 2 of Span 26 -Stringer 10 of Span 31 -Stringer 10 of Span 32 -Stringer 10 of Span 33 -Stringer 10 of Span 34 -Stringer 5 of Span 35 -Stringer 5 of Span 36 -Stringer 2 of Span 37 -Stringer 2 of Span 38 -Stringer 9 of Span 59 -Stringer 6 of Span 61 -Stringer 2 of Span 136 -Stringer 2 of Span 135 -Stringer 2 of Span 137 -Stringer 2 of Span 138 -Stringer 9 of Span 147	24	$	122 400 00
731 65		731 65	Shim or Epoxy -Over Post 6 of Bent 75 -Over Post 8 of Bent 133 -Over Pile 7 of Bent 159	3	$	1 500 00
731 65		731 65	Post (Frame bents with 5 posts + piles 1 & 7 on outside) Pile 4 Of Bent 8 Post 6 Of Bent 15 Post 2 Of Bent 19 Pile 7 Of Bent 19	4	$	16 000 00

731 65	South Approach	731 65	Pile 1 Of Bent 29 Post 5 Of Bent 29 Pile 7 Of Bent 31 Post 5 Of Bent 35 Pile 7 Of Bent 35 Pile 7 Of Bent 41 Pile 1 Of Bent 43 Post 3 Of Bent 45 Pile 7 Of Bent 47 Pile 7 Of Bent 49 Post 4 Of Bent 51 Pile 1 Of Bent 53 Pile 7 Of Bent 59 Pile 7 Of Bent 61 Pile 7 Of Bent 83 Post 5 Of Bent 89 Pile 1 Of Bent 95 Pile 7 Of Bent 95 Post 4 Of Bent 99 Post 5 Of Bent 99 Pile 1 Of Bent 109 Post 2 Of Bent 111 Pile 3 Of Bent 116 Pile 7 Of Bent 117 Post 5 Of Bent 119 Post 3 Of Bent 121 Post 4 Of Bent 121 Post 4 Of Bent 125 Post 6 Of Bent 125 Pile 1 Of Bent 133 Post 5 Of Bent 133 Post 3 Of Bent 141	31	$	139 500 00
731 65	South Approach	731 65	Post 4 Of Bent 141 Post 6 Of Bent 143 Post 5 Of Bent 147 Post 4 Of Bent 151 Pile 7 Of Bent 151 Post 3 Of Bent 153 Post 5 Of Bent 153 Post 4 Of Bent 161 Pile 5 Of Bent 163 Pile 5 Of Bent 185	10	$	45 000 00
732 84	North Approach	732 84	Shim or Epoxy Over Pile 1 of Bent 11	1	$	500 00
732 84	North Approach	732 84	Replace Cap on Bent 22 (minor crushing under chord 2)	1	$	4 600 00
732 84	North Approach	732 84	Cut Pile Tops down and Replace cap on Bent 15 with an oversize cap	1	$	4 600 00
732 84	North Approach	732 84	In-place preservatively treat piles posts sills caps and stringers	1	$	2 000 00
732 84	North Approach	732 84	Post -Pile 1 Of Bent 2 -Pile 3 Of Bent 2 -Pile 5 Of Bent 3 -Post 5 Of Bent 5 -Post 4 Of Bent 6 -Post 4 Of Bent 7 -Post 5 Of Bent 7 -Post 5 Of Bent 8 -Pile 1 Of Bent 10 -Post 3 Of Bent 10 -Pile 7 Of Bent 11 -Post 3 Of Bent 12 -Post 5 Of Bent 12 -Post 3 Of Bent 13 -Pile 7 Of Bent 13 -Post 3 Of Bent 14 -Pile 1 Of Bent 18 -Post 5 Of Bent 18 -Post 3 Of Bent 19 -Pile 7 Of Bent 19 -Post 3 Of Bent 22 -Post 3 Of Bent 25 Pile 7 Of Bent 25	23	$	103 500 00
732 84	North Approach	732 84	In-place preservatively treat piles sills caps	1	$	2 000 00

732 84	Main Span	732 84	Post Pile 2 in Row 1 of Pier 1 Pile 3 in Row 1 of Pier 1 Pile 2 in Row 2 of Pier 1	3	$	13 500 00
732 84	Main Span	732 84	Post Pile 3 of Bent 12	1	$	4 500 00
732 84	South Approach	732 84	In-place preservatively treat piles caps and stringers	1	$	2 000 00
735 86		735 86	Shim or Epoxy Over Pile 2 of Bent 1	1	$	500 00
735 86		735 86	Replace Stringer 1 in Span 1 (horizontal shear) Stringer 1 in Span 2 (horizontal shear)	2	$	10 200 00
735 86		735 86	Replace Cap on Bent 3	1	$	4 600 00
735 86		735 86	Post Pile 3 of Bent 2 Pile 1 of Bent 3 Pile 5 of Bent 5	3	$	13 500 00
735 86		735 86	In-place preservatively treat piles caps and stringers	1	$	2 000 00
736 03		736 03	Post Pile 7 of Bent 3 Pile 2 of Bent 5	2	$	9 000 00
736 03		736 03	In-place preservatively treat piles caps and stringers	1	$	2 000 00
736 51		736 51	In-place preservatively treat piles caps and stringers	1	$	2 000 00
736 51		736 51	Post Pile 5 of Bent 4	1	$	4 500 00
736 51		736 51	Replace Stringer 8 in Spans 1 & 2	2	$	10 200 00
736 51		736 51	Replace all 40 bridge ties	40	$	8 000 00
737 33		737 33	Replace Stringer 12 in Span 1 Stringer 12 in Span 3 Stringer 12 in Span 5	3	$	15 300 00
737 33		737 33	Replace North Sway brace on Bent 2	1	$	500 00
737 33		737 33	Replace Cap on Bent 2	1	$	4 600 00
737 33		737 33	Post Pile 6 of Bent 2	1	$	4 500 00
737 33		737 33	In-place preservatively treat piles caps and stringers	1	$	2 000 00
738 7		738 7	Replace North Sway brace on Bent 2	1	$	500 00
738 7		738 7	Replace Stringer 8 in Spans 1 & 2 (horizontal shear)	1	$	5 100 00
738 7		738 7	Add ballast and tamp up both approaches	2	$	8 000 00
738 7		738 7	Replace South Sway brace on Bent 2	1	$	500 00
738 7		738 7	Post Pile 3 of Bent 2	1	$	4 500 00
738 7		738 7	In-place preservatively treat piles caps and stringers	1	$	2 000 00
738 94		738 94	Add ballast and tamp up both approaches	2	$	8 000 00
738 94		738 94	In-place preservatively treat piles, caps and stringers	1	$	2 000 00
738 94		738 94	Post Post 3 of Bent 4 Pile 1 of Bent 13 Pile 5 of Bent 14 Pile 3 of Bent 16 Pile 5 of Bent 17 Pile 5 of Bent 22 Post 1 of Bent 24 Pile 2 of Bent 27	8	$	36 000 00
738 94		738 94	Replace North Sway Brace on Bent 3 South Sway Brace on Bent 5 Tower Braces 1 & 4 in Span 8 Sash Brace on Bent 14 Sash Brace on Bent 15 Sash Brace on Bent 16 North Sway Brace on Bent 16 2 Girt Braces in Span 25 2 Girt Braces in Span 26	12	$	6 000 00
739 14	North Approach	739 14	In-place preservatively treat piles caps and stringers	1	$	2 000 00

739 14		739 14	Post Pile 3 of Bent 4 Pile 1 of Bent 5 Pile 5 of Bent 11 Pile 1 of Bent 15 Pile 3 of Bent 18 Pile 3 of Bent 19 Pile 5 of Bent 25	7	$	31 500 00
739 14		739 14	Replace Cap on Bent 5 Cap on Bent 10 (slight crushing under chord 2) Cap on Bent 14 Cap on Bent 26 (slight breaking at middle)	4	$	18 400 00
739 14		739 14	Replace South Sway Brace on Bent 8 North Sway Brace on Bent 14 North Sash Brace on Bent 19 North Sash Brace on Bent 20 North Sash Brace on Bent 21	5	$	2 500 00
739 14		739 14	Replace East Tower Brace in Span 23	1	$	4 000 00
739 14		739 14	Replace Knee Brace at Floor Beam 5	1	$	4 000 00
739 14		739 14	Replace Upper flange angles of Floor Beam 5	1	$	5 000 00
739 14		739 14	Replace Cap on Bent 11 (slight crushing under chord 1)	1	$	4 600 00
739 14		739 14	In-place preservatively treat piles caps and stringers	1	$	2 000 00
739 14		739 14	Post Post 3 of Bent 7 Post 3 of Bent 8	2	$	9 000 00
739 43		739 43	Replace Cap on Bent 3 (breaking at cap)	1	$	4 600 00
739 43		739 43	Inspect for Marine Borer	1	$	500 00
739 43		739 43	Post Pile 5 of Bent 2 Pile 6 of Bent 4 Post 5 of Bent 8 Pile 7 of Bent 10 Post 4 of Bent 14 Pile 7 of Bent 17 Pile 7 of Bent 18	7	$	31 500 00
739 43		739 43	In place preservatively treat piles and caps	1	$	2 000 00
739 43		739 43	Clean Pier bearings All steel members	1	$	1 500 00
739 43		739 43	Replace all bridge ties	119	$	23 800 00
739 43		739 43	Post Pile 1 of Bent 1 Pile 1 of Bent 6 Pile 7 of Bent 7 Pile 1 of Bent 8	4	$	18 000 00
739 43		739 43	In-place preservatively treat piles caps	1	$	2 000 00
739 43		739 43	Replace Cap on Bent 3 (Slight crushing under chord 1 & 2)	1	$	4 600 00
739 68		739 68	Replace Girt Brace 3 in Span 2	1	$	500 00
739 68		739 68	In-place preservatively treat piles caps and stringers	1	$	2 000 00
739 68		739 68	Shim over post 4 of Bent 4	1	$	500 00
739 68		739 68	Replace Stringer 1 in Spans 1 & 2 (horizontal shear)	2	$	10 200 00
739 68		739 68	Add ballast and tamp up approach	1	$	4 000 00

739 68		739 68	Replace the following truss bottom chord horizontal plates Truss #1 Floor Beam #0 (both sides) Truss #1 Floor Beam #2 west) Truss #2 Floor Beam #1 (east) Truss #2 Floor Beam #4 (both sides) Truss #2 Floor Beam #5 (both sides) Truss #3 Floor Beam #0 (both sides) Truss #3 Floor Beam #4 (both sides) Truss #4 Floor Beam #1 (west) Truss #4 Floor Beam #2 (west) Truss #4 Floor Beam #3 (both sides) Truss #4 Floor Beam #5 (both sides) Truss #5 Floor Beam #3 (both sides) Truss #5 Floor Beam #5 (both sides) Truss #8 Floor Beam #4 (both sides)	24	$	20 000 00
739 68	Main Span	739 68	Repair or replace the following truss members and/or vertical gusset plates Truss # 1 L1-U1 (east) Corrosion on web Truss # 1 L2-U1 (both sides) Corrosion on rivet heads throughout Truss # 1 vertical gusset plates, L3-U4 (both sides) Truss # 3 L1-U1 (west) web at flange angle connection Truss # 3 L3-U4 (both sides) web and inboard flange angles Truss # 4 L4-U4 (east) corrosion on web Truss # 5 vertical gusset plates L3-U4 (both sides) Truss # 5 L4-U4 (both sides) web corrosion Truss # 5 L3-U4 (both sides) corrosion on webs and flange angles Truss # 6 L2-U1 (both sides) corrosion on webs and flange angles Truss # 6 L2-U3 (both sides) corrosion on flange angles and rivets Truss # 6 L3-U2 (both sides) corrosion on flange angles and rivets Truss # 6 L4-U3 (both sides) corrosion on webs Truss # 7 L2-U3 (both sides) corrosion on flange angles Truss # 7 L3-U2 (both sides) corrosion on flange angles Truss # 8 L1-U1 (both sides) corrosion on web Truss # 8 L2-U1 (both sides) corrosion on webs and flange angles Truss # 8 L3-U2 (both sides) corrosion on webs and flange angles Truss # 8 L3-U4 (both sides) corrosion on webs and flange angles Truss # 9 L3-U3 (both sides) corrosion on webs and flange angles Truss # 9 L4-U5 (west) corrosion on plates and lacing bars Truss # 9 L5-U5 (both sides) corrosion on webs and flange angles	40	$	1 200 000 00
739 68	Main Span	739 68	Truss # 9 L6-U5 (both sides) corrosion throughout Truss # 9 L6-U6 (both sides) corrosion on channels Truss # 9 L8-U8 (west) corrosion throughout Truss # 9 L9-U9 (both sides) corrosion on webs and flange angles Truss # 9 L10-U9 (both sides) corrosion on plates and lacing bars Truss # 9 L10-U10 (east) corrosion on channels	10	$	300 000 00
739 68	Main Span	739 68	Replace stringer top lateral angles and/or gusset plates at the following locations Truss #2 Panel #1 angles and gussets Truss #7 Panel #1 gussets Truss #7, Panel #2 gussets Truss #7 Panel #3 angles and gussets Truss #8 Panel #1, gussets Truss#10 Panel #1 gussets Truss #10 Panel #3 angles and gussets Truss #10 Panel #4 angles and gussets	8	$	32 000 00

739 68	Main Span	739 68	Repair/replace floor beam members at the following locations Truss # 1 Floor Beam 2 Web outboard from stringers Truss # 2 Floor Beam 3 Top flange angles Truss # 2 Floor Beam 2 Flange angles and web at stringer to floor beam connections Truss # 3 Floor Beam 2 Top flange angles Truss # 3 Floor Beam 3 Top flange angles Truss # 3 Floor Beam 4 Bottom flange angles and web outboard from west stringers Truss # 4 Floor Beam 0 Bottom flange angles at gusset plate connections Truss # 4 Floor Beam 3 Top cover plate Truss # 4 Floor Beam 5 Top flange angles Truss # 5 Floor Beam 0 Top flange angles Truss # 5 Floor Beam 2 Bottom flange angles and web outboard from west stringer Truss # 5 Floor Beam 3 Bottom flange angles and web outboard from west stringer Truss # 5 Floor Beam 5 Bottom flange angles outboard from east stringer Truss # 7 Floor Beam 0 Bottom flange angles and web outboard from west stringer Truss # 7 Floor Beam 1 Web at bottom flange connection Truss # 7 Floor Beam 3 Web outboard from west stringer Truss # 7 Floor Beam 4 Web outboard from west stringer	17	$	85 000 00
739 68	Main Span	739 68	Truss # 8 Floor Beam 0 Top and bottom flange angles web outboard from west stringer Truss # 8 Floor Beam 1 Top and bottom flange angles web outboard from west stringer Truss # 8 Floor Beam 2 Web outboard from west stringer Truss # 8 Floor Beam 3 Web outboard from west stringer Truss # 8 Floor Beam 4 Web outboard from west stringer Truss # 8 Floor Beam 5 Top and bottom flange angles Truss # 9 Floor Beam 2 Bottom flange angles web at bottom flange connection Truss # 9 Floor Beam 4 Bottom flange angles web outboard from west stringer Truss # 9 Floor Beam 5 Bottom flange angles web outboard from west stringer Truss # 9 Floor Beam 8 Bottom flange angles Truss # 9 Floor Beam 9 Top flange angles Truss # 9 Floor Beam 11 Bottom flange angles Truss # 9 Floor Beam 12 Top flange angles			
739 68	Main Span	739 68	Repair/Replace stringers at the following locations Truss #1 all panels, top flange angles Truss #2 Panel #2, top flange angles Truss #2 Panel #5 top flange angles Truss #3 all panels top flange angles Truss #3 Panel #1 web at bottom flange angle connection (west) Truss #3 Panel #2, web at bottom flange angle connection (west) Truss #3 Panel #4 webs at bottom flange angle connection (both sides) Truss #4 all panels top flange angles Truss #4 Panel #1 bottom flange angles (both sides) web at BFA connection (west) Truss #6 all panels top flange angles Truss #5 panel #2 bottom flange angles at floor beam connections (west) Truss #6 Panel #2 bottom flange angles (both sides) Truss #7 Panel #1 top flange angles (east) Truss #8 all panels top flange angles Truss #8 Panel #2 web at bottom flange angle connection (west) Truss #9 all panels top flange angles Truss #9 Panel #3 bottom flange angles (east) Truss #9 Panel #4 web at bottom flange angle connection (east) Truss #9 Panel #10 web at bottom flange angle connection (both sides) Truss #9 Panel #11 web at bottom flange angle connection (both side Truss #10 all panels top flange angles	50	$	250 000 00

739 68	Main Span	739 68	Replace truss bottom chord diagonal bracing at the following locations Truss #1 all panels Truss #2 all panels Truss #4 Panel #1 Truss #4 Panel #2 Truss #4 Panel #3 Truss #7 Panel #3 Truss #8 Panel #2 Truss #8 Panel #3 Truss #9 Panel #5 Truss #10 Panel #3	18	$	72 000 00
739 68	Main Span	739 68	Replace truss top chord channels and cover plates or miscellaneous top chord repairs at the following locations Truss #1 all panels Truss #2 all panels Truss #3 all panels Truss #4 all panels Truss #4 Panel #5 top flange angles of portal Truss #5 all panels Truss #6 Panel #1 top channel of portal Truss #6 all panels Truss #9 all panels Truss #10 panel #4 top chord bracing	33	$	165 000 00
739 68	Main Span	739 68	Replace truss bottom chord members at the following locations Truss #2 Panel #1 bottom chord channels at floor beam connections (both sides) Truss #2 Panel #2 bottom chord flanges and webs (both sides) Truss #3 Panel #3 bottom chord lacing bars and channels (both sides) Truss #4 Panel #1, bottom chord channel web and lacing bars (west) Truss #4 Panel #2 bottom chord channel web and lacing bars (west) Truss #5 all panels (west only) Truss #6 all panels Truss #7 all panels Truss #8 all panels Truss #9 panel #12 bottom chord web plate (both sides)	25	$	900 000 00
739 68	South Approach	739 68	Add ballast and tamp up approach	1	$	4 000 00
739 68	South Approach	739 68	Post - Pile 5 of Bent 3	1	$	4 500 00
739 68	South Approach	739 68	In-place preservatively treat piles caps and stringers	1	$	2 000 00
739 68	South Approach	739 68	Replace - Stringer 1 in Span 3	1	$	5 100 00
740 25		740 25	In-place preservatively treat piles caps and stringers	1	$	2 000 00
740 25		740 25	Post - Post 5 of Bent 2 - Post 1 of Bent 3	2	$	9 000 00
740 25		740 25	Add ballast and tamp up both approaches	2	$	8 000 00
740 25		740 25	Install - Hog jaw bracing from Bent 2 to Bent 3	1	$	500 00
741 35		741 35	Replace - Stringer 8 in Span 3 (crushing) - Stringer 8 in Span 4 (crushing)	2	$	10 200 00
741 35		741 35	In-place preservatively treat piles caps and stringers	1	$	2 000 00
741 35		741 35	Post - Pile 4 of Bent 1	1	$	4 500 00
741 35		741 35	Spot replace 11 bridge ties	11	$	2,200 00
741 35		741 35	Spot replace 11 bridge ties	11	$	2 200 00
741 74		741 74	In-place preservatively treat piles caps and stringers	1	$	2 000 00
741 74		741 74	Replace - Stringer 8 in Span 2 (horizontal shear)	1	$	5 100 00
741 74		741 74	Post - Pile 4 of Bent 1	1	$	4 500 00
741 74		741 74	Add ballast and tamp up both approaches	2	$	8 000 00
742 05		742 05	Shim or Epoxy - Over Pile 3 of Bent 3	1	$	500 00
742 05		742 05	Post - Post 5 of Bent 3	1	$	4 500 00
742 24		742 24	Replace all bridge ties	120	$	24 000 00
742 24		742 24	Replace - Cap on Bent 4		$	4 600 00
742 24		742 24	In-place preservatively treat piles caps and stringers	1	$	2 000 00

742 24		742 24	Replace - Both Sway Braces on Bent 6	2	$	1 000 00
742 24		742 24	Post - Pile 6 of Bent 5 Pile 3 of Bent 6	2	$	9 000 00
742 72		742 72	In place preservatively treat piles caps and stringers	1	$	2,000 00
742 72		742 72	Post - Pile 1 of Bent 7 Pile 7 of Bent 7 Post 5 of Bent 8	3	$	13 500 00
742 72		742 72	Re-set Stringer 9 in Span 7 (helper)	1	$	5 000 00
742 72		742 72	Spot replace 5 bridge ties	5	$	1 000 00
742 72		742 72	Replace - Cap on Bent 5	1	$	4 600 00
742 72		742 72	Add ballast and tamp up South approach	1	$	4 000 00
742 72		742 72	Replace - Stringer 2 in Spans 1 & 2 - Stringer 1 in Spans 5 & 6 Stringer 10 in Span 5	5	$	25 500 00
742 95		742 95	Replace - Stringer 1 in Span 3		$	5 100 00
742 95		742 95	In-place preservatively treat piles caps and stringers	1	$	2 000 00
742 95		742 95	Post - Pile 1 of Bent 3	1	$	4 500 00
743 2		743 2	Post - Pile 1 of Bent 1	1	$	4 500 00
743 2		743 2	In-place preservatively treat piles caps and stringers	1	$	2 000 00
743 73		743 73	In-place preservatively treat piles caps and stringers	1	$	2 000 00
743 73		743 73	Post - Pile 2 of Bent 6 - Pile 2 of Bent 7	2	$	9 000 00
743 73		743 73	Replace - Stringer 1 in Span 1 - Stringer 7 in Span 3 - Stringer 5 in Span 4 - Stringer 5 in Span 5	4	$	20 400 00
743 88		743 88	In-place preservatively treat piles caps and stringers	1	$	2 000 00
743 88		743 88	Post - Pile 1 of Bent 1 - Pile 5 of Bent 2	2	$	9 000 00
743 88		743 88	Replace - Stringer 6 in Span 5 - Stringer 1 in Span 7 - Stringer 1 in Span 8	3	$	15 300 00
743 97		743 97	Replace - Stringer 1 in Span 2 - Stringer 8 in Span 3 - Stringer 8 in Span 4 - Stringer 1 in Span 6	4	$	20 400 00
743 97		743 97	In-place preservatively treat piles caps and stringers	1	$	2 000 00
743 97		743 97	Replace - Cap on Bent 1 - Cap on Bent 3	2	$	9 200 00
743 97		743 97	Post - Pile 3 of Bent 3 - Pile 1 of Bent 8	2	$	9 000 00
743 97		743 97	Add ballast and tamp up both approaches	2	$	9 000 00
744 24		744 24	In-place preservatively treat piles caps and stringers	1	$	2 000 00
744 24		744 24	Post - Pile 4 of Bent 2 (split) - Pile 1 of Bent 4 - Pile 2 of Bent 8	3	$	13 500 00
744 44		744 44	In-place preservatively treat piles caps and stringers		$	2 000 00
744 7		744 7	In-place preservatively treat piles caps and stringers	1	$	2 000 00
744 7		744 7	Post - Pile 5 of Bent 1 - Pile 5 of Bent 6	2	$	9 000 00
744 7		744 7	Replace - Stringer 12 in Span 4	1	$	5 100 00
744 83		744 83	In-place preservatively treat piles caps and stringers	1	$	2 000 00
744 83		744 83	Replace - Sway Braces on Bent 3	2	$	1 000 00

744 83		744 83	Replace - Stringer 2 in Span 3	1	$	5 100 00
744 83		744 83	Replace - 1 section of West ballast retainer in Span 2	1	$	400 00
748 44		748 44	Add ballast and tamp up both approaches	2	$	8 000 00
748 44		748 44	Post Pile 5 of Bent 2	1	$	4 500 00
748 44		748 44	In-place preservatively treat piles caps and stringers	1	$	2 000 00
748 44		748 44	Replace - Both Sway braces on Bent 2	2	$	1 000 00
748 68		748 68	Add ballast and tamp up both approaches	2	$	8 000 00
748 68		748 68	Replace - Cap on Bent 6 (mechanical crushing under stringers)	1	$	4 600 00
748 68		748 68	In-place preservatively treat piles and caps	1	$	2 000 00
748 68		748 68	Replace - Stringer 8 in Span 1 - stringer 4 in Span 5	2	$	10 200 00
750 46	North Approach	750 46	Replace - Stringer 4 in Span 23	1	$	5 100 00
751 02		751 02	Shim or Epoxy - Over Pile 4 of Bent 11B	1	$	500 00
751 02		751 02	Spot replace 1 bridge tie	1	$	200 00
751 02		751 02	Post - Pile 1 of Bent 5B - Post 2 of Bent 7B	2	$	9 000 00
751 02		751 02	Add ballast and tamp up both approaches	2	$	8 000 00
752 99		752 99	Replace - 2 Tower Braces in Span 3 - Tower Braces 1 & 2 in Span 11	4	$	2 000 00
752 99		752 99	In-place preservatively treat piles and caps	1	$	2 000 00
752 99		752 99	Post - Pile 5 of Bent 2 - Pile 2 of Bent 9 - Pile 2 of Bent 12 - Pile 1 of Bent 13	4	$	18 000 00
753 48		753 48	Post - Pile 1 of Bent 4 - Pile 1 of Bent 7	2	$	9 000 00
753 48		753 48	Shim or Epoxy - Over Pile 2 of Bent 3	1	$	500 00
753 48		753 48	In-place preservatively treat piles and caps	1	$	2 000 00
753 48		753 48	Replace - One section of Guard timber	25	$	1 250 00
753 97		753 48	Replace - Lower Flange angles over bearing areas & bottom cover plates	1	$	5 000 00
753 97		753 48	Remove - Debris from bottom flange angles	1	$	1 500 00
755 63		753 97	Replace - Stringer 3 in Span 3 - Stringer 7 in Span 3	2	$	10 200 00
755 63		753 97	In-place preservatively treat piles caps and stringers	1	$	2 000 00
755 63		755 63	Post - Pile 5 of Bent 5 - Pile 1 of Bent 6	2	$	9 000 00
756 13		756 13	In-place preservatively treat piles sills and caps	1	$	2 000 00
756 55		756 55	In-place preservatively treat piles caps and stringers	1	$	2 000 00
756 55		756 55	Post - Pile 2 of Bent 1	1	$	4 500 00
756 55		756 55	Replace - Subcap on Bent 4 (slight crushing)	1	$	4 600 00
756 55		756 55	Replace - Stringer 1 in Span 1 - Stringer 8 in Span 2 - Stringer 8 in Span 3	3	$	15 300 00
757 37		757 37	Spot replace 2 bridge ties	2	$	400 00
757 37		757 37	Replace - Stringer 6 in Span 3 - Stringer 8 in Span 5	2	$	10 200 00
757 37		757 37	In-place preservatively treat piles caps and stringers	1	$	2 000 00
761 13		761 13	Replace - Stringer 1 in Span 1 (crushing)	1	$	5 100 00

Recommended Work – Priority 4
By Bridge

RAILROAD	LINE	MILE POST	PRIORITY 4 COST	10% Mobilization	40% Contingency	PE&CE	Total
CORP	CO	652 21	$ 24 500 00	$ 2 450 00	$ 9 800 00	$ 2 450 00	$ 39 200 00
CORP	CO	652 58	$ -	$ -	$ -	$ -	$ -
CORP	CO	656 12	$ 34,000 00	$ 3 400 00	$ 13 600 00	$ 8 500 00	$ 59 500 00
CORP	CO	657 12	$ 20 600 00	$ 2 060 00	$ 8 240 00	$ 2 060 00	$ 32 960 00
CORP	CO	657 96	$ 18 200 00	$ 1 820 00	$ 7 280 00	$ 1 820 00	$ 29 120 00
CORP	CO	658 17	$ 10,700 00	$ 1 070 00	$ 4 280 00	$ 1,070 00	$ 17,120 00
CORP	CO	660 89	$ 16,300 00	$ 1 630 00	$ 6,520 00	$ 1,630 00	$ 26,080 00
CORP	CO	661 28	$ 65 800 00	$ 6 580 00	$ 26 320 00	$ 6,580 00	$ 105 280 00
CORP	CO	661 73	$ 32 900 00	$ 3 290 00	$ 13 160 00	$ 3,290 00	$ 52 640 00
CORP	CO	662 59	$ 54,600 00	$ 5,460 00	$ 21 840 00	$ 5 460 00	$ 87 360 00
CORP	CO	664 00	$ 3,000 00	$ 300 00	$ 1 200 00	$ 750 00	$ 5 250 00
CORP	CO	664 62	$ 43 800 00	$ 4 380 00	$ 17 520 00	$ 10 950 00	$ 76,650 00
CORP	CO	664 85	$ 17 600 00	$ 1 760 00	$ 7 040 00	$ 4 400 00	$ 30 800 00
CORP	CO	665 49	$ 13,700 00	$ 1 370 00	$ 5 480 00	$ 3 425 00	$ 23 975 00
CORP	CO	666 21	$ 10,000 00	$ 1,000 00	$ 4,000 00	$ 1,000 00	$ 16 000 00
CORP	CO	667 28	$ 12 600 00	$ 1 260 00	$ 5 040 00	$ 1,260 00	$ 20 160 00
CORP	CO	667 40	$ 44 200 00	$ 4 420 00	$ 17 680 00	$ 4,420 00	$ 70,720 00
CORP	CO	668 50	$ 34,300 00	$ 3 430 00	$ 13 720 00	$ 3 430 00	$ 54,880 00
CORP	CO	671 89	$ 42,400 00	$ 4 240 00	$ 16 960 00	$ 4 240 00	$ 67,840 00
CORP	CO	674 03	$ 11 600 00	$ 1,160 00	$ 4 640 00	$ 1 160 00	$ 18,560 00
CORP	CO	676 23	$ -	$ -	$ -	$ -	$ -
CORP	CO	677 05	$ 10 200 00	$ 1 020 00	$ 4 080 00	$ 1 020 00	$ 16,320 00
CORP	CO	677 80	$ 18,200 00	$ 1,820 00	$ 7,280 00	$ 1,820 00	$ 29 120 00
CORP	CO	678 43	$ 33 300 00	$ 3 330 00	$ 13 320 00	$ 3 330 00	$ 53 280 00
CORP	CO	680 17	$ 14 000 00	$ 1,400 00	$ 5,600 00	$ 3,500 00	$ 24,500 00
CORP	CO	680 46	$ 1 500 00	$ 150 00	$ 600 00	$ 150 00	$ 2 400 00
CORP	CO	680 77	$ -	$ -	$ -	$ -	$ -
CORP	CO	681 05	$ 51,500 00	$ 5,150 00	$ 20 600 00	$ 5,150 00	$ 82 400 00
CORP	CO	681 45	$ 1,500 00	$ 150 00	$ 600 00	$ 150 00	$ 2,400 00
CORP	CO	682 18	$ 72 500 00	$ 7 250 00	$ 29 000 00	$ 7 250 00	$ 116,000 00
CORP	CO	683 36	$ 5,800 00	$ 580 00	$ 2,320 00	$ 1 450 00	$ 10,150 00
CORP	CO	687 03	$ 20 200 00	$ 2 020 00	$ 8 080 00	$ 2,020 00	$ 32,320 00
CORP	CO	687 88	$ 16,100 00	$ 1 610 00	$ 6 440 00	$ 1,610 00	$ 25,760 00
CORP	CO	689 23	$ 2 000 00	$ 200 00	$ 800 00	$ 200 00	$ 3 200 00
CORP	CO	690 47	$ -	$ -	$ -	$ -	$ -
CORP	CO	690 85	$ 126,200 00	$ 12,620 00	$ 50,480 00	$ 31 550 00	$ 220,850 00
CORP	CO	691 05	$ 272 000 00	$ 27,200 00	$ 108,800 00	$ 68 000 00	$ 476,000 00
CORP	CO	691 38	$ 600 00	$ 60 00	$ 240 00	$ 60 00	$ 960 00
CORP	CO	692 06	$ 8 000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12,800 00
CORP	CO	693 27	$ 8 100 00	$ 810 00	$ 3 240 00	$ 810 00	$ 12 960 00
CORP	CO	694 32	$ 72,100 00	$ 7 210 00	$ 28,840 00	$ 18 025 00	$ 126,175 00
CORP	CO	694 78	$ 463,000 00	$ 46 300 00	$ 185 200 00	$ 115 750 00	$ 810 250 00
CORP	CO	694 98	$ -	$ -	$ -	$ -	$ -
CORP	CO	696 66	$ 88 100 00	$ 8,810 00	$ 35,240 00	$ 22,025 00	$ 154 175 00
CORP	CO	700 37	$ 16 600 00	$ 1,660 00	$ 6 640 00	$ 1 660 00	$ 26 560 00
CORP	CO	702 65	$ 10 800 00	$ 1 080 00	$ 4 320 00	$ 1 080 00	$ 17 280 00
CORP	CO	702 95	$ -	$ -	$ -	$ -	$ -
CORP	CO	710 20	$ 19 300 00	$ 1 930 00	$ 7 720 00	$ 1 930 00	$ 30,880 00
CORP	CO	711 37	$ 18 800 00	$ 1,880 00	$ 7 520 00	$ 1 880 00	$ 30,080 00
CORP	CO	711 67	$ 21,500 00	$ 2,150 00	$ 8 600 00	$ 2 150 00	$ 34 400 00
CORP	CO	712 16	$ 26 700 00	$ 2,670 00	$ 10 680 00	$ 2 670 00	$ 42,720 00
CORP	CO	712 80	$ 12,000 00	$ 1,200 00	$ 4 800 00	$ 1 200 00	$ 19,200 00
CORP	CO	716 40	$ 505,400 00	$ 50 540 00	$ 202 160 00	$ 126 350 00	$ 884 450 00
CORP	CO	718 12	$ 8 000 00	$ 800 00	$ 3 200 00	$ 800 00	$ 12,800 00
CORP	CO	719 07	$ 16,600 00	$ 1 660 00	$ 6 640 00	$ 1 660 00	$ 26 560 00

CORP	CO	719 21	$ 61 400 00	$ 6 140 00	$ 24 560 00	$ 6 140 00	$ 98 240 00
CORP	CO	724 22	$ -	$ -	$ -	$ -	$ -
CORP	CO	725 96	$ 11 000 00	$ 1 100 00	$ 4 400 00	$ 1 100 00	$ 17 600 00
CORP	CO	726 31	$ 163,000 00	$ 16 300 00	$ 65,200 00	$ 16,300 00	$ 260 800 00
CORP	CO	727 35	$ -	$ -	$ -	$ -	$ -
CORP	CO	728 51	$ 35 700 00	$ 3 570 00	$ 14 280 00	$ 3 570 00	$ 57 120 00
CORP	CO	729 04	$ 104 100 00	$ 10,410 00	$ 41 640 00	$ 10 410 00	$ 166,560 00
CORP	CO	729 17	$ -	$ -	$ -	$ -	$ -
CORP	CO	730 56	$ 235 600 00	$ 23 560 00	$ 94,240 00	$ 23,560 00	$ 376 960 00
CORP	CO	731 65	$ 485 000 00	$ 48 500 00	$ 194 000 00	$ 48 500 00	$ 776,000 00
CORP	CO	732 84	$ 137 200 00	$ 13 720 00	$ 54 880 00	$ 13 720 00	$ 219 520 00
CORP	CO	733 88	$ -	$ -	$ -	$ -	$ -
CORP	CO	733 95	$ -	$ -	$ -	$ -	$ -
CORP	CO	735 86	$ 30 800 00	$ 3 080 00	$ 12,320 00	$ 3,080 00	$ 49 280 00
CORP	CO	736 03	$ 11 000 00	$ 1 100 00	$ 4 400 00	$ 1,100 00	$ 17 600 00
CORP	CO	736 51	$ 24 700 00	$ 2,470 00	$ 9 880 00	$ 2 470 00	$ 39,520 00
CORP	CO	737 33	$ 26,900 00	$ 2,690 00	$ 10 760 00	$ 2 690 00	$ 43,040 00
CORP	CO	738 70	$ 20,600 00	$ 2,060 00	$ 8 240 00	$ 2 060 00	$ 32 960 00
CORP	CO	738 94	$ 52 000 00	$ 5,200 00	$ 20 800 00	$ 5,200 00	$ 83 200 00
CORP	CO	739 14	$ 83 000 00	$ 8 300 00	$ 33 200 00	$ 8 300 00	$ 132,800 00
CORP	CO	739 43	$ 88 500 00	$ 8 850 00	$ 35 400 00	$ 8 850 00	$ 141 600 00
CORP	CO	739 68	$ 3,156 800 00	$ 315,680 00	$ 1,262 720 00	$ 789 200 00	$ 5,524,400 00
CORP	CO	740 25	$ 19,500 00	$ 1 950 00	$ 7 800 00	$ 1 950 00	$ 31,200 00
CORP	CO	740 84	$ -	$ -	$ -	$ -	$ -
CORP	CO	741 35	$ 21 100 00	$ 2 110 00	$ 8,440 00	$ 2 110 00	$ 33 760 00
CORP	CO	741 74	$ 19 600 00	$ 1 960 00	$ 7,840 00	$ 1,960 00	$ 31 360 00
CORP	CO	742 05	$ 5 000 00	$ 500 00	$ 2,000 00	$ 500 00	$ 8,000 00
CORP	CO	742 24	$ 40,600 00	$ 4,060 00	$ 16 240 00	$ 4 060 00	$ 64 960 00
CORP	CO	742 72	$ 55 700 00	$ 5 570 00	$ 22,280 00	$ 5,570 00	$ 89 120 00
CORP	CO	742 95	$ 11 600 00	$ 1,160 00	$ 4 640 00	$ 1 160 00	$ 18,560 00
CORP	CO	743 20	$ 6 500 00	$ 650 00	$ 2 600 00	$ 650 00	$ 10 400 00
CORP	CO	743 73	$ 31,400 00	$ 3,140 00	$ 12,560 00	$ 3,140 00	$ 50,240 00
CORP	CO	743 88	$ 26 300 00	$ 2,630 00	$ 10 520 00	$ 2,630 00	$ 42,080 00
CORP	CO	743 97	$ 48 600 00	$ 4,860 00	$ 19 440 00	$ 4 860 00	$ 77 760 00
CORP	CO	744 24	$ 15 500 00	$ 1 550 00	$ 6,200 00	$ 1,550 00	$ 24 800 00
CORP	CO	744 44	$ 2 000 00	$ 200 00	$ 800 00	$ 200 00	$ 3 200 00
CORP	CO	744 70	$ 16 100 00	$ 1 610 00	$ 6 440 00	$ 1 610 00	$ 25 760 00
CORP	CO	744 83	$ 8,500 00	$ 850 00	$ 3,400 00	$ 850 00	$ 13 600 00
CORP	CO	748 06	$ -	$ -	$ -	$ -	$ -
CORP	CO	748 44	$ 15 500 00	$ 1 550 00	$ 6 200 00	$ 1,550 00	$ 24 800 00
CORP	CO	748 68	$ 24 800 00	$ 2,480 00	$ 9,920 00	$ 2 480 00	$ 39 680 00
CORP	CO	749 89	$ -	$ -	$ -	$ -	$ -
CORP	CO	750 46	$ 5 100 00	$ 510 00	$ 2 040 00	$ 510 00	$ 8 160 00
CORP	CO	751 02	$ 17 700 00	$ 1,770 00	$ 7 080 00	$ 1 770 00	$ 28 320 00
CORP	CO	752 99	$ 22 000 00	$ 2 200 00	$ 8 800 00	$ 2 200 00	$ 35,200 00
CORP	CO	753 48	$ 12,750 00	$ 1,275 00	$ 5,100 00	$ 1 275 00	$ 20 400 00
CORP	CO	753 97	$ 6 500 00	$ 650 00	$ 2 600 00	$ 650 00	$ 10 400 00
CORP	CO	755 63	$ 21 200 00	$ 2 120 00	$ 8 480 00	$ 2,120 00	$ 33 920 00
CORP	CO	756 13	$ 2 000 00	$ 200 00	$ 800 00	$ 200 00	$ 3 200 00
CORP	CO	756 55	$ 26 400 00	$ 2 640 00	$ 10 560 00	$ 2 640 00	$ 42 240 00
CORP	CO	757 37	$ 12 600 00	$ 1 260 00	$ 5 040 00	$ 1,260 00	$ 20,160 00
CORP	CO	761 13	$ 5,100 00	$ 510 00	$ 2,040 00	$ 510 00	$ 8 160 00
						Subtotal	$ 13 007 685 00
						Estimated Increased Repair Costs for 6 Months of Additional Deterioration to Projected Ownership Transfer March 2009	$ 442,575 00
						Total	$ 13 450 260 00

Unit Costs and Abbreviations for Rehabilitation and Replacement Costs

ABBREVIATIONS

AR	Arch
BD	Ballast deck trestle
BM	Beam span
CTG	Concrete "T" girder
CB	Concrete box
CBG	Concrete box girder
CS	Concrete slab
DPT	Deck pinned truss
DPG	Deck plate girder
DPLG	Deck plate lattice girder
DRT	Deck riveted truss
FT	Frame trestle-all timber
OD	Open deck
PT	Pile trestle-all timber
PCI	Prestressed concrete "I" beam
PCB	Prestressed concrete box
PCS	Prestressed concrete slab
RCS	Reinforced concrete slab
IB	Steel "I" beam
SBS	Steel beam span
SPT	Steel pile trestle
TPCT	Thru pinned connected truss
TPT	Thru pinned truss
TPG	Thru plate girder
TRT	Thru riveted truss
WFB	Wide flange beam
WFBS	Wide flange beam span
WSB	Wide steel beam

REPLACEMENT COSTS

Expected span configuration	2
	Base Unit Cost ($/LF)
1 No Replacement Required	$0
2 Spans <= 50 feet	$3,500
3 Spans > 50 feet and < 100 feet	$9,000
4 Spans >= 100 feet	$15,000
5 Moveable Bridge Span	$50,000

Crossing Modifier	3
	Factors
1 Over Land	1 00
2 Over Roadway	1 05
3 Over Water	1 10

Seismic Zones Modifier	3
	Factors
1 Zone 1 or 2 - single span	1 00
2 Zone 1 or 2 - multiple spans	1 05
3 Zone 3 or 4	1 05

Construction Access Platform	1
	Additional Cost ($)
1 No Construction Access Platform Required	$0
2 Construction Access Platform Required	$100,000

Bridge Removal	3
	Unit Cost ($/LF)
1 Not Applicable	$0
2 Standard	$300
3 Standard with lead paint	$750
4 Truss Removal < 125ft	$1,250
5 Truss Removal >= 125ft	$4,200
6 Tall (over water)	$625
7 Over live traffic	$625

REHABILITATION COSTS

Rehabilitation of Timber Trestle		1
		Base Unit Cost ($/LF)
1	No Rehabilitation Required	$0
2	Rehabilitation Required	$2,000

Rehabilitation of Steel		2
Steel Trestle		
		Base Unit Cost ($/LF)
1	No Rehabilitation Required	$0
2	Rehabilitation Required	$3,000
Steel Girder/Beam		1
1	No Rehabilitation Required	$0
2	Paint Only	$1,500
3	Paint and Rehabilitation	$4,000
Steel Truss		1
1	No Rehabilitation Required	$0
2	Paint Only	$2,000
3	Paint and Rehabilitation	$5,000

Seismic Steel Rehab Modifier		2
		Factors
1	No Seismic Retrofit Required	1 00
2	Seismic Retrofit Required	1 05

Rehabilitation of Concrete		1
		Base Unit Cost ($/LF)
1	No Rehabilitation Required	$0
2	Rehabilitation Required	$3,000

Seismic Concrete Rehab Modifier		1
		Factors
1	No Seismic Retrofit Required	1 00
2	Seismic Retrofit Required	1 05

Rehabilitation and Replacement Calculations for Costs

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at the location, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
RP	CO	22	2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I		15 ft	4	
II				
III				
IV				

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimation Factor in Construction	.0009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Proposed span configuration

I	Spans <= 40 feet	Base Unit Cost	=	$3,900	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Not Applicable	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot
Timber Trestle Length =	120	ft		

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	662.21	120	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$52,110
Segment I Cost	$4,043 /LF		120 ft	$485,100
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		120 ft	$36,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$573,210**
Contingencies		40%		$229,284
Construction Engineering		5%		$28,661
2009 Total Before Inflation				**$831,155**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$831,155**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$24,000
Timber Trestle	$2,000 /LF		120 ft	$240,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$264,000**
Contingencies		40%		$105,600
Construction Engineering		5%		$13,200
2009 Total Before Inflation				**$382,800**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$382,800**

Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		5%		$28,661
Rehabilitation		5%		$13,200

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$859,815**
Rehabilitation Total	**$396,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line		Mile Post	Date
	CNP		CO	MP 2.58	3/20/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
	Timber Trestle	8 ft	1	8 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	1.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	1%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,000	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Steel Location Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 1 or 2 - Simple spans	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

	Standard	Unit Cost =	$300	per foot
	Not Applicable	Unit Cost =	$0	per foot
	Not Applicable	Unit Cost =	$0	per foot
	Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required		Base Unit Cost =	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required		Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	652.38	8	9/29/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$3,474
Segment I Cost	$4,043 /LF		8 ft	$32,340
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		8 ft	$2,400
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$38,214**
Contingencies		40%		$15,286
Construction Engineering		5%		$1,911
2009 Total Before Inflation				**$55,410**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$55,410**

REHABILITATION				
Mobilization		10%		$0
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$0**
Contingencies		40%		$0
Construction Engineering		5%		$0
2009 Total Before Inflation				**$0**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$0**

Project Engineering				
Replacement		5%		$1,911
Rehabilitation		5%		$0

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$57,321**
Rehabilitation Total	**$0**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following into the yellow cells.

Existing Bridge Inputs

Railroad:		Line:	MP:	Date:
	CORP	CO	MP 12	9/29/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck Thru metal truss	100 ft	1	100 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Preliminary Engineering	0%
Project Engineering	15%

REPLACEMENT INPUTS

Assumed span configuration

I	Spans <= 100 feet	Base Unit Cost =	$18,000	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 1 or 2 single span	Increase Factor =	1.00

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost =	$100,000

Bridge Removal

Truss Removal - 1,250	Unit Cost =	$1,250	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Rehabilitation of Steel

Steel Trestle: No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam: No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss: Paint and Rehabilitation	Base Unit Cost =	$5,000	per foot

Truss Length = 100 ft

Modification Factor

Seismic Steel Rehab: Seismic Retrofit Required	Increase Factor =	1.05	

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab: No Seismic Retrofit Required	Increase Factor =	1.00	

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	656 12	100	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$187,500
Segment I Cost	$16 500 /LF		100 ft	$1,650 000
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100,000			$100 000
Removal I Cost	$1 250 /LF		100 ft	$125,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$2,062,500**
Contingencies		40%		$825,000
Construction Engineering		10%		$206 250
2009 Total Before Inflation				**$3,093,750**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$3,093,750**
REHABILITATION				
Mobilization		10%		$50,000
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$5,000 /LF		100 ft	$500 000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$550,000**
Contingencies		40%		$220,000
Construction Engineering		10%		$55,000
2009 Total Before Inflation				**$825,000**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$825,000**
Project Engineering				
Replacement		15%		$309,375
Rehabilitation		15%		$82 500
OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION				
Replacement Total				**$3,403,125**
Rehabilitation Total				**$907,500**

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Mile Post	Date
CORP	MP	757.12	9/24/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Timber deck Pile bents or timber	15 ft	8	120 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	15%
Inflation Rate	3.00%
Years until Year of Construction	1000
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,500	per foot

Timber Trestle Length = 120 ft

Rehabilitation of Steel

Steel Trestle: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss: No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab: No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab: No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	057.12	120	9/25/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$52,110
Segment I Cost	$4,043 /LF		120 ft	$485,100
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		120 ft	$36,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$573,210**
Contingencies		40%		$229,284
Construction Engineering		5%		$28,661
2009 Total Before Inflation				**$831,155**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$831,155**

REHABILITATION				
Mobilization		10%		$24,000
Timber Trestle	$2,000 /LF		120 ft	$240,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$264,000**
Contingencies		40%		$105,600
Construction Engineering		5%		$13,200
2009 Total Before Inflation				**$382,800**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$382,800**

Project Engineering				
Replacement		5%		$28,661
Rehabilitation		5%		$13,200

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$859,815**
Rehabilitation Total	**$396,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following information in the yellow cells

Existing Bridge Inputs

Rail Line	CORP	Line	CO	Mile Post	Date	9/26/2008
Segment	Spans >= 40 feet	Per cent of Total	Total Length	Number of Spans	Total Length	
I			50 ft	2	100 ft	
II					0 ft	
III					0 ft	
IV					0 ft	

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected superstructure

I	Spans >= 40 feet	Base Unit Cost	=	$3,000	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 50 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$3	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	657.96	30	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$13,028
Segment I Cost	$4,043 /LF		30 ft	$121,275
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		30 ft	$9,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$143,303**
Contingencies		40%		$57,321
Construction Engineering		5%		$7,165
2009 Total Before Inflation				**$207,789**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$207,789**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$6,000
Timber Trestle	$2,000 /LF		30 ft	$60,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$66,000**
Contingencies		40%		$26,400
Construction Engineering		5%		$3,300
2009 Total Before Inflation				**$95,700**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$95,700**

Project Engineering				
Replacement		5%		$7,165
Rehabilitation		5%		$3,300

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$214,954**
Rehabilitation Total	**$99,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CORP	CC	458.17	9/25/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	[illegible]	15 ft	8	120 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 40 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard with fuel tax	Unit Cost	=	$750	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Rehabilitation of Steel

Steel Trestle	Rehabilitation Required	Base Unit Cost	=	$3,000	per foot
	Steel Trestle Length = 120 ft				
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Rehab Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required		Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Rehab Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	658 17	120	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$57 510
Segment I Cost	$4,043 /LF		120 ft	$485,100
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$750 /LF		120 ft	$90,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$632,610**
Contingencies		40%		$253,044
Construction Engineering		5%		$31 631
2009 Total Before Inflation				**$917,285**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$917,285**

REHABILITATION				
Mobilization		10%		$36,000
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$3,000 /LF		120 ft	$360 000
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$396,000**
Contingencies		40%		$158,400
Construction Engineering		5%		$19,800
2009 Total Before Inflation				**$574,200**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$574,200**

Project Engineering				
Replacement		5%		$31 631
Rehabilitation		5%		$19,800

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$948,915**
Rehabilitation Total	**$594,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CRP	CO	140.99	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Timber Trestle	15 ft	6	90 ft
II				ft
III				ft
IV				ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	1.5%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot
Timber Trestle Length =	90	ft		

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Rehab Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	660 89	90	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$39 083
Segment I Cost	$4 043 /LF		90 ft	$363,825
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		90 ft	$27 000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$429,908**
Contingencies		40%		$171,963
Construction Engineering		5%		$21,495
2009 Total Before Inflation				**$623,366**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$623,366**

REHABILITATION				
Mobilization		10%		$18,000
Timber Trestle	$2,000 /LF		90 ft	$180 000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$198,000**
Contingencies		40%		$79,200
Construction Engineering		5%		$9,900
2009 Total Before Inflation				**$287,100**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$287,100**

Project Engineering				
Replacement		5%		$21 495
Rehabilitation		5%		$9,900

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$644,861**
Rehabilitation Total	**$297,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells

Existing Bridge Inputs

Railroad		Line		Mile Post		Date
	L SRP		CO	1.61 28		9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	[illegible]	15 ft	6	90 ft
II	[illegible]	5.3 ft	[illegible]	61 ft
III	[illegible]	5 ft	5	[illegible]
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.50%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	= $3,500	per foot
II	Spans > 50 feet and < 100 feet	Base Unit Cost	= $9,000	per foot
III	Spans >= 100 feet	Base Unit Cost	= $3,500	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor	= 1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	= $0

Bridge Removal

Standard	Unit Cost	= $300	per foot
Standard with lead paint	Unit Cost	= $700	per foot
Standard	Unit Cost	= $300	per foot
Not Applicable	Unit Cost	= $0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required		Base Unit Cost	= $2,000	per foot
	Timber Trestle Length = 180 ft			

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	= $4,000	per foot
	Steel Girder/Beam Length = 63 ft			
Steel Truss	No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	= 1.05

Rehabilitation of Concrete

No Rehabilitation Required		Base Unit Cost	= $0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	60.28	243	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$148,379
Segment I Cost	$4,043 /LF		90 ft	$363,825
Segment II Cost	$10,395 /LF		63 ft	$654,885
Segment III Cost	$4,043 /LF		90 ft	$363,825
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		90 ft	$27,000
Removal II Cost	$750 /LF		63 ft	$47,250
Removal III Cost	$300 /LF		90 ft	$27,000
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,632,164**
Contingencies		40%		$652,865
Construction Engineering		5%		$81,608
2009 Total Before Inflation				**$2,366,637**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,366,637**
REHABILITATION				
Mobilization		10%		$61,200
Timber Trestle	$2,000 /LF		180 ft	$360,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		63 ft	$252,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$673,200**
Contingencies		40%		$269,280
Construction Engineering		5%		$33,660
2009 Total Before Inflation				**$976,140**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$976,140**
Project Engineering				
Replacement		5%		$81,608
Rehabilitation		5%		$33,660
OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION				
Replacement Total				**$2,448,245**
Rehabilitation Total				**$1,009,800**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the follow information to derive the costs

Existing Bridge Inputs

Railroad		Line		Mile Post	Date
	CORP		CO	CO 73	9/16/2008

Segment	Unit Type	Span Length	Number of Spans	Total Length
I	Open deck	Not readily available	15 ft	9
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected Useful Life/Duration

I	Spans > 50 feet	Base Unit Cost	= $3,000	per foot
II	Not Applicable	Base Unit Cost	= $0	per foot
III	Not Applicable	Base Unit Cost	= $0	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 1 or 2 - multi-span	Increase Factor	= 1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	= $0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 135 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Rehab Required	Increase Factor	= 1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$3	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Rehab Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	661.73	135	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$58,624
Segment I Cost	$4,043 /LF		135 ft	$545,738
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		135 ft	$40,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$644,861**
Contingencies		40%		$257,945
Construction Engineering		5%		$32,243
2009 Total Before Inflation				**$935,049**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$935,049**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$27,000
Timber Trestle	$2,000 /LF		135 ft	$270,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$297,000**
Contingencies		40%		$118,800
Construction Engineering		5%		$14,850
2009 Total Before Inflation				**$430,650**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$430,650**

Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		5%		$32,243
Rehabilitation		5%		$14,850

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$967,292**
Rehabilitation Total	**$445,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site input the following information into the yellow cells.

Existing Bridge Inputs

Bridge#		Line	MP	Date
	ARP	20	[illegible]	2/25/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Timber	15 ft	23	345 ft
II				0 ft
V				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans >= 50 feet	Base Unit Cost	=	$3,000	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 345 ft

Rehabilitation of Steel

Steel Trestle	No rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	652 59	345	9/25/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$149 816
Segment I Cost	$4,043 /LF		345 ft	$1,394,663
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		345 ft	$103,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,647,979**
Contingencies		40%		$659,192
Construction Engineering		5%		$82 399
2009 Total Before Inflation				**$2,389,569**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,389,569**

REHABILITATION				
Mobilization		10%		$69,000
Timber Trestle	$2,000 /LF		345 ft	$690,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$759,000**
Contingencies		40%		$303,600
Construction Engineering		5%		$37,950
2009 Total Before Inflation				**$1,100,550**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,100,550**

Project Engineering				
Replacement		5%		$82,399
Rehabilitation		5%		$37,950

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$2,471,968**
Rehabilitation Total	**$1,138,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site input the yellow cell information into the yellow cells

Existing Bridge Inputs

Railroad		Line		Mile Post	Date
	SP		CB	114.00	7/24/2008

Segment	Span Type		Span Length	Number of Spans	Segment Length
I	Open deck	Prestressed Wood	140 ft	1	150 ft
II	Ballast deck with	Treated timber stringers	140 ft	9	1350 ft
III					0 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	10%
Project Engineering	15%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 100 feet	Base Unit Cost	=	$15,000	per foot
II	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor	=	1.05

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost	=	$100,000

Bridge Removal

Truss Removal <= 150	Unit Cost	=	$1,250	per foot
Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 135 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	Paint and Rehabilitation	Base Unit Cost	=	$3,000	per foot

Truss Length = 150 ft

Modification Factor

Seismic Steel Rehab	Seismic Rehab Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Rehab Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	664 00	235	9/20/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$254 374
Segment I Cost	$17 325 /LF		100 ft	$1 732 500
Segment II Cost	$4 043 /LF		135 ft	$545 738
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100,000			$100 000
Removal I Cost	$1 250 /LF		100 ft	$125,000
Removal II Cost	$300 /LF		135 ft	$40 500
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$2,798,111**
Contingencies		40%		$1 119,245
Construction Engineering		10%		$279,811
2009 Total Before Inflation				**$4,197,167**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$4,197,167**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$77,000
Timber Trestle	$2,000 /LF		135 ft	$270,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$5,000 /LF		100 ft	$500,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$847,000**
Contingencies		40%		$338,800
Construction Engineering		10%		$84,700
2009 Total Before Inflation				**$1,270,500**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,270,500**

Project Engineering				
Replacement		15%		$419,717
Rehabilitation		15%		$127 050

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$4,616,884**
Rehabilitation Total	**$1,397,550**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells

Existing Bridge Inputs

Railroad		Line	Mile Post	Date
	CORP	CO	44.62	9/25/2008

Segment	Main Type	Main Length	Number of Spans	Total Length
I	Open deck / No trestle or timber	15 ft	6	90 ft
II	Open deck / Ties, rails and misc.	100 ft	1	100 ft
III	Open deck / No trestle or timber	15 ft	6	90 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	0%
Inflation Rate	3.00%
Estimated Year of Construction	2008
Construction Engineering	0%
Project Engineering	15%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,000	per foot
II	Spans > 50 feet	Base Unit Cost	=	$15,000	per foot
III	Spans <= 50 feet	Base Unit Cost	=	$3,000	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor	=	1.05

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost	=	$100,000

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Truss Removal > 125ft	Unit Cost	=	$1,250	per foot
Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286 000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 100 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	Paint and Rehabilitation	Base Unit Cost	=	$5,000	per foot

Truss Length = 100 ft

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	664.62	280	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$273,915
Segment I Cost	$4,043 /LF		90 ft	$363,825
Segment II Cost	$17,325 /LF		100 ft	$1,732,500
Segment III Cost	$4,043 /LF		90 ft	$363,825
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100,000			$100,000
Removal I Cost	$300 /LF		90 ft	$27,000
Removal II Cost	$1,250 /LF		100 ft	$125,000
Removal III Cost	$300 /LF		90 ft	$27,000
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$3,013,065**
Contingencies		40%		$1,205,226
Construction Engineering		10%		$301,307
2009 Total Before Inflation				**$4,519,598**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$4,519,598**

REHABILITATION				
Mobilization		10%		$86,000
Timber Trestle	$2,000 /LF		180 ft	$360,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$5,000 /LF		100 ft	$500,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$946,000**
Contingencies		40%		$378,400
Construction Engineering		10%		$94,600
2009 Total Before Inflation				**$1,419,000**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,419,000**

Project Engineering				
Replacement		15%		$451,960
Rehabilitation		15%		$141,900

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$4,971,557**
Rehabilitation Total	**$1,560,900**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular mile post enter the following information in the yellow cells.

Existing Bridge Inputs

Railroad	CORP	Line	CO	Mile Post,	684.85	Date	9/24/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
I	Open deck	Pile trestle or similar	5 ft	2	10 ft
II	Open deck	Thru metal truss	100 ft	1	100 ft
III	Open deck	Pile trestle or similar	15 ft	5	75 ft
IV					0 ft

Cost Inputs

Contingencies	43%
Mobilization	10%
Inflation Rate	3.00%
Present Year of Construction	2008
Construction Engineering	10%
Project Engineering	15%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Spans >= 100 feet	Base Unit Cost	=	$15,000	per foot
III	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor	=	1.05

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost	=	$100,000

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Truss Removal > 1250	Unit Cost	=	$1,200	per foot
Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 150 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	Paint and Rehabilitation	Base Unit Cost	=	$5,000	per foot

Truss Length = 100 ft

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Bridge Length	Date
CORP	CO	664.85	250	9/25/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$260,888
Segment I Cost	$4,043 /LF		75 ft	$303,188
Segment II Cost	$17,325 /LF		100 ft	$1 732 500
Segment III Cost	$4,043 /LF		75 ft	$303 188
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100,000			$100 000
Removal I Cost	$300 /LF		75 ft	$22,500
Removal II Cost	$1 250 /LF		100 ft	$125,000
Removal III Cost	$300 /LF		75 ft	$22,500
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$2,869,763**
Contingencies		40%		$1,147,905
Construction Engineering		10%		$286,976
2009 Total Before Inflation				**$4,304,644**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$4,304,644**

REHABILITATION				
Mobilization		10%		$80,000
Timber Trestle	$2 000 /LF		150 ft	$300,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$5,000 /LF		100 ft	$500,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$880,000**
Contingencies		40%		$352,000
Construction Engineering		10%		$88,000
2009 Total Before Inflation				**$1,320,000**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,320,000**

Project Engineering				
Replacement		15%		$430 464
Rehabilitation		15%		$132,000

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$4,735,108**
Rehabilitation Total	**$1,452,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site input the following information into the yellow cells.

Existing Bridge Inputs

Railroad			Mile Post	Date
				9/26/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
	Open deck	Pile bents or piers	15 ft	7	105 ft
	Open deck	Pile bents or piers	100 ft	1	100 ft
III	Open deck	Pile bents or piers	15 ft	6	90 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	0%
Project Engineering	15%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Spans >= 100 feet	Base Unit Cost	=	$15,000	per foot
III	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor	=	1.05

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost	=	$100,000

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Truss Removal < 125ft	Unit Cost	=	$1,250	per foot
Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 105 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	Paint and Rehabilitation	Base Unit Cost	=	$5,000	per foot

Truss Length = 100 ft

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	665.49	495	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$280,429
Segment I Cost	$4,043 /LF		105 ft	$424,463
Segment II Cost	$17,325 /LF		100 ft	$1,732,500
Segment III Cost	$4,043 /LF		90 ft	$363,825
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100,000			$100,000
Removal I Cost	$300 /LF		105 ft	$31,500
Removal II Cost	$1,250 /LF		100 ft	$125,000
Removal III Cost	$300 /LF		90 ft	$27,000
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$3,084,716**
Contingencies		40%		$1,233,887
Construction Engineering		10%		$308,472
2009 Total Before Inflation				**$4,627,074**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$4,627,074**

REHABILITATION				
Mobilization		10%		$89,000
Timber Trestle	$2,000 /LF		195 ft	$390,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$5,000 /LF		100 ft	$500,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$979,000**
Contingencies		40%		$391,600
Construction Engineering		10%		$97,900
2009 Total Before Inflation				**$1,468,500**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,468,500**

Project Engineering				
Replacement		15%		$462,707
Rehabilitation		15%		$146,850

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$5,089,782**
Rehabilitation Total	**$1,615,350**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge that is present, enter the following information on the appropriate input cells.

Existing Bridge Inputs

Rail Unit	Line	Mile Post	Date
CSAP	CO	000.21	9/29/2008

Span Unit	Span Type	Typical Length	Number of Spans	Total Length
I	Ballasted Deck	15 ft	4	60 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Escalation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 40 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over roadway	Increase Factor	=	1.05
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Over live traffic	Unit Cost	=	$625	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 60 ft

Rehabilitation of Steel

Steel Trestle: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss: No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab: No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab: No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	666.21	60	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$26,903
Segment I Cost	$3,859 /LF		60 ft	$231,525
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$625 /LF		60 ft	$37,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$295,928**
Contingencies		40%		$118,371
Construction Engineering		5%		$14,796
2009 Total Before Inflation				**$429,095**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$429,095**

REHABILITATION				
Mobilization		10%		$12,000
Timber Trestle	$2,000 /LF		60 ft	$120,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$132,000**
Contingencies		40%		$52,800
Construction Engineering		5%		$6,600
2009 Total Before Inflation				**$191,400**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$191,400**

Project Engineering				
Replacement		5%		$14,796
Rehabilitation		5%		$6,600

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$443,891**
Rehabilitation Total	**$198,000**

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad:				Mile Post:	Date:
	TMP		CO	AS 28	8/15/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
	Open Deck	5 ft	5	25 ft
I				0 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingency	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Open < 20 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 75 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel GirderBeam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	667.28	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32,569
Segment I Cost	$4,043 /LF		75 ft	$303,188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**

REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2,000 /LF		75 ft	$150,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**

Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8,250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$537,384**
Rehabilitation Total	**$247,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells

Existing Bridge Inputs

Railroad		Line		Mile Post		Date
	CORP		CO		667.40	9/26/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
I	Open deck	Pile bents all timber	15 ft	6	90 ft
II	Open deck	Deck plate girder	40 ft	4	160 ft
III	Open deck	Pile bents all timber	15 ft	3	45 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2008
Construction Engineering	5%
Design Engineering	7%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
III	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Standard with sub pier	Unit Cost	=	$750	per foot
Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 135 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot

Steel Girder/Beam Length = 160 ft

Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	= 1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	667.40	295	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$135,304
Segment I Cost	$4,043 /LF		90 ft	$363,825
Segment II Cost	$4,043 /LF		160 ft	$646,800
Segment III Cost	$4,043 /LF		45 ft	$181,913
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		90 ft	$27,000
Removal II Cost	$750 /LF		160 ft	$120,000
Removal III Cost	$300 /LF		45 ft	$13,500
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,488,341**
Contingencies		40%		$595,337
Construction Engineering		5%		$74,417
2009 Total Before Inflation				**$2,158,095**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,158,095**

REHABILITATION				
Mobilization		10%		$91,000
Timber Trestle	$2,000 /LF		135 ft	$270,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		160 ft	$640,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,001,000**
Contingencies		40%		$400,400
Construction Engineering		5%		$50,050
2009 Total Before Inflation				**$1,451,450**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,451,450**

Project Engineering				
Replacement		5%		$74,417
Rehabilitation		5%		$50,050

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$2,232,512**
Rehabilitation Total	**$1,501,500**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site input the following information into the yellow cells.

Existing Bridge Inputs

Railroad:	PCRP	Line:	CO	Mile Post:	Date: 9/25/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
I	[illegible]	No spans at water	49	11	541
II	[illegible]	Deck plate girder	41.9	3	1,401
III	[illegible]	No spans at water	49	8	401
IV					0

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	1.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Inspected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
III	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor	= 1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	= $0

Bridge Removal

Tall (over water)	Unit Cost	=	$825	per foot
Standard with lead paint	Unit Cost	=	$750	per foot
Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 244 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot

Steel Girder/Beam Length = 120 ft

Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	= 1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CCRP	CO	068.50	364	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$168,472
Segment I Cost	$4,043 /LF		154 ft	$622,545
Segment II Cost	$4,043 /LF		120 ft	$485,100
Segment III Cost	$4,043 /LF		90 ft	$363,825
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$625 /LF		154 ft	$96,250
Removal II Cost	$750 /LF		120 ft	$90,000
Removal III Cost	$300 /LF		90 ft	$27,000
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,853,192**
Contingencies		40%		$741,277
Construction Engineering		5%		$92,660
2009 Total Before Inflation				**$2,687,128**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,687,128**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$96,800
Timber Trestle	$2,000 /LF		244 ft	$488,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		120 ft	$480,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,064,800**
Contingencies		40%		$425,920
Construction Engineering		5%		$53,240
2009 Total Before Inflation				**$1,543,960**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,543,960**

Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		5%		$92,660
Rehabilitation		5%		$53,240

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$2,779,788**
Rehabilitation Total	**$1,597,200**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular mile, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
[illegible] RR	LO	[illegible]	3/26/2008

Segment	Span Type	Typical Span Length	Number of Spans	Total Length
I	Open deck	15 ft	6	[illegible] ft
II				[illegible] ft
III				0 ft
V				11

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
V	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Roadway	Increase Factor =	1.05	
Seismic Zone	Zone 1 or 2 - Multiple spans	Increase Factor =	1.05	

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0	

Bridge Removal

Open on Trestle	Unit Cost =	$625	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot
Timber Trestle Length =	90	ft		

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Rehab Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Rehab Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	0/1.89	90	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$40,354
Segment I Cost	$3,859 /LF		90 ft	$347,288
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$625 /LF		90 ft	$56,250
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$443,891**
Contingencies		40%		$177,557
Construction Engineering		5%		$22,195
2009 Total Before Inflation				**$643,642**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$643,642**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$18,000
Timber Trestle	$2,000 /LF		90 ft	$180,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$198,000**
Contingencies		40%		$79,200
Construction Engineering		5%		$9,900
2009 Total Before Inflation				**$287,100**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$287,100**

Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		5%		$22,195
Rehabilitation		5%		$9,900

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$665,837**
Rehabilitation Total	**$297,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site input the following information into the yellow cells

Existing Bridge Inputs

Railroad		Line		Mile Post	Date
	[illegible]		CO	674.03	9/24/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	[illegible]	15 ft	2	30 ft
II				[illegible] ft
III				[illegible] ft
IV				0 ft

Cost Inputs

[illegible]	40%
Mobilization	5%
Inflation Rate	100%
Estimated Year of Crossing Ion	000
[illegible] Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,000	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Repair Rehab Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 30 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	674.03	30	9/25/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$13,028
Segment I Cost	$4,043 /LF		30 ft	$121,275
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		30 ft	$9,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$143,303**
Contingencies		40%		$57,321
Construction Engineering		5%		$7,165
2009 Total Before Inflation				**$207,789**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$207,789**

REHABILITATION				
Mobilization		10%		$6,000
Timber Trestle	$2,000 /LF		30 ft	$60,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$66,000**
Contingencies		40%		$26,400
Construction Engineering		5%		$3,300
2009 Total Before Inflation				**$95,700**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$95,700**

Project Engineering				
Replacement		5%		$7,165
Rehabilitation		5%		$3,300

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$214,954**
Rehabilitation Total	**$99,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad:		Mile Post:	Date:

Segment	Span Type	Span Length	Number of Spans	Total Length
I	open deck / ballast deck	80 ft	1	80 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingency	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans > 40 feet and < 100 feet	Base Unit Cost	=	$9,000	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 - single span	Increase Factor	=	1.00

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard with lead paint	Unit Cost	=	$750	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot
	Steel Girder/Beam Length = 80 ft				
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	676 23	60	9/25/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$63 900
Segment I Cost	$9 900 /LF		60 ft	$594 000
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$750 /LF		60 ft	$45,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$702,900**
Contingencies		40%		$281,160
Construction Engineering		5%		$35 145
2009 Total Before Inflation				**$1,019,205**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$1,019,205**
REHABILITATION				
Mobilization		10%		$24 000
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		60 ft	$240 000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$264,000**
Contingencies		40%		$105,600
Construction Engineering		5%		$13,200
2009 Total Before Inflation				**$382,800**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$382,800**
Project Engineering				
Replacement		5%		$35,145
Rehabilitation		5%		$13 200

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$1,054,350**
Rehabilitation Total	**$396,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge in a particular area, input the following information in the yellow cells.

Existing Bridge Inputs

Segment	Span Type	Span Length	Number of Spans	Total Length
	per deck	feet or meters	#	ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

II	Spans < 50 feet	Base Unit Cost	= $3,500	per foot
III	Not Applicable	Base Unit Cost	= $0	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor	= 1.05

Construction Access Platform

No Construction Access Platform Required		Additional Unit Cost	= $0

Bridge Removal

Standard with lead paint	Unit Cost	= $750	per foot
Not Applicable	Unit Cost	= $0	per foot
Not Applicable	Unit Cost	= $0	per foot
Not Applicable	Unit Cost	= $0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	= $0	per foot

Rehabilitation of Steel

Steel Trestle	Rehabilitation Required	Base Unit Cost	= $3,000	per foot
	Steel Trestle Length = 60 ft			
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	= 1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	677.05	60	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$28,755
Segment I Cost	$4,043 /LF		60 ft	$242,550
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$750 /LF		60 ft	$45,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$316,305**
Contingencies		40%		$126,522
Construction Engineering		5%		$15,815
2009 Total Before Inflation				**$458,642**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$458,642**

REHABILITATION				
Mobilization		10%		$18,000
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$3,000 /LF		60 ft	$180,000
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$198,000**
Contingencies		40%		$79,200
Construction Engineering		5%		$9,900
2009 Total Before Inflation				**$287,100**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$287,100**

Project Engineering				
Replacement		5%		$15,815
Rehabilitation		5%		$9,900

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$474,458**
Rehabilitation Total	**$297,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Sub	Mile Post,	Date
CORP		OO	677.80	9/26/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
I	[illegible]	[illegible]	14 ft	4	56 ft
II	[illegible]	[illegible]	60 ft	1	60 ft
III	[illegible]	[illegible]	15 ft	3	45 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Spans > 50 feet and < 100 feet	Base Unit Cost =	$8,000	per foot
III	Spans >= 50 feet	Base Unit Cost =	$3,500	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required		Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Standard with lead paint	Unit Cost =	$750	per foot
Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot
Timber Trestle Length =	101	ft		

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost =	$4,000	per foot
Steel Girder/Beam Length =	85	ft		
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor =	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	67.80	181	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$133,079
Segment I Cost	$4,043 /LF		56 ft	$226,380
Segment II Cost	$10,395 /LF		80 ft	$831,600
Segment III Cost	$4,043 /LF		45 ft	$181,913
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		56 ft	$16,800
Removal II Cost	$750 /LF		80 ft	$60,000
Removal III Cost	$300 /LF		45 ft	$13,500
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,463,212**
Contingencies		40%		$585,285
Construction Engineering		5%		$73,161
2009 Total Before Inflation				**$2,121,657**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage.	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,121,657**

REHABILITATION				
Mobilization		10%		$52,200
Timber Trestle	$2,000 /LF		101 ft	$202,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		80 ft	$320,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$574,200**
Contingencies		40%		$229,680
Construction Engineering		5%		$28,710
2009 Total Before Inflation				**$832,590**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$832,590**

Project Engineering				
Replacement		5%		$73,161
Rehabilitation		5%		$28,710

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$2,194,818**
Rehabilitation Total	**$861,300**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line		Mile Post		Date
	[illegible]		0.0	678.43		6/24/2008

Segment	Deck Type	Max Span Length	Number of Spans	Total Length
I	Open deck	Max span all timber	15 ft	75 ft
II	Open deck	Max span steel	61 ft	122 ft
III	Open deck	Max span all timber	15 ft	45 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	4.0 %
Estimated Year of Construction	2009
Construction Engineering	5%
Owner Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Spans > 50 feet and < 90 feet	Base Unit Cost =	$6,000	per foot
III	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

	Pile cut	Unit Cost =	$300	per foot
	Standard with lead paint	Unit Cost =	$750	per foot
I	Standard	Unit Cost =	$300	per foot
	Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required		Base Unit Cost =	$2,000	per foot
	Timber Trestle Length = 120 ft			

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost =	$4,000	per foot
	Steel Girder/Beam Length = 122 ft			
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor =	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.05

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	678 43	242	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$188,079
Segment I Cost	$4,043 /LF		75 ft	$303,188
Segment II Cost	$10 395 /LF		122 ft	$1 268 190
Segment III Cost	$4 043 /LF		45 ft	$181,913
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22,500
Removal II Cost	$750 /LF		122 ft	$91 500
Removal III Cost	$300 /LF		45 ft	$13 500
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$2,068,869**
Contingencies		40%		$827 548
Construction Engineering		5%		$103 443
2009 Total Before Inflation				**$2,999,860**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,999,860**
REHABILITATION				
Mobilization		10%		$72,800
Timber Trestle	$2,000 /LF		120 ft	$240 000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4 000 /LF		122 ft	$488 000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$800,800**
Contingencies		40%		$320,320
Construction Engineering		5%		$40,040
2009 Total Before Inflation				**$1,161,160**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,161,160**
Project Engineering				
Replacement		5%		$103,443
Rehabilitation		5%		$40,040

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$3,103,304**
Rehabilitation Total	**$1,201,200**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line		Mile Post		Date
	CORP		CO		680.17	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	[illegible]	150 ft	1	[illegible] ft
II				ft
III				ft
IV				ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2008
Construction Engineering	10%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans = 100 feet	Base Unit Cost	= $15,000	per foot
II	Not Applicable	Base Unit Cost	= $0	per foot
III	Not Applicable	Base Unit Cost	= $0	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 1 or 2 - single span	Increase Factor	= 1.00

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost	= $100,000

Bridge Removal

Truss Removal >= 125ft	Unit Cost	=	$4,200	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	= $0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Truss	Paint and Rehabilitation	Base Unit Cost	= $5,000	per foot

Truss Length = 150 ft

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	= 1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	080 17	100	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$320,500
Segment I Cost	$16,500 /LF		150 ft	$2,475,000
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100,000			$100,000
Removal I Cost	$4,200 /LF		150 ft	$630,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$3,525,500**
Contingencies		40%		$1,410,200
Construction Engineering		10%		$352,550
2009 Total Before Inflation				**$5,288,250**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$5,288,250**
REHABILITATION				
Mobilization		10%		$75,000
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$5,000 /LF		150 ft	$750,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$825,000**
Contingencies		40%		$330,000
Construction Engineering		10%		$82,500
2009 Total Before Inflation				**$1,237,500**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,237,500**
Project Engineering				
Replacement		15%		$528,825
Rehabilitation		15%		$123,750

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$5,817,075**
Rehabilitation Total	**$1,361,250**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line		Mile Post	Date
	CURP		CO	MP 46	4/25/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck	Deep plate girder	1 @ ft	102 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	1.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 100 feet	Base Unit Cost	=	$15,000	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 single span	Increase Factor	=	1.00

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard with lead paint	Unit Cost	=	$750	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot
	Steel Girder/Beam Length = 102 ft				
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Leng h	Date
CORP	CO	680 46	102	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$175 950
Segment I Cost	$16,500 /LF		102 ft	$1 683 000
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$750 /LF		102 ft	$76,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,935,450**
Contingencies		40%		$774,180
Construction Engineering		5%		$96,773
2009 Total Before Inflation				**$2,806,403**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,806,403**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$40,800
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		102 ft	$408,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$448,800**
Contingencies		40%		$179,520
Construction Engineering		5%		$22 440
2009 Total Before Inflation				**$650,760**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$650,760**

Project Engineering				
Replacement		5%		$96,773
Rehabilitation		5%		$22,440

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$2,903,175**
Rehabilitation Total	**$673,200**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line	Mile Post	Date
	[illegible]	CO	680.77	9/24/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck Thru plate girder	102 ft	1	102 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingency	40%
Mobilization	10%
Inflation Rate	4.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans < 140 feet	Base Unit Cost	=	$18,000	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 - single span	Increase Factor	=	1.00

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard with lead paint	Unit Cost	=	$750	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot
	Steel Girder/Beam Length = 182 ft				
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	680 77	102	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$175,950
Segment I Cost	$16,500 /LF		102 ft	$1,683,000
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$750 /LF		102 ft	$76,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,935,450**
Contingencies		40%		$774,180
Construction Engineering		5%		$96,773
2009 Total Before Inflation				**$2,806,403**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,806,403**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$40,800
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		102 ft	$408,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$448,800**
Contingencies		40%		$179,520
Construction Engineering		5%		$22,440
2009 Total Before Inflation				**$650,760**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$650,760**

Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		5%		$96,773
Rehabilitation		5%		$22,440

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$2,903,175**
Rehabilitation Total	**$673,200**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge x in particular, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
LCRR	CO	MP 0.0	9/26/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
	Open Deck	Through Girder			
II			91 ft	2	182 ft
III					0 ft
II					0 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans > 50 feet and < 100 feet	Base Unit Cost	= $9,000	per foot
II	Not Applicable	Base Unit Cost	= $0	per foot
III	Not Applicable	Base Unit Cost	= $0	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor	= 1.65

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	= $0

Bridge Removal

Standard with lead paint	Unit Cost	= $750	per foot
Not Applicable	Unit Cost	= $0	per foot
Not Applicable	Unit Cost	= $0	per foot
Not Applicable	Unit Cost	= $0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	= $0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	= $4,000	per foot
	Steel Girde /Beam Length = 182 ft			
Steel Truss	No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	= 1.65

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	581.05	162	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$180,549
Segment I Cost	$10,395 /LF		162 ft	$1,683,990
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$750 /LF		162 ft	$121,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,986,039**
Contingencies		40%		$794,416
Construction Engineering		5%		$99,302
2009 Total Before Inflation				**$2,879,757**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,879,757**
REHABILITATION				
Mobilization		10%		$64,800
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		162 ft	$648,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$712,800**
Contingencies		40%		$285,120
Construction Engineering		5%		$35,640
2009 Total Before Inflation				**$1,033,560**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,033,560**
Project Engineering				
Replacement		5%		$99,302
Rehabilitation		5%		$35,640
OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION				
Replacement Total				**$2,979,059**
Rehabilitation Total				**$1,069,200**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each rail bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line		Mile Post	Date
	CNP		CO	681.45	9/26/2006

Span No.	Span Data	Span Truss	Span Length	Number of Spans	Total Length
I		Plate Girder	74 ft	3	222 ft
II					0 ft
III					0 ft
V					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Supervision	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans > 50 feet and < 100 feet	Base Unit Cost	$9,000	per foot
II	Not Applicable	Base Unit Cost	$0	per foot
III	Not Applicable	Base Unit Cost	$0	per foot
IV	Not Applicable	Base Unit Cost	$0	per foot

Modifying Factors

Crossing	Over Water	Increase Factor	1.10
Seismic Zone	Zone 3 / 1 multiple spans	Increase Factor	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	$0

Bridge Removal

Standard with lead paint	Unit Cost	$750	per foot
Not Applicable	Unit Cost	$0	per foot
Not Applicable	Unit Cost	$0	per foot
Not Applicable	Unit Cost	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	$4,000	per foot
	Steel Girder/Beam Length = 222 ft			
Steel Truss	No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Upgrade Required	Increase Factor	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	681.45	222	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$247,419
Segment I Cost	$10,395 /LF		222 ft	$2,307,690
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$750 /LF		222 ft	$166,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$2,721,609**
Contingencies		40%		$1,088,644
Construction Engineering		5%		$136,080
2009 Total Before Inflation				**$3,946,333**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$3,946,333**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$88,800
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		222 ft	$888,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$976,800**
Contingencies		40%		$390,720
Construction Engineering		5%		$48,840
2009 Total Before Inflation				**$1,416,360**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,416,360**

Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		5%		$136,080
Rehabilitation		5%		$48,840

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$4,082,414**
Rehabilitation Total	**$1,465,200**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	CORP	Line	.O	Mile Post	662.18	Date	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Timber deck Timber pile trestle	7.20 ft	1	20 ft
II	Timber deck Steel plate girder	50 ft	2	50 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	1.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans = 100 feet	Base Unit Cost	=	$15,000	per foot
II	Spans = 50 feet	Base Unit Cost	=	$3,500	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard with lead paint	Unit Cost	=	$750	per foot
Standard with lead paint	Unit Cost	=	$750	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot
	Steel Girder/Beam Length = 250 ft				
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	0.82 18	250	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$385,463
Segment I Cost	$17,325 /LF		200 ft	$3,465,000
Segment II Cost	$4,043 /LF		50 ft	$202,125
Segment I I Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$750 /LF		200 ft	$150,000
Removal II Cost	$750 /LF		50 ft	$37,500
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$4,240,088**
Contingencies		40%		$1,696,035
Construction Engineering		5%		$212,004
2009 Total Before Inflation				**$6,148,127**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$6,148,127**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$100,000
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		250 ft	$1,000,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,100,000**
Contingencies		40%		$440,000
Construction Engineering		5%		$55,000
2009 Total Before Inflation				**$1,595,000**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,595,000**

Project Engineering				
Replacement		5%		$212,004
Rehabilitation		5%		$55,000

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$6,360,131**
Rehabilitation Total	**$1,650,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge replacement for this, input the following information into the yellow cells

Existing Bridge Inputs

Rail Road		Line	Mile Post	Date
CORP		CO	083.38	7/26/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
I	Open deck	Thru plate girder	155 ft	1	155 ft
II	Open deck	Thru riveted truss	100 ft	2	200 ft
III	Open deck	Thru plate girder	120 ft	1	20 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	15%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	0%
Project Engineering	15%

REPLACEMENT INPUTS

Expected span configuration

I	Spans >= 100 feet	Base Unit Cost	=	$15,000	per foot
II	Spans >= 100 feet	Base Unit Cost	=	$15,000	per foot
III	Spans >= 100 feet	Base Unit Cost	=	$15,000	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor	=	1.05

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost	=	$100,000

Bridge Removal

Standard with lead paint	Unit Cost	=	$750	per foot
Truss Removal = 125%	Unit Cost	=	$1,250	per foot
Standard with lead paint	Unit Cost	=	$750	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot
Steel Girder/Beam Length =	275 ft				
Steel Truss	Paint and Rehabilitation	Base Unit Cost	=	$5,000	per foot
Truss Length =	200 ft				

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	= 1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	683 36	475	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$878 563
Segment I Cost	$17,325 /LF		155 ft	$2,685 375
Segment II Cost	$17 325 /LF		200 ft	$3,465,000
Segment III Cost	$17 325 /LF		120 ft	$2 079 000
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100,000			$100,000
Removal I Cost	$750 /LF		155 ft	$116 250
Removal II Cost	$1,250 /LF		200 ft	$250,000
Removal III Cost	$750 /LF		120 ft	$90,000
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$9,684,188**
Contingencies		40%		$3,865,675
Construction Engineering		10%		$966,419
2009 Total Before Inflation				**$14,496,281**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$14,496,281**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$210,000
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		275 ft	$1,100,000
Steel Truss	$5 000 /LF		200 ft	$1,000,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$2,310,000**
Contingencies		40%		$924,000
Construction Engineering		10%		$231,000
2009 Total Before Inflation				**$3,465,000**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$3,465,000**

Description				
Project Engineering				
Replacement		15%		$1,449,628
Rehabilitation		15%		$346 500

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$15,945.909**
Rehabilitation Total	**$3,811,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site input the following information with the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CORP	CO	1.87 03	3/25/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / No track allowed	13 ft	5	65 ft
II				3 ft
III				8 ft
IV				11 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	1.50%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 65 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	687.03	65	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$28,226
Segment I Cost	$4,043 /LF		65 ft	$262,763
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		65 ft	$19,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$310,489**
Contingencies		40%		$124,196
Construction Engineering		5%		$15,524
2009 Total Before Inflation				**$450,209**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$450,209**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$13,000
Timber Trestle	$2,000 /LF		65 ft	$130,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$143,000**
Contingencies		40%		$57,200
Construction Engineering		5%		$7,150
2009 Total Before Inflation				**$207,350**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$207,350**

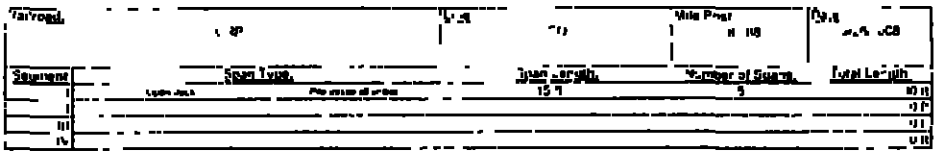
Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		5%		$15,524
Rehabilitation		5%		$7,150

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$465,733**
Rehabilitation Total	**$214,500**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs



Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open Deck	15 ft	5	80 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	4%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,600	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 80 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	68/ 88	20	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$39 083
Segment I Cost	$4,043 /LF		90 ft	$363,825
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		90 ft	$27,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$429,908**
Contingencies		40%		$171 963
Construction Engineering		5%		$21,495
2009 Total Before Inflation				**$623,366**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$623,366**

REHABILITATION				
Mobilization		10%		$18 000
Timber Trestle	$2 000 /LF		90 ft	$180,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$198,000**
Contingencies		40%		$79 200
Construction Engineering		5%		$9,900
2009 Total Before Inflation				**$287,100**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$287,100**

Project Engineering				
Replacement		5%		$21 495
Rehabilitation		5%		$9,900

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$644,861**
Rehabilitation Total	**$297,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad:	[illegible]	Line:	[illegible]	Mile Post:	[illegible]	Date:	9/24/2008

Section	Span Type	Span Length	Number of Spans	Total Length
I	[illegible]	15 ft	1	15 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	0%
Inflation Rate	3.00%
Estimated Year of Construction	2008
Construction Engineering	0%
Project Engineering	0%

REPLACEMENT INPUTS

Exposed span configuration

I	Spans <= 40 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 - simple span	Increase Factor	=	1.00

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	589.23	15	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$6,225
Segment I Cost	$3,850 /LF		15 ft	$57,750
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		15 ft	$4,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$68,475**
Contingencies		40%		$27,390
Construction Engineering		5%		$3,424
2009 Total Before Inflation				**$99,289**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$99,289**
REHABILITATION				
Mobilization		10%		$0
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$0**
Contingencies		40%		$0
Construction Engineering		5%		$0
2009 Total Before Inflation				**$0**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$0**
Project Engineering				
Replacement		5%		$3,424
Rehabilitation		5%		$0
OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION				
Replacement Total				**$102,713**
Rehabilitation Total				**$0**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

Enter each bridge at a particular activity input line in row as indicated on the yellow cells

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
[illegible]	[illegible]	[illegible]	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	[illegible]	45 ft	1	45 ft
II	[illegible]	[illegible]	[illegible]	[illegible]
III	[illegible]	[illegible]	[illegible]	[illegible]
IV	[illegible]	[illegible]	[illegible]	[illegible]

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Consultant Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	[illegible] feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 single span	Increase Factor	=	1.00

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

[illegible] with lead paint	Unit Cost	=	$750	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot
	Steel Girder/Beam Length = 45 ft				
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Rehab Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Rehab Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	690 47	45	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$20,700
Segment I Cost	$3,850 /LF		45 ft	$173 250
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$750 /LF		45 ft	$33,750
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$227,700**
Contingencies		40%		$91 080
Construction Engineering		5%		$11,385
2009 Total Before Inflation				**$330,165**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$330,165**

REHABILITATION				
Mobilization		10%		$18,000
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		45 ft	$180 000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$198,000**
Contingencies		40%		$79,200
Construction Engineering		5%		$9 900
2009 Total Before Inflation				**$287,100**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$287,100**

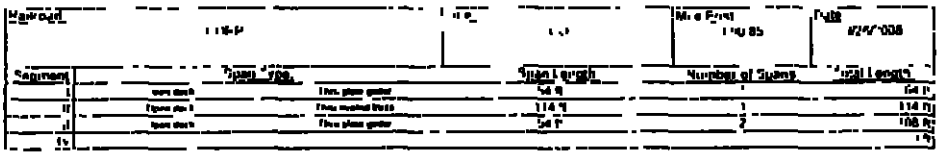
Project Engineering				
Replacement		5%		$11,385
Rehabilitation		5%		$9 900

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$341,550**
Rehabilitation Total	**$297,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs



Segment	Span Type	Span Length	Number of Spans	Total Length
I	Thru plate girder	54 ft	1	54 ft
II	Thru metal truss	114 ft	1	114 ft
III	Thru plate girder	54 ft	2	108 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	0%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	10%
Project Engineering	15%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Spans <= 100 feet	Base Unit Cost =	$15,000	per foot
III	Spans <= 100 feet	Base Unit Cost =	$15,000	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor =	1.05

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost =	$100,000

Bridge Removal

Standard with lead paint	Unit Cost =	$750	per foot
Truss Removal - 125ft	Unit Cost =	$1,250	per foot
Standard with lead paint	Unit Cost =	$750	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost =	$4,000	per foot
	Steel Girder/Beam Length = 172 ft			
Steel Truss	Paint and Rehabilitation	Base Unit Cost =	$5,000	per foot
	Truss Length = 114 ft			

Modification Factor

Seismic Steel Rehab	Seismic Rehab Required	Increase Factor =	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Rehab Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	590 85	786	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$447,637
Segment I Cost	$4 043 /LF		64 ft	$258,720
Segment II Cost	$17 325 /LF		114 ft	$1 975 050
Segment I I Cost	$17,325 /LF		108 ft	$1,871,100
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100,000			$100 000
Removal I Cost	$750 /LF		64 ft	$48,000
Removal II Cost	$1,250 /LF		114 ft	$142,500
Removal dI Cost	$750 /LF		108 ft	$81,000
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$4,924,007**
Contingencies		40%		$1 969 603
Construction Eng neering		10%		$492 401
2009 Total Before Inflation				**$7,386,011**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$7,386,011**

REHABILITATION				
Mobilization		10%		$125,800
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		172 ft	$688,000
Steel Truss	$5 000 /LF		114 ft	$570,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,383,800**
Contingencies		40%		$553,520
Construction Engineering		10%		$138 380
2009 Total Before Inflation				**$2,075,700**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$2,075,700**

Project Engineering				
Replacement		15%		$738,601
Rehabilitation		15%		$207 570

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$8,124,612**
Rehabilitation Total	**$2,283,270**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Rail Line:	CRP	Line:	LLO	Mile Post:	MP 91.05	Date:	12/2008

Segment	Steel Type		Span Length	Number of Spans	Total Length
I	Pony truss	Deck plate girder	70 ft	1	70 ft
II	Pony truss	Thru riveted truss	150 ft	1	150 ft
III	Pony truss	Thru truss of timber	15 ft	9	135 ft
V					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	0%
Project Engineering	15%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 100 feet	Base Unit Cost	=	$15,000	per foot
II	Spans <= 150 feet	Base Unit Cost	=	$16,000	per foot
III	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
V	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 multiple spans	Increase Factor	=	1.05

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost	=	$100,000

Bridge Removal

Standard with steel plant	Unit Cost	=	$750	per foot
Truss Removal < 1.5ft	Unit Cost	=	$1,250	per foot
Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286 000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 135 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot

Steel Girder/Beam Length = 70 ft

Steel Truss	Paint and Rehabilitation	Base Unit Cost	=	$3,000	per foot

Truss Length = 750 ft

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	[illegible]01.05	4[illegible]5	[illegible]/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$659,524
Segment I Cost	$17,325 /LF		70 ft	$1,212,750
Segment II Cost	$17,325 /LF		250 ft	$4,331,250
Segment III Cost	$4,043 /LF		135 ft	$545,738
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100,000			$100,000
Removal I Cost	$750 /LF		70 ft	$52,500
Removal II Cost	$1,250 /LF		250 ft	$312,500
Removal III Cost	$300 /LF		135 ft	$40,500
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$7,254,761**
Contingencies		40%		$2,901,905
Construction Engineering		10%		$725,476
2009 Total Before Inflation				**$10,882,142**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$10,882,142**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$180,000
Timber Trestle	$2,000 /LF		135 ft	$270,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		70 ft	$280,000
Steel Truss	$5,000 /LF		250 ft	$1,250,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,980,000**
Contingencies		40%		$792,000
Construction Engineering		10%		$198,000
2009 Total Before Inflation				**$2,970,000**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$2,970,000**

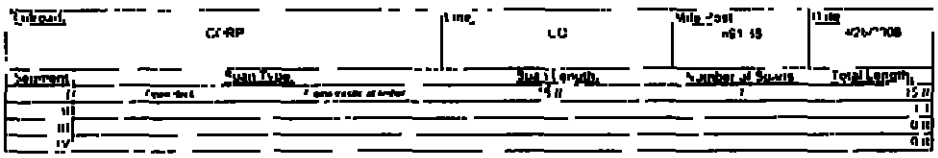
Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		15%		$1,088,214
Rehabilitation		15%		$297,000

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$11,970,356**
Rehabilitation Total	**$3,267,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

[illegible]

Existing Bridge Inputs



Cost Inputs

[illegible]	30%
Mobilization	10%
Inflation Rate	1.00%
Estimated Year of Construction	2009
Construction Engineering	5%
[illegible]	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans [illegible] feet	Base Unit Cost	= $3,500	per foot
II	Not Applicable	Base Unit Cost	= $0	per foot
III	Not Applicable	Base Unit Cost	= $0	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 1 or 2 [illegible] region	Increase Factor	= 1.00

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	= $0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	= $0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	691 38	*5	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$6,225
Segment I Cost	$3,850 /LF		15 ft	$57,750
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		15 ft	$4,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$68,475**
Contingencies		40%		$27,390
Construction Engineering		5%		$3,424
2009 Total Before Inflation				**$99,289**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$99,289**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$0
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$0**
Contingencies		40%		$0
Construction Engineering		5%		$0
2009 Total Before Inflation				**$0**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$0**

Project Engineering				
Replacement		5%		$3,424
Rehabilitation		5%		$0

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$102,713**
Rehabilitation Total	**$0**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	CORP	Line	CO	Weight	286,000	Date	10/6/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Ballast deck with no walk or fence	15 ft	1	6 ft
II				7 ft
III				8 ft
IV				9 ft

Cost Inputs

Contingency	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans < 20 feet	Base Unit Cost	$3,500	per foot
II	Not Applicable	Base Unit Cost	$0	per foot
III	Not Applicable	Base Unit Cost	$0	per foot
IV	Not Applicable	Base Unit Cost	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	1.10
Seismic Zone	Zone 1 or 2 - single span	Increase Factor	1.00

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	$0

Bridge Removal

	Standard	Unit Cost	$300	per foot
	Not Applicable	Unit Cost	$0	per foot
	Not Applicable	Unit Cost	$0	per foot
	Not Applicable	Unit Cost	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Pos.	Total Length	Date
CORP	CO	092.06	16	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$6,640
Segment I Cost	$3,850 /LF		16 ft	$61,600
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		16 ft	$4,800
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$73,040**
Contingencies		40%		$29,216
Construction Engineering		5%		$3,652
2009 Total Before Inflation				**$105,908**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$105,908**

REHABILITATION				
Mobilization		10%		$0
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$0**
Contingencies		40%		$0
Construction Engineering		5%		$0
2009 Total Before Inflation				**$0**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$0**

Project Engineering				
Replacement		5%		$3,652
Rehabilitation		5%		$0

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$109,560**
Rehabilitation Total	**$0**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, carefully following information into the yellow cells.

Existing Bridge Inputs

Bridge	Line	Mile Post	Date
	LD	58.27	12/5/2008

Segment	Span Type	Total Length	Number of Spans	Total Length
	Rated deck beams / No record of timber	15 ft	5	75 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	15%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans = 40 feet	Base Unit Cost	=	$3,000	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 75 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	691.27	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32,569
Segment I Cost	$4,043 /LF		75 ft	$303,188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**

REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2,000 /LF		75 ft	$150,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**

Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8,250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$537,384**
Rehabilitation Total	**$247,500**

For each type of bridge at a particular railroad, input the following information on only the yellow cells.

Existing Bridge Inputs

Railroad:	CLNP	Line:	CO	Mile Post:	CO4.12	Date:	9/25/2008

Segment	Type	Type	Span Length	Number of Spans	Total Length
I	Open deck	Pile trestle w/ ballast	15 ft	10	150 ft
II	Open deck	Steel plate girder	200 ft	1	200 ft
III	Open deck	Pile trestle w/ ballast	15 ft	4	60 ft
V					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	100%
Estimated Year of Construction	2009
Construction Engineering	0%
Project Engineering	15%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Spans >= 100 feet	Base Unit Cost =	$15,000	per foot
III	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
V	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.15
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor =	1.05

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost =	$100,000

Bridge Removal

Standard	Unit Cost =	$300	per foot
Less Removal >= 1/2R	Unit Cost =	$4,200	per foot
Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 240 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	Paint and Rehabilitation	Base Unit Cost =	$5,000	per foot

Truss Length = 200 ft

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor =	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	694.32	440	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$544,720
Segment I Cost	$4,043 /LF		150 ft	$606,375
Segment II Cost	$17,325 /LF		200 ft	$3,465,000
Segment III Cost	$4,043 /LF		90 ft	$363,825
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100,000			$100,000
Removal I Cost	$300 /LF		150 ft	$45,000
Removal II Cost	$4,200 /LF		200 ft	$840,000
Removal III Cost	$300 /LF		90 ft	$27,000
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$5,991,920**
Contingencies		40%		$2,396,768
Construction Engineering		10%		$599,192
2009 Total Before Inflation				**$8,987,880**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$8,987,880**

REHABILITATION				
Mobilization		10%		$148,000
Timber Trestle	$2,000 /LF		240 ft	$480,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$5,000 /LF		200 ft	$1,000,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,628,000**
Contingencies		40%		$651,200
Construction Engineering		10%		$162,800
2009 Total Before Inflation				**$2,442,000**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$2,442,000**

Project Engineering				
Replacement		15%		$898,788
Rehabilitation		15%		$244,200

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$9,886,668**
Rehabilitation Total	**$2,686,200**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge (i.e. timber trestle, steel girder, etc.) input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CORP	CG	0.00 78	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck	Deck plate girder	40 ft	1	40 ft
II	Open deck	Through truss	150 ft	1	150 ft
III	Open deck	Deck plate girder	30 ft	1	30 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.0%
Estimated Year of Construction	2008
Construction Engineering	10%
Project Engineering	15%

REPLACEMENT INPUTS

Existing span configuration

	Spans > 50 feet and < 100 feet	Base Unit Cost	=	$8,000	per foot
II	Spans >= 100 feet	Base Unit Cost	=	$15,000	per foot
III	Spans > 50 feet and < 100 feet	Base Unit Cost	=	$8,000	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 1 or 2 single span	Increase Factor	=	1.00

Construction Access Platform

Construction Access Platform Required		Additional Unit Cost	=	$100,000

Bridge Removal

Standard with lead paint	Unit Cost	=	$750	per foot
Rail Removal >= 1.5%	Unit Cost	=	$4,200	per foot
Standard with lead paint	Unit Cost	=	$750	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot
	Steel Girder/Beam Length = 100 ft				
Steel Truss	Paint and Rehabilitation	Base Unit Cost	=	$5,000	per foot
	Truss Length = 150 ft				

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	594.78	330	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$512,200
Segment I Cost	$9,900 /LF		90 ft	$891,000
Segment II Cost	$16,500 /LF		150 ft	$2,475,000
Segment III Cost	$9,900 /LF		90 ft	$891,000
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100,000			$100,000
Removal I Cost	$750 /LF		90 ft	$67,500
Removal II Cost	$4,200 /LF		150 ft	$630,000
Removal III Cost	$750 /LF		90 ft	$67,500
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$5,634,200**
Contingencies		40%		$2,253,680
Construction Engineering		10%		$563,420
2009 Total Before Inflation				**$8,451,300**
Inflation Rate	3.00%			
Estimated Year of Const.	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$8,451,300**

REHABILITATION				
Mobilization		10%		$147,000
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		180 ft	$720,000
Steel Truss	$5,000 /LF		150 ft	$750,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,617,000**
Contingencies		40%		$646,800
Construction Engineering		10%		$161,700
2009 Total Before Inflation				**$2,425,500**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$2,425,500**

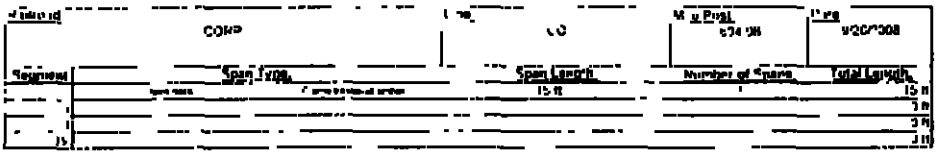
Project Engineering				
Replacement		15%		$845,130
Rehabilitation		15%		$242,550

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$9,296,430**
Rehabilitation Total	**$2,668,050**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

In each type of bridge a typical structure is selected by entering the relevant length and railway cost

Existing Bridge Inputs



Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.30%
Timeline Year of Construction	2008
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Suggested span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 1 or 2 - single span	Increase Factor =	1.00

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286 000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	694 98	15	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobiliza ion		10%		$6,225
Segment I Cost	$3 850 /LF		15 ft	$57,750
Segment II Cost	$0 /LF		ft	$0
Segment I'I Cost	$0 / F		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		15 ft	$4,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$68,475**
Contingencies		40%		$27 390
Construction Engineering		5%		$3,424
2009 Total Before Inflation				**$99,289**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflat on Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$99,289**

REHABILITATION				
Mobrization		10%		$0
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$0**
Contingencies		40%		$0
Construct on Engineering		5%		$0
2009 Total Before Inflation				**$0**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$0**

Project Engineering				
Replacement		5%		$3 424
Rehabilitation		5%		$0

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$102,713**
Rehabilitation Total	**$0**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each bridge segment, input the following information into the yellow cells

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CLRP	CJ	CJ 78	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Timber deck trestle	Frame bents all timber	15 ft	4	60 ft
II	Open deck	Pile wood bent	150 ft	1	150 ft
III	Open deck	Frame bents all timber	15 ft	9	135 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	100%
Estimated Year of Construction	2009
Construction Engineering	10%
Project Engineering	15%

REPLACEMENT INPUTS

Expected span configuration

II	Spans <= 40 feet	Base Unit Cost	= $3,500	per foot
II	Spans <= 100 feet	Base Unit Cost	= $15,000	per foot
III	Spans <= 40 feet	Base Unit Cost	= $3,500	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 1 or 2 - multiple spans	Increase Factor	= 1.05

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost	= $100,000

Bridge Removal

II	Standard	Unit Cost	= $300	per foot
II	Truss Removal >= 1/2	Unit Cost	= $4,200	per foot
III	Standard	Unit Cost	= $300	per foot
IV	Not Applicable	Unit Cost	= $0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS INPUTS

Rehabilitation of Timber Trestle

	Rehabilitation Required	Base Unit Cost	= $2,000	per foot

Timber Trestle Length = 210 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Truss	Paint and Rehabilitation	Base Unit Cost	= $5,000	per foot

Truss Length = 150 ft

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	= 1.05

Rehabilitation of Concrete

	No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	696 66	360	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10 %		$424 068
Segment I Cost	$4 043 /LF		75 ft	$303 ·88
Segment II Cost	$17 325 /LF		150 ft	$2,598,750
Segment III Cost	$4,043 /LF		135 ft	$545,738
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$100 000			$100,000
Removal I Cost	$300 /LF		75 ft	$22 500
Removal II Cost	$4 200 /LF		150 ft	$630,000
Removal III Cost	$300 /LF		135 ft	$40,500
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$4,664,743**
Contingencies		40%		$1,865,897
Construction Engineering		10%		$466,474
2009 Total Before Inflation				**$6,997,114**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$6,997,114**

REHABILITATION				
Mobilization		10%		$117 000
Timber Trestle	$2,000 /LF		210 ft	$420,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$5 000 /LF		150 ft	$750,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,287,000**
Contingencies		40%		$514,800
Construction Engineering		10%		$128 700
2009 Total Before Inflation				**$1,930,500**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,930,500**

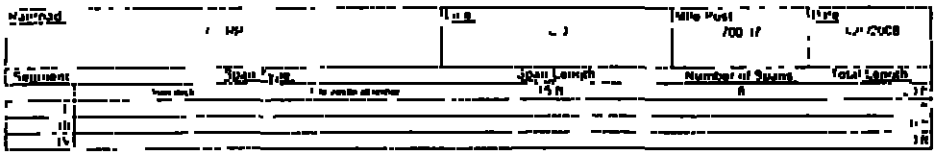
Project Engineering				
Replacement		15%		$699,711
Rehabilitation		15%		$193 050

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$7,696,825**
Rehabilitation Total	**$2,123,550**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at each bridge site, input the following information into the yellow cells.

Existing Bridge Inputs



Cost Inputs

Contingencies	40%
Mobilization	0%
Inflation Rate	3.00%
Estimated Year of Construction	2007
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.15
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 120 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	700 37	120	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$52 110
Segment I Cost	$4 043 /LF		120 ft	$485,100
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		120 ft	$36,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$573,210**
Contingencies		40%		$229 284
Construction Engineering		5%		$28,661
2009 Total Before Inflation				**$831,155**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$831,155**

REHABILITATION				
Mobilization		10%		$24,000
Timber Trestle	$2,000 /LF		120 ft	$240,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$264,000**
Contingencies		40%		$105,600
Construction Engineering		5%		$13,200
2009 Total Before Inflation				**$382,800**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$382,800**

Project Engineering				
Replacement		5%		$28 661
Rehabilitation		5%		$13,200

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$859,815**
Rehabilitation Total	**$396,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge assessed, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line		Mile Post	Date
				N/45	9/26/2006

Segment	Steel Type	No. Spans of Steel	Span Length	Number of Spans	Total Length
I			15 ft	9	135 ft
II					0 ft
III					0 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Base Unit Year of Construction	2009
Preliminary Engineering	4%
Construction Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

	Standard	Unit Cost =	$300	per foot
	Not Applicable	Unit Cost =	$0	per foot
	Not Applicable	Unit Cost =	$0	per foot
	Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

	Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 135 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	707 65	135	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$58,624
Segment I Cost	$4,043 /LF		135 ft	$545,738
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		135 ft	$40,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$644,861**
Contingencies		40%		$257,945
Construction Engineering		5%		$32,243
2009 Total Before Inflation				**$935,049**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$935,049**

REHABILITATION				
Mobilization		10%		$27,000
Timber Trestle	$2 000 /LF		135 ft	$270 000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$297,000**
Contingencies		40%		$118,800
Construction Engineering		5%		$14,850
2009 Total Before Inflation				**$430,650**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$430,650**

Project Engineering				
Replacement		5%		$32,243
Rehabilitation		5%		$14 850

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$967,292**
Rehabilitation Total	**$445,500**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

[illegible] put the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line		Mile Post		Date
	CRP		CJ		[illegible]	9/24/2018

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / Pile bents or towers	15 ft	4	60 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingency	40%
Mobilization	10%
Inflation Rate	[illegible]%
Design Life of Construction	100
Construction Engineering	5%
Right-of-Way	5%

REPLACEMENT INPUTS

Expected span configuration

I	Square or Rail Bed	Base Unit Cost	$3,000	per foot
II	Not Applicable	Base Unit Cost	$0	per foot
III	Not Applicable	Base Unit Cost	$0	per foot
IV	Not Applicable	Base Unit Cost	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	$0

Bridge Removal

Standard	Unit Cost	$330	per foot
Not Applicable	Unit Cost	$0	per foot
Not Applicable	Unit Cost	$0	per foot
Not Applicable	Unit Cost	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	$2,000	per foot

Timber Trestle Length = 60 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	1.03

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	$0	per foot

Seismic Region Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	1.03

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	702.95	60	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$26,055
Segment I Cost	$4,043 /LF		60 ft	$242,550
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		60 ft	$18,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$286,605**
Contingencies		40%		$114,642
Construction Engineering		5%		$14,330
2009 Total Before Inflation				**$415,577**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$415,577**

REHABILITATION				
Mobilization		10%		$12,000
Timber Trestle	$2,000 /LF		60 ft	$120,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$132,000**
Contingencies		40%		$52,800
Construction Engineering		5%		$6,600
2009 Total Before Inflation				**$191,400**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$191,400**

Project Engineering				
Replacement		5%		$14,330
Rehabilitation		5%		$6,600

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$429,908**
Rehabilitation Total	**$198,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge that will be replaced, enter the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Sub	Mile Post	Date
CORP	LO	10.20	9/25/2006

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Ballast Deck	50	1	50
III				0
IV				0

Cost Inputs

Engineering	40%
Mobilization	10%
Contingency	10%
Standard Bridge Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

II	Spans < = 50 feet	Base Unit Cost =	$3,000	per foot
I	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 100 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	710.20	105	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$45,596
Segment I Cost	$4,043 /LF		105 ft	$424,463
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		105 ft	$31,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$501,559**
Contingencies		40%		$200,624
Construction Engineering		5%		$25,078
2009 Total Before Inflation				**$727,260**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$727,260**

REHABILITATION				
Mobilization		10%		$21,000
Timber Trestle	$2,000 /LF		105 ft	$210,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$231,000**
Contingencies		40%		$92,400
Construction Engineering		5%		$11,550
2009 Total Before Inflation				**$334,950**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$334,950**

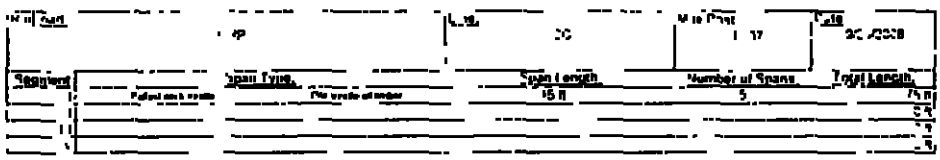
Project Engineering				
Replacement		5%		$25,078
Rehabilitation		5%		$11,550

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$752,338**
Rehabilitation Total	**$346,500**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following information in the yellow cells

Existing Bridge Inputs



Segment	Span Type	Span Length	Number of Spans	Total Length
	Fabricated Steel Deck Girder	15 ft	5	75 ft
				0 ft
				0 ft
				0 ft

Cost Inputs

Contingencies	40%
[illegible]	4%
[illegible] Rate	7.83%
Estimated Year of Construction	2009
Construction Engineering	5%
[illegible]	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,000	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Use 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Pile Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 75 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Rehab Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Rehab Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	711 37	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32,569
Segment I Cost	$4,043 /LF		75 ft	$303,188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**

REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2 000 /LF		75 ft	$150,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**

Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8,250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$537,384**
Rehabilitation Total	**$247,500**

For each type of bridge in your railroad, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CTP	CB	77.57	6/6/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Ballast deck bridge	5 ft	5	25 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Cost Increase	40%
Mobilization	10%
Inflation Rate	1.00%
Estimated Year of Construction	2009
Contract Bid Preparation	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 75 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	711 67	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32,569
Segment I Cost	$4 043 /LF		75 ft	$303,188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**

REHABILITATION				
Mobilization		10%		$15 000
Timber Trestle	$2,000 /LF		75 ft	$150 000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66 000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239 250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**

Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8 250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$537,384**
Rehabilitation Total	**$247,500**

For each line of the Bridge Condition Data file, the following information is required.

Existing Bridge Inputs

Railroad		Line		Mile Post		Date
	WP		CO		712.16	5/16/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Timber Deck Trestle	15 ft	4	60 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Bond Rate	100%
Estimated Year of Construction	2009
Engineering Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 60 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	712 16	60	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$26,055
Segment I Cost	$4,043 /LF		60 ft	$242,550
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		60 ft	$18,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$286,605**
Contingencies		40%		$114,642
Construction Engineering		5%		$14,330
2009 Total Before Inflation				**$415,577**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$415,577**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$12,000
Timber Trestle	$2,000 /LF		60 ft	$120,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$132,000**
Contingencies		40%		$52,800
Construction Engineering		5%		$6,600
2009 Total Before Inflation				**$191,400**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$191,400**

Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		5%		$14,330
Rehabilitation		5%		$6,600

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$429,908**
Rehabilitation Total	**$198,000**

For each type of bridge at a particular site, input the following information into the yellow cells

Existing Bridge Inputs

Railroad		Line		Mile Post		Date
	TP		70		2.80	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
	Timber	15 ft	4	ft
				ft
				ft
				ft

Cost Inputs

Contingency	40%
Mobilization	10%
Inflation Rate	4.0%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Supervision	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	$3,500	per foot
II	Not Applicable	Base Unit Cost	$0	per foot
III	Not Applicable	Base Unit Cost	$0	per foot
IV	Not Applicable	Base Unit Cost	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	$0

Bridge Removal

	Standard	Unit Cost	$300	per foot
	Not Applicable	Unit Cost	$0	per foot
	Not Applicable	Unit Cost	$0	per foot
	Not Applicable	Unit Cost	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

	Rehabilitation Required	Base Unit Cost	$2,000	per foot

Timber Trestle Length = 60 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Rehab Required	Increase Factor	1.00

Rehabilitation of Concrete

	No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Rehab Required	Increase Factor	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	712.80	60	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$26,055
Segment I Cost	$4,043 /LF		60 ft	$242,550
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		60 ft	$18,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$286,605**
Contingencies		40%		$114,642
Construction Engineering		5%		$14,330
2009 Total Before Inflation				**$415,577**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$415,577**

REHABILITATION				
Mobilization		10%		$12,000
Timber Trestle	$2,000 /LF		60 ft	$120,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$132,000**
Contingencies		40%		$52,800
Construction Engineering		5%		$6,600
2009 Total Before Inflation				**$191,400**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$191,400**

Project Engineering				
Replacement		5%		$14,330
Rehabilitation		5%		$6,600

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$429,908**
Rehabilitation Total	**$198,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information and the values will

Existing Bridge Inputs

Railroad		Line		Mile Post		Bridge	
	TMP		CO		MP 40		4.46/20.6

Segment	Span Type		Span Length	Number of Spans	Total Length
II	open deck	low rails under	54 ft	1	54 ft
III	open deck		15 ft	78	1170 ft
III	open deck		30 ft	2	60 ft
IV	open deck		142 ft	4	568 ft

Cost Inputs

Engineering	40%
Mobilization	10%
Inflation Rate	3.10%
Estimated Year of Construction	2018
Construction Engineering	10%
Project Engineering	15%

REPLACEMENT INPUTS

Expected span configuration

I	Spans >= 50 feet and < 100 feet	Base Unit Cost	=	$2,000	per foot
II	Spans >= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Spans >= 100 feet	Base Unit Cost	=	$15,000	per foot
IV	Movable (Bridge Span	Base Unit Cost	=	$50,000	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost	=	$100,000

Bridge Removal

Standard with Lead Paint	Unit Cost	=	$750	per foot
Standard	Unit Cost	=	$300	per foot
Truss Removal >= 125ft	Unit Cost	=	$4,200	per foot
Truss Removal >= 125ft	Unit Cost	=	$4,200	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot
Timber Trestle Length =	2670	ft			

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot
Steel Girder/Beam Length =	54	ft			
Steel Truss	Paint and Rehabilitation	Base Unit Cost	=	$5,000	per foot
Truss Length =	568	ft			

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	716 40	3124	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$3,850 011
Segment I Cost	$10 395 /LF		54 ft	$561,330
Segment II Cost	$4,043 /LF		2670 ft	$10,793,475
Segment III Cost	$17,325 /LF		400 ft	$6 930,000
Segment IV Cost	$57 750 /LF		284 ft	$16 401 000
Cost of Work Bridge	$100 000			$100 000
Removal I Cost	$750 /LF		54 ft	$40,500
Removal II Cost	$300 /LF		2670 ft	$801 000
Removal III Cost	$4,200 /LF		400 ft	$1 680,000
Removal IV Cost	$4,200 /LF		284 ft	$1,192 800
Construction Subtotal				**$42,350,116**
Contingencies		40%		$16 940,046
Construction Engineering		10%		$4 235,012
2009 Total Before Inflation				**$83,525,173**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$83,525,173**

REHABILITATION				
Mobilization		10%		$899 600
Timber Trestle	$2,000 /LF		2670 ft	$5,340,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		54 ft	$216,000
Steel Truss	$5,000 /LF		688 ft	$3 440,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$9,895,600**
Contingencies		40%		$3,958,240
Construction Engineering		10%		$989 560
2009 Total Before Inflation				**$14,843,400**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$14,843,400**

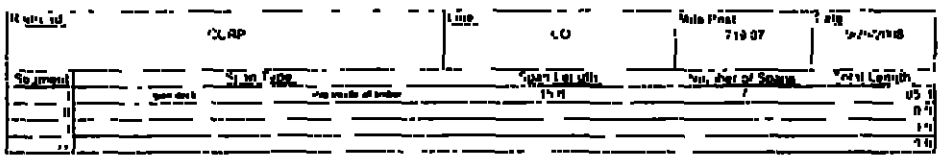
Project Engineering				
Replacement		15%		$6,352,517
Rehabilitation		15%		$1,484,340

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$69,877,691**
Rehabilitation Total	**$16,327,740**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge (i.e. similar size, material, etc.) the following information is required to develop unit costs.

Existing Bridge Inputs



Cost Inputs

Contingencies	40%
Mobilization	10%
Escalation Rate	3.00%
Expected Year of Construction	2009
Construction Engineering	8%
Project Engineering	8%

REPLACEMENT INPUTS

Expected span configuration

	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
I	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
V	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

	Standard	Unit Cost	=	$300	per foot
	Not Applicable	Unit Cost	=	$0	per foot
	Not Applicable	Unit Cost	=	$0	per foot
	Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

	No Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 185 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	719.07	105	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$45,596
Segment I Cost	$4,043 /LF		105 ft	$424,463
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		105 ft	$31,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$501,559**
Contingencies		40%		$200,624
Construction Engineering		5%		$25,078
2009 Total Before Inflation				**$727,260**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$727,260**

REHABILITATION				
Mobilization		10%		$21,000
Timber Trestle	$2,000 /LF		105 ft	$210,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$231,000**
Contingencies		40%		$92,400
Construction Engineering		5%		$11,550
2009 Total Before Inflation				**$334,950**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$334,950**

Project Engineering				
Replacement		5%		$25,078
Rehabilitation		5%		$11,550

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$752,338**
Rehabilitation Total	**$346,500**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

Complete by inputting the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CORP	CO	7.0 21	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Timber Trestle	5 ft	21	105 ft
II				0 ft
III				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Period of Construction	2020
General Administration Engineering	%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configurations

I	Spans <= 40 feet	Base Unit Cost	= $3,000	per foot
II	Not Applicable	Base Unit Cost	= $0	per foot
III	Not Applicable	Base Unit Cost	= $0	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 3 or 4	Increase Factor	= 1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	= $0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286 000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 315 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	719.21	315	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$136,789
Segment I Cost	$4,043 /LF		315 ft	$1,273,386
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		315 ft	$94,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,504,676**
Contingencies		40%		$601,871
Construction Engineering		5%		$75,234
2009 Total Before Inflation				**$2,181,781**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,181,781**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$63,000
Timber Trestle	$2,000 /LF		315 ft	$630,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$693,000**
Contingencies		40%		$277,200
Construction Engineering		5%		$34,650
2009 Total Before Inflation				**$1,004,850**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,004,850**

Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		5%		$75,234
Rehabilitation		5%		$34,650

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$2,257,014**
Rehabilitation Total	**$1,039,500**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells

Existing Bridge Inputs

Railroad		Line		Mile Post		Date	
	PCRP		CL		7.5 MS		9/24/2008

No. Spans	Span Type	Span Length	Number of Spans	Total Length
II	Timber	17 ft	38	646 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	0%
Inflation Rate	1.50%
Estimated Years of Construction	0.0
Construction Engineering	%
Project Engineering	2%

REPLACEMENT INPUTS

Expected span configuration

I	Timber < 40 feet	Base Unit Cost	$2,000	per foot
II	Not Applicable	Base Unit Cost	$0	per foot
III	Not Applicable	Base Unit Cost	$0	per foot
IV	Not Applicable	Base Unit Cost	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	$0

Bridge Removal

Standard	Unit Cost	$300	per foot
Not Applicable	Unit Cost	$0	per foot
Not Applicable	Unit Cost	$0	per foot
Not Applicable	Unit Cost	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	$2,000	per foot

Timber Trestle Length = 646 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	1.00

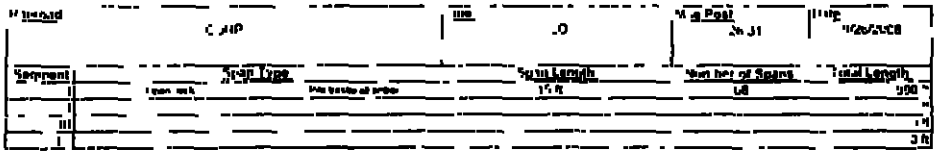
Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	725.96	646	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$280,526
Segment I Cost	$4,043 /LF		646 ft	$2,611,455
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		646 ft	$193,800
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$3,085,781**
Contingencies		40%		$1,234,312
Construction Engineering		5%		$154,289
2009 Total Before Inflation				**$4,474,382**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$4,474,382**
REHABILITATION				
Mobilization		10%		$129,200
Timber Trestle	$2,000 /LF		646 ft	$1,292,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,421,200**
Contingencies		40%		$568,480
Construction Engineering		5%		$71,060
2009 Total Before Inflation				**$2,060,740**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$2,060,740**
Project Engineering				
Replacement		5%		$154,289
Rehabilitation		5%		$71,060
OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION				
Replacement Total				**$4,628,671**
Rehabilitation Total				**$2,131,800**

For each type of bridge that is applicable, input the following information into the yellow cells.

Existing Bridge Inputs



Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open web	100 ft	68	6800 ft
II				100 ft
III				1 ft
I				3 ft

Cost Inputs

Contingency	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Consltg. or Engineering	5%
Proj. Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans = 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Timber	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot
Timber Trestle Length =	900	ft		

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	726.31	990	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$429,908
Segment I Cost	$4,043 /LF		990 ft	$4,002,075
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		990 ft	$297,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$4,728,983**
Contingencies		40%		$1,891,593
Construction Engineering		5%		$236,449
2009 Total Before Inflation				**$6,857,025**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$6,857,025**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$198,000
Timber Trestle	$2,000 /LF		990 ft	$1,980,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$2,178,000**
Contingencies		40%		$871,200
Construction Engineering		5%		$108,900
2009 Total Before Inflation				**$3,158,100**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$3,158,100**

Project Engineering				
Replacement		5%		$236,449
Rehabilitation		5%		$108,900

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$7,093,474**
Rehabilitation Total	**$3,267,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

[illegible] the following cells.

Existing Bridge Inputs

Railroad		Line		Mile Post		Date	
	XP		CJ		[illegible]		[illegible]

Segment	Span Type	Typical Span Length	Number of Spans	Total Length
	[illegible]	15 ft	18	[illegible]
				0 ft
				0 ft

Cost Inputs

[illegible]	40%
Mobilization	0%
Inflation Rate	3.00%
[illegible]	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Open Deck Bridge Configuration

I	Spans = 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 270 ft

Rehabilitation of Steel

Steel Trestle: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss: No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab: No Seismic Retrofit Required	Increase Factor	=	1.00	

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab: No Seismic Retrofit Required	Increase Factor	=	1.00	

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	728 51	270	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$117,248
Segment I Cost	$4,043 /LF		270 ft	$1,091 475
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		270 ft	$81,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,289,723**
Contingencies		40%		$515 889
Construction Engineering		5%		$64,486
2009 Total Before Inflation				**$1,870,098**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$1,870,098**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$54,000
Timber Trestle	$2,000 /LF		270 ft	$540,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$594,000**
Contingencies		40%		$237 600
Construction Engineering		5%		$29,700
2009 Total Before Inflation				**$861,300**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$861,300**

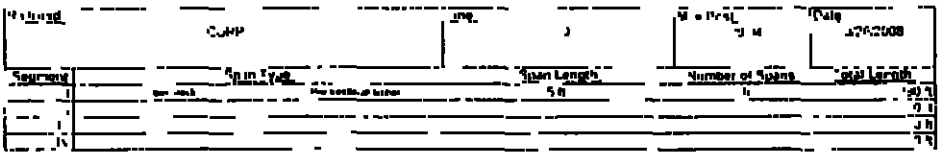
Project Engineering				
Replacement		5%		$64,486
Rehabilitation		5%		$29,700

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$1,934,584**
Rehabilitation Total	**$891,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

Enter information in the highlighted cells below for each bridge

Existing Bridge Inputs



Segment	Span Type	Span Length	Number of Spans	Total Length
I	Deck Girder	50 ft	1	50 ft
II				
III				
IV				

Cost Inputs

Contingency	40%
Mobilization	10%
Profit Margin	10%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot
Timber Trestle Length =	200	ft		

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder Ileam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	729 04	390	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$169 358
Segment I Cost	$4 043 /LF		390 ft	$1 576,575
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		390 ft	$117 000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,862,933**
Contingencies		40%		$745,173
Construction Engineering		5%		$93,147
2009 Total Before Inflation				**$2,701,252**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,701,252**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$78 000
Timber Trestle	$2,000 /LF		390 ft	$780 000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$858,000**
Contingencies		40%		$343,200
Construction Engineering		5%		$42 900
2009 Total Before Inflation				**$1,244,100**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,244,100**

Project Engineering				
Replacement		5%		$93 147
Rehabilitation		5%		$42,900

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$2,794,399**
Rehabilitation Total	**$1,287,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at the bridge upgrade, input the following unit rates in the yellow cells

Existing Bridge Inputs

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck	15 ft	66	990 ft
II	Open deck	10 ft	4	40 ft
III	Open deck	51 ft	2	102 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2008
Environmental Screening	1%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	= $3,500	per foot
II	Spans > 50 feet	Base Unit Cost	= $3,500	per foot
III	Movable Bridge Span	Base Unit Cost	= $50,000	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 3 or 4	Increase Factor	= 1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	= $0

Bridge Removal

Standard	Unit Cost	= $300	per foot
Standard	Unit Cost	= $300	per foot
Standard with Bed Load	Unit Cost	= $750	per foot
Not Applicable	Unit Cost	= $0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	= $2,000	per foot

Timber Trestle Length = 990 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Girder/Beam	Rehabilitation Required	Base Unit Cost	= $4,000	per foot

Steel Girder/Beam Length = 102 ft

Steel Truss	No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	= 1.05

Rehabilitation of Concrete

Rehabilitation Required		Base Unit Cost	= $3,000	per foot

Concrete Length = 120 ft

Modification Factor

Seismic Concrete Rehab	Seismic Retrofit Required	Increase Factor	= 1.05

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Pos.	Total Length	Date
CORP	CO	730.56	1212	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$1,078,718
Segment I Cost	$4,043 /LF		990 ft	$4,002,075
Segment II Cost	$4,043 /LF		120 ft	$485,100
Segment III Cost	$57,750 /LF		102 ft	$5,890,500
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		990 ft	$297,000
Removal II Cost	$300 /LF		120 ft	$36,000
Removal III Cost	$750 /LF		102 ft	$76,500
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$11,865,893**
Contingencies		40%		$4,746,357
Construction Engineering		5%		$593,295
2009 Total Before Inflation				**$17,205,544**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$17,205,544**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$274,800
Timber Trestle	$2,000 /LF		990 ft	$1,980,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		102 ft	$408,000
Steel Truss	$0 /LF		ft	$0
Concrete	$3,000 /LF		120 ft	$360,000
Construction Subtotal				**$3,022,800**
Contingencies		40%		$1,209,120
Construction Engineering		5%		$151,140
2009 Total Before Inflation				**$4,383,060**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$4,383,060**

Project Engineering				
Replacement		5%		$593,295
Rehabilitation		5%		$151,140

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$17,798,839**
Rehabilitation Total	**$4,534,200**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of repair (i - iv) listed, input the following information in the yellow cells

Existing Bridge Inputs

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck	75 ft	63	4451
II	Open deck	Deck plate girder	41 ft	2	137 ft
III	Open deck	Pre-stressed girder	9 ft	156	2455 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation rate	1.00%
Estimated year of construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

i	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
ii	Spans > 50 feet and < 100 feet	Base Unit Cost =	$8,000	per foot
iii	Spans >= 50 feet	Base Unit Cost =	$3,500	per foot
iv	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Standard with lead paint	Unit Cost =	$750	per foot
Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot
Timber Trestle Length = 2193 ft			

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost =	$4,000	per foot
Steel Girder/Beam Length = 182 ft			
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Retrofit	Seismic Retrofit Required	Increase Factor =	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Retrofit	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	731 65	2292	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$1 064 687
Segment I Cost	$4 043 /LF		945 ft	$3,820,163
Segment II Cost	$10,395 /LF		102 ft	$1,060,290
Segment 'II Cost	$4,043 /LF		1245 ft	$5 032,913
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		945 ft	$283,500
Removal II Cost	$750 /LF		102 ft	$76 500
Removal III Cost	$300 /LF		1245 ft	$373 500
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$11,711,552**
Contingencies		40%		$4 684,621
Construction Engineering		5%		$585,578
2009 Total Before Inflation				**$16,981,750**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$16,981,750**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$478,800
Timber Trestle	$2,000 /LF		2190 ft	$4 380,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		102 ft	$408,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$5,266,800**
Contingencies		40%		$2 106 720
Construction Engineering		5%		$263,340
2009 Total Before Inflation				**$7,636,860**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$7,636,860**

Project Engineering				
Replacement		5%		$585,578
Rehabilitation		5%		$263 340

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$17,567,327**
Rehabilitation Total	**$7,900,200**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells

Existing Bridge Inputs

Railroad		Line		Mile Post		Date
	UPRR		CO		12.84	9/24/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
I	Open deck	Timber stringer	15 ft	25	375 ft
II	Open deck	Timber stringer	15 ft	1	15 ft
III	Open deck	Timber stringer	27 ft	9	243 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Environmental Work, Permitting	5%
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
III	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required		Additional Unit Cost =	$0

Bridge Removal

Standard		Unit Cost =	$300	per foot
Standard with lead paint		Unit Cost =	$750	per foot
Standard		Unit Cost =	$300	per foot
Not Applicable		Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required		Base Unit Cost =	$3,000	per foot
	Timber Trestle Length = 403 ft			

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost =	$4,000	per foot
	Steel Girder/Beam Length = 28 ft			
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor =	1.05

Rehabilitation of Concrete

No Rehabilitation Required		Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	732.84	531	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$275,272
Segment I Cost	$4,043 /LF		375 ft	$1,515,938
Segment II Cost	$4,043 /LF		28 ft	$113,190
Segment III Cost	$4,043 /LF		228 ft	$921,690
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		375 ft	$112,500
Removal II Cost	$750 /LF		28 ft	$21,000
Removal III Cost	$300 /LF		228 ft	$68,400
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$3,027,989**
Contingencies		40%		$1,211,196
Construction Engineering		5%		$151,399
2009 Total Before Inflation				**$4,390,584**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$4,390,584**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$131,800
Timber Trestle	$2,000 /LF		603 ft	$1,206,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		28 ft	$112,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,449,800**
Contingencies		40%		$579,920
Construction Engineering		5%		$72,490
2009 Total Before Inflation				**$2,102,210**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$2,102,210**

Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		5%		$151,399
Rehabilitation		5%		$72,490

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$4,541,984**
Rehabilitation Total	**$2,174,700**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge in a given subdivision, input the following information into the yellow cells

Existing Bridge Inputs

Segment	Span Type	Span Length	Number of Spans	Total Length
		10 ft	5	50 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2008
Environmental Permitting	1%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans = 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 80 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	735 86	80	9/25/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$34 740
Segment I Cost	$4 043 /LF		80 ft	$323 400
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		80 ft	$24 000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$382,140**
Contingencies		40%		$152 856
Construction Engineering		5%		$19 107
2009 Total Before Inflation				**$554,103**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$554,103**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$16,000
Timber Trestle	$2,000 /LF		80 ft	$160,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$176,000**
Contingencies		40%		$70,400
Construction Engineering		5%		$8,800
2009 Total Before Inflation				**$255,200**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$255,200**

Project Engineering				
Replacement		5%		$19 107
Rehabilitation		5%		$8,800

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$573,210**
Rehabilitation Total	**$264,000**

For each type of bridge in your network, input the following information in the yellow cells

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CBRR	10	7.6 03	3/24/2008

Track Unit	Track Type	Span Length	No. Feet of Spans	Total Length
	No track at site	0 ft	5	40 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	1 %
Inflation Rate	3.07%
Locomotive Fuel Consumption	2109
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Existing bridge configuration

I	Trestle < 40 feet	Base Unit Cost	= $3,500	per foot
II	Not Applicable	Base Unit Cost	= $0	per foot
III	Not Applicable	Base Unit Cost	= $0	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 3 or 4	Increase Factor	= 1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	= $0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 50 ft

Rehabilitation of Steel

Steel Trestle: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss: No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	736.03	50	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		0%		$21,713
Segment I Cost	$4,043 /LF		50 ft	$202,125
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		50 ft	$15,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$238,838**
Contingencies		40%		$95,535
Construction Engineering		5%		$11,942
2009 Total Before Inflation				**$346,314**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$346,314**

REHABILITATION				
Mobilization		10%		$10,000
Timber Trestle	$2,000 /LF		50 ft	$100,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$110,000**
Contingencies		40%		$44,000
Construction Engineering		5%		$5,500
2009 Total Before Inflation				**$159,500**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$159,500**

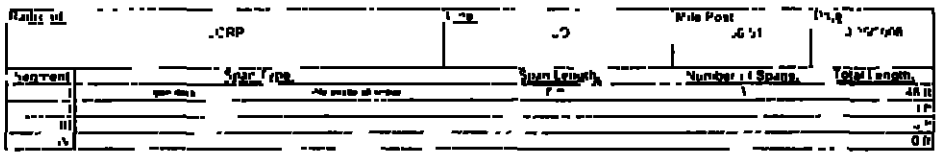
Project Engineering				
Replacement		5%		$11,942
Rehabilitation		5%		$5,500

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$358,256**
Rehabilitation Total	**$165,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular bridge, input the following information in the yellow cells.

Existing Bridge Inputs



Cost Inputs

Contingencies	42%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2008
Traffic Control/Flagging	1%
Project Engineering	7%

REPLACEMENT INPUTS

Expected span configuration

I	Spans = 0 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Not Land	Increase Factor =	1.00
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

I	Standard	Unit Cost =	$300	per foot
II	Not Applicable	Unit Cost =	$0	per foot
III	Not Applicable	Unit Cost =	$0	per foot
IV	Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

	Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 48 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	736 51	48	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$19,080
Segment I Cost	$3,675 /LF		48 ft	$176,400
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		48 ft	$14,400
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$209,880**
Contingencies		40%		$83,952
Construction Engineering		5%		$10,494
2009 Total Before Inflation				**$304,326**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$304,326**

REHABILITATION				
Mobilization		10%		$9,600
Timber Trestle	$2,000 /LF		48 ft	$96,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$105,600**
Contingencies		40%		$42,240
Construction Engineering		5%		$5,280
2009 Total Before Inflation				**$153,120**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$153,120**

Project Engineering				
Replacement		5%		$10,494
Rehabilitation		5%		$5,280

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$314,820**
Rehabilitation Total	**$158,400**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge in each of the following segments, input the following information into the yellow cells

Existing Bridge Inputs

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Timber Deck Trestle	Pile Bents at 15ft	15 ft	6	90 ft
II					0 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans = 90 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
V	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 90 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	737.33	90	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$39,083
Segment I Cost	$4,043 /LF		90 ft	$363,825
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		90 ft	$27,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$429,908**
Contingencies		40%		$171,963
Construction Engineering		5%		$21,495
2009 Total Before Inflation				**$623,366**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$623,366**

REHABILITATION				
Mobilization		10%		$18,000
Timber Trestle	$2,000 /LF		90 ft	$180,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$198,000**
Contingencies		40%		$79,200
Construction Engineering		5%		$9,900
2009 Total Before Inflation				**$287,100**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$287,100**

Project Engineering				
Replacement		5%		$21,495
Rehabilitation		5%		$9,900

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$644,861**
Rehabilitation Total	**$297,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, enter the following information into the yellow cells

Existing Bridge Inputs

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / No ballast or ties	15 ft	2	30 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingency	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	15%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 40 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Not Used	Increase Factor =	1.00
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286 000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2 000	per foot

Timber Trestle Length = 30 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Retrofit	No Seismic Retrofit Required	Increase Factor =	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Retrofit	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	738 70	30	9/26/2008

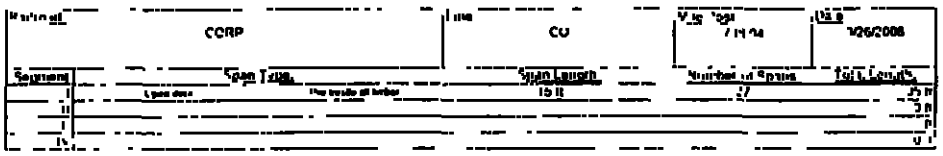
Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$11,925
Segment I Cost	$3,675 /LF		30 ft	$110,250
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		30 ft	$9 000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$131,175**
Contingenc es		40%		$52,470
Construction Engineering		5%		$6 559
2009 Total Before Inflation				**$190,204**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$190,204**

REHABILITATION				
Mobilization		10%		$6 000
Timber Trestle	$2,000 /LF		30 ft	$60 000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$66,000**
Contingencies		40%		$26 400
Construction Engineering		5%		$3,300
2009 Total Before Inflation				**$95,700**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$95,700**

Project Engineering				
Replacement		5%		$6,559
Rehabilitation		5%		$3 300

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$196,763**
Rehabilitation Total	**$99,000**

Existing Bridge Inputs



Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	4%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	$1,500	per foot
II	Not Applicable	Base Unit Cost	$0	per foot
III	Not Applicable	Base Unit Cost	$0	per foot
IV	Not Applicable	Base Unit Cost	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	$0

Pile Removal

Standard	Unit Cost	$300	per foot
Not Applicable	Unit Cost	$0	per foot
Not Applicable	Unit Cost	$0	per foot
Not Applicable	Unit Cost	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	$2,000	per foot

Timber Trestle Length = 469 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	738 94	405	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobiliza ion		10%		$175 871
Segment I Cost	$4,043 /LF		405 ft	$1,637,213
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		405 ft	$121,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,934,584**
Contingencies		40%		$773 834
Construction Engineering		5%		$96 729
2009 Total Before Inflation				**$2,805,146**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,805,146**

REHABILITATION				
Mobilization		10%		$81,000
Timber Trestle	$2,000 /LF		405 ft	$810,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$891,000**
Contingencies		40%		$356,400
Construction Engineer ng		5%		$44,550
2009 Total Before Inflation				**$1,291,950**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,291,950**

Project Engineering				
Replacement		5%		$96,729
Rehabilitation		5%		$44,550

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$2,901,876**
Rehabilitation Total	***$1,336,500***

For each type of bridge at a part cular site, input the f owing information into the yellow cells

Existing Bridge Inputs

Treatment	Span Type	Span Length	Number of Spans	Total Length
I	Timber deck	Pile trestle timber	15 ft	5
II	Timber deck	Through girder	50 ft	1
III	Timber deck	Pile trestle timber	7 ft	11
IV				

Cost Inputs

Contingencies	40%
Mobilization	10%
Design Life	50%
Estimated Time of Construction	009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	= $3,500	per foot
II	Spans > 50 feet	Base Unit Cost	= $3,500	per foot
III	Spans <= 50 feet	Base Unit Cost	= $3,500	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 3 or 4	Increase Factor	= 1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	= $0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Standard with less work	Unit Cost	=	$750	per foot
Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286 000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 540 ft

Rehabilitation of Steel

Steel Trestle: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam: Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot

Steel Girder/Beam Length = 50 ft

Steel Truss: No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab: Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab: No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	739 14	590	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$258,458
Segment I Cost	$4 043 /LF		375 ft	$1 515 938
Segment II Cost	$4 043 /LF		50 ft	$202 125
Segment III Cost	$4 043 /LF		165 ft	$667 013
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		375 ft	$112,500
Removal II Cost	$750 /LF		50 ft	$37,500
Removal II Cost	$300 /LF		165 ft	$49,500
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$2,843,033**
Contingencies		40%		$1 137,213
Construction Engineering		5%		$142,152
2009 Total Before Inflation				**$4,122,397**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$4,122,397**

REHABILITATION				
Mobilization		10%		$128 000
Timber Trestle	$2,000 /LF		540 ft	$1,080 000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		50 ft	$200,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,408,000**
Contingencies		40%		$563,200
Construction Engineering		5%		$70 400
2009 Total Before Inflation				**$2,041,600**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$2,041,600**

Project Engineering				
Replacement		5%		$142,152
Rehabilitation		5%		$70 400

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$4,264,549**
Rehabilitation Total	**$2,112,000**

For each type of bridge structure, put the following information in the yellow cells

Existing Bridge Inputs

Bridge ID				Mile Post	Date
	RP			79.41	9/29/2008

Spans	Span Type	Span Length	Number of Spans	Total Length
I	Open deck	10 ft	5	50 ft
II	Open deck	27 ft	1	27 ft
III	Open deck	17 ft	7	119 ft
IV				0 ft

Cost Inputs

Contingency	4.5%
Mobilization	10%
Inflation Rate	3.00%
Anticipated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Spans > 50 feet and <= 100 feet	Base Unit Cost =	$9,000	per foot
III	Spans > 100 feet	Base Unit Cost =	$3,500	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Standard with lead paint	Unit Cost =	$750	per foot
Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required		Base Unit Cost =	$2,000	per foot
	Timber Trestle Length = 407 ft			

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost =	$4,000	per foot
	Steel Girder Beam Length = 92 ft			
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor =	1.05

Rehabilitation of Concrete

No Rehabilitation Required		Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	739 43	:99	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$279,274
Segment I Cost	$4,043 /LF		288 ft	$1 164,240
Segment II Cost	$10,395 /LF		92 ft	$956,340
Segment III Cost	$4 043 /LF		119 ft	$481,058
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		288 ft	$86,400
Removal II Cost	$750 /LF		92 ft	$69,000
Removal III Cost	$300 /LF		119 ft	$35,700
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$3,072,011**
Contingencies		40%		$1,228,805
Construction Engineering		5%		$153 601
2009 Total Before Inflation				**$4,454,416**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$4,454,416**
REHABILITATION				
Mobilization		10%		$118,200
Timber Trestle	$2,000 /LF		407 ft	$814,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		92 ft	$368,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$1,300,200**
Contingencies		40%		$520,080
Construction Engineering		5%		$65,010
2009 Total Before Inflation				**$1,885,290**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,885,290**
Project Engineering				
Replacement		5%		$153 601
Rehabilitation		5%		$65,010

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$4,608,017**
Rehabilitation Total	**$1,950,300**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line	Mile Post	Date
	CLHP	CO	739.68	9/26/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
I	Open deck	Pre-fabricated timber	20 ft	4	80 ft
II	Open deck	Timber pile trestle	125 ft	9	1,125 ft
III	Open deck	Timber pile trestle	180 ft	2	360 ft
IV	Open deck	Pre-fabricated timber	5 ft	4	80 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	10%
Project Engineering	15%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Spans >= 100 feet	Base Unit Cost	=	$15,000	per foot
III	Moveable Bridge Span	Base Unit Cost	=	$50,000	per foot
IV	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

Construction Access Platform Required	Additional Unit Cost	=	$100,000

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Truss Removal >= 125ft	Unit Cost	=	$4,200	per foot
Truss Removal >= 125ft	Unit Cost	=	$4,200	per foot
Standard	Unit Cost	=	$300	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 140 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	Paint and Reinforcement	Base Unit Cost	=	$5,000	per foot

Truss Length = 1485 ft

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	739 68	1565	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$4,722 558
Segment I Cost	$4,043 /LF		80 ft	$323,400
Segment II Cost	$17,325 /LF		1125 ft	$19,490 625
Segment III Cost	$57,750 /LF		360 ft	$20,790,000
Segment IV Cost	$4,043 /LF		60 ft	$242,550
Cost of Work Bridge	$100,000			$100 000
Removal I Cost	$300 /LF		80 ft	$24,000
Removal II Cost	$4,200 /LF		1125 ft	$4,725,000
Removal III Cost	$4 200 /LF		360 ft	$1,512,000
Removal IV Cost	$300 /LF		60 ft	$18,000
Construction Subtotal				**$51,948,133**
Contingencies		40%		$20,779,253
Construction Engineering		10%		$5,194,813
2009 Total Before Inflation				**$77,922,199**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage.	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$77,922,199**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				-
Mobilization		10%		$770,500
Timber Trestle	$2,000 /LF		140 ft	$280,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$5,000 /LF		1485 ft	$7,425,000
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$8,475,500**
Contingencies		40%		$3,390,200
Construction Engineering		10%		$847,550
2009 Total Before Inflation				**$12,713,250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$12,713,250**

Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				-
Replacement		15%		$7,792 220
Rehabilitation		15%		$1,271,325

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$85,714,419**
Rehabilitation Total	**$13,984,575**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each line of bridge at a particular site, input the following information in the yellow cells.

Existing Bridge Inputs

Railroad		Line		MP Post	Date
	CBNP		CO	740.25	9/25/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / Pile supported timber	15 ft	4	60 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	1.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,600	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Roadway	Increase Factor	=	1.05
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Over live traffic	Unit Cost	=	$825	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 60 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	740 25	60	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$26,903
Segment I Cost	$3 659 /LF		60 ft	$231 525
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$625 /LF		60 ft	$37,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$295,928**
Contingencies		40%		$118 371
Construction Engineering		5%		$14,796
2009 Total Before Inflation				**$429,095**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$429,095**

REHABILITATION				
Mobilization		10%		$12,000
Timber Trestle	$2,000 /LF		60 ft	$120,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$132,000**
Contingencies		40%		$52,800
Construction Engineering		5%		$6,600
2009 Total Before Inflation				**$191,400**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$191,400**

Project Engineering				
Replacement		5%		$14 796
Rehabilitation		5%		$6,600

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$443,891**
Rehabilitation Total	**$198,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line	Mile Post	Date
CORP		CO	740.94	9/29/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
	Open deck / Ballast deck / Thru truss or arch			
II		15 ft	4	60 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Existing span configuration

I	Spans = = 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Thru Roadway	Increase Factor =	1.05
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Over the Traffic	Unit Cost =	$625	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 60 ft

Rehabilitation of Steel

Steel Trestle: No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam: No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss: No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab: No Seismic Retrofit Required	Increase Factor =	1.00	

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab: No Seismic Retrofit Required	Increase Factor =	1.00	

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	740 84	60	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$26 903
Segment I Cost	$3 859 /LF		60 ft	$231,525
Segment II Cost	$0 /LF		ft	$0
Segment "I Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$625 /LF		60 ft	$37,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$295,928**
Contingencies		40%		$118,371
Construction Engineering		5%		$14,796
2009 Total Before Inflation				**$429,095**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$429,095**

REHABILITATION				
Mobilization		10%		$12,000
Timber Trestle	$2 000 /LF		60 ft	$120,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$132,000**
Contingencies		40%		$52,800
Construction Engineering		5%		$6,600
2009 Total Before Inflation				**$191,400**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$191,400**

Project Engineering				
Replacement		5%		$14,796
Rehabilitation		5%		$6,600

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$443,891**
Rehabilitation Total	**$198,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information in the yellow cells.

Existing Bridge Inputs

Railroad		Line		Mile Post		Date
	CRP		CO	74.35		9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
	Open deck / Pile trestle or timber	15 ft	4	60 ft
III				3 ft
II				9 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Single <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot
Timber Trestle Length =	60	ft		

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	741 35	50	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$26 055
Segment I Cost	$4 043 /LF		60 ft	$242,550
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		60 ft	$18,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$286,605**
Contingencies		40%		$114 642
Construction Engineering		5%		$14,330
2009 Total Before Inflation				**$415,577**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$415,577**

REHABILITATION				
Mobilization		10%		$12,000
Timber Trestle	$2,000 /LF		60 ft	$120,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$132,000**
Contingencies		40%		$52,800
Construction Engineering		5%		$6,600
2009 Total Before Inflation				**$191,400**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$191,400**

Project Engineering				
Replacement		5%		$14,330
Rehabilitation		5%		$6,600

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	$429,908
Rehabilitation Total	$198,000

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site input the following information into the yellow cells.

Existing Bridge Inputs

Railroad:	CORP	ine	CO	Mile Post:	741.74	Date:	9/28/2006

Segment	Span Type		Span Length	Number of Spans	Total Length
	Plate Girder	Pile Trestle (Timber)	15 ft	3	45 ft
II					0 ft
III					0 ft
V					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
V	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 45 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	741.74	45	9/25/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$13,541
Segment I Cost	$4,043 /LF		45 ft	$181,913
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		45 ft	$13,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$214,954**
Contingencies		40%		$85,982
Construction Engineering		5%		$10,748
2009 Total Before Inflation				**$311,683**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$311,683**

REHABILITATION				
Mobilization		10%		$9,000
Timber Trestle	$2,000 /LF		45 ft	$90,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$99,000**
Contingencies		40%		$39,600
Construction Engineering		5%		$4,950
2009 Total Before Inflation				**$143,550**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$143,550**

Project Engineering				
Replacement		5%		$10,748
Rehabilitation		5%		$4,950

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$322,431**
Rehabilitation Total	**$148,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line		Mile Post		Date
	CORP		CO		42.05	9/29/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / No vertical lower	5 ft	3	45 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,000	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot
Timber Trestle Length =	45	ft		

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	742 05	45	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilizat on		10%		$19,541
Segment I Cost	$4 043 /LF		45 ft	$181 9?3
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		45 ft	$13,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				$214,954
Contingencies		40%		$85,982
Construction Engineering		5%		$10,748
2009 Total Before Inflation				$311,683
Inflation Rate	3 00%			
Estimated Year of Const.	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				$311,683
REHABILITATION				
Mobilization		10%		$9,000
Timber Trestle	$2,000 /LF		45 ft	$90,000
Steel Tres'le	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				$99,000
Contingencies		40%		$39,600
Construction Engineering		5%		$4,950
2009 Total Before Inflation				$143,550
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				$143,550
Project Engineering				
Replacement		5%		$10,748
Rehabilitation		5%		$4 950

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$322,431**
Rehabilitation Total	**$148,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line		Mile Post		Date
	CORP		CO	742.24		9/26/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
	Open Deck	Pre-cast-all timber	5 ft	8	120 ft
II					0 ft
III					0 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	0%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	4%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 120 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	742 24	120	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$52 110
Segment I Cost	$4 043 /LF		120 ft	$485,100
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		120 ft	$36,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$573,210**
Contingencies		40%		$229,284
Construction Engineering		5%		$28,661
2009 Total Before Inflation				**$831,155**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$831,155**

REHABILITATION				
Mobilization		10%		$24,000
Timber Trestle	$2,000 /LF		120 ft	$240,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$264,000**
Contingencies		40%		$105,600
Construction Engineering		5%		$13,200
2009 Total Before Inflation				**$382,800**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$382,800**

Project Engineering				
Replacement		5%		$28,661
Rehabilitation		5%		$13,200

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$859,815**
Rehabilitation Total	**$396,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CORP	CO	742.72	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / Pile trestle all timber	15 ft	9	135 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflator Rate	3.30%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 135 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	742.72	135	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$58,624
Segment I Cost	$4,043 /LF		135 ft	$545,738
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		135 ft	$40,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$644,861**
Contingencies		40%		$257,945
Construction Engineering		5%		$32,243
2009 Total Before Inflation				**$935,049**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Replacement Subtotal for Estimated Year of Construction				**$935,049**

REHABILITATION				
Mobilization		10%		$27,000
Timber Trestle	$2,000 /LF		135 ft	$270,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$297,000**
Contingencies		40%		$118,800
Construction Engineering		5%		$14,850
2009 Total Before Inflation				**$430,650**
Inflation Rate	3.00%			
Estimated Year of Const	2009			
Inflation Percentage	0.00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$430,650**

Project Engineering				
Replacement		5%		$32,243
Rehabilitation		5%		$14,850

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	$967,292
Rehabilitation Total	$445,500

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge, a particular site, copy the yellow information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CORP	CO	742.95	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / Pile bents at bents	15 ft	4	60 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.50%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
I	Not Applicable	Base Unit Cost =	$0	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 60 ft

Rehabilitation of Steel

Steel Trestle: No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam: No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss: No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab: No Seismic Retrofit Required	Increase Factor =	1.00	

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab: No Seismic Retrofit Required	Increase Factor =	1.00	

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	742 95	60	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$26,055
Segment I Cost	$4,043 /LF		60 ft	$242 550
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		60 ft	$18,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				$286,605
Contingencies		40%		$114,642
Construction Engineering		5%		$14,330
2009 Total Before Inflation				$415,577
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				$415,577

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$12,000
Timber Trestle	$2,000 /LF		60 ft	$120,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				$132,000
Contingencies		40%		$52,800
Construction Engineering		5%		$6,600
2009 Total Before Inflation				$191,400
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				$191,400

Description				
Project Engineering				
Replacement		5%		$14,330
Rehabilitation		5%		$6,600

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$429,908**
Rehabilitation Total	**$198,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each line of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line	Mile Post	Date
CORP		CO	743.20	9/25/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
	Ballast deck trestle / Pile bent all timber	15 ft	3	45 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Land	Increase Factor =	1.00
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 45 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	743 20	45	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$17,888
Segment I Cost	$3,675 /LF		45 ft	$165,375
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		45 ft	$13,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$196,763**
Contingencies		40%		$78,705
Construction Engineering		5%		$9,838
2009 Total Before Inflation				**$285,306**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$285,306**

REHABILITATION				
Mobilization		10%		$9,000
Timber Trestle	$2,000 /LF		45 ft	$90 000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$99,000**
Contingencies		40%		$39,600
Construction Engineering		5%		$4,950
2009 Total Before Inflation				**$143,550**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$143,550**

Project Engineering				
Replacement		5%		$9,838
Rehabilitation		5%		$4,950

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$295,144**
Rehabilitation Total	**$148,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge in a particular line, input the following unit material type and replacement cost.

Existing Bridge Inputs

Railroad	CORP	Line	CO	Mile Post	743.73	Date	6/26/2008

Segment	Span Type	Span Length, ft	Number of Spans	Total Length, ft
II	Open deck / Pile trestle of timber	15 ft	9	135 ft
II				0 ft
II				2 ft
V				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10	
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05	

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot	

Timber Trestle Length = 135 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot	

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	743 73	135	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$58 624
Segment I Cost	$4 043 /LF		135 ft	$545,738
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		135 ft	$40,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$644,861**
Contingencies		40%		$257,945
Construction Engineering		5%		$32,243
2009 Total Before Inflation				**$935,049**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$935,049**

REHABILITATION				
Mobilization		10%		$27,000
Timber Trestle	$2,000 /LF		135 ft	$270,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$297,000**
Contingencies		40%		$118,800
Construction Engineering		5%		$14,850
2009 Total Before Inflation				**$430,650**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$430,650**

Project Engineering				
Replacement		5%		$32,243
Rehabilitation		5%		$14,850

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	$967,292
Rehabilitation Total	$445,500

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following bridge information into the yellow cells.

Existing Bridge Inputs

Railroad		Line	Mile Post	Date
	CORP	CO	741.85	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
1	Open deck / Pile trestle all timber	15 ft	8	120 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2008
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	= $3,600	per foot
II	Not Applicable	Base Unit Cost	= $0	per foot
III	Not Applicable	Base Unit Cost	= $0	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 3 or 4	Increase Factor	= 1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	= $0

Bridge Removal

Standard	Unit Cost	= $300	per foot
Not Applicable	Unit Cost	= $0	per foot
Not Applicable	Unit Cost	= $0	per foot
Not Applicable	Unit Cost	= $0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	= $2,000	per foot

Timber Trestle Length = 120 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	= $0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Rehab Required	Increase Factor	= 1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	= $0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Rehab Required	Increase Factor	= 1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	743 88	120	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$52 110
Segment I Cost	$4,043 /LF		120 ft	$485 100
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		120 ft	$36 000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$573,210**
Contingencies		40%		$229,284
Construction Engineering		5%		$28,661
2009 Total Before Inflation				**$831,155**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$831,155**

REHABILITATION				
Mobilization		10%		$24,000
Timber Trestle	$2,000 /LF		120 ft	$240,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$264,000**
Contingencies		40%		$105,600
Construction Engineering		5%		$13,200
2009 Total Before Inflation				**$382,800**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$382,800**

Project Engineering				
Replacement		5%		$28,661
Rehabilitation		5%		$13,200

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$859,815**
Rehabilitation Total	**$396,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad:	CLRP	Line:	CO	Mile Post:	743.97	Date:	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / Pile bents or timber	15 ft	7	105 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2008
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 30 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	12,000	per foot

Timber Trestle Length = 105 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	743 97	105	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$45,596
Segment I Cost	$4,043 /LF		105 ft	$424,463
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		105 ft	$31,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$501,559**
Contingencies		40%		$200,624
Construction Engineering		5%		$25 078
2009 Total Before Inflation				**$727,260**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$727,260**

REHABILITATION				
Mobilization		10%		$21 000
Timber Trestle	$2,000 /LF		105 ft	$210,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$231,000**
Contingencies		40%		$92 400
Construction Engineering		5%		$11,550
2009 Total Before Inflation				**$334,950**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$334,950**

Project Engineering				
Replacement		5%		$25 078
Rehabilitation		5%		$11,550

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	$752,338
Rehabilitation Total	$346,500

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line	Mile Post	Date
	CORP	CO	744.24	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
	Reinforced Concrete / No Vertical Lift	15 ft	5	75 ft
				0 ft
				0 ft
				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	4%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,000	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot
Timber Trestle Length =	75	ft			

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	744 24	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32,569
Segment I Cost	$4 043 /LF		75 ft	$303,188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22 500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**
REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2,000 /LF		75 ft	$150,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**
Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8,250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$537,384**
Rehabilitation Total	**$247,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
...OMP	CO	744.44	...8/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Reinforced Concrete / Pile bents or timber	15 ft	5	75 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	1%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 75 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	744 44	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32,569
Segment I Cost	$4,043 /LF		75 ft	$303,188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22 500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143 303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**
REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2,000 /LF		75 ft	$150,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**
Project Engineering				
Replacement		5%		$17 913
Rehabilitation		5%		$8 250
OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION				
Replacement Total				**$537,384**
Rehabilitation Total				**$247,500**

Coos Hay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site input the following information on yellow cells

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CORP	CO	744 70	9/25/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Fixed deck trestle / Pre-cast girder	15 ft	5	75 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingency	40%
Mobilization	10%
Inflation Rate	3 00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	$3,500	per foot
II	Not Applicable	Base Unit Cost	$0	per foot
III	Not Applicable	Base Unit Cost	$0	per foot
IV	Not Applicable	Base Unit Cost	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	1 10
Seismic Zone	Zone 3 or 4	Increase Factor	1 05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	$0

Bridge Removal

Standard	Unit Cost	$300	per foot
Not Applicable	Unit Cost	$0	per foot
Not Applicable	Unit Cost	$0	per foot
Not Applicable	Unit Cost	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	$2 000	per foot

Timber Trestle Length = 75 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	1 00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	1 00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	744 70	75	9/26/2008

Description	*Factored Cost*	*Percentage Factor*	*Total Length*	*Cost*
REPLACEMENT				
Mobilization		10%		$32 569
Segment I Cost	$4,043 /LF		75 ft	$303 188
Segment .I Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**

REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2,000 /LF		75 ft	$150 000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**

Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8,250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$537,384**
Rehabilitation Total	**$247,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Subdivision		Line		Mile Post		Date
	CORP		CO	744.93		9/26/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
I	Ballast deck steel	Pile bents or piers	15 ft	5	75 ft
II					0 ft
III					0 ft
IV					0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 40 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 75 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required		Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	744 83	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32 569
Segment I Cost	$4,043 /LF		75 ft	$303,188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**

REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2,000 /LF		75 ft	$150,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**

Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8,250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	$537,384
Rehabilitation Total	$247,500

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge at a particular site, input the yellow cell information in the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CORP	CO	748.06	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Ballast deck trestle / Pile trestle all timber	5 ft	8	40 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	= $3,600	per foot
II	Not Applicable	Base Unit Cost	= $0	per foot
III	Not Applicable	Base Unit Cost	= $0	per foot
IV	Not Applicable	Base Unit Cost	= $0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	= 1.10
Seismic Zone	Zone 3 or 4	Increase Factor	= 1.05

Construction Access Platform

No Construction Access Platform Required		Additional Unit Cost	= $0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 80 ft

Rehabilitation of Steel

Steel Trestle: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss: No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab: No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab: No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	748 06	90	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$39,083
Segment I Cost	$4,043 /LF		90 ft	$363,825
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		90 ft	$27,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$429,908**
Contingencies		40%		$171 963
Construction Engineering		5%		$21,495
2009 Total Before Inflation				**$623,366**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$623,366**

REHABILITATION				
Mobilization		10%		$18 000
Timber Trestle	$2,000 /LF		90 ft	$180,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$198,000**
Contingencies		40%		$79 200
Construction Engineering		5%		$9 900
2009 Total Before Inflation				**$287,100**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$287,100**

Project Engineering				
Replacement		5%		$21,495
Rehabilitation		5%		$9,900

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$644,861**
Rehabilitation Total	**$297,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line	Mile Post	Date
	CORP	CO	748.44	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Ballast deck trestle / Pile trestle-all timber	15 ft	2	30 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required		Base Unit Cost	=	$2,000	per foot
	Timber Trestle Length = 30 ft				

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required		Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	748 44	30	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$13,028
Segment I Cost	$4 043 /LF		30 ft	$121 275
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		30 ft	$9,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$143,303**
Contingencies		40%		$57,321
Construction Engineering		5%		$7,165
2009 Total Before Inflation				**$207,789**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$207,789**

REHABILITATION				
Mobilization		10%		$6,000
Timber Trestle	$2,000 /LF		30 ft	$60,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$66,000**
Contingencies		40%		$26,400
Construction Engineering		5%		$3,300
2009 Total Before Inflation				**$95,700**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$95,700**

Project Engineering				
Replacement		5%		$7,165
Rehabilitation		5%		$3 300

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	$214,954
Rehabilitation Total	$99,000

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line		M.P. Post		Date
CORP		LO		749.58		8/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck Frame bents of timber	15 ft	5	75 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost =	$3,600	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot
Timber Trestle Length =	75	ft		

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	748 68	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32,569
Segment I Cost	$4 043 /LF		75 ft	$303,188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2,000 /LF		75 ft	$150,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**

Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8 250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	$537,384
Rehabilitation Total	$247,500

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad:	CORP	Line:	CO	Mile Post:	50.48	Date:	9/25/2008

Segment	Span Type		Span Length	Number of Spans	Total Length
I	Open deck	Pre-treated timber	5 ft	64	320 ft
II	Open deck	Steel beam span	60 ft	1	60 ft
III	Open deck	Pre-treated timber	0 ft	54	270 ft
IV					0 ft

Cost Inputs

Contingencies	43%
Mobilization	0%
Inflation Rate	2.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Spans > 50 feet and < 100 feet	Base Unit Cost	=	$9,000	per foot
III	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Standard with lead paint	Unit Cost	=	$750	per foot
Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required		Base Unit Cost	=	$2,000	per foot
	Timber Trestle Length = 1473 ft				

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot
	Steel Girder/Beam Length = 60 ft				
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required		Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	750 46	1533	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$706 520
Segment I Cost	$4,043 /LF		960 ft	$3,880,800
Segment II Cost	$10,395 /LF		60 ft	$623 700
Segment III Cost	$4,043 /LF		513 ft	$2,073,803
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		960 ft	$288 000
Removal II Cost	$750 /LF		60 ft	$45,000
Removal III Cost	$300 /LF		513 ft	$153,900
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$7,771,723**
Contingencies		40%		$3,108,689
Construction Engineering		5%		$388 586
2009 Total Before Inflation				**$11,268,998**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
nflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$11,268,998**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$318,600
Timber Trestle	$2 000 /LF		1473 ft	$2,946,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		60 ft	$240,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$3,504,600**
Contingencies		40%		$1 401,840
Construction Engineering		5%		$175,230
2009 Total Before Inflation				**$5,081,670**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$5,081,670**

Project Engineering				
Replacement		5%		$388,586
Rehabilitation		5%		$175,230

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$11,657,584**
Rehabilitation Total	**$5,256,900**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a par ticular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line	Mile Post	Date
	CORP	CO	75.02	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / Pile trestle of timber	16 ft	20	320 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Existing span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 320 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	751 02	320	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$138,560
Segment I Cost	$4,043 /LF		320 ft	$1,293,500
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		320 ft	$96,000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$1,528,560**
Contingencies		40%		$611,424
Construction Engineering		5%		$76,428
2009 Total Before Inflation				**$2,216,412**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$2,216,412**

Description	Factored Cost	Percentage Factor	Total Length	Cost
REHABILITATION				
Mobilization		10%		$64,000
Timber Trestle	$2,000 /LF		320 ft	$640,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$704,000**
Contingencies		40%		$281,600
Construction Engineering		5%		$35,200
2009 Total Before Inflation				**$1,020,800**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$1,020,800**

Description	Factored Cost	Percentage Factor	Total Length	Cost
Project Engineering				
Replacement		5%		$76,428
Rehabilitation		5%		$35,200

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$2,292,840**
Rehabilitation Total	**$1,056,000**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, enter the following information into the yellow cells.

Existing Bridge Inputs

Railroad:	CORP	Line:	CO	Mile Post:	752.99	Date:	9/26/2006

Segment	Span Type	Span Length	No. of Spans	Total Length
I	Open deck / Pre-made of timber	15 ft	12	180 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 180 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	752 99	180	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$78,165
Segment I Cost	$4,043 /LF		180 ft	$727,650
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		180 ft	$54 000
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$859,815**
Contingencies		40%		$343,926
Construction Engineering		5%		$42,991
2009 Total Before Inflation				**$1,246,732**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$1,246,732**

REHABILITATION				
Mobilization		10%		$36,000
Timber Trestle	$2,000 /LF		180 ft	$360,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$396,000**
Contingencies		40%		$158 400
Construction Engineering		5%		$19,800
2009 Total Before Inflation				**$574,200**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$574,200**

Project Engineering				
Replacement		5%		$42,991
Rehabilitation		5%		$19 800

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$1,289,723**
Rehabilitation Total	**$594,000**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge of a particular age, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CCRP	CO	75.49	9/25/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / Pile trestle all timber	15 ft	7	105 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans = 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Land	Increase Factor	=	1.00
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 105 ft

Rehabilitation of Steel

Steel Trestle: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam: No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss: No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab: No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab: No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	753 48	105	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$41 738
Segment I Cost	$3,675 /LF		105 ft	$385 875
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		105 ft	$31 500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$459,113**
Contingencies		40%		$183,645
Construction Engineering		5%		$22 956
2009 Total Before Inflation				**$665,713**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$665,713**

REHABILITATION				
Mobilization		10%		$21,000
Timber Trestle	$2,000 /LF		105 ft	$210,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$231,000**
Contingences		40%		$92,400
Construction Engineering		5%		$11,550
2009 Total Before Inflation				**$334,950**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$334,950**

Project Engineering				
Replacement		5%		$22,956
Rehabilitation		5%		$11,550

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$688,669**
Rehabilitation Total	**$346,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the yellow cells under "Existing Bridge Inputs" and the yellow cells under "Cost Inputs".

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CORP	CO	753.97	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / Steel beam span	41 ft	1	41 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Roadway	Increase Factor	=	1.05
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard with lead paint	Unit Cost	=	$750	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	Paint and Rehabilitation	Base Unit Cost	=	$4,000	per foot
	Steel Girder/Beam Length = 41 ft				
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	753 97	41	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$18,896
Segment I Cost	$3 859 /LF		41 ft	$158,209
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$750 /LF		41 ft	$30,750
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				$207,855
Contingencies		40%		$83,142
Construction Engineering		5%		$10,393
2009 Total Before Inflation				$301,389
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				$301,389
REHABILITATION				
Mobilization		10%		$16,400
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$4,000 /LF		41 ft	$164,000
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				$180,400
Contingencies		40%		$72 160
Construction Engineering		5%		$9,020
2009 Total Before Inflation				$261,580
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				$261,580
Project Engineering				
Replacement		5%		$10,393
Rehabilitation		5%		$9 020

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$311,782**
Rehabilitation Total	**$270,600**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad		Line		Mile Post	Date
	CNRP		LO	75.03	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / Ballasted deck	15 ft	5	75 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard	Unit Cost	=	$300	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost	=	$2,000	per foot

Timber Trestle Length = 75 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.03

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	755 63	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32,569
Segment I Cost	$4,043 /LF		75 ft	$303,188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22 500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**

REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2,000 /LF		75 ft	$150,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**

Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8,250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$537,384**
Rehabilitation Total	**$247,500**

Coos Bay Rail Line Bridge Condition Assessment Cost Inputs

For each type of bridge of a particular span, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	Line	Mile Post	Date
CORP	CO	75.13	9/26/2008

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Timber deck / Timber trestle all timber	15 ft	5	75 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	1.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	4%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
V	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required		Additional Unit Cost	=	$0

Bridge Removal

Standard		Unit Cost	=	$300	per foot
Not Applicable		Unit Cost	=	$0	per foot
Not Applicable		Unit Cost	=	$0	per foot
Not Applicable		Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required		Base Unit Cost	=	$2,000	per foot
	Timber Trestle Length = 75 ft				

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Girder /Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Rehabilitation of Concrete

No Rehabilitation Required		Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	756 13	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32,569
Segment I Cost	$4 043 /LF		75 ft	$303,188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**
REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2,000 /LF		75 ft	$150,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**
Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8 250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$537,384**
Rehabilitation Total	**$247,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site input the following information into the yellow cells.

Existing Bridge Inputs

Railroad	CORP	Line	CO	Mile Post,	Date 9/26/2008

Segment	Span Type,	Span Length,	Number of Spans	Total Length
	Deck, No waste at bents	5 ft	5	75 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

II	Spans <= 50 feet	Base Unit Cost =	$3,500	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot

Timber Trestle Length = 75 ft

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	756 55	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32,569
Segment I Cost	$4,043 /LF		75 ft	$303 188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22,500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**

REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2,000 /LF		75 ft	$150,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**

Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8,250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$537,384**
Rehabilitation Total	**$247,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the following information into the yellow cells.

Existing Bridge Inputs

Railroad: CORP	Line: CO	Mile Post: 757.37	Date: 9/26/2008

Segment	Span Type	Span Length	Number of Spans	Segment Length
	Open deck / Pile trestle or timber			
II		15 ft	5	75 ft
III				0 ft
V				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2008
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Span <= 30 feet	Base Unit Cost =	$3,500	per foot
II	Not Applicable	Base Unit Cost =	$0	per foot
III	Not Applicable	Base Unit Cost =	$0	per foot
IV	Not Applicable	Base Unit Cost =	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor =	1.10
Seismic Zone	Zone 3 or 4	Increase Factor =	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost =	$0

Bridge Removal

Standard	Unit Cost =	$300	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot
Not Applicable	Unit Cost =	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

Rehabilitation Required	Base Unit Cost =	$2,000	per foot
Timber Trestle Length =	75	ft		

Rehabilitation of Steel

Steel Trestle	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost =	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Steel Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost =	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor =	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	757 37	75	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$32 569
Segment I Cost	$4 043 /LF		75 ft	$303,188
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$300 /LF		75 ft	$22 500
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$358,256**
Contingencies		40%		$143,303
Construction Engineering		5%		$17,913
2009 Total Before Inflation				**$519,472**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$519,472**

REHABILITATION				
Mobilization		10%		$15,000
Timber Trestle	$2,000 /LF		75 ft	$150,000
Steel Trestle	$0 /LF		ft	$0
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$165,000**
Contingencies		40%		$66,000
Construction Engineering		5%		$8,250
2009 Total Before Inflation				**$239,250**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$239,250**

Project Engineering				
Replacement		5%		$17,913
Rehabilitation		5%		$8,250

OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION	
Replacement Total	**$537,384**
Rehabilitation Total	**$247,500**

Coos Bay Rail Line Bridge Condition Assesment Cost Inputs

For each type of bridge at a particular site, input the information on into the yellow cells.

Existing Bridge Inputs

Railroad:	CORP	Line:	CO	Mile Post:	78.13	Date:	5/26/2005

Segment	Span Type	Span Length	Number of Spans	Total Length
I	Open deck / Steel pile trestle	15 ft	3	45 ft
II				0 ft
III				0 ft
IV				0 ft

Cost Inputs

Contingencies	40%
Mobilization	10%
Inflation Rate	3.00%
Estimated Year of Construction	2009
Construction Engineering	5%
Project Engineering	5%

REPLACEMENT INPUTS

Expected span configuration

I	Spans <= 50 feet	Base Unit Cost	=	$3,500	per foot
II	Not Applicable	Base Unit Cost	=	$0	per foot
III	Not Applicable	Base Unit Cost	=	$0	per foot
IV	Not Applicable	Base Unit Cost	=	$0	per foot

Modification Factors

Crossing	Over Water	Increase Factor	=	1.10
Seismic Zone	Zone 3 or 4	Increase Factor	=	1.05

Construction Access Platform

No Construction Access Platform Required	Additional Unit Cost	=	$0

Bridge Removal

Standard with lead paint	Unit Cost	=	$700	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot
Not Applicable	Unit Cost	=	$0	per foot

REHABILITATE EXISTING BRIDGE TO 286,000LB CAR AT 25MPH FOR 20 YEARS - INPUTS

Rehabilitation of Timber Trestle

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Rehabilitation of Steel

Steel Trestle	Rehabilitation Required	Base Unit Cost	=	$3,000	per foot
	Steel Trestle Length = 45 ft				
Steel Girder/Beam	No Rehabilitation Required	Base Unit Cost	=	$0	per foot
Steel Truss	No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Steel Rehab	Seismic Retrofit Required	Increase Factor	=	1.05

Rehabilitation of Concrete

No Rehabilitation Required	Base Unit Cost	=	$0	per foot

Modification Factor

Seismic Concrete Rehab	No Seismic Retrofit Required	Increase Factor	=	1.00

Coos Bay Rail Line Bridge Condition Assesment Cost Estimate, 2009

Railroad	Line	Mile Post	Total Length	Date
CORP	CO	761 13	45	9/26/2008

Description	Factored Cost	Percentage Factor	Total Length	Cost
REPLACEMENT				
Mobilization		10%		$21,566
Segment I Cost	$4,043 /LF		45 ft	$181,913
Segment II Cost	$0 /LF		ft	$0
Segment III Cost	$0 /LF		ft	$0
Segment IV Cost	$0 /LF		ft	$0
Cost of Work Bridge	$0			$0
Removal I Cost	$750 /LF		45 ft	$33,750
Removal II Cost	$0 /LF		ft	$0
Removal III Cost	$0 /LF		ft	$0
Removal IV Cost	$0 /LF		ft	$0
Construction Subtotal				**$237,229**
Contingencies		40%		$94,892
Construction Engineering		5%		$11,861
2009 Total Before Inflation				**$343,982**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Replacement Subtotal for Estimated Year of Construction				**$343,982**

REHABILITATION				
Mobilization		10%		$13,500
Timber Trestle	$0 /LF		ft	$0
Steel Trestle	$3,000 /LF		45 ft	$135,000
Steel Girder/Beam	$0 /LF		ft	$0
Steel Truss	$0 /LF		ft	$0
Concrete	$0 /LF		ft	$0
Construction Subtotal				**$148,500**
Contingencies		40%		$59,400
Construction Engineering		5%		$7,425
2009 Total Before Inflation				**$215,325**
Inflation Rate	3 00%			
Estimated Year of Const	2009			
Inflation Percentage	0 00%			$0
Rehabilitation Subtotal for Estimated Year of Construction				**$215,325**

Project Engineering				
Replacement		5%		$11,861
Rehabilitation		5%		$7,425

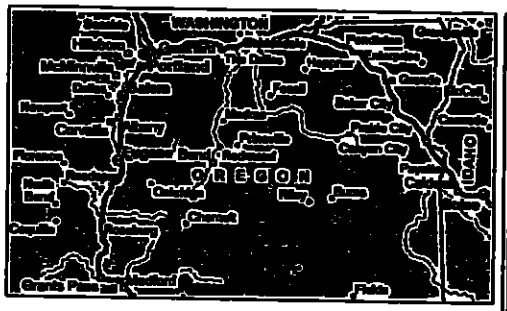
OVERALL TOTAL COST FOR ESTIMATED YEAR OF CONSTRUCTION.	
Replacement Total	**$355,843**
Rehabilitation Total	**$222,750**

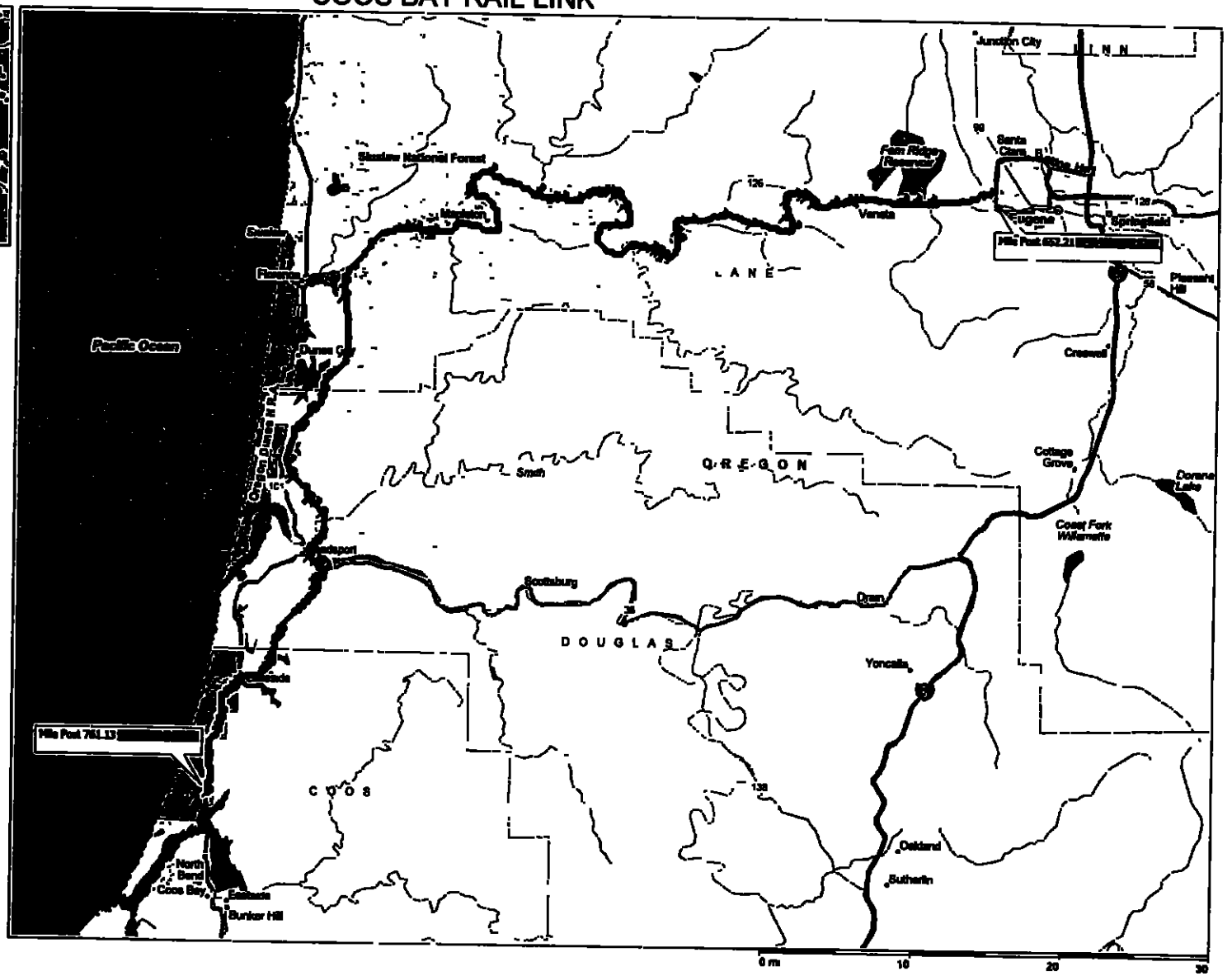
ATTACHMENT 4

Bridge Location Maps

Provided in 8½ x 11 and 11 x 17 format

COOS BAY RAIL LINK





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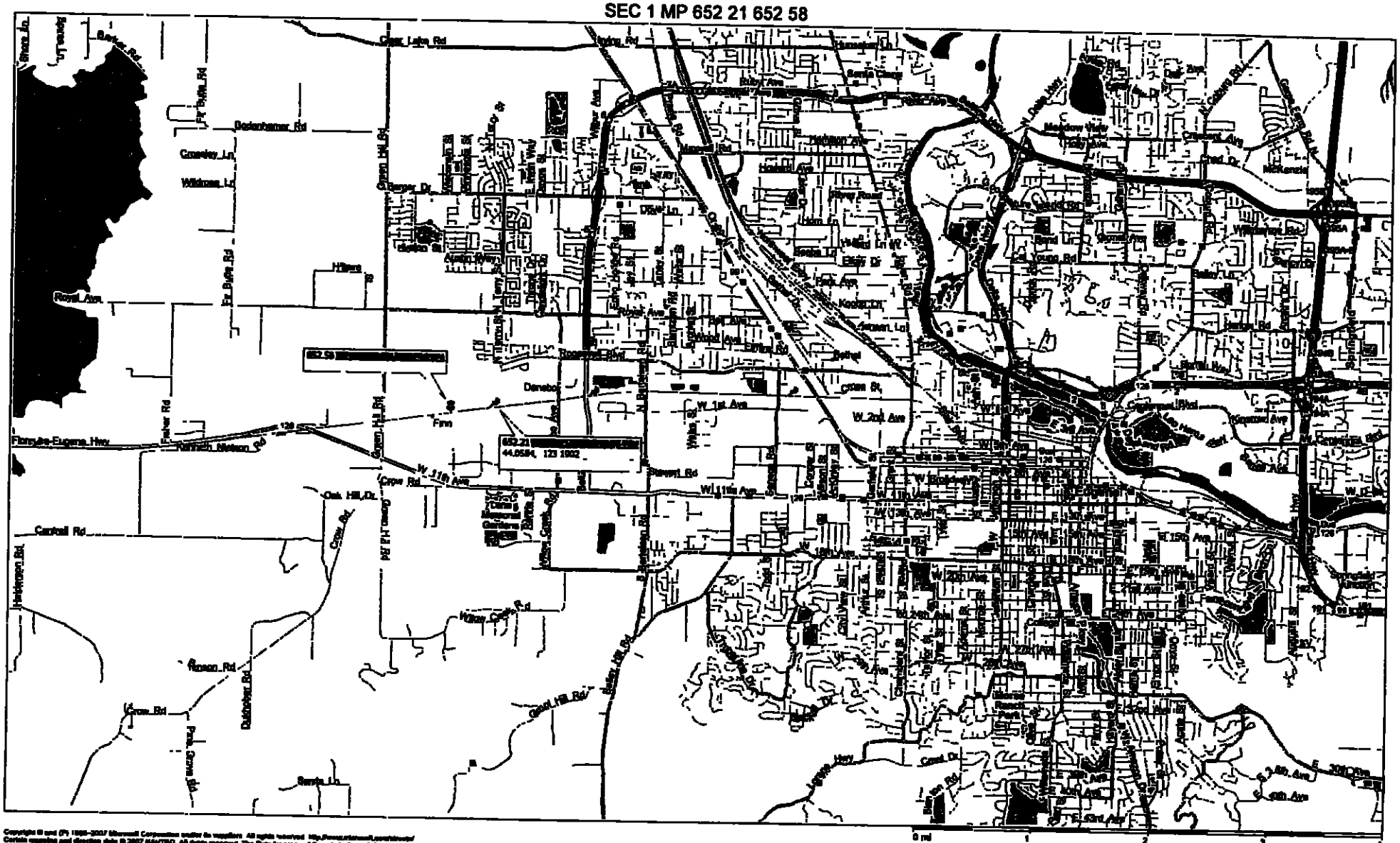

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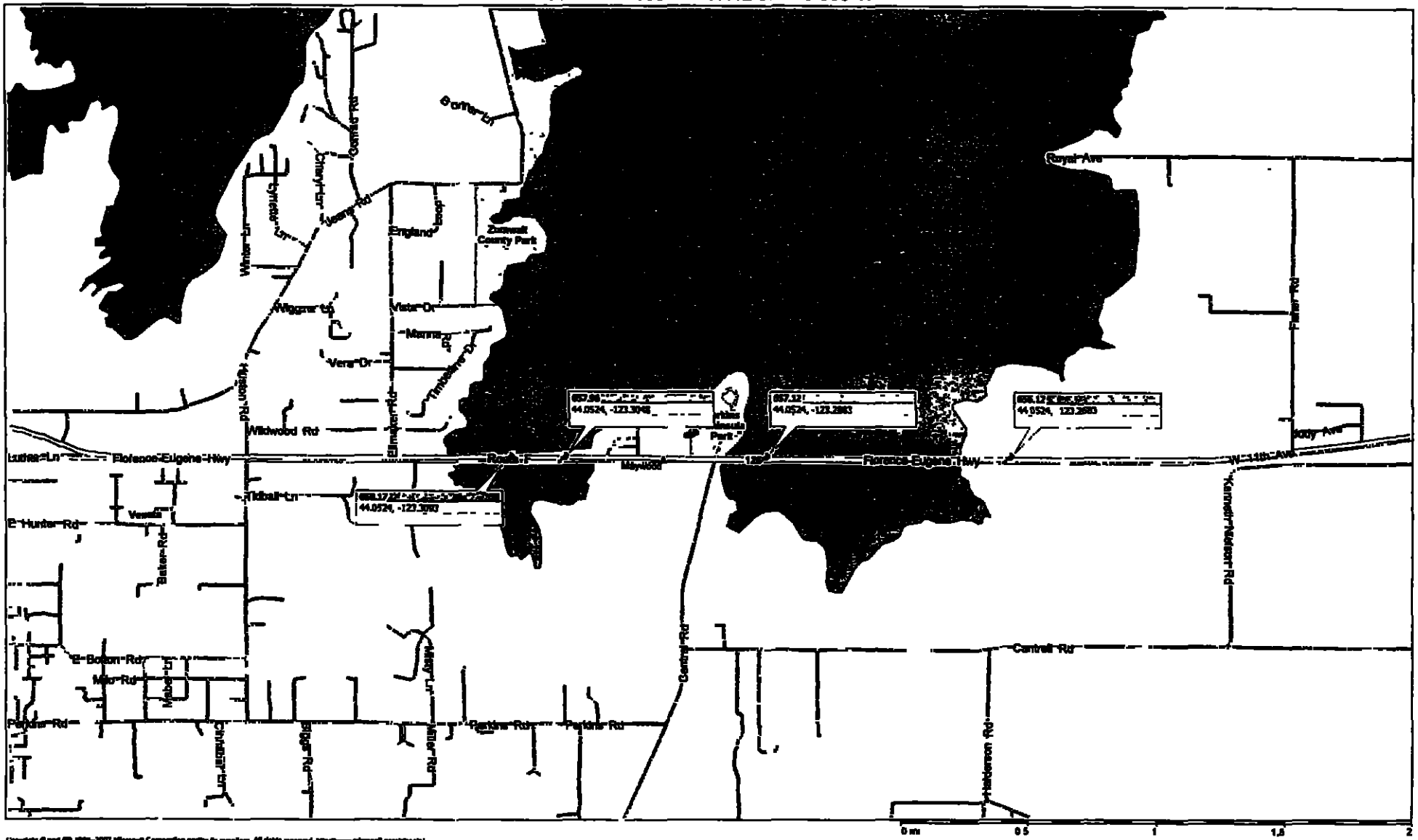

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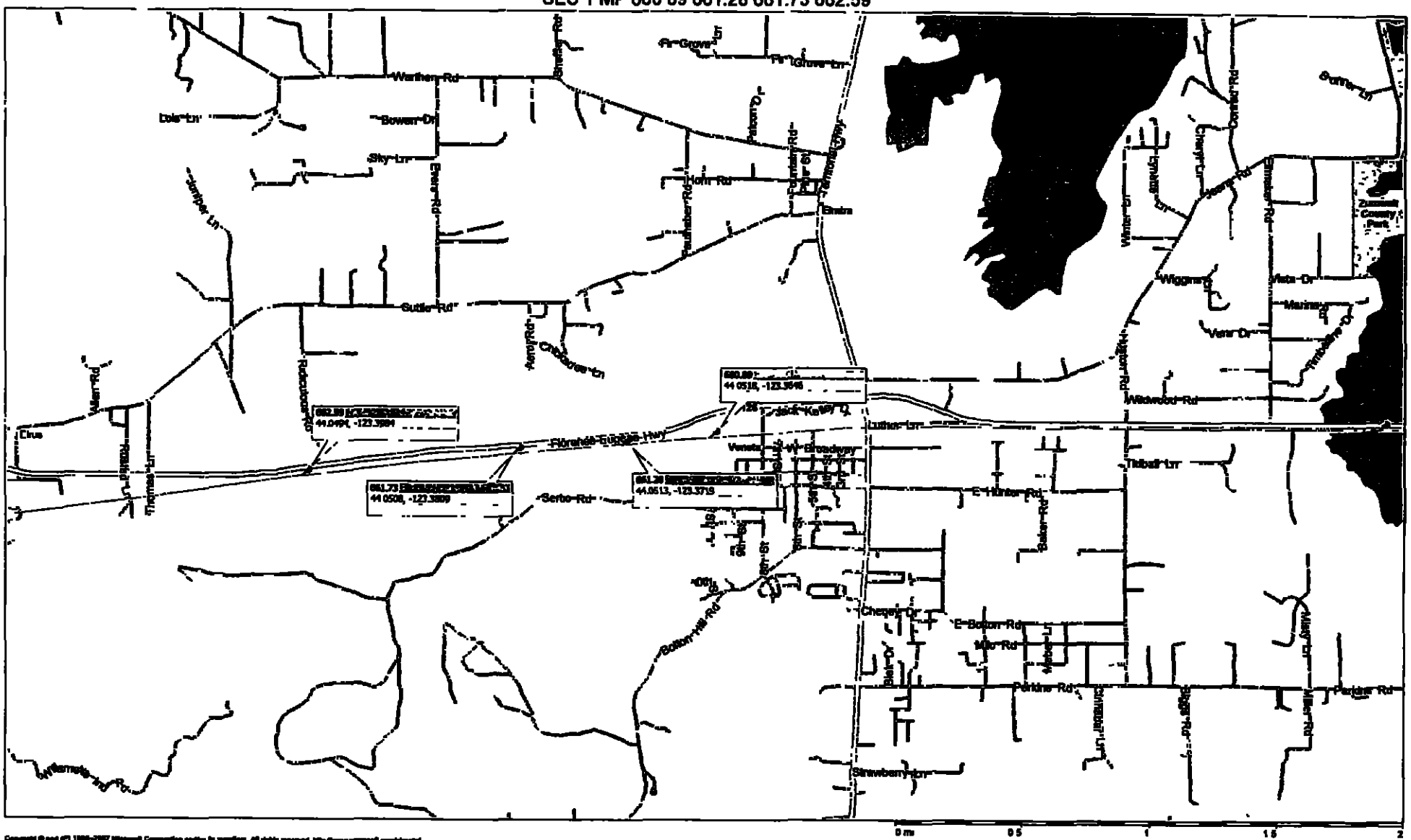

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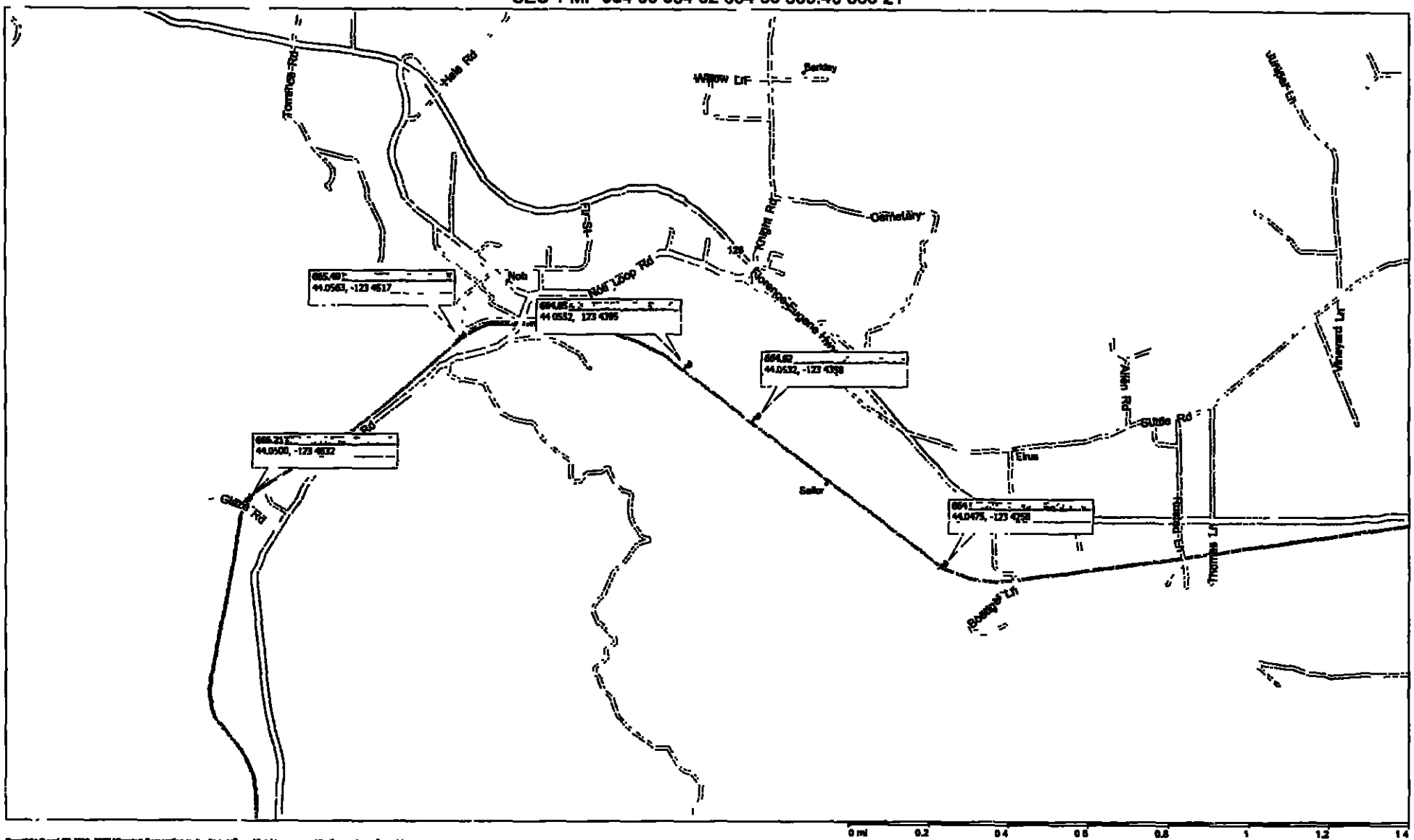

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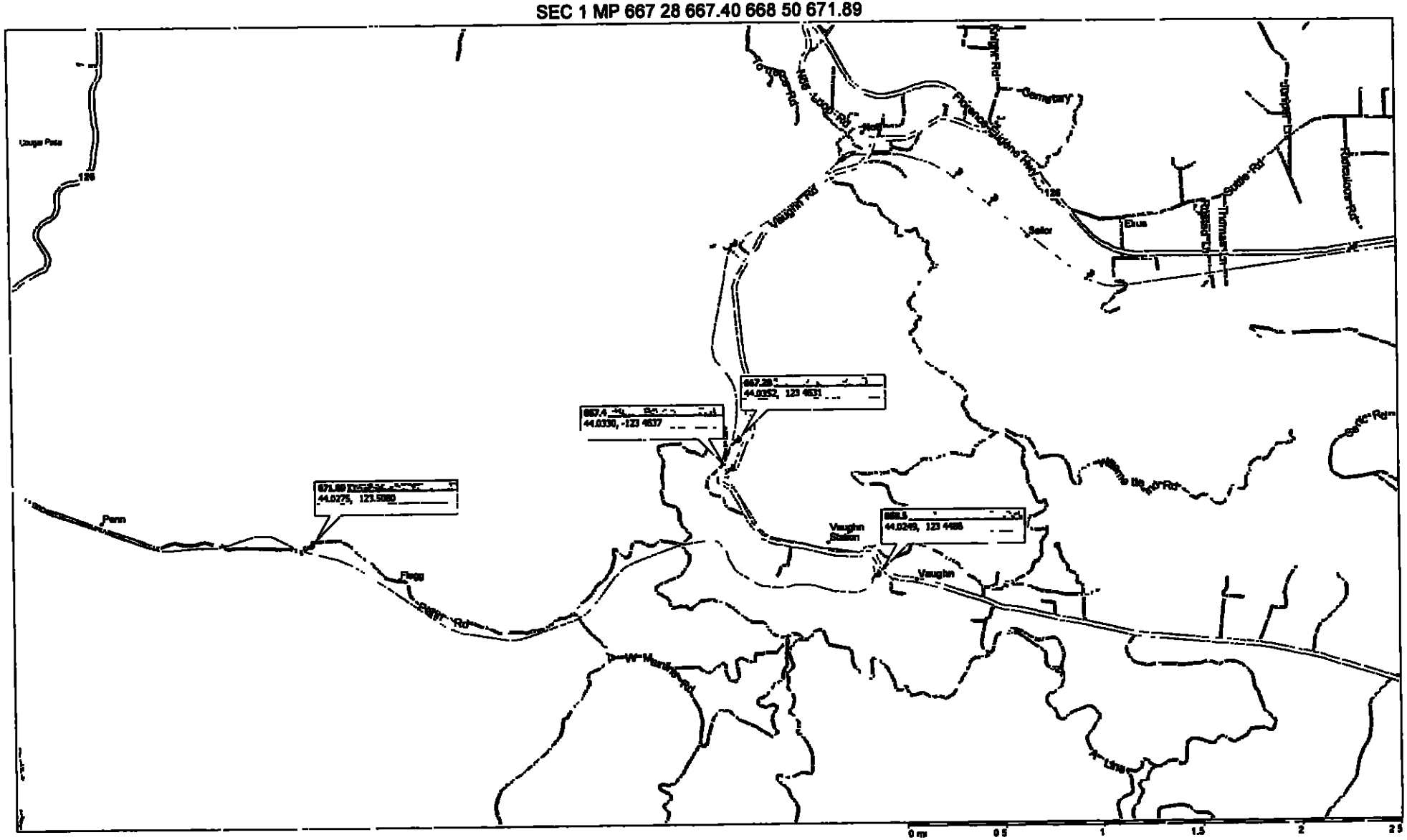

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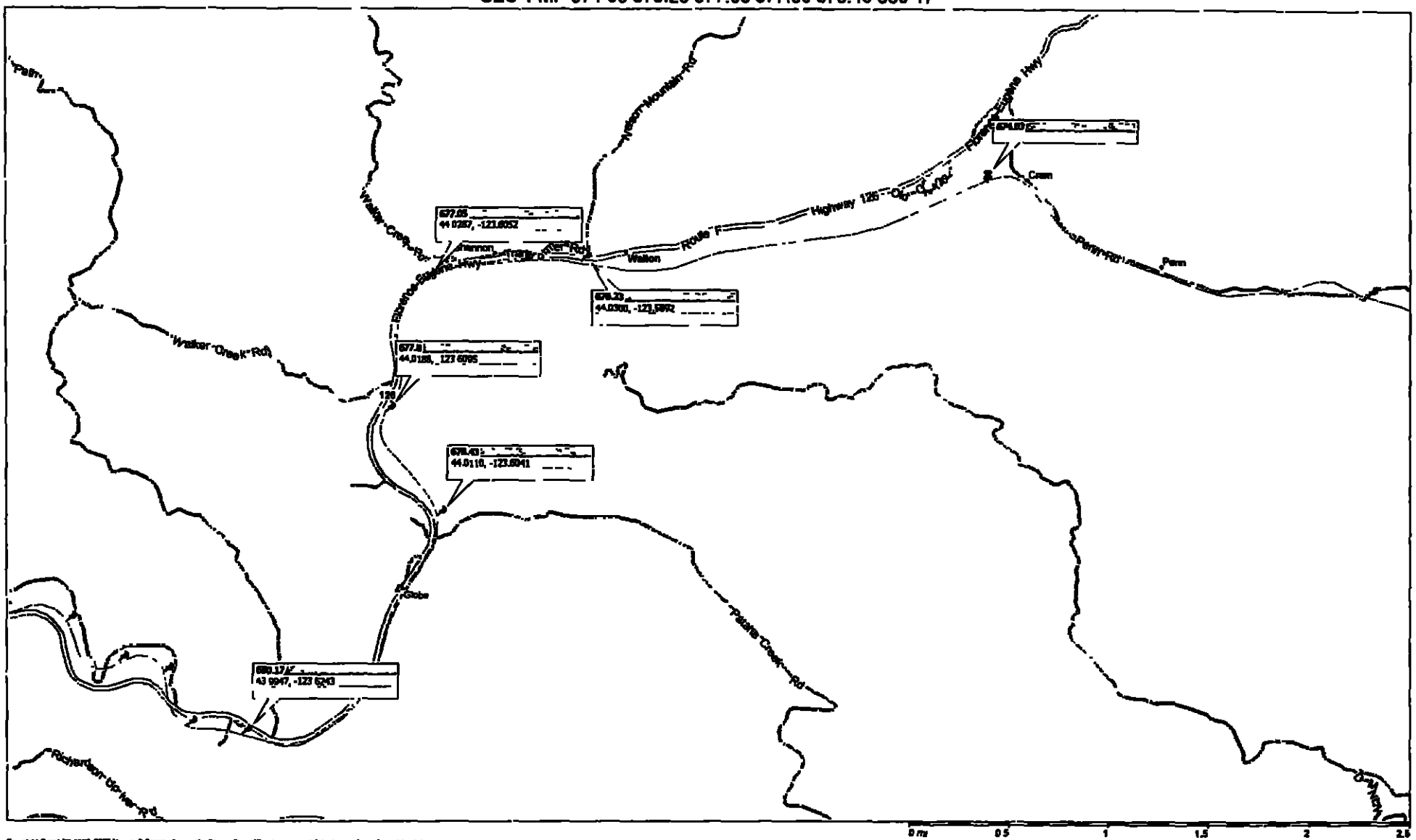

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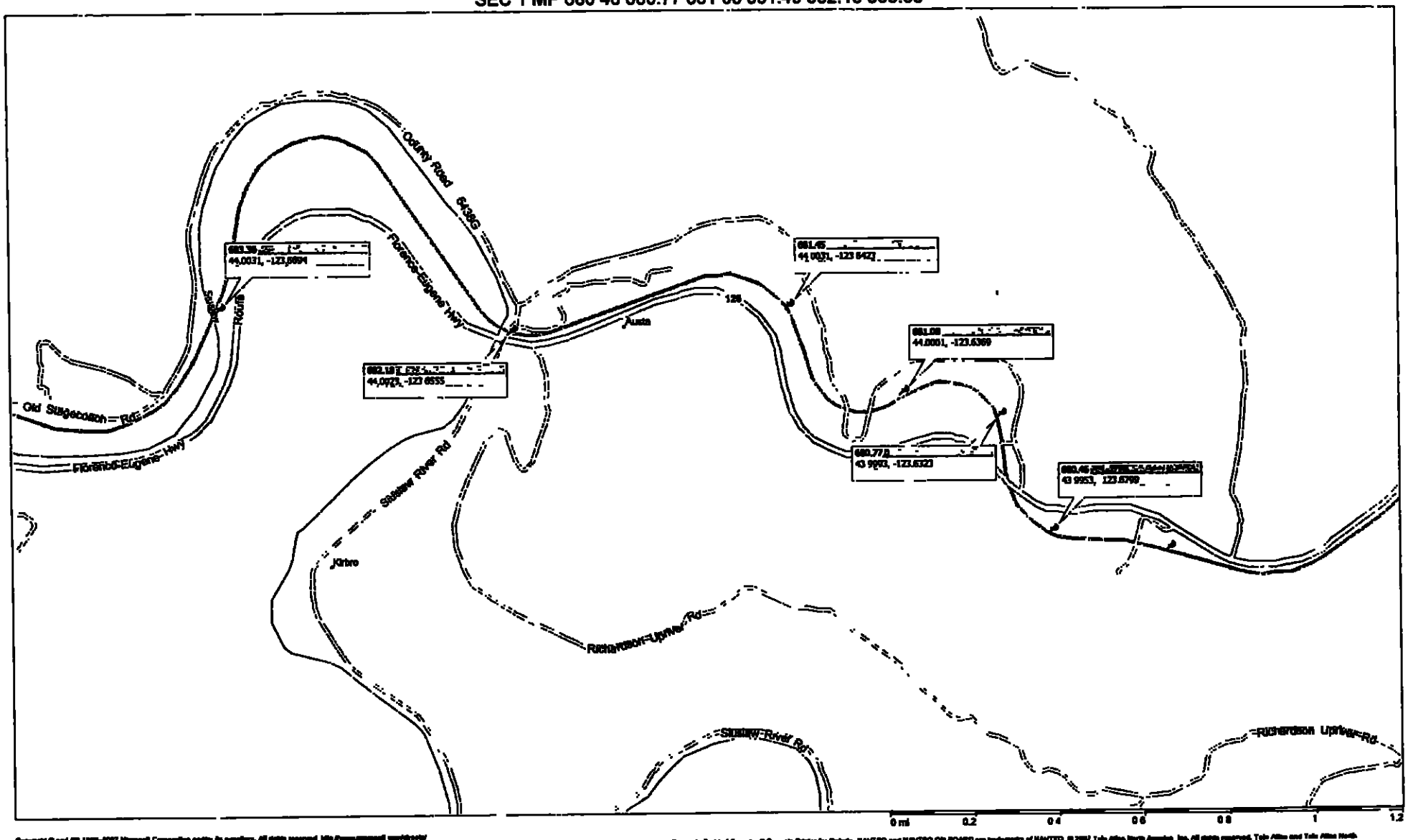

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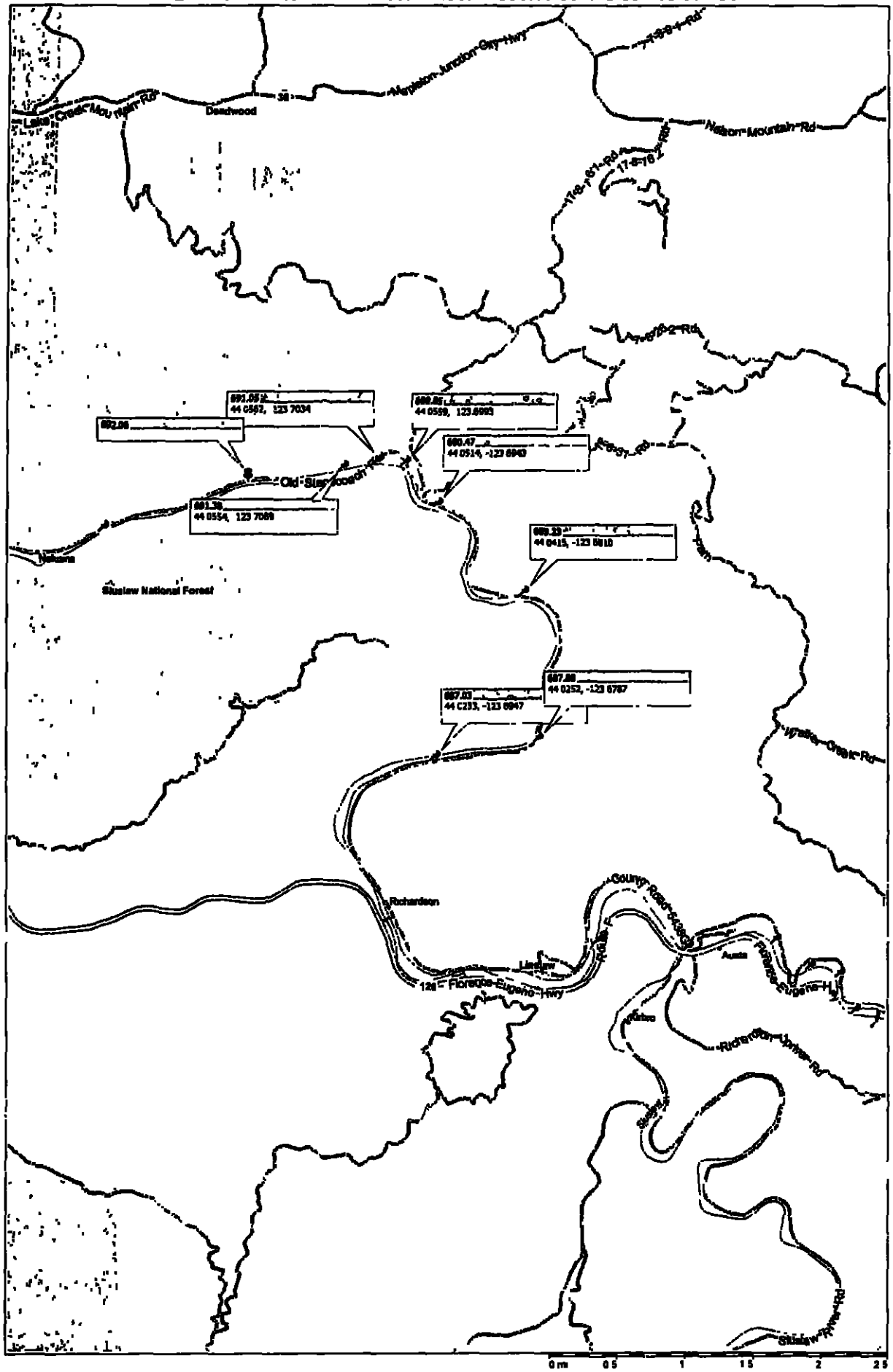

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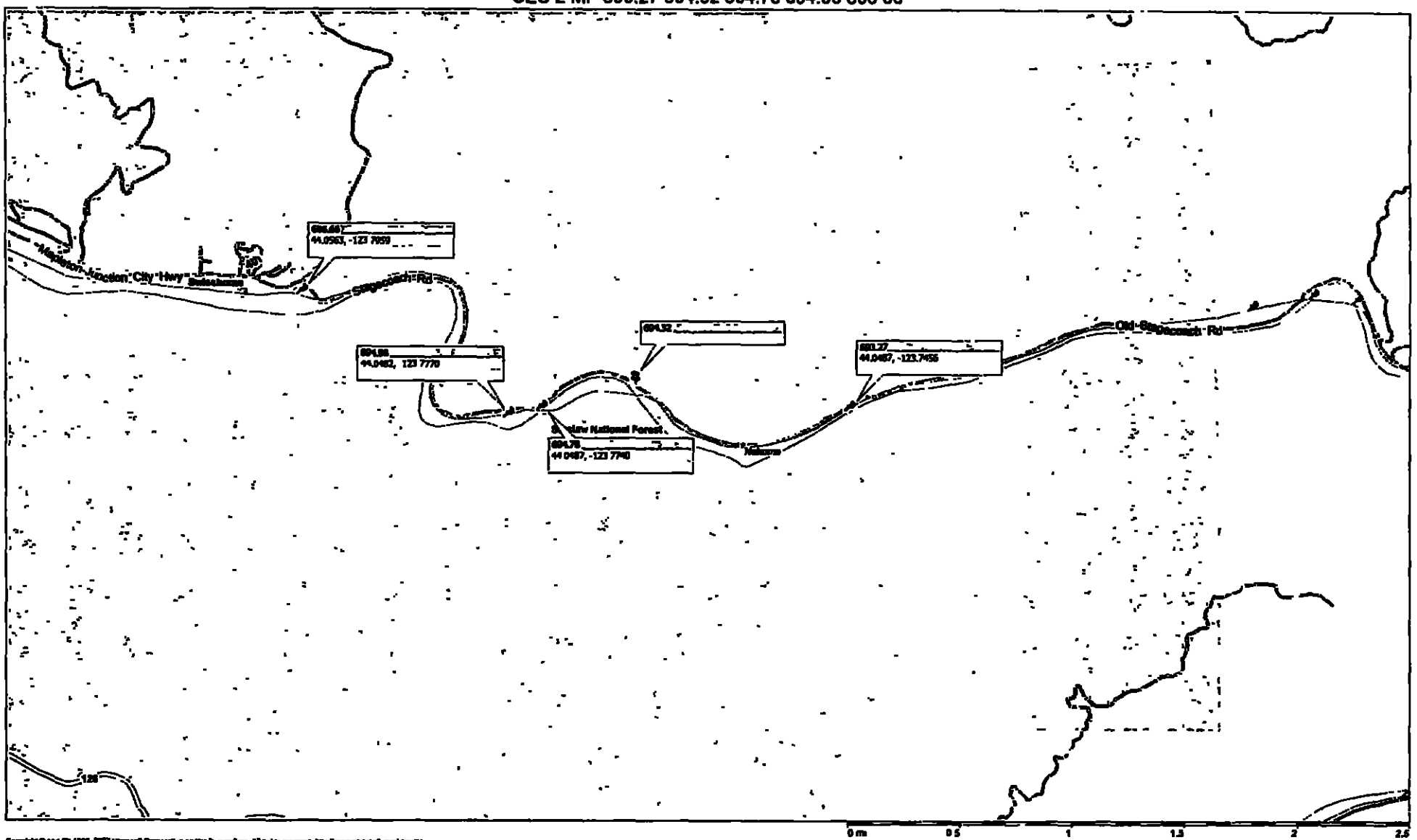

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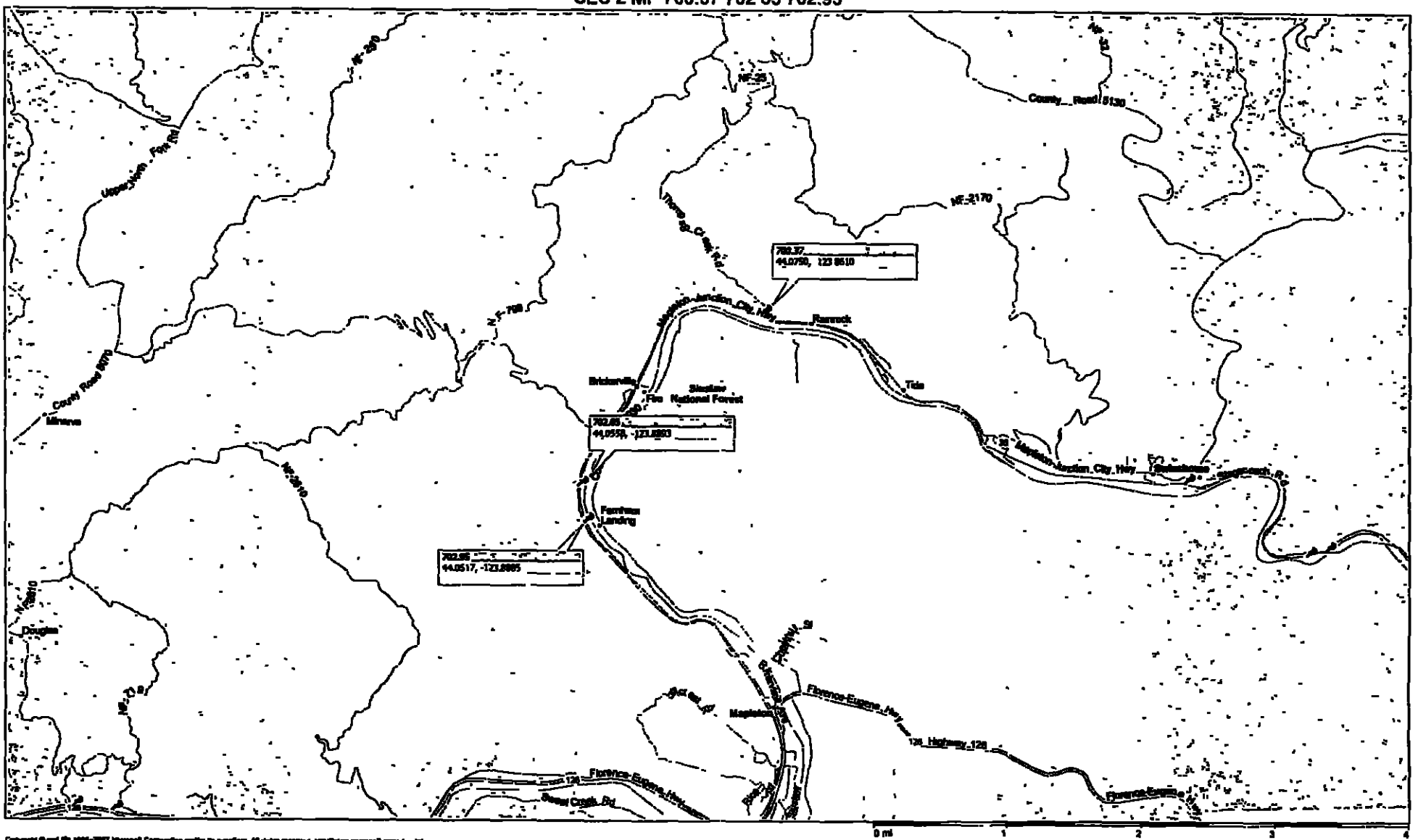

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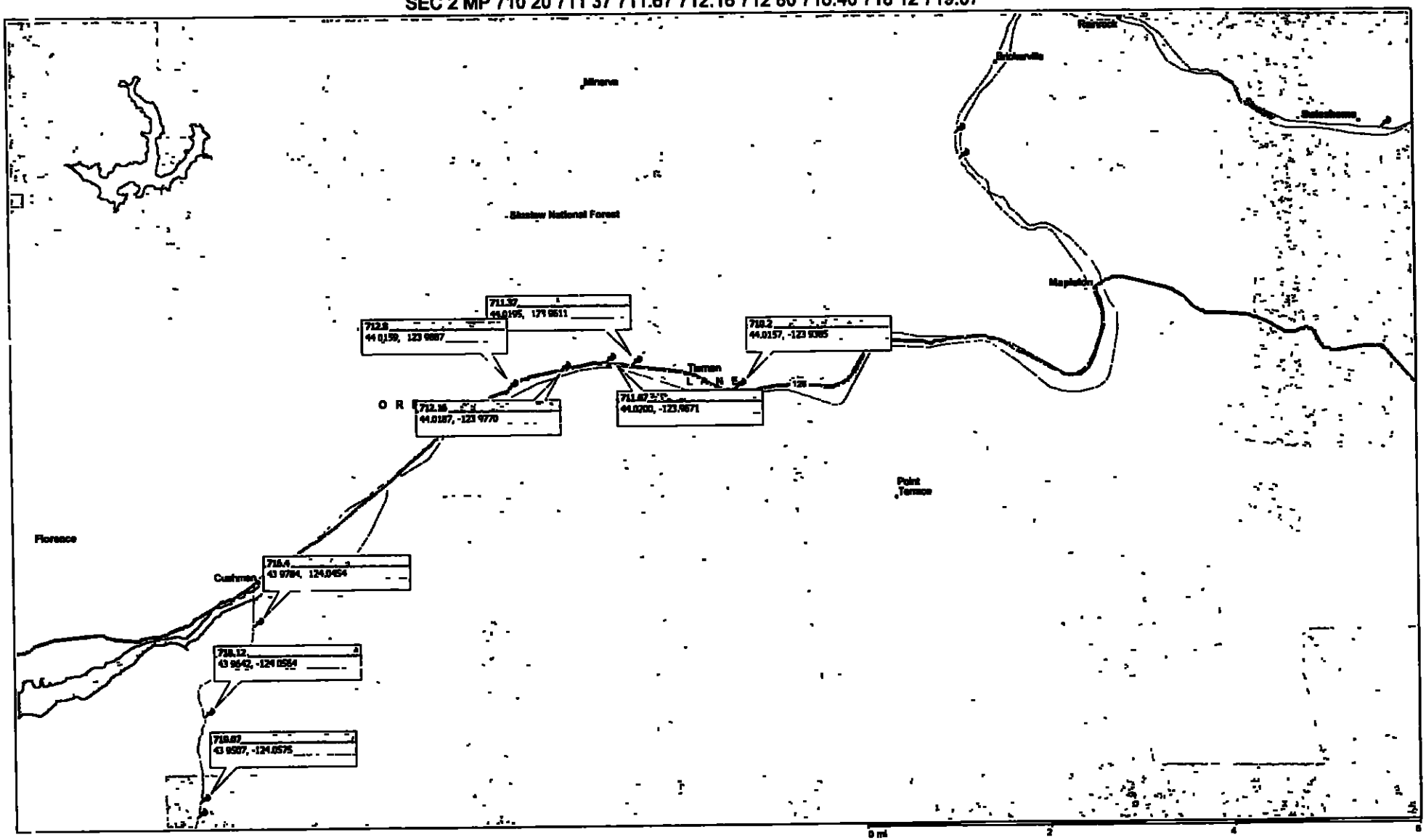

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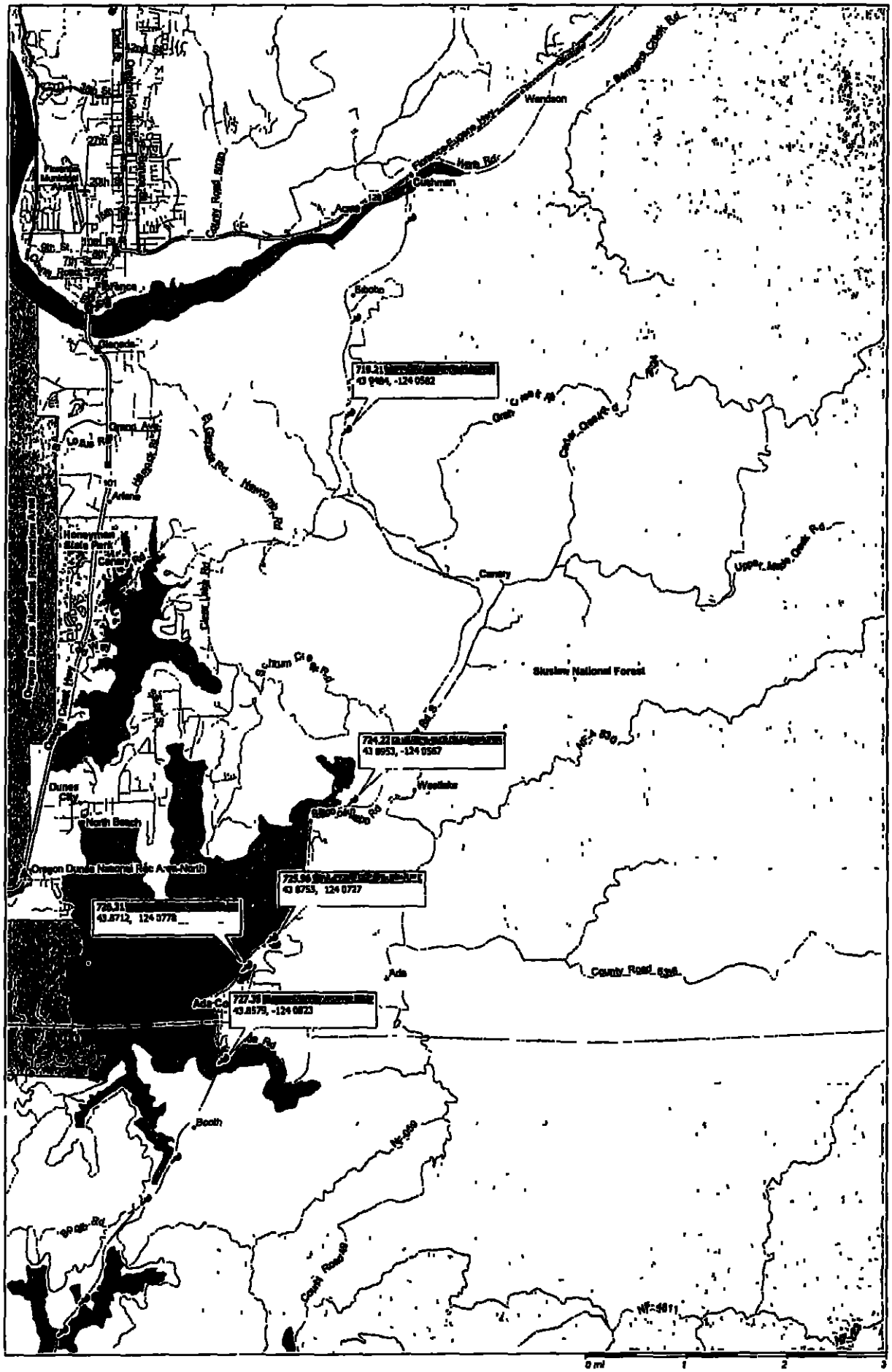

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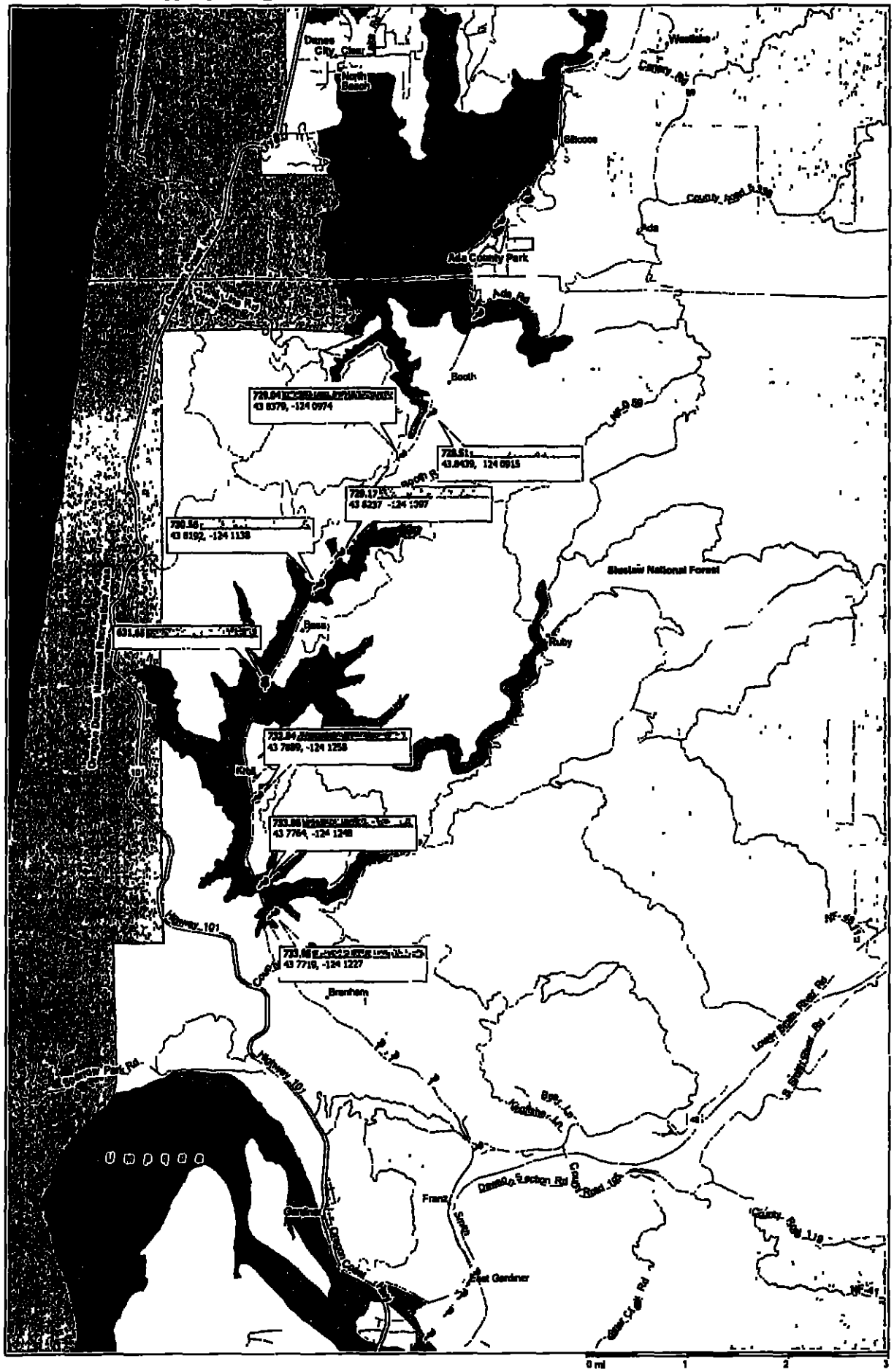

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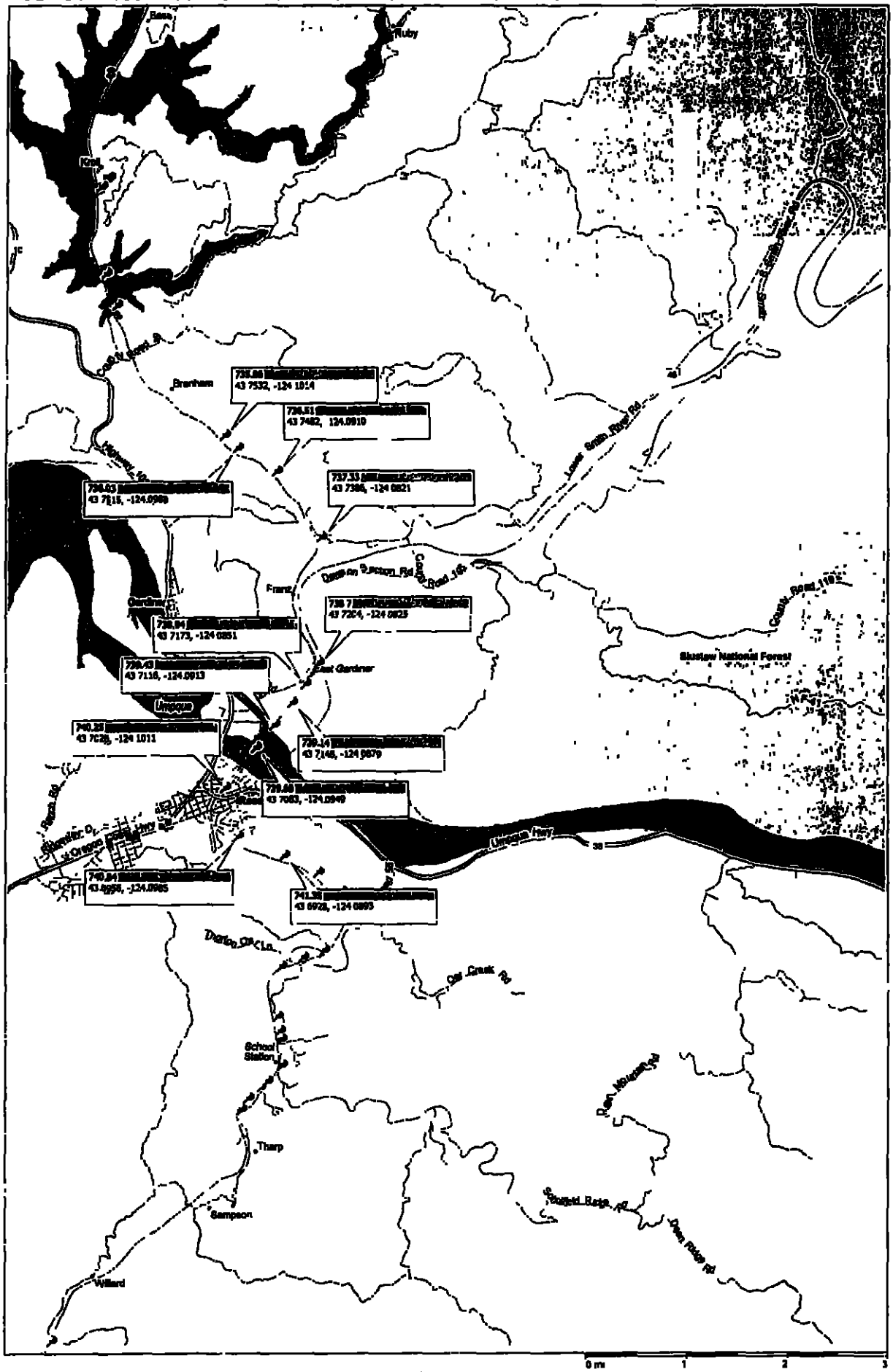

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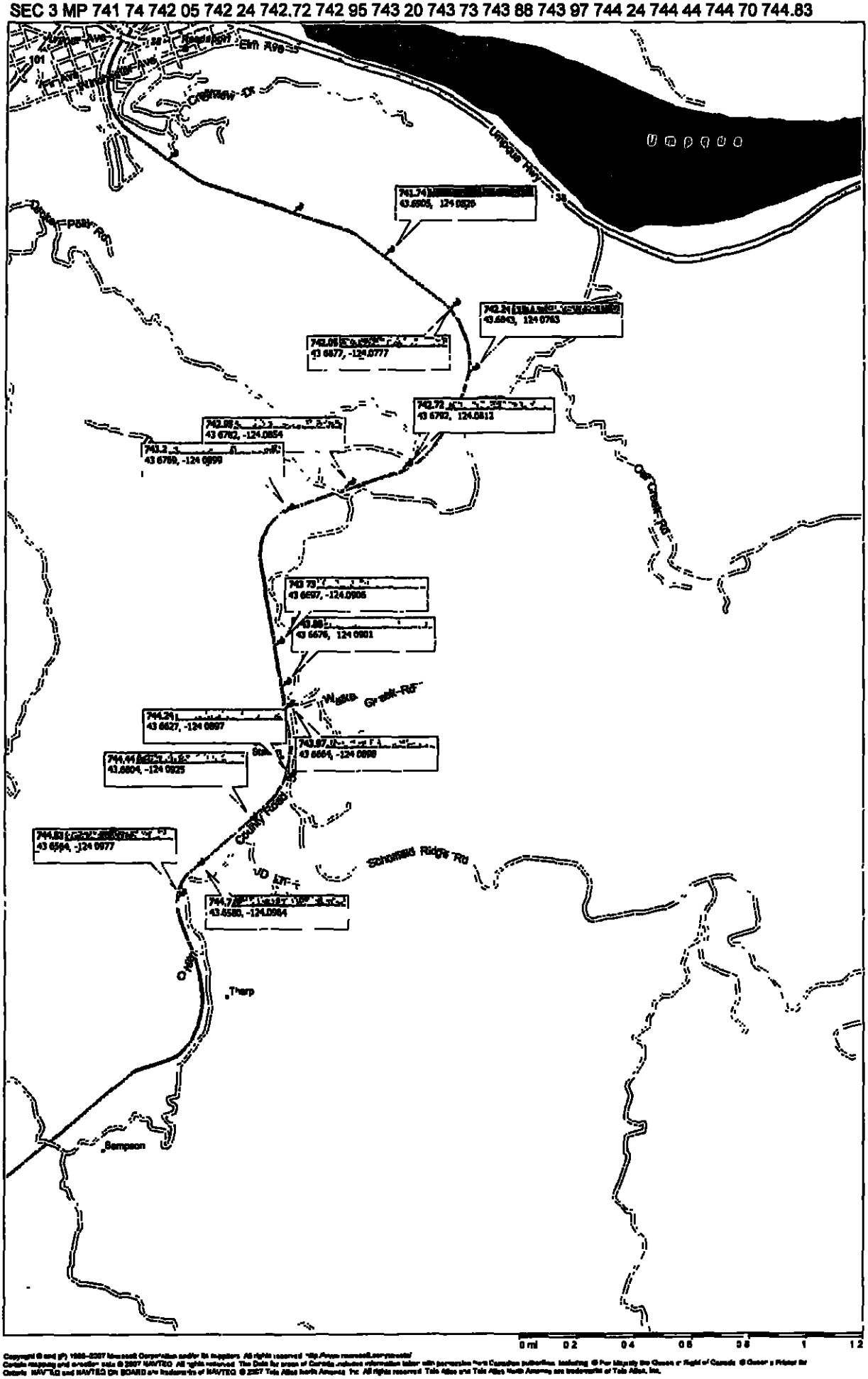

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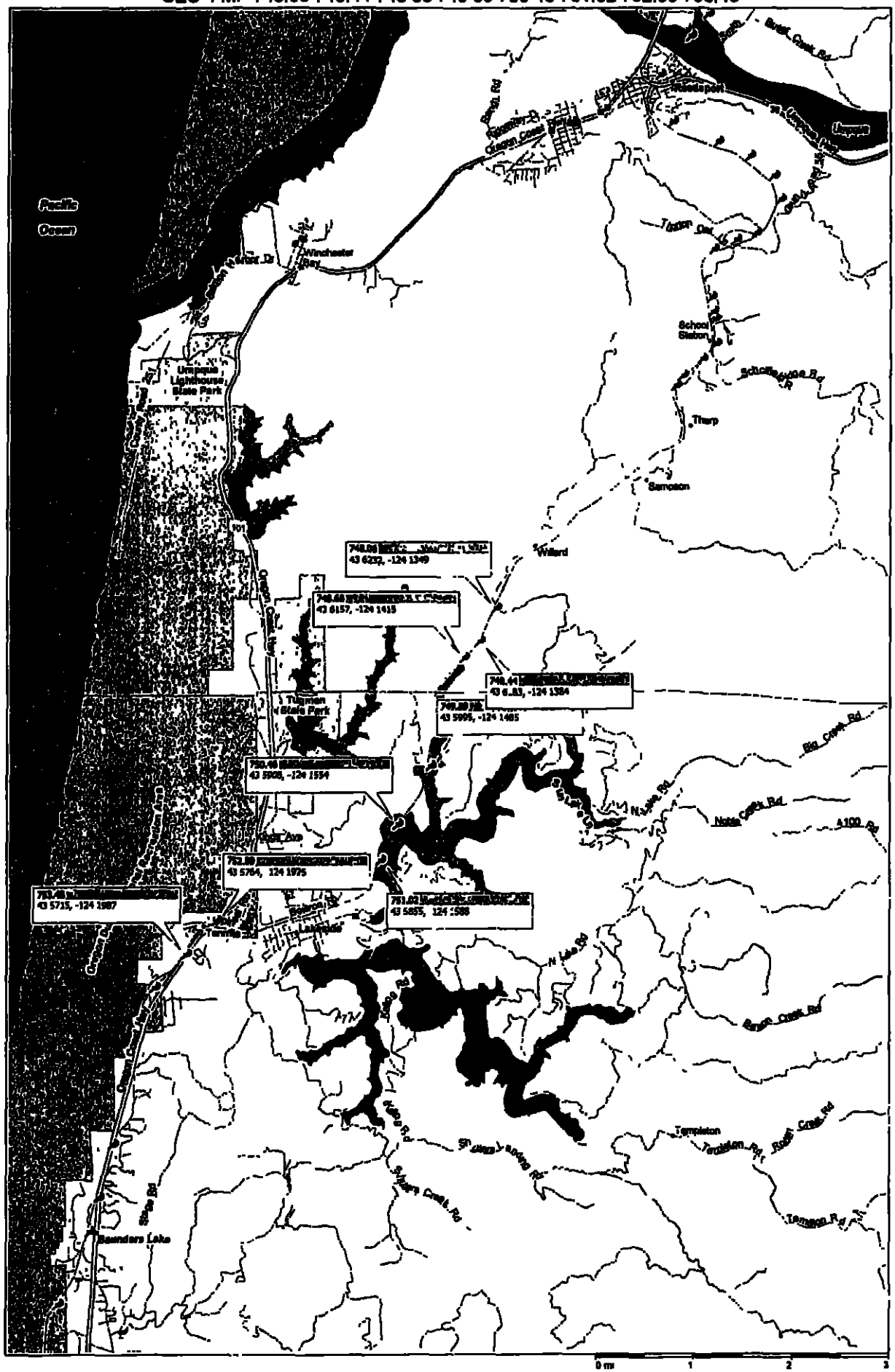

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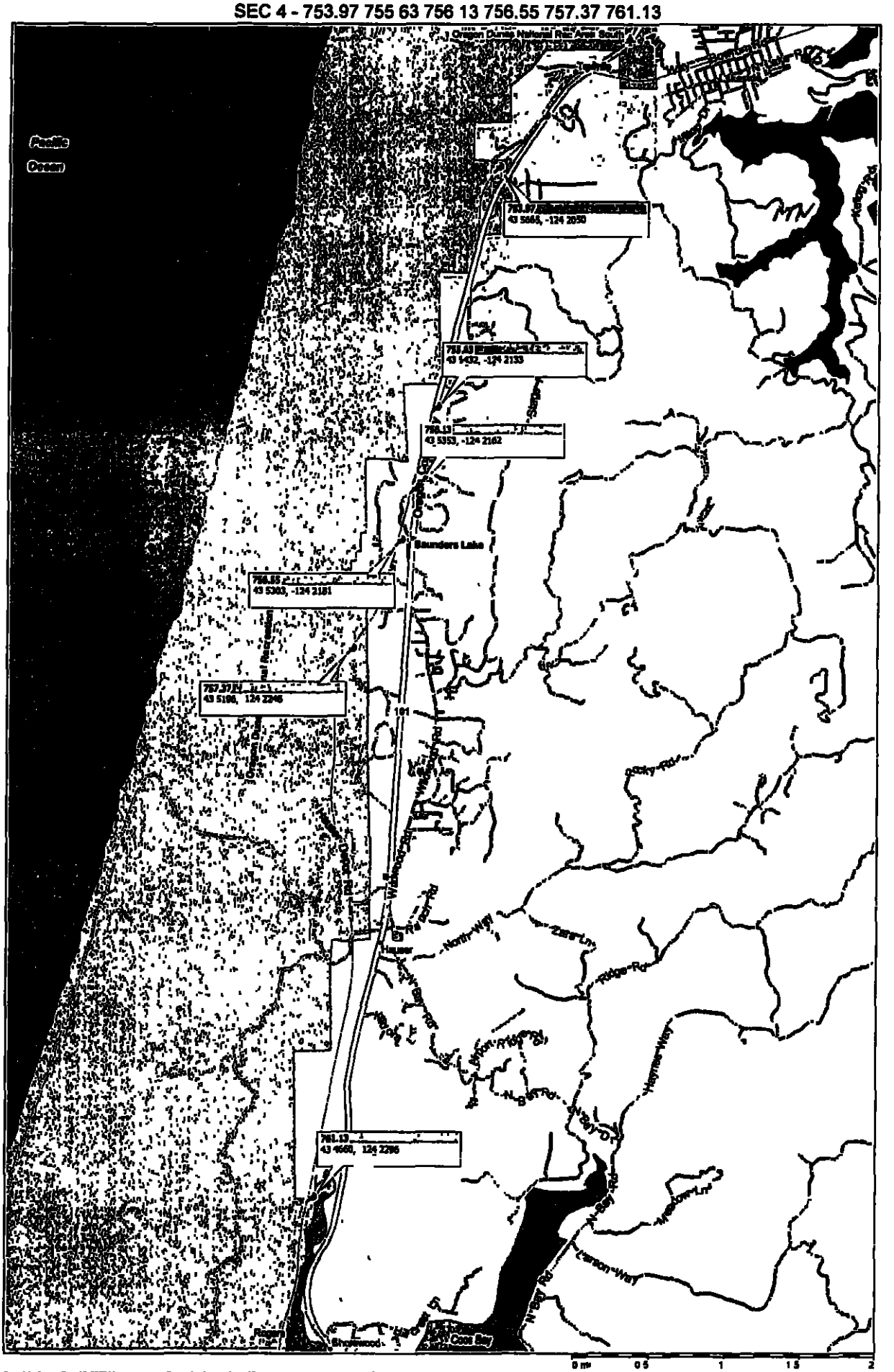

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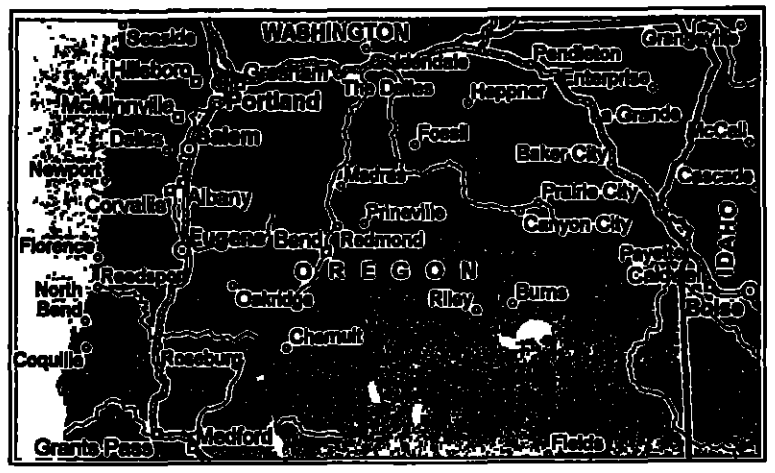

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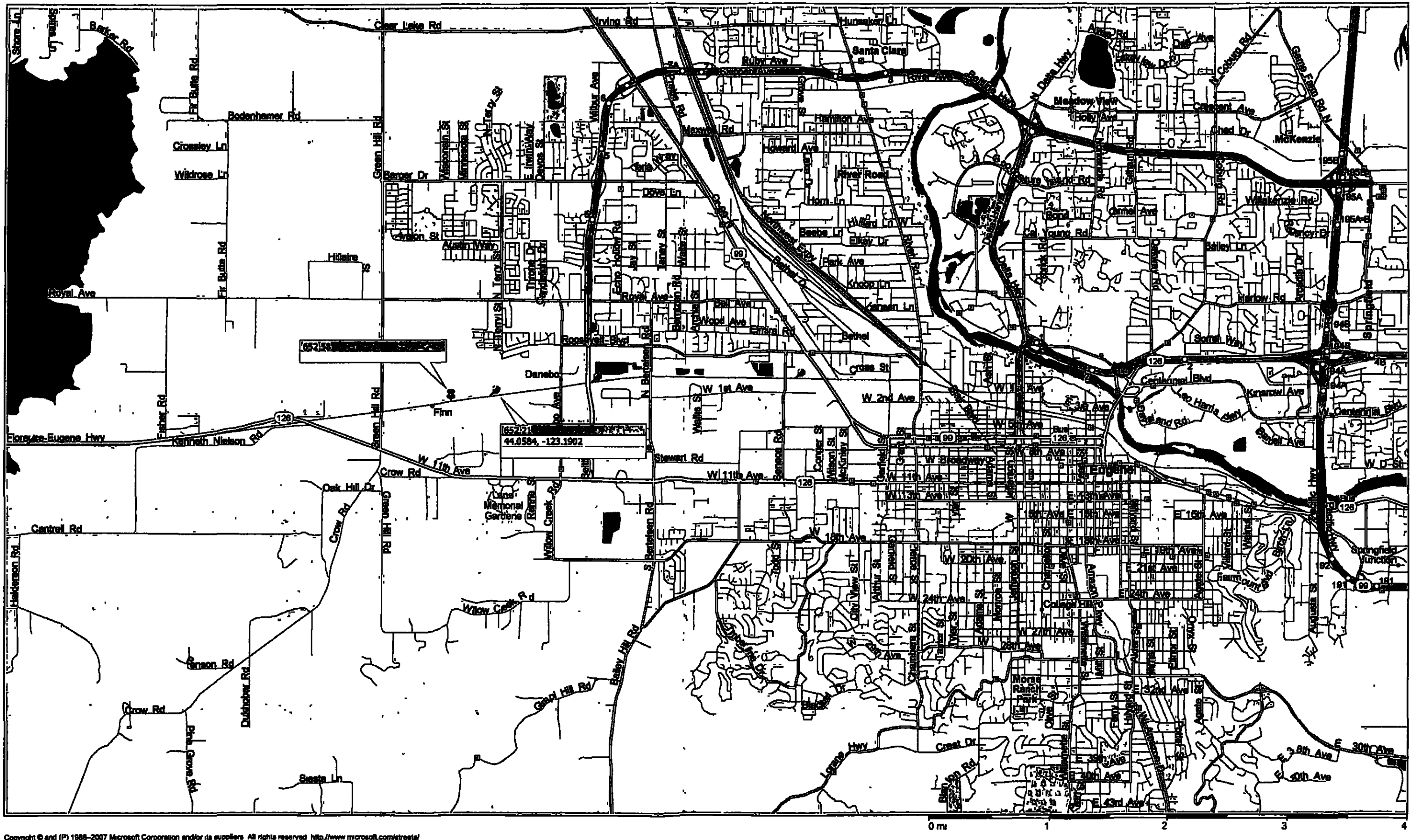
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Chad Dr
N Coburn Rd
Gano Farm Rd N
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Bodenhamer Rd
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Wildrose Ln
Green Hill Rd
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Minnesota St
Irving St
Davis St
Wilbur Ave
Meadow Rd
Hamilton Ave
Howard Ave
Riverview
Riverside
Riverstone Dr
Nature Valley Rd
Bond
Camelot Ave
Lee Young Rd
Willakenzie Rd
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Darcy Dr
Beaver Dr
Dove Ln
Avalon St
Austin Way
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Royal Ave
Fir Butte Rd
Tracie Dr
Garden Valley
Echo Hollow Rd
Jay St
Terry St
Wade St
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Harrison St
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Chambers St
Arthur St
City View St
Jasper St
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Crest Dr
Morse Ranch Park
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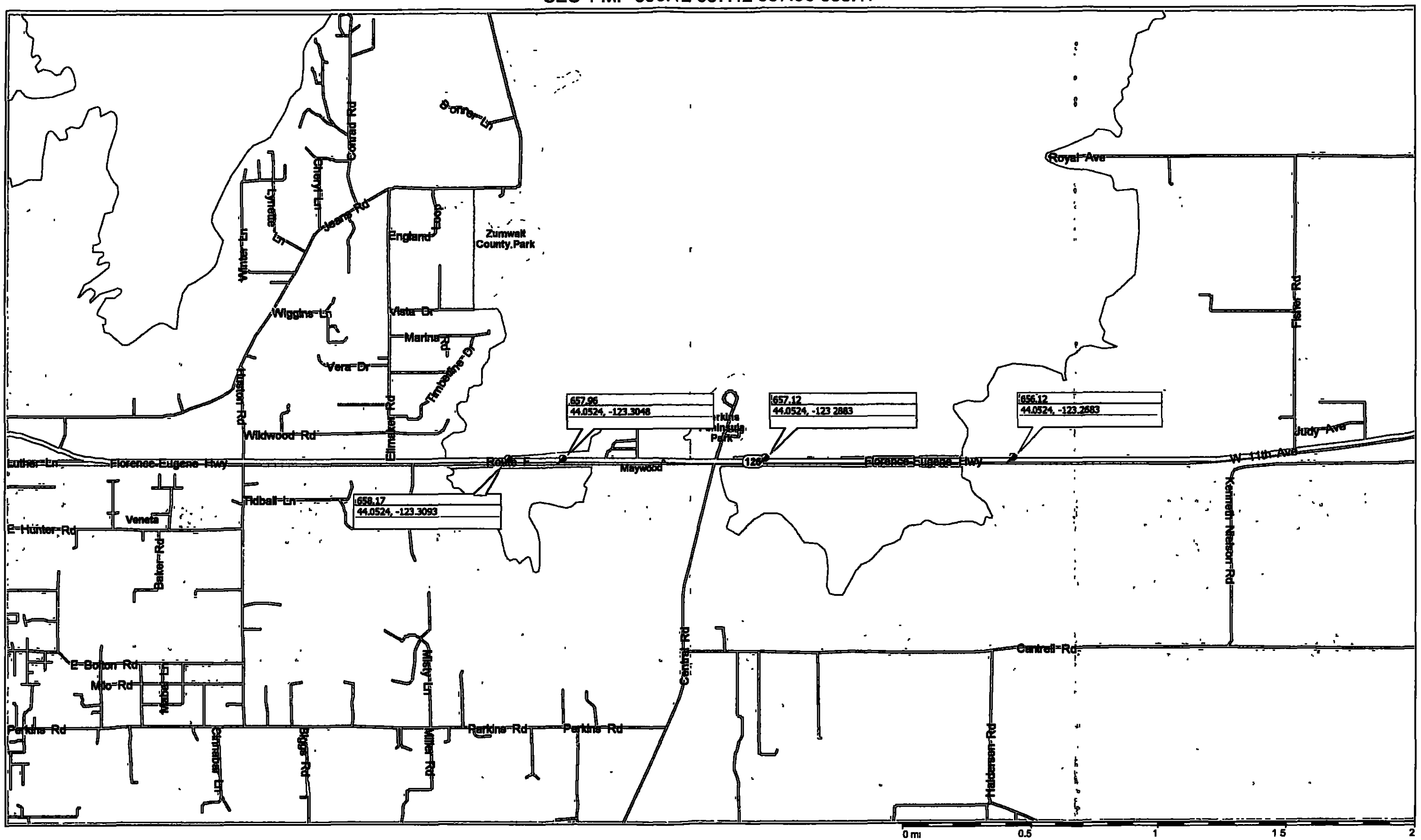

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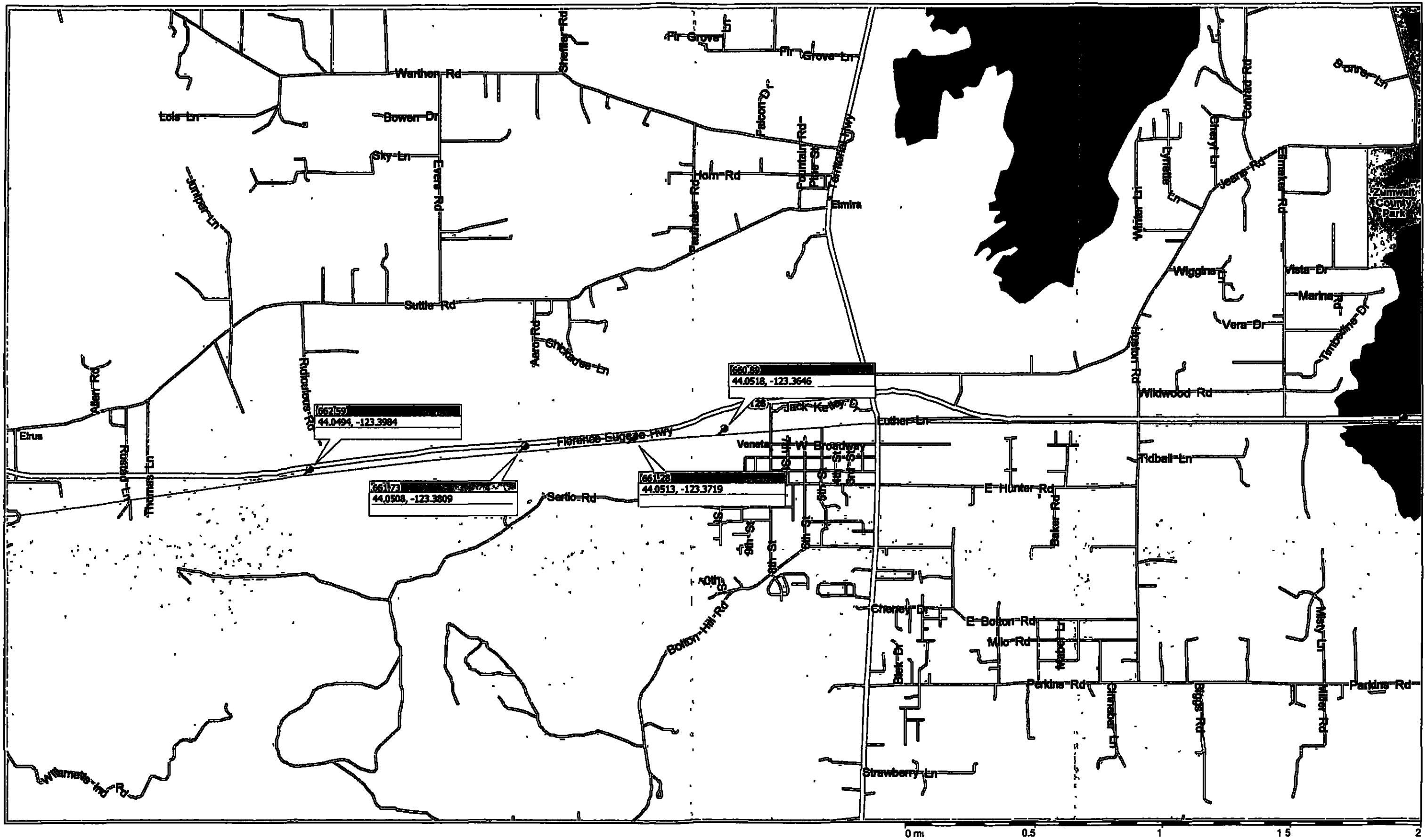

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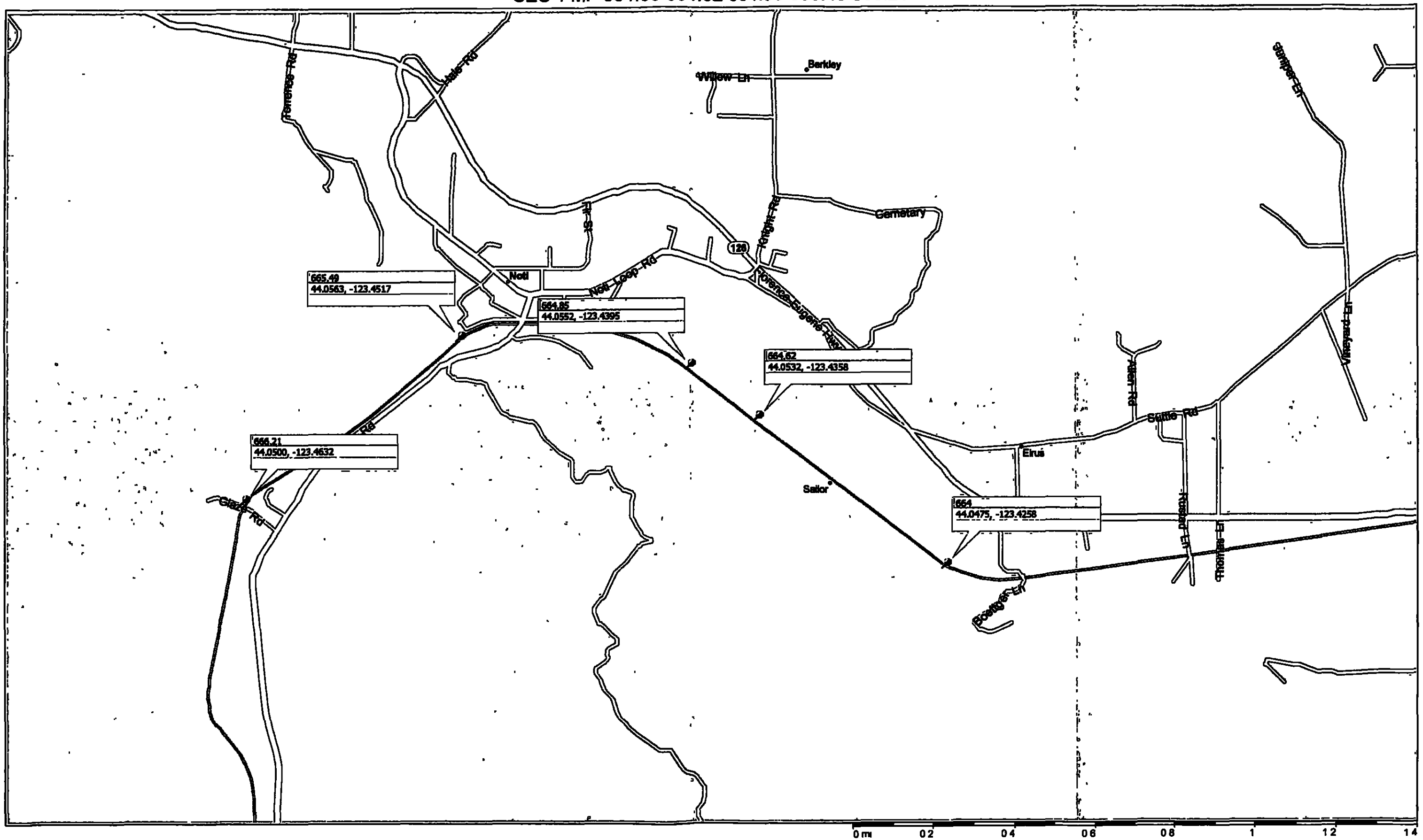

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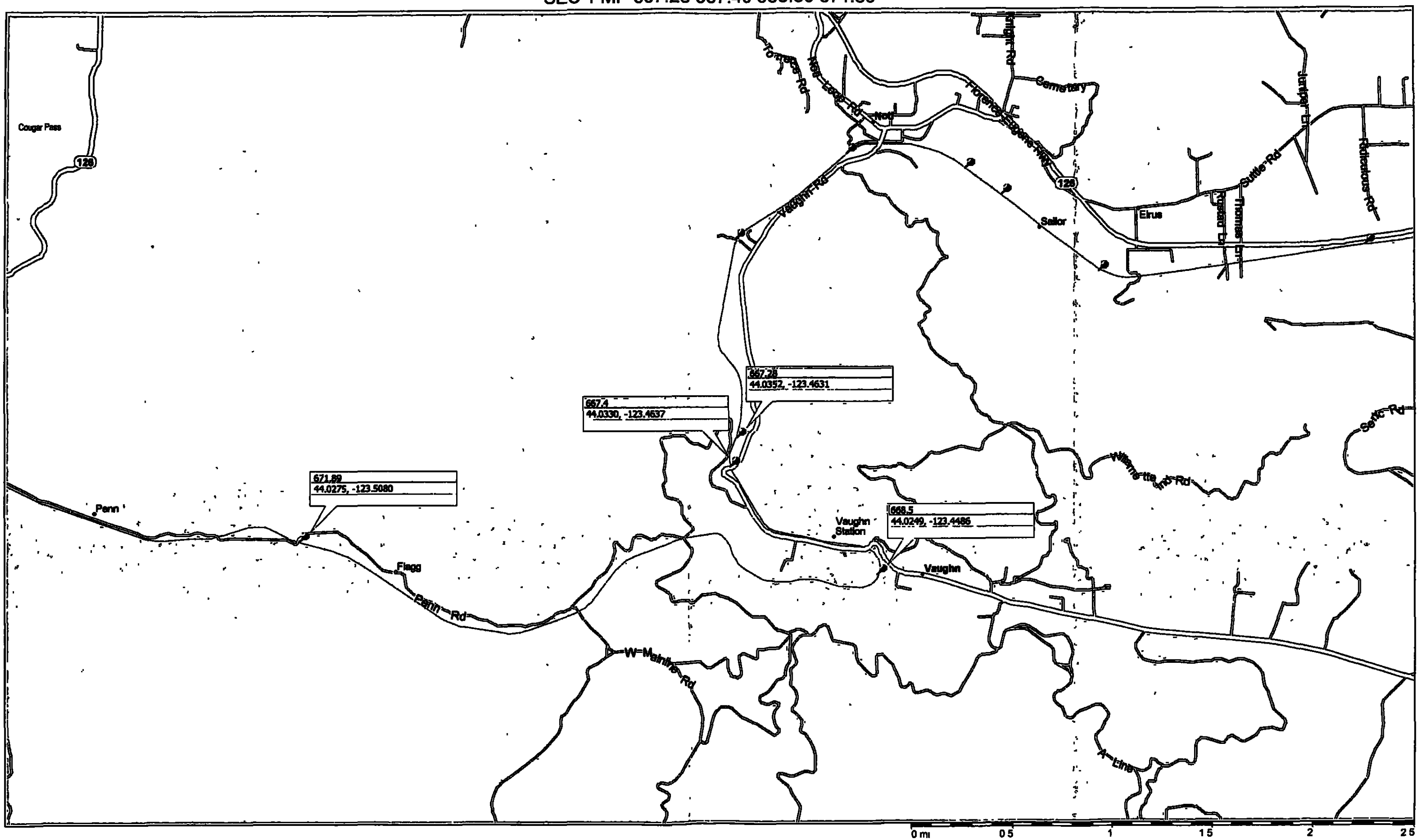

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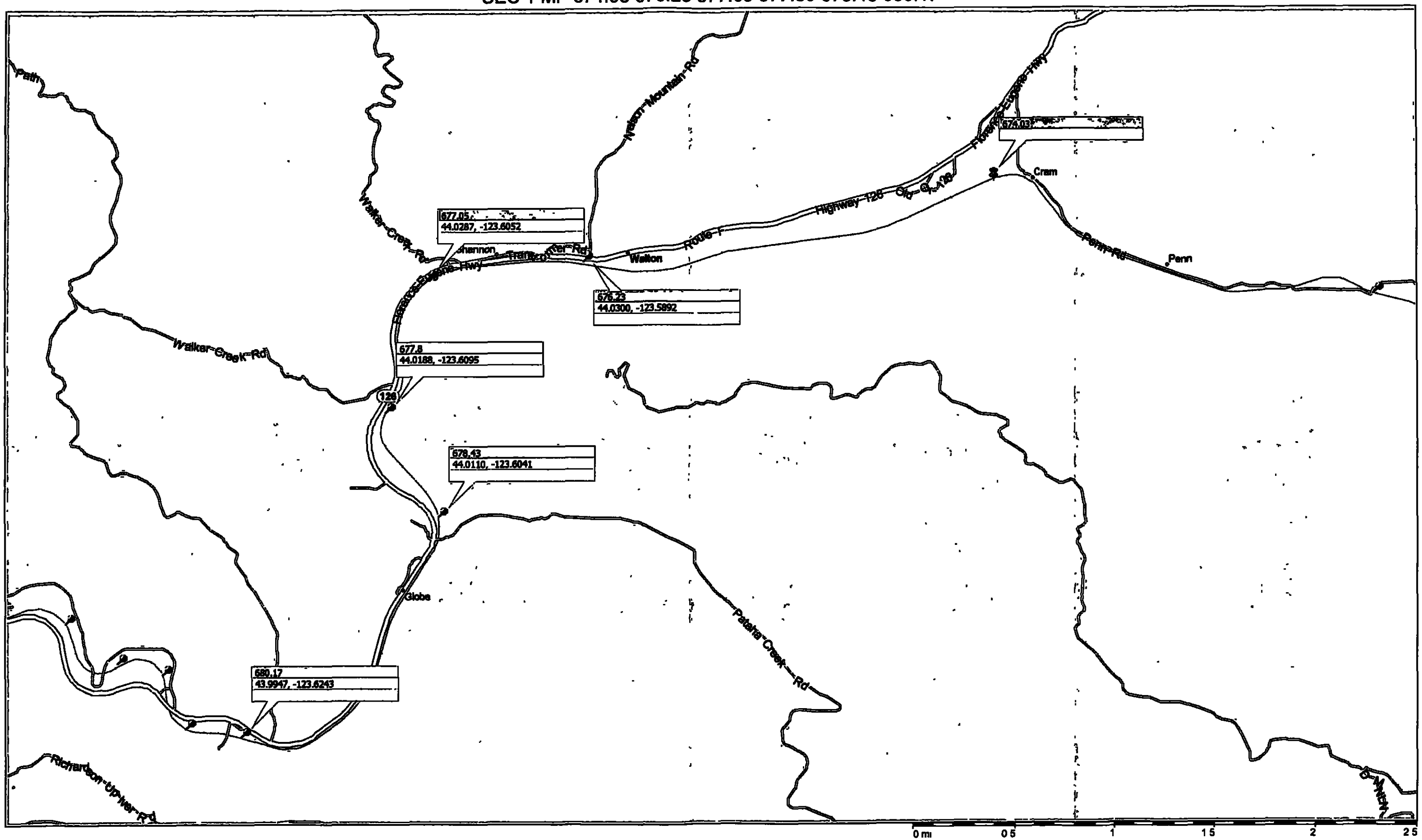

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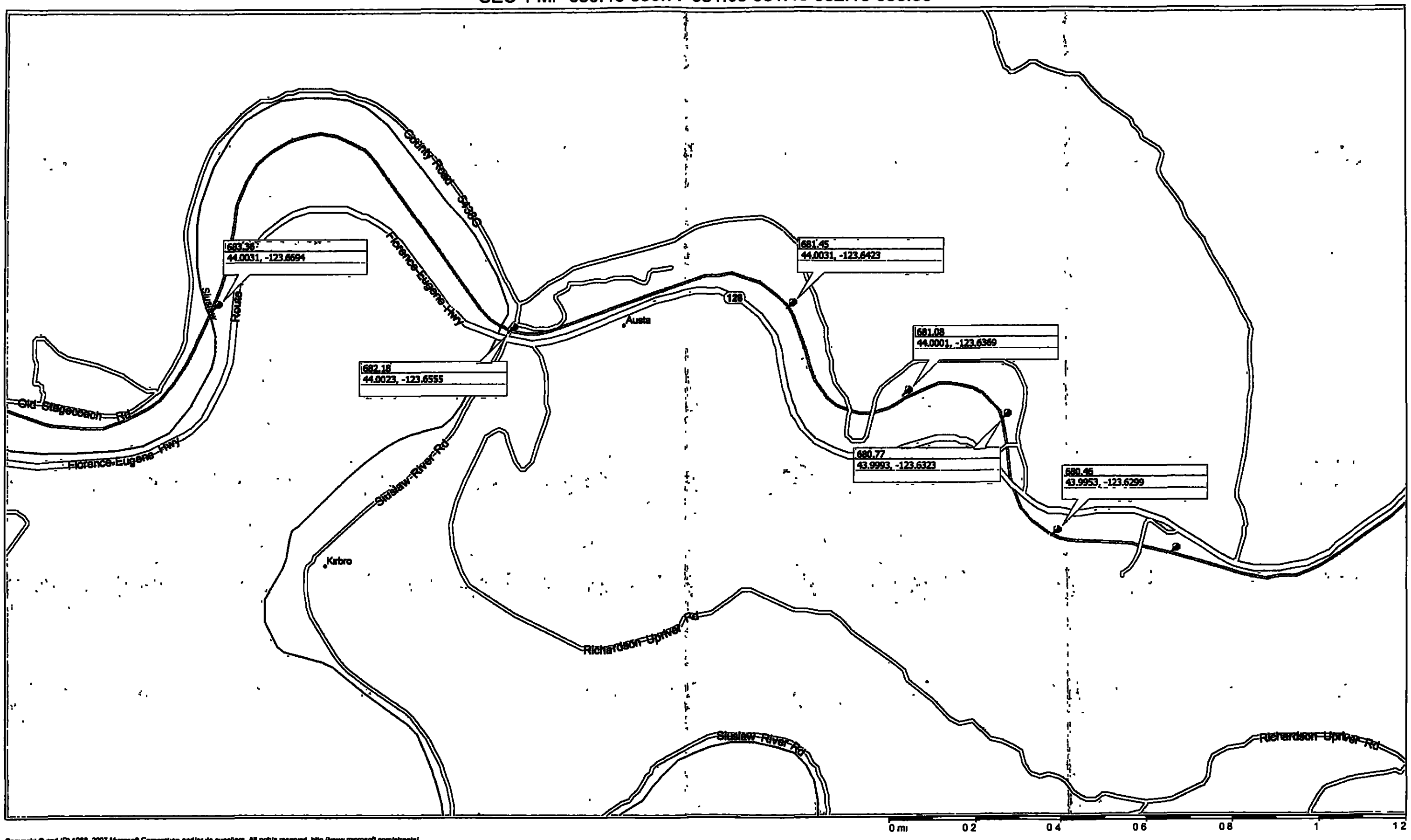

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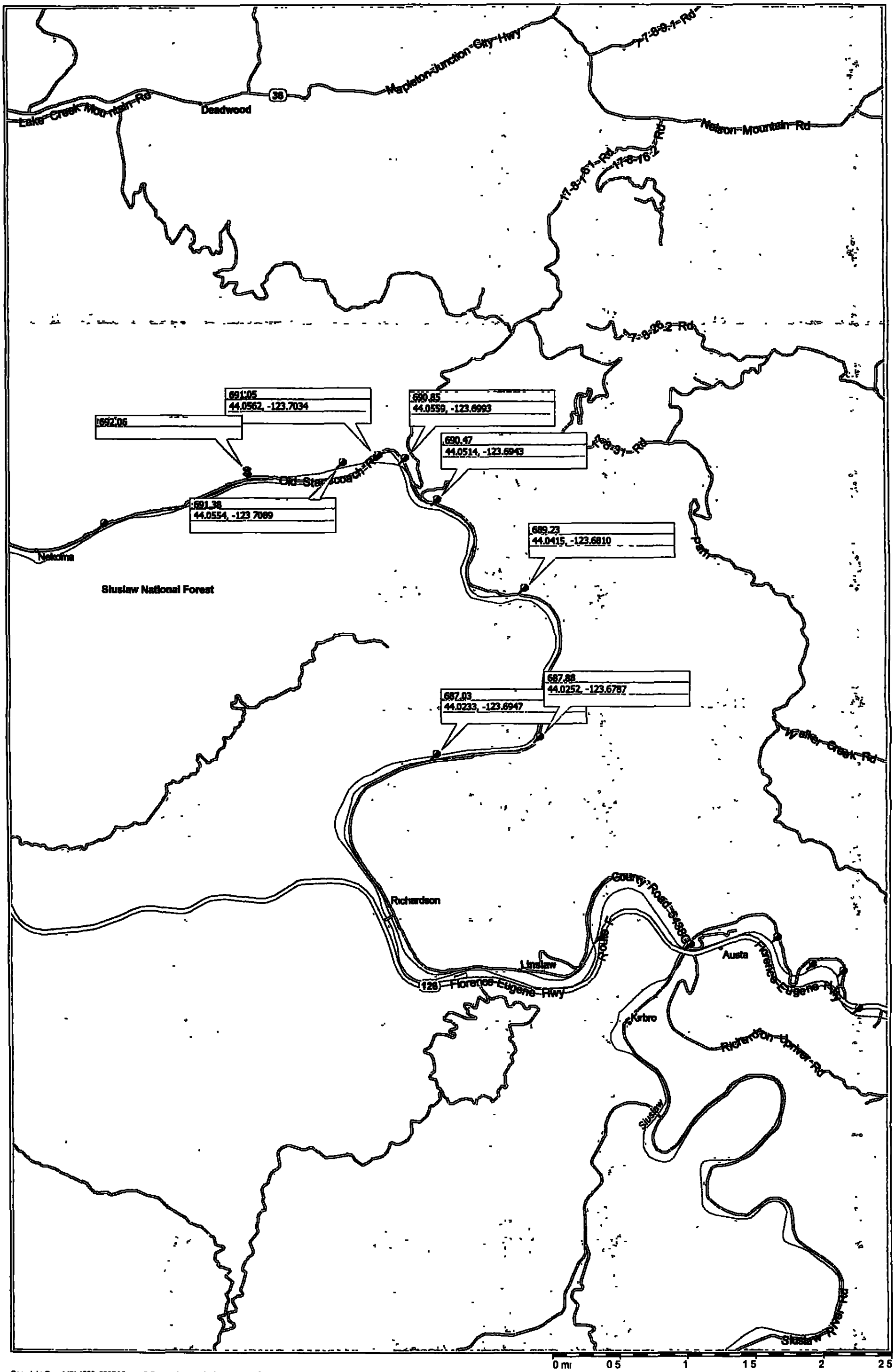

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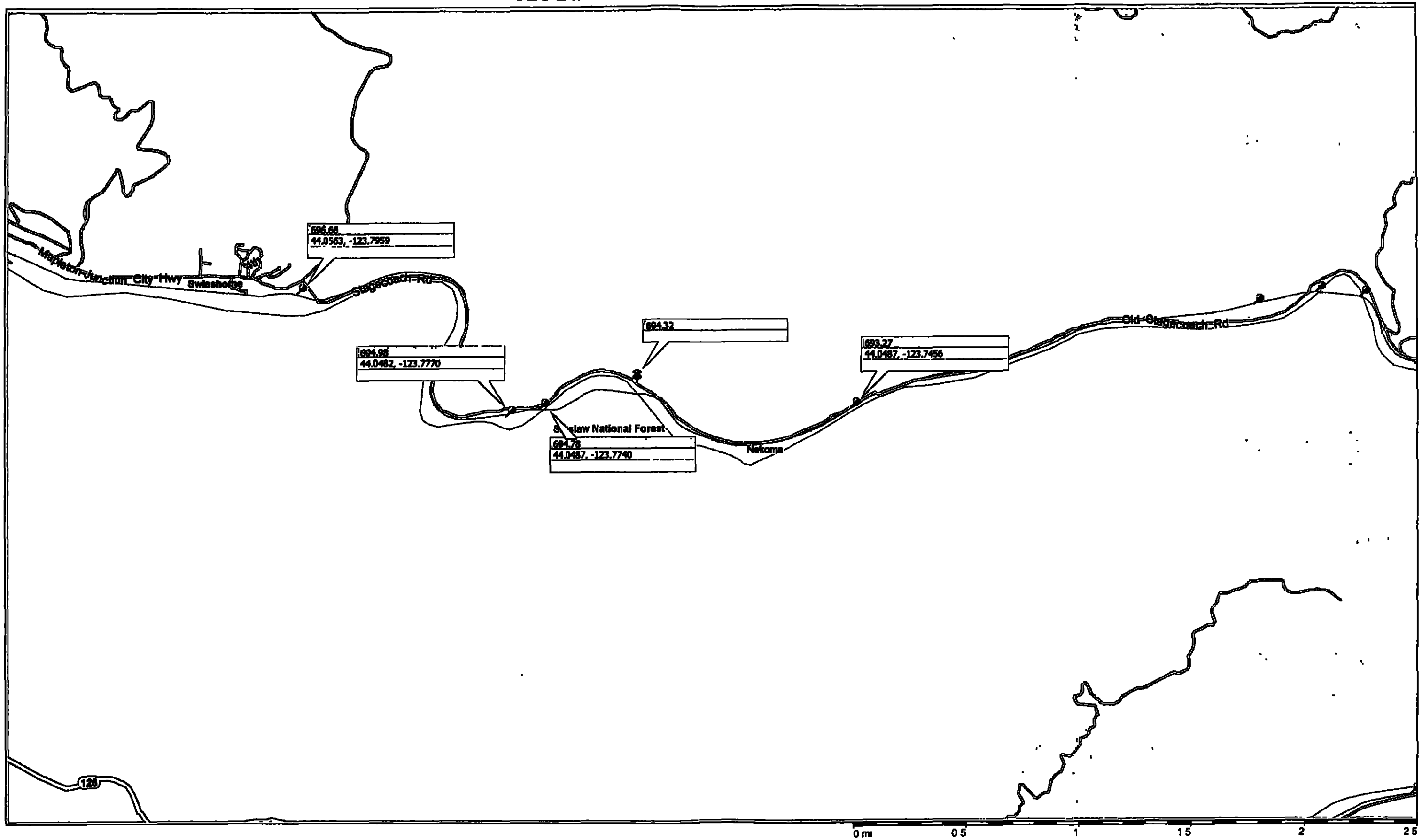

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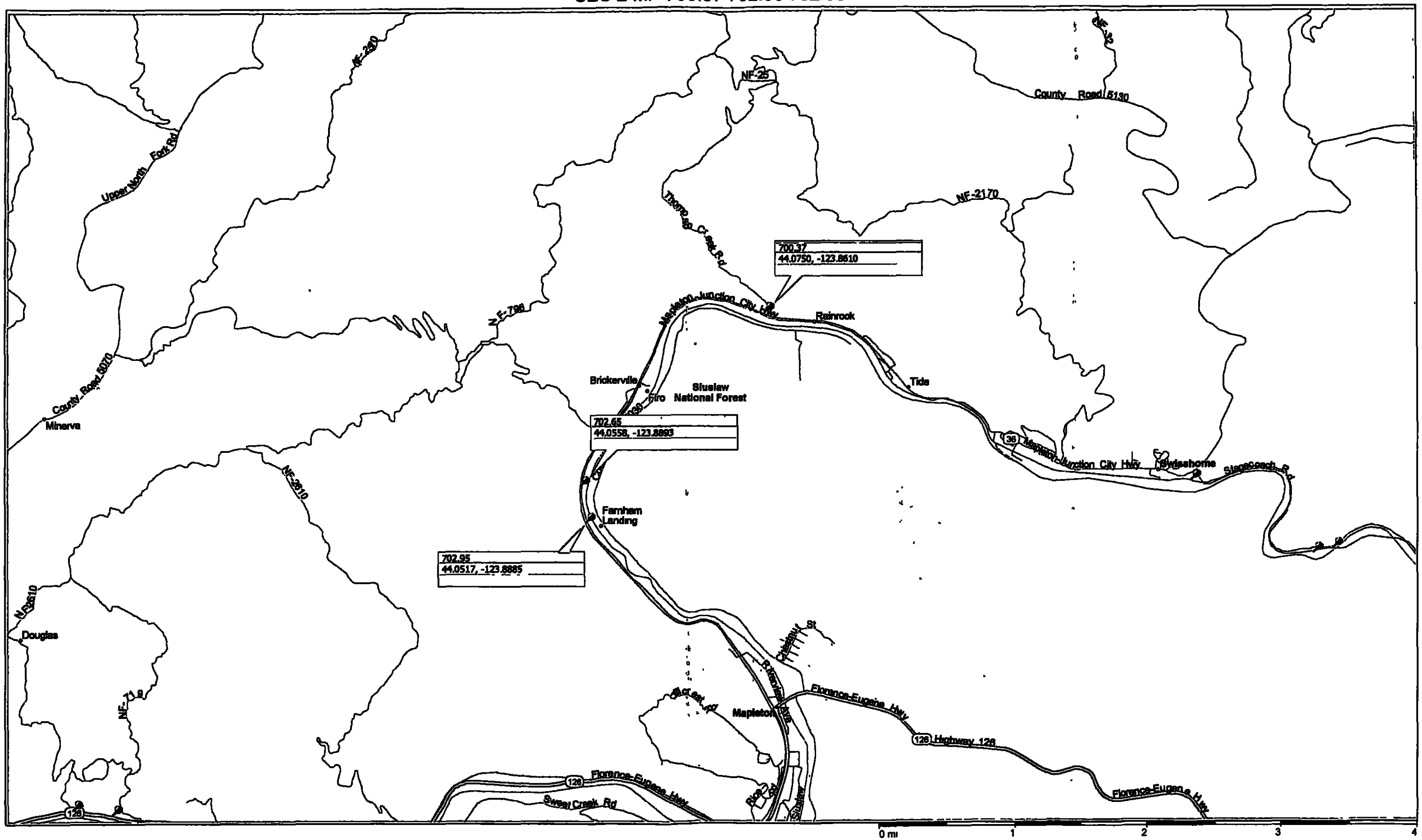

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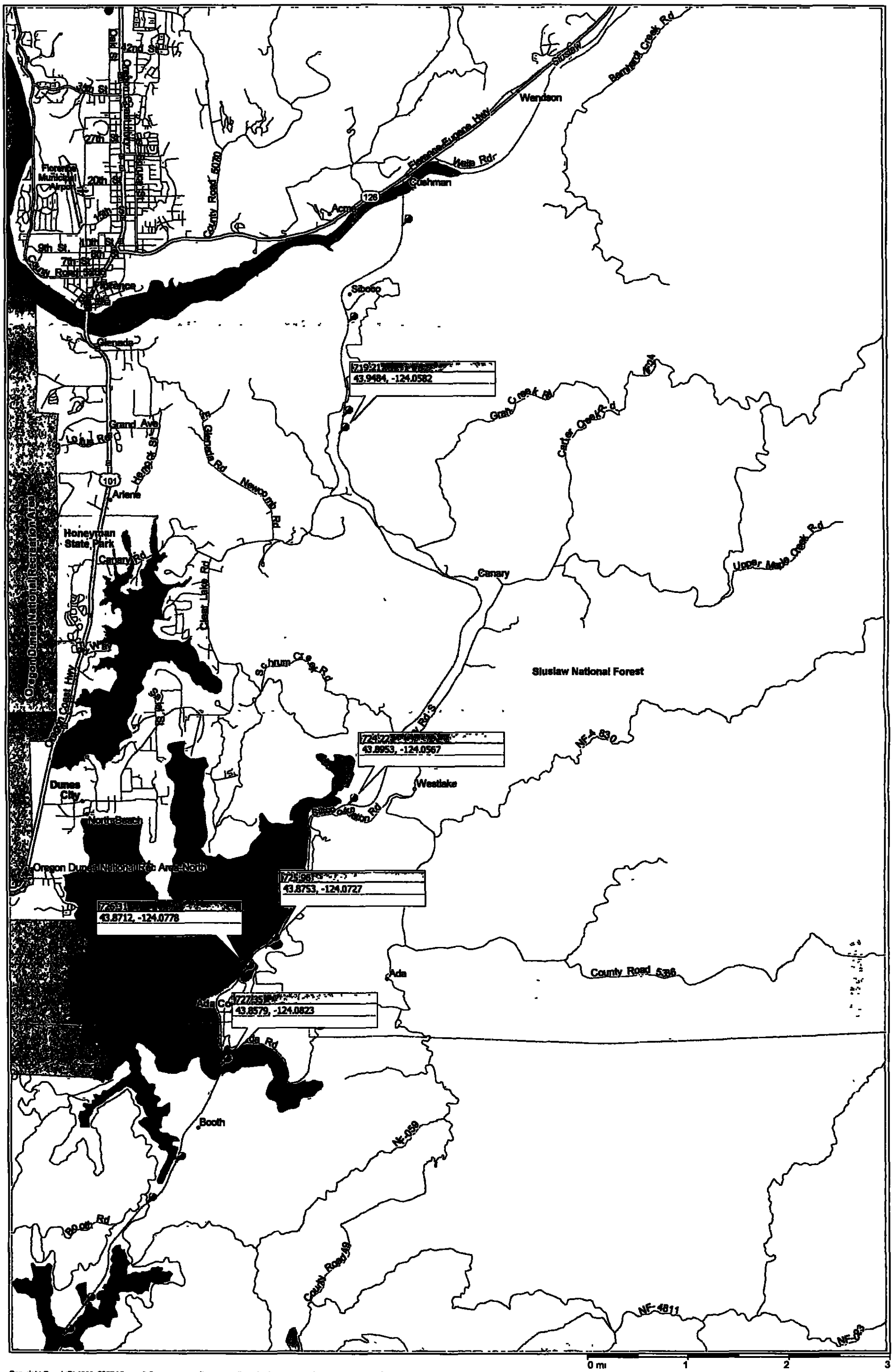

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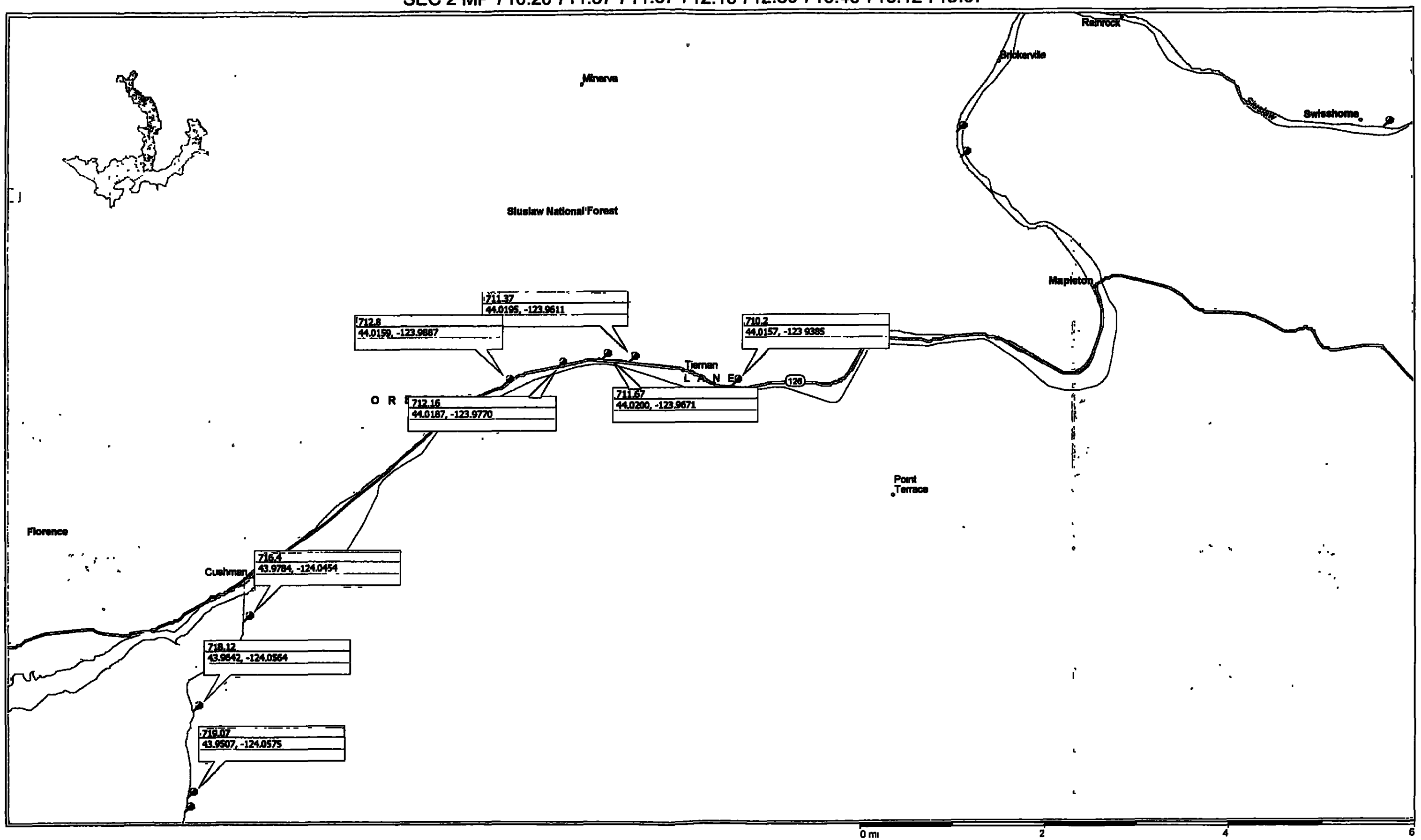

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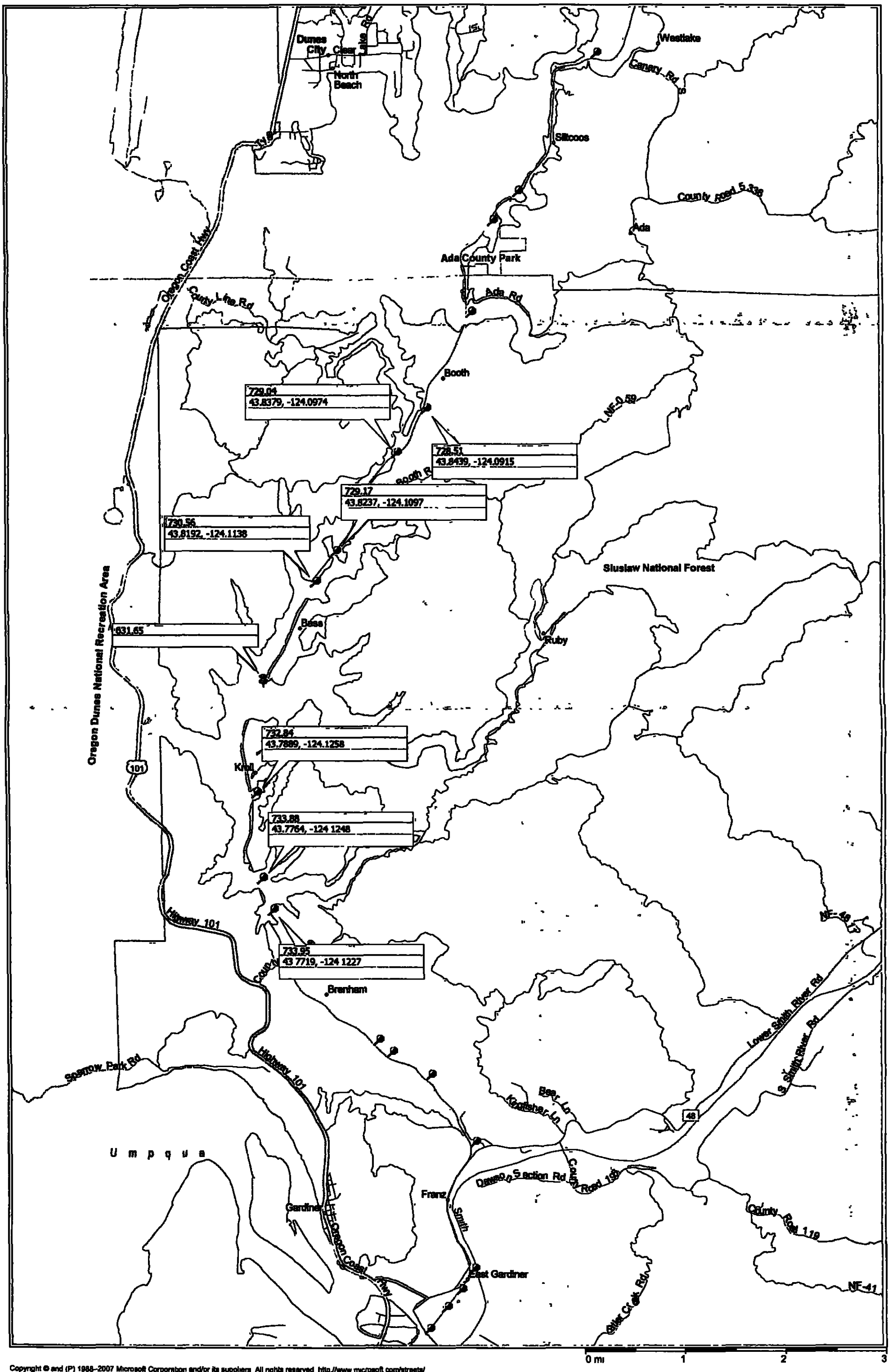

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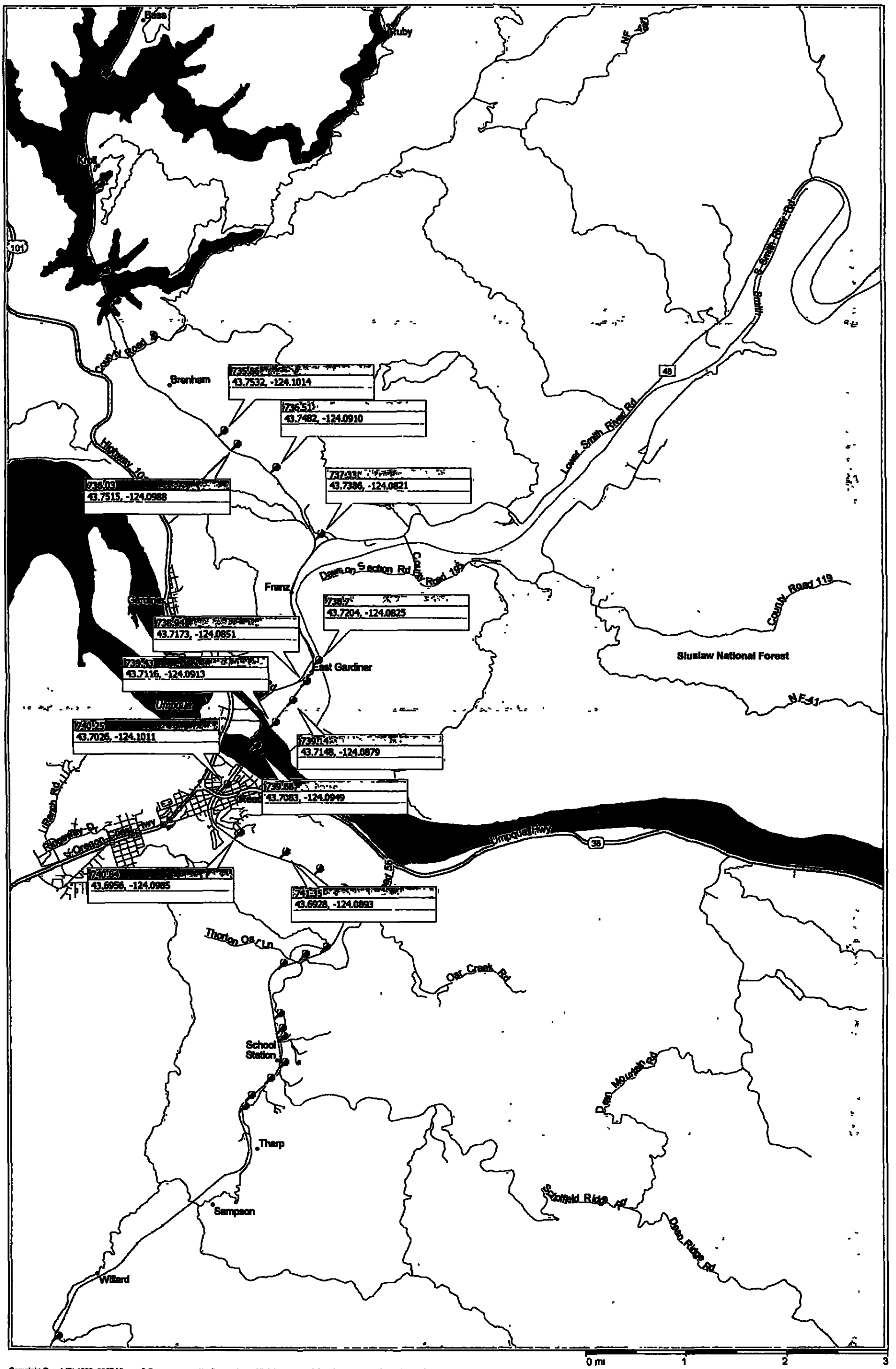

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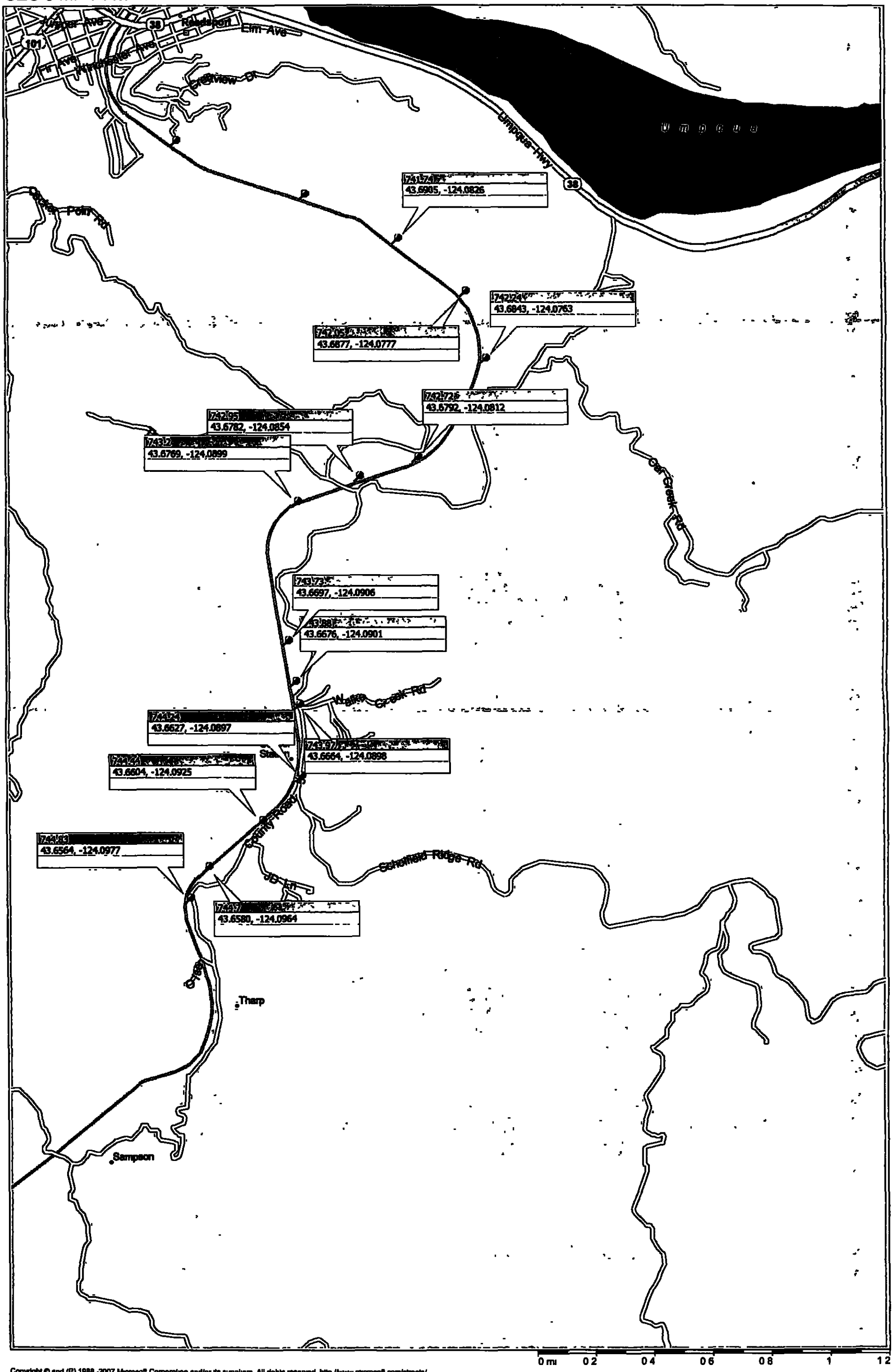

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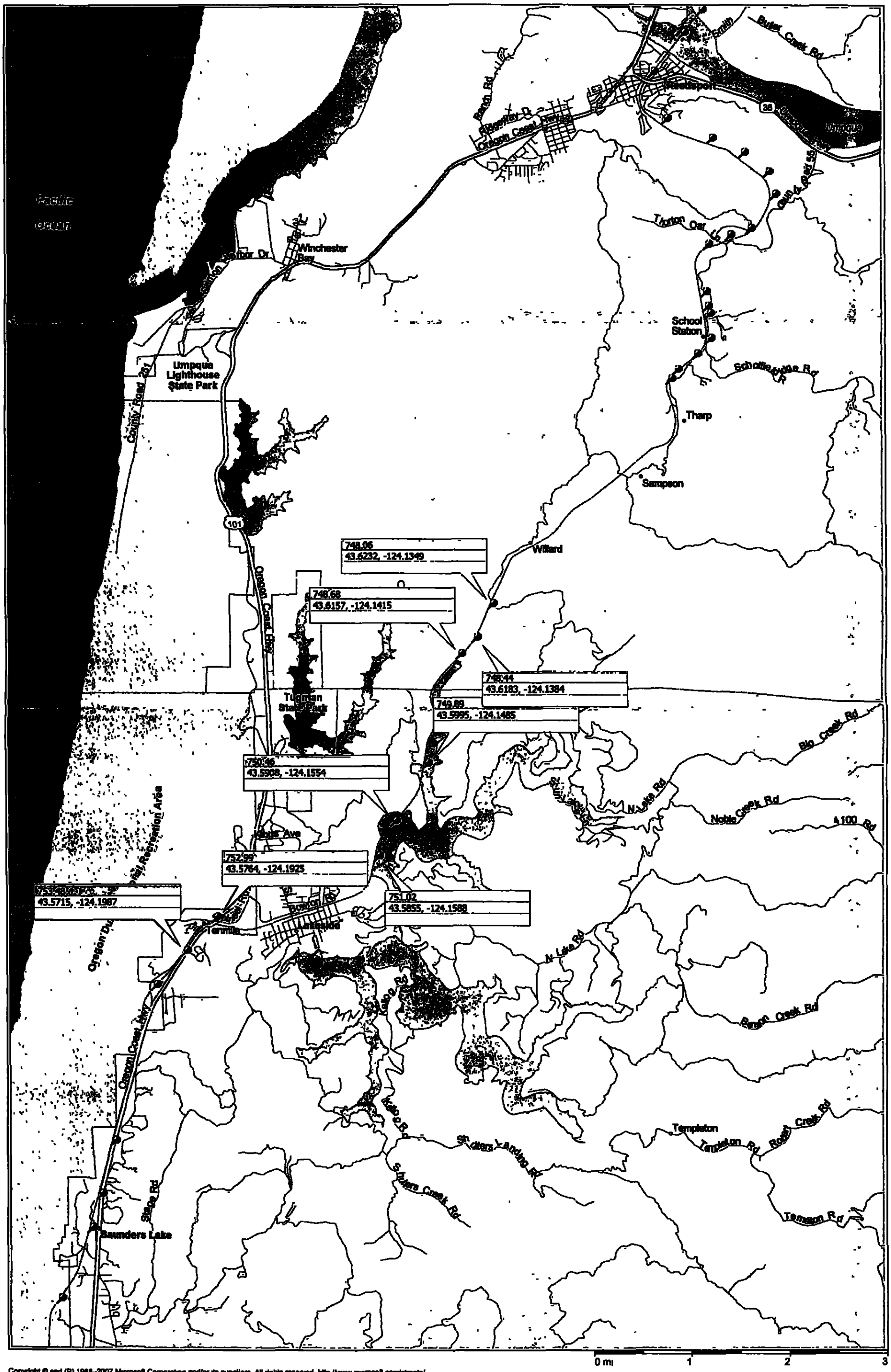

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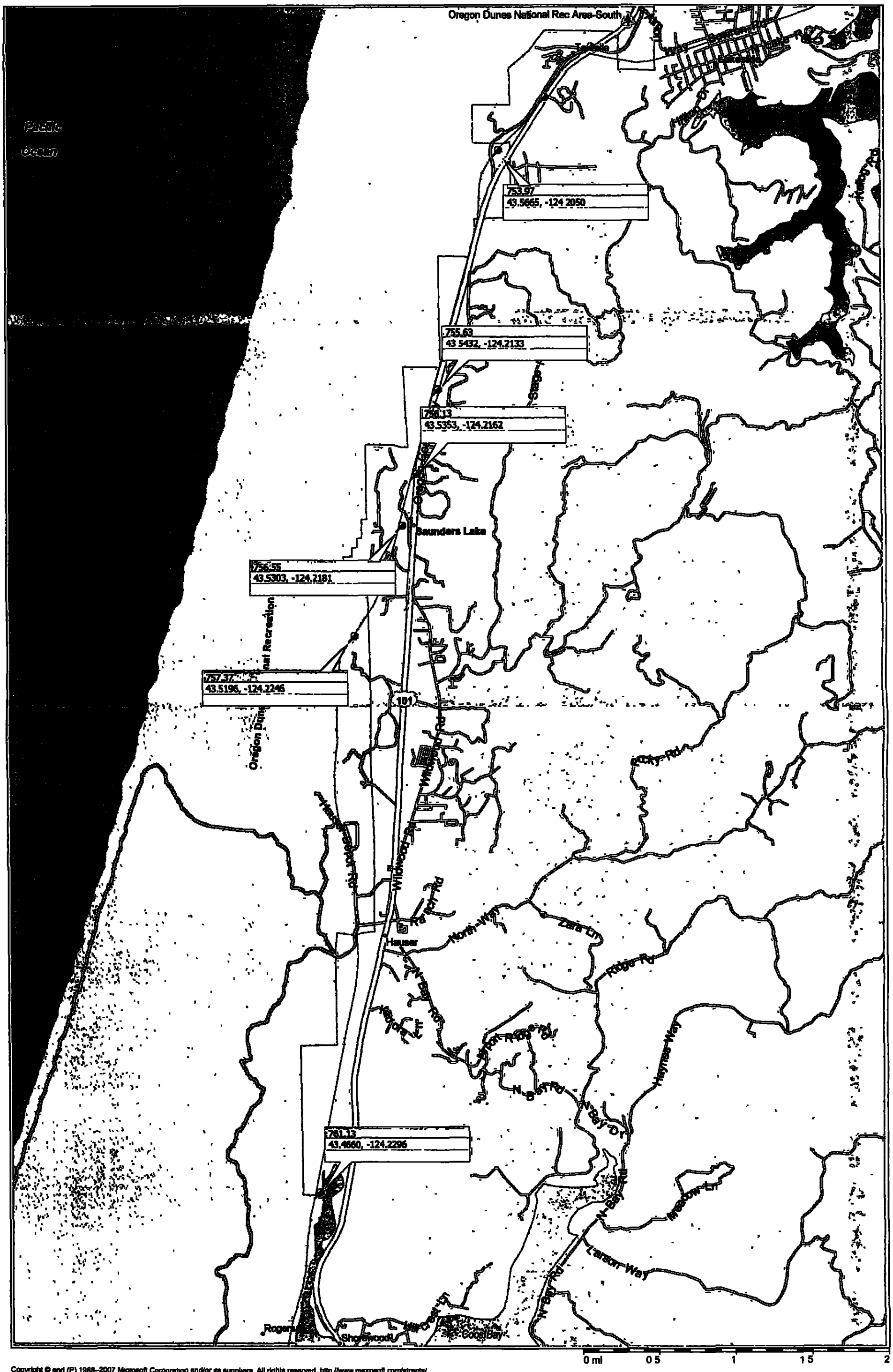

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