

**WSDOT and PCC Rail Authority
PCC Rail System Capital Maintenance Requirements Study
Eastern Washington
Task AG
Work Element 3
PCC Operational/Loading Condition Priority Analysis – January, 2010**

Work Element 3 requires that HDR develop and provide a report that details the needs and costs of bringing the branch segments shown in Table 1 below to a moderate condition level for the operational need of 286k compatible (assumed to also allow 25 mph). This analysis details the items and costs of bringing these branch segments to a moderate condition level based upon the operational need stated. The analysis also provides items and costs of bringing selected sidings to a moderate industrial siding standard.

Table 1

Branch Segment	Condition	Alternate Condition
CW Branch	286K Compatible,	
PV Branch-Winona to Willada	286 K Compatible	
PV Branch Willada to Thornton	263K Compatible, Class 1, No Rail Replacement	286K Compatible
Hooper Branch-Hooper to Mockonema	286K Compatible	
Hooper Branch-Mockoneman to Colfax	263K Compatible, Class 1, No Rail Replacement	286K Compatible
P & L Branch-Marshall to Fallon	286K Compatible	
P & L Branch-Fallon to Idaho Border at Moscow	263K Compatible, Class 1, No Rail Replacement	286K Compatible
WIM	263K Compatible, Class 1, No Rail Replacement	286K Compatible

Assumptions for Work Element 3

- 286k compliant track will consist of 112lb or heavier rail. Existing rail smaller than this will be replaced with 112lb (or larger) CWR.
- Moderate siding standard presumes that rail less than 85lb rail will be replaced. Replacement rail would consist of 100lb (or larger) jointed rail.
- 286k compliant timber bridges are presumed to include 50% of caps being replaced and the addition of “helper stingers”.
- General life and costs of components, and tonnage (traffic) are based on the WE2 capitalized maintenance report previously provided.
- Unless otherwise indicated, this analysis presumes that work performed would be consistent with a “ten-year maintenance cycle”. A maintenance cycle is

generally considered to mean how often does a railroad perform normalized capital type maintenance on a line segment. This is often driven by the average quality of track the railroad desires to keep between the cycles. On many railroads the cycle is around 5 years. The 5 year cycle allows for a replacement of 1/8 of the ties if the average tie life is 40 years. This would be about 388 ties per mile. This would theoretically never allow any more than 1/4 of the ties to be either poor or defective at any one time. Surfacing is usually performed with tie replacement which also keeps the track smooth and from further deterioration caused by dynamics introduced by poor track surface and line. Because the PCC is a very low traffic shortline, a 7 to 10 year cycle between capital maintenance programs might be justified. Because the speeds and annual tonnages are generally low, the track does not require surfacing as much because of dynamics. The shortline can also generally afford to place slow orders on a section of track if the maintenance cycle work is delayed and track conditions deteriorate beyond a “planned for” point.

- For the purpose of this report, “Moderate condition” is a level of maintenance considered to be sustainable; a level of maintenance that keeps the railroads condition at the desired operating condition and limits.
- Rehabilitation and maintenance work known to be performed by the operating railroads and the WSDOT within the last 6 years are considered in this report.
- Recommendations for the selected sidings are based on limited information in some cases and generalizations regarding the existing conditions.

The Analysis

Like the previous work element, this analysis uses the following foundation information including:

- Historical Track Charts
- *Evaluation of the PCC Railroad for WSDOT– HDR 2003* (2003 Evaluation)
- Inspection and first hand data gathered by HDR as part of this and numerous previous task orders pertaining to the PCC.
- Contract documents provided as part of recent PCC Rehabilitation Projects or 2008 and 2009.
- Other information provided by WSDOT.

Our analysis attempts to provide a recommended scope and cost for each line segment consistent with the “condition table” shown above.

- Our rail scope and cost is based on changing out all rail sections below 112lb where a 286k sustainable condition is desired. Where 263k (and a sustainable over 10 years FRA Class 1) condition is acceptable, no rail relay is shown for the segments. No additional rail change out allowance is included for curves etc.
- Tie replacement quantities on the line segments are based on the proposed car loading weights;
 - 286k - The 2003 Evaluation “tie index” for the segment, a degradation factor based on 6 years between this analysis and the 2003 Evaluation, the

approximate number of ties that have been replaced in the segment since 2003 by the operating railroads and the WSDOT projects, the requirement to provide a tie condition that is conducive to replacement of rail and surfacing, and finally the desire to not let the track deteriorate below a tie index of 50 for 10 years.

- 263k (and Class 1) - The 2003 Evaluation “tie index” for the segment, a degradation factor based on 6 years between this analysis and the 2003 Evaluation, the approximate number of ties that have been replaced in the segment since 2003 by the operating railroads and the WSDOT projects, the requirement to provide a tie condition that is conducive to surfacing, rail size, and finally the desire to not let the track deteriorate below a tie index of 40 for 10 years.
- Joint maintenance is based on a combination of factors including; whether the rail is changed out, the prorated amount based on the annualized capitalized maintenance costs developed as part of the last work element, and whether this aspect of work was included in the 2008 and 2009 WSDOT rehab work. The cost of this item in the 286k portions is small because a large percentage of rail is changed out and thereby eliminating this work item. Where the recent projects have performed this item, it is reasonable to assume that it would not be needed again within the next 10 years in those areas. We have included performing joint maintenance work where not recently performed regardless of rail section to compliment the recommended tie and surfacing work.
- Surfacing (Surface, line and dress or SLD) and ballast distribution are included in all areas to compliment rail, tie, and joint maintenance items for both the 263k and 286k suggested work.
- Bridge work includes a fraction of the prorated amount (for 10 years per WE2) based on the length and type of bridges in the segment for both the 263k and 286k levels except that the 286k includes an additional allowance for 50% cap replacement plus the addition of helper stringers (as noted previously). The fraction of the prorated amount is between 1/3 and 1/2 with the basis being that repair (replacements of defective members) of the timber structures on the line segments is more cost effective in the short term than replacement of the structures. One should recognize that, over the long term this approach of replacing members (or adding helper stringers) will drive the long term cost of the structures up because the cost of replacement of particular members will not effect the cost of replacement in the future (long term horizon).
- Crossing work is based the following: If rail replacement is to be performed (as part of the 286k criteria) then all crossings in those areas will be either reconstructed or “retrofitted”. However, if a crossing currently has 112lb (or heavier) rail in it, then generally no work will be performed at that crossing. (The previous situation is a crossing which appears that it would have light rail in it as indicated by the track chart, but actually has heavy rail though the crossing. There are number of crossings like this on the PCC segments – particularly on the CW.) If current 112lb rail crossings that have specific known-poor conditions, they are included. In the 263k analysis, crossings are based on the prorated 10

- year portion based on WE2, however recent work completed will be deducted/credited.
- Culvert replacements are based on the prorated 10 year portion based on WE2, however recent work completed will be deducted/credited.
 - Ditching quantities are based on the prorated 10 year portion based on WE2, however recent work completed will be deducted/credited.
 - Turnouts have a cost basis similar to crossings. If rail replacement is to be performed (as part of the 286k criteria), then all turnouts in those areas will be relayed unless already containing the larger rail. If they contain large rail, then no specific work is included. For the 263k situation, the turnouts will receive a cost that is a fraction of the prorated amount based on 10 year and the cost basis from WE2. Our view is that if the portion of the segment containing the turnout is not upgraded to a heavier rail, then the only significant item associated with those turnouts would be ties in the 10 year view.

The tables below summarize the recommendations for the segments. Details are provided in Appendix A.

OPERATIONAL/LOADING CONDITION PRIORITY ANALYSIS - 286K COMPATABILITY				
ITEM	PV - WINONA TO WILLADA	HOOPER - HOOPER TO MOCKONEMA	P&L - MARSHALL TO FALLON	CW - CHENEY TO COULEE CITY
RAIL	\$5,596,800	\$21,009,000	\$11,357,400	\$49,447,200
TIES	\$1,270,410	\$3,506,801	\$5,839,579	\$8,689,733
JOINTS	\$3,357	\$39,045	\$86,536	\$16,626
SLD + BALLAST	\$248,160	\$981,238	\$1,363,102	\$2,269,146
BRIDGE	\$437,580	\$2,250,588	\$3,372,486	\$913,600
CROSSINGS	\$148,000	\$487,900	\$1,144,600	\$1,518,000
CULVERTS	\$4,267	\$23,893	\$129,039	\$150,773
DITCHING	\$50,453	\$218,052	\$302,908	\$504,252
TURNOUTS	\$90,000	\$390,000	\$630,000	\$990,000
TOTAL	\$7,849,027	\$28,906,517	\$24,225,650	\$64,499,330

OPERATIONAL/LOADING CONDITION PRIORITY ANALYSIS - 263K COMPATABILITY				
ITEM	PV - WILLADA TO THORNTON	HOOPER - MOCKONEMA TO COLFAX	P&L - FALLON TO STATE LINE	WIM - PALOUSE TO STATE LINE
TIES	\$2,323,200	\$523,746	\$1,884,780	\$386,417
JOINTS	\$29,212	\$7,048	\$27,321	\$4,386
SLD + BALLAST	\$422,400	\$100,751	\$390,720	\$75,419
BRIDGE	\$228,760	\$20,178	\$194,220	\$0
CROSSINGS	\$79,787	\$2,347	\$134,933	\$63,983
CULVERTS	\$10,050	\$400	\$39,731	\$310
DITCHING	\$93,867	\$22,387	\$86,827	\$3,942
TURNOUTS	\$41,333	\$24,000	\$38,667	\$0
TOTAL	\$3,228,609	\$700,857	\$2,797,199	\$534,458

OPERATIONAL/LOADING CONDITION PRIORITY ANALYSIS - 286K COMPATABILITY ALTERNATE CONDITION				
ITEM	PV - WILLADA TO THORNTON	HOOPER - MOCKONEMA TO COLFAX	P&L - FALLON TO STATE LINE	WIM - PALOUSE TO STATE LINE
RAIL	\$6,431,100	\$369,600	\$6,816,400	\$1,356,900
TIES	\$2,133,599	\$583,848	\$2,089,017	\$393,271
JOINTS	\$15,813	\$22,041	\$16,029	\$0
SLD + BALLAST	\$422,400	\$100,751	\$390,720	\$75,419
BRIDGE	\$687,760	\$5,054	\$626,220	\$0
CROSSINGS	\$336,000	\$8,800	\$497,200	\$186,313
CULVERTS	\$10,050	\$400	\$39,731	\$1,863
DITCHING	\$93,867	\$22,387	\$86,827	\$16,755
TURNOUTS	\$210,000	\$90,000	\$150,000	\$0
TOTAL	\$10,340,589	\$1,202,882	\$10,712,144	\$2,030,521

Our analysis concerning the selected sidings is as follows:

- If the rail is at least 85lb and the siding is viewed to be in at least good condition, then no allowance is provided. This track condition is referred to as condition “A” in the analysis and exhibits.
- If the rail is at least 85lb but otherwise is in less than good to fair condition, then our allowance includes changing 20% of the ties, performing joint maintenance, ballasting, and performing SLD. (Condition “B”.)
- If the rail is at least 85lb but otherwise is in poor condition, then our allowance includes changing 40% of the ties, performing joint maintenance, ballasting, and performing SLD. (Condition “C”.)
- If the rail is smaller than 85lb rail, then our allowance is based on changing 40% of the ties, relaying the rail (including replacing the OTM), ballasting, and performing SLD. (Condition “D”.)

The tables below summarize the recommendations for the selected key sidings / auxiliary tracks. Additional details are provided in Appendix B.

OPERATIONAL/LOADING CONDITION PRIORITY ANALYSIS - SELECTED SIDING SUMMARY

SIDING REPAIR SUMMARY	
SUBDIVISION	TOTAL COST FOR SIDINGS
PV	\$565,800
HOOPER	\$1,155,600
P&L	\$596,800
CW	\$589,592

Discussion

The rail replacement associated with the upgrade to 286k is the most significant element of the proposed rehabilitation projects/levels. If savings were needed, a consideration would be to not replace 100lb section rail but only those portions where the section is less than 100lb. In our opinion, this would still meet the requirement of a “moderate condition”. There is a sizeable percentage of 100lb rail in the Hooper, as well as the CW and the P&L.

The cost and quantities of the ties are as high as they are because of the mediocre tie conditions in 2003 and the fact that ties changed since then do not come up to a “normalized replacement” or “steady state” quantity. The segments with the lowest ties per mile in our recommendation directly relate the fact that these segments have had the largest quantities of ties changed out in recent years. However, the quantities for tie replacement should be considered conservative or as maximums based on our general knowledge of the lines.

APPENDIX A

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WINONA TO WILLADA

RAIL REPLACEMENT (ALL RAIL SMALLER THAN 112#)				
M.P. BEGIN	M.P. END	T.F.	UNIT PRICE	TOTAL PRICE
0.34	5.15	25,397	\$100	\$2,539,700
5.96	11.75	30,571	\$100	\$3,057,100

TOTAL PRICE = \$5,596,800

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WINONA TO WILLADA

TIE REPLACEMENT							
M.P. BEGIN	M.P. END	MILES	% OF TIES CHANGED	TIES CHANGED PER MILE	TOTAL TIES REPLACED	UNIT PRICE	TOTAL PRICE
0	11.75	11.75	29%	901	10,587	\$120	\$1,270,410

ASSUMED TIES PER MILE = 3100
 TIE SPACING (INCHES) = 20.4
 TOTAL PRICE = \$1,270,410

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WINONA TO WILLADA

JOINT MAINTENANCE					
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	UNIT PRICE	TOTAL PRICE
0.00	0.34	1,795	131	\$20	\$1,841
5.68	5.96	1,478	133	\$20	\$1,516

ASSUMED RAIL LENGTH = 39
 TOTAL PRICE = \$3,357

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WINONA TO WILLADA

SLD + BALLAST DISTRIBUTION							
M.P. BEGIN	M.P. END	TOTAL MILES	TOTAL T.F.	BALLAST DISTRIBUTION RATE 0.10 TON/T.F.	SLD UNIT PRICE T.F.	BALLAST UNIT PRICE	TOTAL PRICE
0.00	11.75	11.75	62,040	6,204	\$2	\$20	\$248,160

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WINONA TO WILLADA

BRIDGE UPGRADES 286K							
BRIDGE LOCATION	BRIDGE T.F.	CAPS REPLACED	STRINGERS REPLACED	CAP UNIT PRICE	STRINGER UNIT PRICE	MAINT. COSTS	TOTAL PRICE
1.51*	150	0	0	\$0	\$0	\$13,300	\$13,300
1.51	120	4	8	\$5,000	\$8,000	\$42,560	\$126,560
7.21	60	0	0	\$5,000	\$8,000	\$21,280	\$21,280
7.73	45	2	3	\$5,000	\$8,000	\$15,960	\$49,960
8.39	60	2	4	\$5,000	\$8,000	\$21,280	\$63,280
8.72	90	3	6	\$5,000	\$8,000	\$31,920	\$94,920
11.04	45	2	3	\$5,000	\$8,000	\$15,960	\$49,960
11.75	15	1	1	\$5,000	\$8,000	\$5,320	\$18,320

* DENOTES STEEL BRIDGE

1) 75 year captital maintenance costs for PV bridges = \$6,540,000/1230 T.F. = \$5,320 per T.F. of bridge. Maintenance costs will be based on on half of the \$5,320 cost times a ratio fo 10/75. Steel bridge maintenance costs will be based on on one quater of half of the \$5,320 cost times a ratio of 10/75.

TOTAL PRICE = \$437,580

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WINONA TO WILLADA

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
0.01	24	No	\$550	\$13,200
0.60	16	No	\$550	\$8,800
1.20	16	Yes	\$200	\$3,200
2.50	16	No	\$550	\$8,800
4.10	16	No	\$550	\$8,800
4.80	16	Yes	\$200	\$3,200
5.30	16	No	\$550	\$8,800
5.95	16	No	\$550	\$8,800
5.55	16	No	\$550	\$8,800
7.80	16	Yes	\$200	\$3,200
7.98	24	No	\$550	\$13,200
8.35	16	No	\$550	\$8,800
8.85	16	No	\$550	\$8,800
9.35	16	No	\$550	\$8,800
9.99	16	No	\$550	\$8,800
10.30	16	No	\$550	\$8,800
10.70	16	No	\$550	\$8,800
11.50	32	Yes	\$200	\$6,400

TOTAL PRICE = \$148,000

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WINONA TO WILLADA

CULVERT REPLACEMENT					
AVERAGE CULVERT LENGTH L.F.	WEIGHTED CULVERT SIZE (INCHES)	KNOWN CULVERTS	TOTAL L.F. REPLACED	UNIT PRICE	TOTAL PRICE
16.00	22.87	20	43	\$100	\$4,267

1) Replace a ratio of 10 /75 of the total know culverts based on the average culvert length and weighted culvert size.

TOTAL PRICE = \$4,267

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WINONA TO WILLADA

DITCHING				
M.P. BEGIN	M.P. END	DITCH L.F.	UNIT PRICE	TOTAL PRICE
1	11.75	5,045	\$10.00	\$50,453

1) Includes ditching a ratio of 10/75 of 1/6 of overall subdivision length will be ditched 2 times in 75 years - both sides of track.

TOTAL PRICE = \$50,453

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WINONA TO WILLADA

TURNOUTS			
M.P. BEGIN	STATION	RAIL WEIGHT	UNIT PRICE
0.45	Winona	75	\$30,000
0.85	Winona	75	\$30,000
11.3	Willada	90	\$30,000

TOTAL PRICE = \$90,000

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

RAIL REPLACEMENT (ALL RAIL SMALLER THAN 112#)				
M.P. BEGIN	M.P. END	T.F.	UNIT PRICE	TOTAL PRICE
11.75	15.80	21,384	\$100	\$2,138,400
15.85	16.76	4,805	\$100	\$480,500
17.16	20.83	19,378	\$100	\$1,937,800
21.28	21.99	3,749	\$100	\$374,900
22.28	22.73	2,376	\$100	\$237,600
22.96	24.90	10,243	\$100	\$1,024,300
25.09	25.68	3,115	\$100	\$311,500
27.77	31.68	20,645	\$100	\$2,064,500

TOTAL PRICE = \$6,431,100

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

TIE REPLACEMENT							
M.P. BEGIN	M.P. END	MILES	% OF TIES CHANGED	TIES CHANGED PER MILE	TOTAL TIES REPLACED	UNIT PRICE	TOTAL PRICE
11.75	31.75	20	29%	889	17,780	\$120	\$2,133,599

ASSUMED TIES PER MILE = 3100
 TIE SPACING (INCHES) = 20.4
 TOTAL PRICE = \$2,133,599

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

JOINT MAINTENANCE					
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	UNIT PRICE	TOTAL PRICE
15.80	15.85	264	133	\$20	\$271
16.76	17.16	2,112	119	\$20	\$2,166
22.73	22.99	1,373	131	\$20	\$1,408
25.68	27.77	11,035	131	\$20	\$11,318
30.88	30.93	264	131	\$20	\$271
31.68	31.75	370	133	\$20	\$379

ASSUMED RAIL LENGTH = 39
 TOTAL PRICE = \$15,813

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

SLD + BALLAST DISTRIBUTION							
M.P. BEGIN	M.P. END	TOTAL MILES	TOTAL T.F.	BALLAST DISTRIBUTION RATE 0.10 TON/T.F.	SLD UNIT PRICE T.F.	BALLAST UNIT PRICE	TOTAL PRICE
11.75	31.75	20.00	105,600	10,560	\$2	\$20	\$422,400

TOTAL PRICE = \$422,400

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

BRIDGE UPGRADES 286K							
BRIDGE LOCATION	BRIDGE T.F.	CAPS REPLACED	STRINGERS REPLACED	CAP UNIT PRICE	STRINGER UNIT PRICE	MAINT. COSTS	TOTAL PRICE
12.24	30	1	2	\$5,000	\$8,000	\$10,640	\$31,640
13.65	90	3	6	\$5,000	\$8,000	\$31,920	\$94,920
14.16	30	1	2	\$5,000	\$8,000	\$10,640	\$31,640
15.49	45	2	3	\$5,000	\$8,000	\$15,960	\$49,960
18.13	105	4	7	\$5,000	\$8,000	\$37,240	\$113,240
20.05	60	2	4	\$5,000	\$8,000	\$21,280	\$63,280
22.96	60	2	4	\$5,000	\$8,000	\$21,280	\$63,280
24.91	45	2	3	\$5,000	\$8,000	\$15,960	\$49,960
25.51	60	2	4	\$5,000	\$8,000	\$21,280	
30.31	120	4	8	\$5,000	\$8,000	\$42,560	\$126,560

1) 75 year captital maintenance costs for PV bridges = \$6,540,000/1230 T.F. = \$5,320 per T.F. of bridge. Maintenance costs will be based on on half of the \$5,320 cost times a ratio fo 10/75. Steel bridge maintenance costs will be based on on one quater of half of the \$5,320 cost times a ratio of 10/75.

TOTAL PRICE = \$624,480

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
12.10	16	No	\$550	\$8,800
12.30	16	No	\$550	\$8,800
12.90	24	No	\$550	\$13,200
13.30	16	No	\$550	\$8,800
13.80	16	Yes	\$200	\$3,200
14.40	60	No	\$550	\$33,000
14.70	16	No	\$550	\$8,800
15.10	16	No	\$550	\$8,800
15.48	16	No	\$550	\$8,800
16.25	16	Yes	\$200	\$3,200
17.33	16	Yes	\$200	\$3,200
17.43	16	Yes	\$200	\$3,200
17.70	16	No	\$550	\$8,800
17.80	24	Yes	\$200	\$4,800
18.20	60	No	\$550	\$33,000
18.40	24	Yes	\$200	\$4,800
18.50	16	No	\$550	\$8,800
19.25	16	No	\$550	\$8,800
20.11	16	No	\$550	\$8,800
21.50	16	No	\$550	\$8,800
21.90	16	No	\$550	\$8,800
22.30	16	No	\$550	\$8,800
23.15	16	No	\$550	\$8,800
23.50	16	No	\$550	\$8,800
24.30	48	Yes	\$200	\$9,600
25.60	24	No	\$550	\$13,200
25.80	16	No	\$550	\$8,800
26.50	16	No	\$550	\$8,800
27.00	16	No	\$550	\$8,800
27.50	16	No	\$550	\$8,800
28.45	16	No	\$550	\$8,800
30.00	24	Yes	\$200	\$4,800
30.25	16	No	\$550	\$8,800
31.10	16	No	\$550	\$8,800
31.20	24	No	\$550	\$13,200

TOTAL PRICE = \$336,000

CULVERT REPLACEMENT					
AVERAGE CULVERT LENGTH L.F.	WEIGHTED CULVERT SIZE (INCHES)	KNOWN CULVERTS	TOTAL L.F. REPLACED	UNIT PRICE	TOTAL PRICE
27.92	22.66	27	101	\$100	\$10,050

1) Replace a ratio of 10 /75 of the total know culverts based on the average culvert length and weighted culvert size.

TOTAL PRICE = \$10,050

PV SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

DITCHING				
M.P. BEGIN	M.P. END	DITCH L.F.	UNIT PRICE	TOTAL PRICE
11.75	31.75	9,387	\$10.00	\$93,867

1) Includes ditching at a ratio of 10 /75 of the 75 year capital maintenacne cost for the subdivision segment.

TOTAL PRICE = \$93,867

TURNOUTS			
M.P. BEGIN	STATION	RAIL WEIGHT	UNIT PRICE
18.21	St. John	75	\$30,000
18.55	St. John	75	\$30,000
19.7	Juno	75	\$30,000
25.25	Sunset	75	\$30,000
25.5	Sunset	75	\$30,000
30.8	Thornton	75	\$30,000
31.3	Thornton	75	\$30,000

TOTAL PRICE = \$210,000

PV SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

TIE REPLACEMENT							
M.P. BEGIN	M.P. END	MILES	% OF TIES CHANGED	TIES CHANGED PER MILE	TOTAL TIES REPLACED	UNIT PRICE	TOTAL PRICE
11.75	31.75	20	31%	968	19,360	\$120	\$2,323,200

ASSUMED TIES PER MILE = 3100
 TIE SPACING (INCHES) = 20.4
 TOTAL PRICE = \$2,323,200

PV SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

JOINT MAINTENANCE						
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	TOTAL JOINTS	UNIT PRICE	TOTAL PRICE
11.75	13.75	10,560	75	164	\$20	\$3,277
14.05	14.75	3,696	75	57	\$20	\$1,147
15.50	15.80	1,584	75	25	\$20	\$492
15.80	15.85	264	133	4	\$20	\$82
15.85	16.76	4,805	75	75	\$20	\$1,491
16.76	17.16	2,112	119	33	\$20	\$655
17.16	17.30	739	75	11	\$20	\$229
17.55	17.75	1,056	75	16	\$20	\$328
18.15	20.83	14,150	75	220	\$20	\$4,391
20.83	21.05	1,162	119	18	\$20	\$361
21.13	21.28	792	119	12	\$20	\$246
21.96	22.28	1,690	119	26	\$20	\$524
22.28	22.73	2,376	75	37	\$20	\$737
22.73	22.99	1,373	131	21	\$20	\$426
22.99	24.90	10,085	75	156	\$20	\$3,129
24.90	25.09	1,003	119	16	\$20	\$311
25.09	25.63	2,851	75	44	\$20	\$885
25.63	25.68	264	100	4	\$20	\$82
25.68	27.77	11,035	131	171	\$20	\$3,424
27.77	27.81	211	100	3	\$20	\$65
27.81	30.88	16,210	75	251	\$20	\$5,030
30.88	30.93	264	131	4	\$20	\$82
30.93	31.68	3,960	75	61	\$20	\$1,229
31.68	32.04	1,901	133	29	\$20	\$590

1) Joint maintenance is based on the 75 year capital maintenance cost times a ratio of 10/75.

WEIGHTED RAIL LENGTH = 34.4
 TOTAL PRICE = \$29,212

PV SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

SLD + BALLAST DISTRIBUTION							
M.P. BEGIN	M.P. END	TOTAL MILES	TOTAL T.F.	BALLAST DISTRIBUTION RATE 0.10 TON/T.F.	SLD UNIT PRICE T.F.	BALLAST UNIT PRICE	TOTAL PRICE
11.75	31.75	20.00	105,600	10,560	\$2	\$20	\$422,400

TOTAL PRICE = \$422,400

PV SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

BRIDGE MAINTENANCE		
BRIDGE LOCATION	BRIDGE T.F.	MAINT. COSTS
12.24	30	\$10,640
13.65	90	\$31,920
14.16	30	\$10,640
15.49	45	\$15,960
18.13	105	\$37,240
20.05	60	\$21,280
22.96	60	\$21,280
24.91	45	\$15,960
25.51	60	\$21,280
30.31	120	\$42,560

1) 75 year captital maintenance costs for PV bridges =
 \$6,540,000/1230 T.F. = \$5,320 per T.F. of bridge. Maintenance costs
 will be based on on half of the \$5,320 cost times a ratio fo 10/75.

TOTAL PRICE = \$228,760

PV SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

CROSSING MAINTENANCE			
CROSSING LOCATION	CROSSING T.F.	UNIT PRICE	TOTAL PRICE
12.10	16	\$550	\$2,347
12.30	16	\$550	\$2,347
12.90	24	\$550	\$3,520
13.30	16	\$550	\$2,347
14.40	60	\$550	\$8,800
14.70	16	\$550	\$2,347
15.10	16	\$550	\$2,347
15.48	16	\$550	\$2,347
17.70	16	\$550	\$2,347
18.20	60	\$550	\$8,800
18.50	16	\$550	\$2,347
19.25	16	\$550	\$2,347
20.11	16	\$550	\$2,347
21.50	16	\$550	\$2,347
21.90	16	\$550	\$2,347
22.30	16	\$550	\$2,347
23.15	16	\$550	\$2,347
23.50	16	\$550	\$2,347
25.60	24	\$550	\$3,520
25.80	16	\$550	\$2,347
26.50	16	\$550	\$2,347
27.00	16	\$550	\$2,347
27.50	16	\$550	\$2,347
28.45	16	\$550	\$2,347
30.25	16	\$550	\$2,347
31.10	16	\$550	\$2,347
31.20	24	\$550	\$3,520

1) Maintenance costs are based on the 75 year capital maintenance cost times a ratio of 10/75 for the subdivision segment.

TOTAL PRICE = \$79,787

PV SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

CULVERT REPLACEMENT					
AVERAGE CULVERT LENGTH L.F.	WEIGHTED CULVERT SIZE (INCHES)	KNOWN CULVERTS	TOTAL L.F. REPLACED	UNIT PRICE	TOTAL PRICE
27.92	22.66	27	101	\$100	\$10,050

1) Replace a ratio of 10/75 of the total know culverts based on the average culvert length and weighted culvert size for the subdivision segment, based on the 75 year capital maintenance cost.

TOTAL PRICE = \$10,050

PV SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS WILLADA TO THORNTON

DITCHING				
M.P. BEGIN	M.P. END	DITCH L.F.	UNIT PRICE	TOTAL PRICE
11.75	31.75	9,387	\$10.00	\$93,867

1) Includes ditching at a ratio of 10 /75 of the 75 year capital maintenacne cost for the subdivision segment.

TOTAL PRICE = \$93,867

TURNOUT MAINTENANCE			
M.P. BEGIN	STATION	RAIL WEIGHT	TOTAL PRICE
18.21	St. John	75	\$5,333
18.55	St. John	75	\$5,333
19.7	Juno	75	\$5,333
20	Juno	112	\$4,000
25.25	Sunset	75	\$5,333
25.5	Sunset	75	\$5,333
30.8	Thornton	75	\$5,333
31.3	Thornton	75	\$5,333

1) Turnout maintenance costs are based on 2/3 of the 75 year capital maintenance cost times a ratio of 10/75 for the subdivision segment.

TOTAL PRICE = \$41,333

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS HOOPER TO MOCKONEMA

RAIL REPLACEMENT (ALL RAIL SMALLER THAN 112#)				
M.P. BEGIN	M.P. END	T.F.	UNIT PRICE	TOTAL PRICE
26.47	31.95	28,934	\$100	\$2,893,400
35.60	41.61	31,733	\$100	\$3,173,300
44.40	51.55	37,752	\$100	\$3,775,200
51.60	51.95	1,848	\$100	\$184,800
52.30	55.40	16,368	\$100	\$1,636,800
55.46	57.40	10,243	\$100	\$1,024,300
57.50	58.29	4,171	\$100	\$417,100
58.40	72.83	76,190	\$100	\$7,619,000
72.39	72.93	2,851	\$100	\$285,100

TOTAL PRICE = \$21,009,000

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS HOOPER TO MOCKONEMA

TIE REPLACEMENT							
M.P. BEGIN	M.P. END	MILES	% OF TIES CHANGED	TIES CHANGED PER MILE	TOTAL TIES REPLACED	UNIT PRICE	TOTAL PRICE
26.47	72.93	46.46	20%	629	29,223	\$120	\$3,506,801

ASSUMED TIES PER MILE = 3100
 TIE SPACING (INCHES) = 20.4
 TOTAL PRICE = \$3,506,801

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS HOOPER TO MOCKONEMA

JOINT MAINTENANCE					
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	UNIT PRICE	TOTAL PRICE
31.95	35.60	19,272	133	\$20	\$19,766
41.61	44.40	14,731	133	\$20	\$15,109
51.55	51.60	264	131	\$20	\$271
51.95	52.30	1,848	133	\$20	\$1,895
55.40	55.46	317	131	\$20	\$325
57.40	57.50	528	133	\$20	\$542
58.29	58.40	581	133	\$20	\$596
72.83	72.93	528	131	\$20	\$542

ASSUMED RAIL LENGTH = 39
 TOTAL PRICE = \$39,045

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS HOOPER TO MOCKONEMA

SLD + BALLAST DISTRIBUTION							
M.P. BEGIN	M.P. END	TOTAL MILES	TOTAL T.F.	BALLAST DISTRIBUTION RATE 0.10 TON/T.F.	SLD UNIT PRICE T.F.	BALLAST UNIT PRICE	TOTAL PRICE
26.47	72.93	46.46	245,309	24,531	\$2	\$20	\$981,238

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS HOOPER TO MOCKONEMA

BRIDGE UPGRADES 286K							
BRIDGE LOCATION	BRIDGE T.F.	CAPS REPLACED	STRINGERS REPLACED	CAP UNIT PRICE	STRINGER UNIT PRICE	MAINT. COSTS	TOTAL PRICE
26.47*	210	0	0	\$0	\$0	\$18,585	\$18,585
26.47	180	6	12	\$5,000	\$8,000	\$63,720	\$189,720
32.72	15	0	0	\$5,000	\$8,000	\$5,310	\$5,310
33.17	45	2	3	\$5,000	\$8,000	\$15,930	\$49,930
33.71	120	4	8	\$5,000	\$8,000	\$42,480	\$126,480
33.90	135	5	9	\$5,000	\$8,000	\$47,790	\$144,790
33.99	105	4	7	\$5,000	\$8,000	\$37,170	\$113,170
36.91	60	2	4	\$5,000	\$8,000	\$21,240	\$63,240
37.22	60	2	4	\$5,000	\$8,000	\$21,240	\$63,240
44.78	120	4	8	\$5,000	\$8,000	\$42,480	\$126,480
48.60	30	0	0	\$5,000	\$8,000	\$10,620	\$10,620
52.00	195	7	13	\$5,000	\$8,000	\$69,030	\$208,030
52.64	90	3	6	\$5,000	\$8,000	\$31,860	\$94,860
55.25	120	4	8	\$5,000	\$8,000	\$42,480	\$126,480
55.42*	45	0	0	\$0	\$0	\$3,983	\$3,983
56.10	75	3	5	\$5,000	\$8,000	\$26,550	\$81,550
56.53	90	3	6	\$5,000	\$8,000	\$31,860	\$94,860
56.97	90	3	6	\$5,000	\$8,000	\$31,860	\$94,860
57.22	15	0	0	\$5,000	\$8,000	\$5,310	\$5,310
60.67	45	2	3	\$5,000	\$8,000	\$15,930	\$49,930
64.94	105	4	7	\$5,000	\$8,000	\$37,170	\$113,170
65.52	105	4	7	\$5,000	\$8,000	\$37,170	\$113,170
66.74	60	2	4	\$5,000	\$8,000	\$21,240	\$63,240
67.77	120	4	8	\$5,000	\$8,000	\$42,480	\$126,480
68.83	75	3	5	\$5,000	\$8,000	\$26,550	\$81,550
71.38	75	3	5	\$5,000	\$8,000	\$26,550	\$81,550

* DENOTES STEEL BRIDGE

1) 75 year capital maintenance costs for Hooper bridges = \$12,963,000/2442 T.F. = \$5,310 per T.F. of bridge. Maintenance costs will be based on on half of the \$5,310 cost times a ratio fo 10/75. Steel bridge maintenance costs will be based on on one quarter of half of the \$5,310 cost times a ratio of 10/75.

TOTAL PRICE = \$2,250,588

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS HOOPER TO MOCKONEMA

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
26.55	16	No	\$550	\$8,800
26.95	24	No	\$550	\$13,200
28.60	26	No	\$550	\$14,300
29.70	16	No	\$550	\$8,800
30.75	16	No	\$550	\$8,800
33.35	24	No	\$550	\$13,200
35.61	16	No	\$550	\$8,800
36.10	16	No	\$550	\$8,800
37.35	16	No	\$550	\$8,800
39.02	16	No	\$550	\$8,800
41.40	32	No	\$550	\$17,600
41.70	24	No	\$550	\$13,200
43.90	16	No	\$550	\$8,800
44.20	16	No	\$550	\$8,800
45.00	16	No	\$550	\$8,800
44.50	16	No	\$550	\$8,800
46.80	16	No	\$550	\$8,800
48.80	24	No	\$550	\$13,200
52.20	16	No	\$550	\$8,800
52.90	16	No	\$550	\$8,800
54.25	16	Yes	\$200	\$3,200
54.80	16	No	\$550	\$8,800
56.20	24	No	\$550	\$13,200
56.75	16	No	\$550	\$8,800
57.09	16	No	\$550	\$8,800
57.50	16	No	\$550	\$8,800
57.90	24	No	\$550	\$13,200
58.10	24	No	\$550	\$13,200
59.20	16	No	\$550	\$8,800
60.30	16	No	\$550	\$8,800
60.80	16	Yes	\$200	\$3,200
61.55	16	No	\$550	\$8,800
62.80	16	No	\$550	\$8,800
63.75	24	Yes	\$200	\$4,800
64.92	16	No	\$550	\$8,800
65.55	16	No	\$550	\$8,800
66.10	16	No	\$550	\$8,800

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS HOOPER TO MOCKONEMA

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
66.60	24	Yes	\$200	\$4,800
67.50	16	No	\$550	\$8,800
68.40	16	No	\$550	\$8,800
68.70	96	No	\$550	\$52,800
69.70	16	No	\$550	\$8,800
70.60	16	No	\$550	\$8,800
71.10	16	No	\$550	\$8,800
71.40	16	No	\$550	\$8,800
72.40	16	No	\$550	\$8,800
72.50	24	No	\$550	\$13,200

TOTAL PRICE = \$487,900

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS HOOPER TO MOCKONEMA

CULVERT REPLACEMENT					
AVERAGE CULVERT LENGTH L.F.	WEIGHTED CULVERT SIZE (INCHES)	KNOWN CULVERTS	TOTAL L.F. REPLACED	UNIT PRICE	TOTAL PRICE
28.00	1.88	64	239	\$100	\$23,893

1) Replace a ratio of 10 /75 of the total know culverts based on the average culvert length and weighted culvert size.

TOTAL PRICE = \$23,893

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS HOOPER TO MOCKONEMA

DITCHING				
M.P. BEGIN	M.P. END	DITCH L.F.	UNIT PRICE	TOTAL PRICE
26.47	72.93	21,805	\$10.00	\$218,052

1) Includes ditching a ratio of 10/75 of 1/6 of overall subdivision length will be ditched 2 times in 75 years - both sides of track.

TOTAL PRICE = \$218,052

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS HOOPER TO MOCKONEMA

TURNOUTS			
M.P. BEGIN	STATION	RAIL WEIGHT	UNIT PRICE
26.60	Hooper	90	\$30,000
26.90	Hooper	90	\$30,000
36.92	Pampa	90	\$30,000
37.20	Pampa	90	\$30,000
40.70	Wye	90	\$30,000
41.25	LaCrosse	90	\$30,000
41.50	LaCrosse	90	\$30,000
45.95	Sutton	100	\$30,000
52.25	Winona	100	\$30,000
64.55	Thera	100	\$30,000
64.92	Thera	100	\$30,000
72.10	Mockonema	90	\$30,000
72.55	Mockonema	90	\$30,000

TOTAL PRICE = \$390,000

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

RAIL REPLACEMENT (ALL RAIL SMALLER THAN 112#)				
M.P. BEGIN	M.P. END	T.F.	UNIT PRICE	TOTAL PRICE
72.93	73.63	3,696	\$100	\$369,600

TOTAL PRICE = \$369,600

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

TIE REPLACEMENT							
M.P. BEGIN	M.P. END	MILES	% OF TIES CHANGED	TIES CHANGED PER MILE	TOTAL TIES REPLACED	UNIT PRICE	TOTAL PRICE
72.93	77.7	4.77	33%	1020	4,865	\$120	\$583,848

ASSUMED TIES PER MILE = 3100
 TIE SPACING (INCHES) = 20.4
 TOTAL PRICE = \$583,848

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

JOINT MAINTENANCE					
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	UNIT PRICE	TOTAL PRICE
73.63	77.70	21,490	131	\$20	\$22,041

ASSUMED RAIL LENGTH = 39
 TOTAL PRICE = \$22,041

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

SLD + BALLAST DISTRIBUTION							
M.P. BEGIN	M.P. END	TOTAL MILES	TOTAL T.F.	BALLAST DISTRIBUTION RATE 0.10 TON/T.F.	SLD UNIT PRICE T.F.	BALLAST UNIT PRICE	TOTAL PRICE
72.93	77.70	4.77	25,186	2,519	\$2	\$20	\$100,751

TOTAL PRICE = \$100,751

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

BRIDGE UPGRADES 286K							
BRIDGE LOCATION	BRIDGE T.F.	CAPS REPLACED	STRINGERS REPLACED	CAP UNIT PRICE	STRINGER UNIT PRICE	MAINT. COSTS	TOTAL PRICE
75.90*	57	2	4	\$0	\$0	\$5,054	\$5,054

* DENOTES STEEL BRIDGE

1) 75 year captital maintenance costs for Hooper bridges = \$12,963,000/2442 T.F. = \$5,310 per T.F. of bridge. Maintenance costs will be based on on half of the \$5,310 cost times a ratio fo 10/75. Steel bridge maintenance costs will be based on on one quarter of half of the \$5,310 cost times a ratio of 10/75.

TOTAL PRICE = \$5,054

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
75.15	16	No	\$550	\$8,800

TOTAL PRICE = \$8,800

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

CULVERT REPLACEMENT					
AVERAGE CULVERT LENGTH L.F.	WEIGHTED CULVERT SIZE (INCHES)	KNOWN CULVERTS	TOTAL L.F. REPLACED	UNIT PRICE	TOTAL PRICE
30.00	12.00	1	4	\$100	\$400

1) Replace a ratio of 10 /75 of the total know culverts based on the average culvert length and weighted culvert size.

TOTAL PRICE = \$400

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

DITCHING				
M.P. BEGIN	M.P. END	DITCH L.F.	UNIT PRICE	TOTAL PRICE
72.93	77.70	2,239	\$10.00	\$22,387

1) Includes ditching at a ratio of 10 /75 of the 75 year capital maintenacne cost for the subdivision segment.

TOTAL PRICE = \$22,387

HOOPER SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

TURNOUTS			
M.P. BEGIN	STATION	RAIL WEIGHT	UNIT PRICE
77.30	Wye	90	\$30,000
77.40	Colfax	90	\$30,000
77.45	Colfax	90	\$30,000

TOTAL PRICE = \$90,000

HOOPER SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

TIE REPLACEMENT							
M.P. BEGIN	M.P. END	MILES	% OF TIES CHANGED	TIES CHANGED PER MILE	TOTAL TIES REPLACED	UNIT PRICE	TOTAL PRICE
72.93	77.7	4.77	30%	915	4,365	\$120	\$523,746

ASSUMED TIES PER MILE = 3100
 TIE SPACING (INCHES) = 20.4
 TOTAL PRICE = \$523,746

HOOPER SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

JOINT MAINTENANCE						
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	TOTAL JOINTS	UNIT PRICE	TOTAL PRICE
72.93	73.63	3,696	90	52	\$20	\$1,034
73.63	77.70	21,490	131	301	\$20	\$6,013

1) Joint maintenance is based on the 75 year capital maintenance cost times a ratio of 10/75.

WEIGHTED RAIL LENGTH = 38.1
 TOTAL PRICE = \$7,048

HOOPER SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

SLD + BALLAST DISTRIBUTION							
M.P. BEGIN	M.P. END	TOTAL MILES	TOTAL T.F.	BALLAST DISTRIBUTION RATE 0.10 TON/T.F.	SLD UNIT PRICE T.F.	BALLAST UNIT PRICE	TOTAL PRICE
72.93	77.70	4.77	25,186	2,519	\$2	\$20	\$100,751

TOTAL PRICE = \$100,751

HOOPER SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

BRIDGE MAINTENANCE		
BRIDGE LOCATION	BRIDGE T.F.	MAINT. COSTS
75.90*	57	\$20,178

1) 75 year capital maintenance costs for Hooper bridges =
\$12,963,000/2442 T.F. = \$5,310 per T.F. of bridge. Maintenance costs
will be based on on half of the \$5,310 cost times a ratio fo 10/75.

TOTAL PRICE = \$20,178

HOOPER SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

CROSSING MAINTENANCE			
CROSSING LOCATION	CROSSING T.F.	UNIT PRICE	TOTAL PRICE
75.15	16	\$550	\$2,347

1) Maintenance costs are based on the 75 year capital maintenance cost times a ratio of 10/75 for the subdivision segment.

TOTAL PRICE = \$2,347

HOOPER SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

CULVERT REPLACEMENT					
AVERAGE CULVERT LENGTH L.F.	WEIGHTED CULVERT SIZE (INCHES)	KNOWN CULVERTS	TOTAL L.F. REPLACED	UNIT PRICE	TOTAL PRICE
30.00	12.00	1	4	\$100	\$400

1) Replace a ratio of 10/75 of the total know culverts based on the average culvert length and weighted culvert size for the subdivision segment, based on the 75 year capital maintenance cost.

TOTAL PRICE = \$400

HOOPER SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

DITCHING				
M.P. BEGIN	M.P. END	DITCH L.F.	UNIT PRICE	TOTAL PRICE
72.93	77.70	2,239	\$10.00	\$22,387

1) Includes ditching at a ratio of 10 /75 of the 75 year capital maintenacne cost for the subdivision segment.

TOTAL PRICE = \$22,387

HOOPER SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS MOCKONEMA TO COLFAX

TURNOUT MAINTENANCE			
M.P. BEGIN	STATION	RAIL WEIGHT	TOTAL PRICE
77.21	Colfax	131	\$4,000
77.23	Colfax	131	\$4,000
77.30	Wye	90	\$5,333
77.40	Colfax	90	\$5,333
77.45	Colfax	90	\$5,333

1) Turnout maintenance costs are based on 2/3 of the 75 year capital maintenance cost times a ratio of 10/75 for the subdivision segment.

TOTAL PRICE = \$24,000

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

RAIL REPLACEMENT (ALL RAIL SMALLER THAN 112#)				
M.P. BEGIN	M.P. END	T.F.	UNIT PRICE	TOTAL PRICE
27.85	28.13	1,478	\$100	\$147,800
35.08	38.17	16,315	\$100	\$1,631,500
38.22	38.24	106	\$100	\$10,600
38.50	44.41	31,205	\$100	\$3,120,500
44.41	44.83	2,218	\$100	\$221,800
44.83	45.34	2,693	\$100	\$269,300
46.86	47.88	5,386	\$100	\$538,600
48.84	49.56	3,802	\$100	\$380,200
49.88	50.20	1,690	\$100	\$169,000
50.50	51.30	4,224	\$100	\$422,400
52.09	52.22	686	\$100	\$68,600
52.96	53.10	739	\$100	\$73,900
54.23	54.33	528	\$100	\$52,800
54.35	54.40	264	\$100	\$26,400
55.13	55.52	2,059	\$100	\$205,900
55.95	56.81	4,541	\$100	\$454,100
57.07	57.22	792	\$100	\$79,200
57.65	58.03	2,006	\$100	\$200,600
58.84	59.29	2,376	\$100	\$237,600
59.49	60.89	7,392	\$100	\$739,200
62.13	63.84	9,029	\$100	\$902,900
64.35	64.43	422	\$100	\$42,200
64.68	64.80	634	\$100	\$63,400
65.08	67.54	12,989	\$100	\$1,298,900

TOTAL PRICE = \$11,357,400

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

TIE REPLACEMENT							
M.P. BEGIN	M.P. END	MILES	% OF TIES CHANGED	TIES CHANGED PER MILE	TOTAL TIES REPLACED	UNIT PRICE	TOTAL PRICE
1	65.54	64.54	24%	754	48,663	\$120	\$5,839,579

ASSUMED TIES PER MILE = 3100
 TIE SPACING (INCHES) = 20.4
 TOTAL PRICE = \$5,839,579

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

JOINT MAINTENANCE					
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	UNIT PRICE	TOTAL PRICE
0	0.12	634	115	\$20	\$650
0.34	0.36	106	115	\$20	\$109
0.41	0.44	158	115	\$20	\$162
0.74	0.89	792	112	\$20	\$812
0.89	0.96	370	115	\$20	\$379
0.96	1.12	845	112	\$20	\$867
2.21	2.27	317	112	\$20	\$325
2.49	2.57	422	112	\$20	\$433
2.72	3.30	3,062	112	\$20	\$3,141
8.95	9.20	1,320	112	\$20	\$1,354
10.84	10.96	634	112	\$20	\$650
10.96	10.98	106	112	\$20	\$109
11.46	11.49	158	112	\$20	\$162
19.44	19.59	792	112	\$20	\$812
21.58	21.70	634	112	\$20	\$650
22.89	23.07	950	112	\$20	\$974
23.95	24.10	792	112	\$20	\$812
26.37	26.40	158	112	\$20	\$162
26.47	26.55	422	112	\$20	\$433
27.85	28.13	1,478	112	\$20	\$1,516
28.42	28.59	898	112	\$20	\$921
29.33	29.43	528	112	\$20	\$542
31.02	31.09	370	112	\$20	\$379
31.82	31.85	158	115	\$20	\$162
32.13	33.72	8,395	115	\$20	\$8,610
33.88	34.94	5,597	112	\$20	\$5,741
34.96	35.08	634	112	\$20	\$650
38.17	38.21	211	112	\$20	\$216
38.24	38.50	1,373	112	\$20	\$1,408
44.40	44.83	2,270	112	\$20	\$2,328
45.33	46.25	4,858	112	\$20	\$4,983
47.88	48.70	4,330	112	\$20	\$4,441
48.70	48.84	739	115	\$20	\$758
49.56	49.64	422	115	\$20	\$433
49.64	49.73	475	112	\$20	\$487
49.76	49.86	528	112	\$20	\$542
49.88	49.91	158	112	\$20	\$162

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

JOINT MAINTENANCE					
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	UNIT PRICE	TOTAL PRICE
50.19	50.50	1,637	112	\$20	\$1,679
51.30	51.34	211	112	\$20	\$216
51.44	51.71	1,426	115	\$20	\$1,463
51.81	52.96	6,072	112	\$20	\$6,228
53.10	54.23	5,966	112	\$20	\$6,119
54.40	55.13	3,854	112	\$20	\$3,953
55.52	55.70	950	112	\$20	\$974
57.22	57.65	2,270	115	\$20	\$2,328
58.00	58.84	4,435	112	\$20	\$4,549
59.28	59.49	1,109	112	\$20	\$1,137
60.88	62.13	6,600	112	\$20	\$6,769
63.83	63.94	581	112	\$20	\$596
64.20	64.35	792	112	\$20	\$812
64.43	64.68	1,320	112	\$20	\$1,354
64.79	64.99	1,056	112	\$20	\$1,083

NOTE: Only counts currently-jointed 112/115# rail.

ASSUMED RAIL LENGTH = 39
 TOTAL PRICE = \$86,536

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

SLD + BALLAST DISTRIBUTION							
M.P. BEGIN	M.P. END	TOTAL MILES	TOTAL T.F.	BALLAST DISTRIBUTION RATE 0.10 TON/T.F.	SLD UNIT PRICE T.F.	BALLAST UNIT PRICE	TOTAL PRICE
1	65.54	64.54	340,771	34,078	\$2	\$20	\$1,363,102

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

BRIDGE UPGRADES 286K							
BRIDGE LOCATION	BRIDGE T.F.	CAPS REPLACED	STRINGERS REPLACED	CAP UNIT PRICE	STRINGER UNIT PRICE	MAINT. COSTS	TOTAL PRICE
3.89	10	1	1	\$5,000	\$8,000	\$3,320	\$16,320
6.15	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
9.77*	132	0	0	\$5,000	\$8,000	\$10,956	\$10,956
10.50	60	2	4	\$5,000	\$8,000	\$19,920	\$61,920
12.39	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
12.72	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
13.24	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
13.73	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
14.36	75	3	5	\$5,000	\$8,000	\$24,900	\$79,900
16.25	15	1	1	\$5,000	\$8,000	\$4,980	\$17,980
17.63	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
17.82	15	1	1	\$5,000	\$8,000	\$4,980	\$17,980
18.62	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
20.37	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
21.92	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
23.77	75	3	5	\$5,000	\$8,000	\$24,900	\$79,900
23.89	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
24.89	15	1	1	\$5,000	\$8,000	\$4,980	\$17,980
27.67	15	1	1	\$5,000	\$8,000	\$4,980	\$17,980
28.45*	60	0	0	\$5,000	\$8,000	\$4,980	\$4,980
28.85	15	1	1	\$5,000	\$8,000	\$4,980	\$17,980
28.89	60	2	4	\$5,000	\$8,000	\$19,920	\$61,920
29.01	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
29.46	60	2	4	\$5,000	\$8,000	\$19,920	\$61,920
30.20	60	2	4	\$5,000	\$8,000	\$19,920	\$61,920
30.53	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
30.95	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
31.27	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
31.80	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
32.12	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
33.77	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
34.23	60	2	4	\$5,000	\$8,000	\$19,920	\$61,920
34.79	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
35.66	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
36.25	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
37.36	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
38.48	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

BRIDGE UPGRADES 286K							
39.94	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
40.19	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
40.52	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
41.06	15	1	1	\$5,000	\$8,000	\$4,980	\$17,980
41.13	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
41.81	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
42.30	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
43.31	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
43.72	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
44.31	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
43.72	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
46.26	75	3	5	\$5,000	\$8,000	\$24,900	\$79,900
48.95	60	2	4	\$5,000	\$8,000	\$19,920	\$61,920
49.86	75	3	5	\$5,000	\$8,000	\$24,900	\$79,900
52.06	75	3	5	\$5,000	\$8,000	\$24,900	\$79,900
52.29	90	3	6	\$5,000	\$8,000	\$29,880	\$92,880
52.73	60	2	4	\$5,000	\$8,000	\$19,920	\$61,920
53.60	105	4	7	\$5,000	\$8,000	\$34,860	\$110,860
54.51	75	3	5	\$5,000	\$8,000	\$24,900	\$79,900
56.45	150	5	10	\$5,000	\$8,000	\$49,800	\$154,800
56.45*	70	0	0	\$5,000	\$8,000	\$5,810	\$5,810
56.64	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
58.36*	134	0	0	\$5,000	\$8,000	\$11,122	\$11,122
58.91	210	7	14	\$5,000	\$8,000	\$69,720	\$216,720
58.91*	66	0	0	\$5,000	\$8,000	\$5,478	\$5,478
61.74	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
63.21	75	3	5	\$5,000	\$8,000	\$24,900	\$79,900
63.78	75	3	5	\$5,000	\$8,000	\$24,900	\$79,900
65.18	135	5	9	\$5,000	\$8,000	\$44,820	\$141,820
62.25	75	3	5	\$5,000	\$8,000	\$24,900	\$79,900

* DENOTES STEEL BRIDGE

1) 75 year capital maintenance costs for P&L bridges = \$20,871,000/4192 T.F. = \$4,980 per T.F. of bridge. Maintenance costs will be based on on half of the \$4,980 cost times a ratio fo 10/75. Steel bridge maintenance costs will be based on on one quarter of half of the \$4,980 cost times a ratio of 10/75.

TOTAL PRICE = \$3,372,486

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
0.99	16	No	\$550	\$8,800
1.35	16	No	\$550	\$8,800
1.93	16	No	\$550	\$8,800
3.68	32	No	\$550	\$17,600
5.38	16	No	\$550	\$8,800
6.58	16	No	\$550	\$8,800
7.09	16	No	\$550	\$8,800
7.50	24	No	\$550	\$13,200
8.62	24	No	\$550	\$13,200
9.42	16	No	\$550	\$8,800
10.15	24	No	\$550	\$13,200
10.68	24	No	\$550	\$13,200
10.97	32	No	\$550	\$17,600
11.22	24	No	\$550	\$13,200
11.50	32	No	\$550	\$17,600
11.58	16	No	\$550	\$8,800
11.66	24	No	\$550	\$13,200
12.25	24	No	\$550	\$13,200
12.50	16	No	\$550	\$8,800
12.78	32	No	\$550	\$17,600
13.30	16	No	\$550	\$8,800
14.06	16	No	\$550	\$8,800
15.45	32	No	\$550	\$17,600
16.19	16	No	\$550	\$8,800
16.78	24	No	\$550	\$13,200
17.30	16	No	\$550	\$8,800
19.18	16	No	\$550	\$8,800
19.44	24	No	\$550	\$13,200
20.27	16	No	\$550	\$8,800
23.30	24	No	\$550	\$13,200
23.83	16	No	\$550	\$8,800
25.29	24	No	\$550	\$13,200
26.01	16	No	\$550	\$8,800
26.51	24	No	\$550	\$13,200
26.64	24	No	\$550	\$13,200
26.71	24	No	\$550	\$13,200
26.95	16	No	\$550	\$8,800

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
27.02	24	No	\$550	\$13,200
28.86	24	No	\$550	\$13,200
29.08	16	No	\$550	\$8,800
29.43	16	No	\$550	\$8,800
29.98	16	No	\$550	\$8,800
30.69	16	No	\$550	\$8,800
31.05	16	No	\$550	\$8,800
31.31	16	No	\$550	\$8,800
31.91	16	No	\$550	\$8,800
32.38	60	No	\$550	\$33,000
32.87	16	No	\$550	\$8,800
33.43	16	No	\$550	\$8,800
35.04	24	No	\$550	\$13,200
36.19	24	No	\$550	\$13,200
36.95	16	No	\$550	\$8,800
37.31	24	No	\$550	\$13,200
37.39	32	No	\$550	\$17,600
37.47	16	No	\$550	\$8,800
37.57	32	No	\$550	\$17,600
37.62	16	No	\$550	\$8,800
38.19	32	No	\$550	\$17,600
39.64	16	No	\$550	\$8,800
40.45	16	No	\$550	\$8,800
40.80	28	Yes	\$200	\$5,600
41.38	16	No	\$550	\$8,800
41.90	16	No	\$550	\$8,800
42.92	16	No	\$550	\$8,800
43.67	24	No	\$550	\$13,200
44.28	16	No	\$550	\$8,800
44.62	16	No	\$550	\$8,800
45.44	16	No	\$550	\$8,800
44.99	24	No	\$550	\$13,200
46.99	16	No	\$550	\$8,800
47.00	32	No	\$550	\$17,600
47.67	16	No	\$550	\$8,800
47.94	16	No	\$550	\$8,800
49.14	24	No	\$550	\$13,200

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
49.24	24	No	\$550	\$13,200
49.51	24	No	\$550	\$13,200
49.61	24	No	\$550	\$13,200
49.85	16	No	\$550	\$8,800
49.89	16	No	\$550	\$8,800
50.26	16	No	\$550	\$8,800
50.68	24	No	\$550	\$13,200
50.95	16	No	\$550	\$8,800
51.76	16	No	\$550	\$8,800
52.20	16	No	\$550	\$8,800
52.78	16	No	\$550	\$8,800
53.12	24	No	\$550	\$13,200
54.20	16	No	\$550	\$8,800
55.60	16	No	\$550	\$8,800
56.33	16	No	\$550	\$8,800
57.99	16	No	\$550	\$8,800
58.53	32	No	\$550	\$17,600
59.08	24	No	\$550	\$13,200
59.26	32	No	\$550	\$17,600
59.45	24	No	\$550	\$13,200
61.15	16	No	\$550	\$8,800
62.01	16	No	\$550	\$8,800
62.56	20	Yes	\$200	\$4,000
63.03	16	No	\$550	\$8,800
63.33	32	No	\$550	\$17,600
63.59	16	No	\$550	\$8,800
65.29	32	Yes	\$200	\$6,400
65.54	16	No	\$550	\$8,800

TOTAL PRICE = \$1,144,600

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

CULVERT REPLACEMENT					
AVERAGE CULVERT LENGTH L.F.	WEIGHTED CULVERT SIZE (INCHES)	KNOWN CULVERTS	TOTAL L.F. REPLACED	UNIT PRICE	TOTAL PRICE
39.50	27.59	245	1,290	\$100	\$129,039

1) Replace a ratio of 10/75 of the total know culverts based on the average culvert length and weighted culvert size.

TOTAL PRICE = \$129,039

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

DITCHING				
M.P. BEGIN	M.P. END	DITCH L.F.	UNIT PRICE	TOTAL PRICE
1	65.54	30,291	\$10.00	\$302,908

1) Includes ditching a ratio of 10 years/75 years of 1/6 of overall subdivision length will be ditched 2 times in 75 years - both sides of track.

TOTAL PRICE = \$302,908

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS MARSHALL TO FALLON

TURNOUTS			
M.P. BEGIN	STATION	RAIL WEIGHT	UNIT PRICE
37.40	Oakesdale	90	\$30,000
37.59	Oakesdale	90	\$30,000
37.94	Oakesdale	90	\$30,000
37.98	Oakesdale	90	\$30,000
42.53	Belmont	90	\$30,000
42.76	Belmont	90	\$30,000
43.13	Belmont	90	\$30,000
43.15	Belmont	90	\$30,000
43.63	Farmington	90	\$30,000
47.06	Eden	90	\$30,000
47.40	Eden	90	\$30,000
49.38	Garfield	90	\$30,000
58.83	Palouse	90	\$30,000
58.84	Palouse	90	\$30,000
58.94	Palouse	90	\$30,000
58.98	Palouse	90	\$30,000
59.21	Palouse	90	\$30,000
59.27	Palouse	90	\$30,000
59.71	Palouse	90	\$30,000
65.38	Fallon	100	\$30,000
65.51	Fallon	100	\$30,000

TOTAL PRICE = \$630,000

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

RAIL REPLACEMENT (ALL RAIL SMALLER THAN 112#)				
M.P. BEGIN	M.P. END	T.F.	UNIT PRICE	TOTAL PRICE
67.72	68.10	2,006	\$100	\$200,600
68.29	69.30	5,333	\$100	\$533,300
69.95	70.41	2,429	\$100	\$242,900
70.46	70.89	2,270	\$100	\$227,000
71.04	71.84	4,224	\$100	\$422,400
72.14	73.03	4,699	\$100	\$469,900
73.21	74.08	4,594	\$100	\$459,400
74.33	75.09	4,013	\$100	\$401,300
76.55	77.23	3,590	\$100	\$359,000
77.40	84.03	35,006	\$100	\$3,500,600

TOTAL PRICE = \$6,816,400

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

TIE REPLACEMENT							
M.P. BEGIN	M.P. END	MILES	% OF TIES CHANGED	TIES CHANGED PER MILE	TOTAL TIES REPLACED	UNIT PRICE	TOTAL PRICE
65.54	84.04	18.5	30%	941	17,408	\$120	\$2,089,017

ASSUMED TIES PER MILE = 3100
 TIE SPACING (INCHES) = 20.4
 TOTAL PRICE = \$2,089,017

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

JOINT MAINTENANCE					
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	UNIT PRICE	TOTAL PRICE
67.54	67.72	950	112	\$20	\$974
68.10	68.29	1,003	112	\$20	\$1,029
69.30	69.52	1,162	112	\$20	\$1,192
70.40	70.46	317	115	\$20	\$325
70.88	71.04	845	112	\$20	\$867
71.83	72.14	1,637	112	\$20	\$1,679
73.02	73.10	422	112	\$20	\$433
75.08	75.17	475	112	\$20	\$487
75.33	75.88	2,904	112	\$20	\$2,978
77.14	77.33	1,003	112	\$20	\$1,029
81.77	81.95	950	112	\$20	\$974
82.49	82.63	739	112	\$20	\$758
82.83	83.14	1,637	112	\$20	\$1,679
83.14	83.44	1,584	112	\$20	\$1,625

NOTE: Only counts currently-jointed 112/115# rail.

ASSUMED RAIL LENGTH = 39
 TOTAL PRICE = \$16,029

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

SLD + BALLAST DISTRIBUTION							
M.P. BEGIN	M.P. END	TOTAL MILES	TOTAL T.F.	BALLAST DISTRIBUTION RATE 0.10 TON/T.F.	SLD UNIT PRICE T.F.	BALLAST UNIT PRICE	TOTAL PRICE
65.54	84.04	18.50	97,680	9,768	\$2	\$20	\$390,720

TOTAL PRICE = \$390,720

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

BRIDGE UPGRADES 286K							
BRIDGE LOCATION	BRIDGE T.F.	CAPS REPLACED	STRINGERS REPLACED	CAP UNIT PRICE	STRINGER UNIT PRICE	MAINT. COSTS	TOTAL PRICE
66.17	30	1	2	\$5,000	\$8,000	\$9,960	\$30,960
66.83	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
69.72	60	2	4	\$5,000	\$8,000	\$19,920	\$61,920
70.92	60	2	4	\$5,000	\$8,000	\$19,920	\$61,920
74.56	105	4	7	\$5,000	\$8,000	\$34,860	\$110,860
76.85	75	3	5	\$5,000	\$8,000	\$24,900	\$79,900
77.61	15	1	1	\$5,000	\$8,000	\$4,980	\$17,980
78.68	15	1	1	\$5,000	\$8,000	\$4,980	\$17,980
79.87	15	1	1	\$5,000	\$8,000	\$4,980	\$17,980
81.10	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940
83.20	75	3	5	\$5,000	\$8,000	\$24,900	\$79,900
83.91	45	2	3	\$5,000	\$8,000	\$14,940	\$48,940

1) 75 year captital maintenance costs for P&L bridges = \$20,871,000/4192 T.F. = \$4,980 per T.F. of bridge. Maintenance costs will be based on on half of the \$4,980 cost over 10 years/75 years.

TOTAL PRICE = \$626,220

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
65.82	16	No	\$550	\$8,800
66.14	24	No	\$550	\$13,200
66.75	40	No	\$550	\$22,000
66.9	16	No	\$550	\$8,800
67.02	24	No	\$550	\$13,200
67.06	16	No	\$550	\$8,800
69.08	16	No	\$550	\$8,800
69.2	24	No	\$550	\$13,200
70.81	24	No	\$550	\$13,200
71.32	16	No	\$550	\$8,800
71.95	32	No	\$550	\$17,600
73	16	No	\$550	\$8,800
73.91	24	No	\$550	\$13,200
74.73	16	No	\$550	\$8,800
75	32	No	\$550	\$17,600
75.61	32	No	\$550	\$17,600
75.71	48	No	\$550	\$26,400
76.01	32	No	\$550	\$17,600
76.14	16	No	\$550	\$8,800
76.2	16	No	\$550	\$8,800
76.93	8	No	\$550	\$4,400
77.02	160	No	\$550	\$88,000
77.25	32	No	\$550	\$17,600
77.57	16	No	\$550	\$8,800
77.7	16	No	\$550	\$8,800
77.84	16	No	\$550	\$8,800
78.07	16	No	\$550	\$8,800
78.91	16	No	\$550	\$8,800
79.22	16	No	\$550	\$8,800
79.46	32	No	\$550	\$17,600
80.1	16	No	\$550	\$8,800
80.45	16	No	\$550	\$8,800
80.86	16	No	\$550	\$8,800
82.1	16	No	\$550	\$8,800
83.29	16	No	\$550	\$8,800
83.69	16	No	\$550	\$8,800

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE

TOTAL PRICE = \$497,200

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

CULVERT REPLACEMENT					
AVERAGE CULVERT LENGTH L.F.	WEIGHTED CULVERT SIZE (INCHES)	KNOWN CULVERTS	TOTAL L.F. REPLACED	UNIT PRICE	TOTAL PRICE
40.82	27.13	73	397	\$100	\$39,731

1) Replace a ratio of 10/75 of the total know culverts based on the average culvert length and weighted culvert size for the subdivision segment.

TOTAL PRICE = \$39,731

P & L SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

DITCHING				
M.P. BEGIN	M.P. END	DITCH L.F.	UNIT PRICE	TOTAL PRICE
65.54	84.04	8,683	\$10.00	\$86,827

1) Includes ditching at a ratio of 10 /75 of the 75 year capital maintenacne cost for the subdivision segment.

TOTAL PRICE = \$86,827

TURNOUTS			
M.P. BEGIN	STATION	RAIL WEIGHT	UNIT PRICE
65.81	Fallon	85	\$30,000
65.85	Fallon	100	\$30,000
70.37	Whelan	85	\$30,000
70.66	Whelan	85	\$30,000
73.54	Kitzmilller	85	\$30,000

TOTAL PRICE = \$150,000

P & L SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

TIE REPLACEMENT							
M.P. BEGIN	M.P. END	MILES	% OF TIES CHANGED	TIES CHANGED PER MILE	TOTAL TIES REPLACED	UNIT PRICE	TOTAL PRICE
65.54	84.04	18.5	27%	849	15,707	\$120	\$1,884,780

ASSUMED TIES PER MILE = 3100
 TIE SPACING (INCHES) = 20.4
 TOTAL PRICE = \$1,884,780

P & L SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

JOINT MAINTENANCE						
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	TOTAL JOINTS	UNIT PRICE	TOTAL PRICE
65.75	65.82	370	85	6	\$20	\$116
65.82	66.14	1,690	100	26	\$20	\$529
66.14	66.54	2,112	85	33	\$20	\$661
66.54	66.69	792	100	12	\$20	\$248
66.69	67.18	2,587	85	40	\$20	\$810
67.18	67.31	686	100	11	\$20	\$215
67.31	67.54	1,214	85	19	\$20	\$380
67.54	67.72	950	112	15	\$20	\$297
67.72	68.10	2,006	85	31	\$20	\$628
68.10	68.29	1,003	112	16	\$20	\$314
68.29	68.50	1,109	85	17	\$20	\$347
68.50	68.92	2,218	100	35	\$20	\$694
68.92	69.30	2,006	85	31	\$20	\$628
69.30	69.52	1,162	112	18	\$20	\$364
69.95	70.40	2,376	85	37	\$20	\$744
70.40	70.46	317	115	5	\$20	\$99
70.46	70.88	2,218	85	35	\$20	\$694
70.88	71.04	845	112	13	\$20	\$265
71.04	71.35	1,637	100	26	\$20	\$512
71.35	71.83	2,534	85	40	\$20	\$793
71.83	72.14	1,637	112	26	\$20	\$512
72.14	72.32	950	100	15	\$20	\$297
72.32	72.65	1,742	85	27	\$20	\$545
72.65	72.75	528	100	8	\$20	\$165
72.75	73.02	1,426	85	22	\$20	\$446
73.02	73.10	422	112	7	\$20	\$132
73.10	73.35	1,320	100	21	\$20	\$413
73.35	73.58	1,214	85	19	\$20	\$380
73.58	73.78	1,056	100	17	\$20	\$331
73.78	74.09	1,637	85	26	\$20	\$512
74.32	75.08	4,013	100	63	\$20	\$1,256
75.08	75.17	475	112	7	\$20	\$149
75.17	75.33	845	100	13	\$20	\$265
75.33	75.88	2,904	112	45	\$20	\$909
75.88	76.22	1,795	100	28	\$20	\$562
76.22	76.24	106	90	2	\$20	\$33
76.55	76.73	950	90	15	\$20	\$297

P & L SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

JOINT MAINTENANCE						
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	TOTAL JOINTS	UNIT PRICE	TOTAL PRICE
76.73	76.86	686	100	11	\$20	\$215
76.86	77.06	1,056	90	17	\$20	\$331
77.06	77.08	106	100	2	\$20	\$33
77.08	77.14	317	90	5	\$20	\$99
77.14	77.33	1,003	112	16	\$20	\$314
77.33	77.38	264	90	4	\$20	\$83
77.38	77.41	158	100	2	\$20	\$49
77.41	78.03	3,274	90	51	\$20	\$1,025
78.03	81.77	19,747	100	309	\$20	\$6,182
81.77	81.95	950	112	15	\$20	\$297
81.95	82.34	2,059	90	32	\$20	\$645
82.49	82.63	739	112	12	\$20	\$231
82.83	83.14	1,637	112	26	\$20	\$512
83.14	83.44	1,584	112	25	\$20	\$496
83.87	84.03	845	90	13	\$20	\$265

1) Joint maintenance is based on the 75 year capital maintenance cost times a ratio of 10/75.

WEIGHTED RAIL LENGTH = 34.1
 TOTAL PRICE = \$27,321

P & L SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

SLD + BALLAST DISTRIBUTION							
M.P. BEGIN	M.P. END	TOTAL MILES	TOTAL T.F.	BALLAST DISTRIBUTION RATE 0.10 TON/T.F.	SLD UNIT PRICE T.F.	BALLAST UNIT PRICE	TOTAL PRICE
65.54	84.04	18.50	97,680	9,768	\$2	\$20	\$390,720

TOTAL PRICE = \$390,720

P & L SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

BRIDGE MAINTENANCE		
BRIDGE LOCATION	BRIDGE T.F.	MAINT. COSTS
66.17	30	\$9,960
66.83	45	\$14,940
69.72	60	\$19,920
70.92	60	\$19,920
74.56	105	\$34,860
76.85	75	\$24,900
77.61	15	\$4,980
78.68	15	\$4,980
79.87	15	\$4,980
81.10	45	\$14,940
83.20	75	\$24,900
83.91	45	\$14,940

1) 75 year captial maintenance costs for P&L bridges =
 \$20,871,000/4192 T.F. = \$4,980 per T.F. of bridge. Maintenance costs
 will be based on on half of the \$4,980 cost times a ratio of 10/75.

TOTAL PRICE = \$194,220

P & L SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

CROSSING MAINTENANCE			
CROSSING LOCATION	CROSSING T.F.	UNIT PRICE	TOTAL PRICE
0.99	16	\$550	\$2,347
65.82	16	\$550	\$2,347
66.14	24	\$550	\$3,520
66.75	40	\$550	\$5,867
66.9	16	\$550	\$2,347
67.02	24	\$550	\$3,520
67.06	16	\$550	\$2,347
69.08	16	\$550	\$2,347
69.2	24	\$550	\$3,520
70.81	24	\$550	\$3,520
71.32	16	\$550	\$2,347
71.95	32	\$550	\$4,693
73	16	\$550	\$2,347
73.91	24	\$550	\$3,520
74.73	16	\$550	\$2,347
75	32	\$550	\$4,693
75.61	32	\$550	\$4,693
75.71	48	\$550	\$7,040
76.01	32	\$550	\$4,693
76.14	16	\$550	\$2,347
76.2	16	\$550	\$2,347
76.93	8	\$550	\$1,173
77.02	160	\$550	\$23,467
77.25	32	\$550	\$4,693
77.57	16	\$550	\$2,347
77.7	16	\$550	\$2,347
77.84	16	\$550	\$2,347
78.07	16	\$550	\$2,347
78.91	16	\$550	\$2,347
79.22	16	\$550	\$2,347
79.46	32	\$550	\$4,693
80.1	16	\$550	\$2,347
80.45	16	\$550	\$2,347
80.86	16	\$550	\$2,347
82.1	16	\$550	\$2,347
83.29	16	\$550	\$2,347
83.69	16	\$550	\$2,347

P & L SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

CROSSING MAINTENANCE			
CROSSING LOCATION	CROSSING T.F.	UNIT PRICE	TOTAL PRICE

1) Maintenance costs are based on the 75 year capital maintenance cost times a ratio of 10/75 for the subdivision segment.

TOTAL PRICE = \$134,933

P & L SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

CULVERT REPLACEMENT					
AVERAGE CULVERT LENGTH L.F.	WEIGHTED CULVERT SIZE (INCHES)	KNOWN CULVERTS	TOTAL L.F. REPLACED	UNIT PRICE	TOTAL PRICE
40.82	27.13	73	397	\$100	\$39,731

1) Replace a ratio of 10/75 of the total know culverts based on the average culvert length and weighted culvert size for the subdivision segment, based on the 75 year capital maintenance cost.

TOTAL PRICE = \$39,731

P & L SUBDIVISION OPERATIONAL/LOADING 263K COMPATIBLE PRIORITY ANALYSIS FALLON TO IDAHO BORDER AT MOSCOW

DITCHING				
M.P. BEGIN	M.P. END	DITCH L.F.	UNIT PRICE	TOTAL PRICE
65.54	84.04	8,683	\$10.00	\$86,827

1) Includes ditching at a ratio of 10 /75 of the 75 year capital maintenacne cost for the subdivision segment.

TOTAL PRICE = \$86,827

TURNOUT MAINTENANCE			
M.P. BEGIN	STATION	RAIL WEIGHT	TOTAL PRICE
65.81	Fallon	85	\$5,333
65.85	Fallon	100	\$5,333
70.37	Whelan	85	\$5,333
70.66	Whelan	85	\$5,333
73.54	Kitzmilller	85	\$5,333
76.20	Pullman	115	\$4,000
76.50	Pullman	115	\$4,000
84.04	Wilson	115	\$4,000

1) Turnout maintenance costs are based on 2/3 of the 75 year capital maintenance cost times a ratio of 10/75 for the subdivision segment.

TOTAL PRICE = \$38,667

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

RAIL REPLACEMENT (ALL RAIL SMALLER THAN 112#)				
M.P. BEGIN	M.P. END	T.F.	UNIT PRICE	TOTAL PRICE
2.94	9.02	32,102	\$100	\$3,210,200
9.41	10.41	5,280	\$100	\$528,000
10.46	10.65	1,003	\$100	\$100,300
10.83	13.90	16,210	\$100	\$1,621,000
14.55	14.94	2,059	\$100	\$205,900
15.27	15.85	3,062	\$100	\$306,200
21.08	21.33	1,320	\$100	\$132,000
21.36	26.28	25,978	\$100	\$2,597,800
26.33	28.32	10,507	\$100	\$1,050,700
28.41	31.97	18,797	\$100	\$1,879,700
32.24	33.13	4,699	\$100	\$469,900
33.70	33.97	1,426	\$100	\$142,600
34.07	34.24	898	\$100	\$89,800
34.30	34.40	528	\$100	\$52,800
34.45	36.85	12,672	\$100	\$1,267,200
37.50	39.63	11,246	\$100	\$1,124,600
40.03	41.08	5,544	\$100	\$554,400
41.13	41.28	792	\$100	\$79,200
41.35	41.93	3,062	\$100	\$306,200
42.22	48.77	34,584	\$100	\$3,458,400
49.05	50.10	5,544	\$100	\$554,400
52.03	64.58	66,264	\$100	\$6,626,400
64.65	101.07	192,298	\$100	\$19,229,800
101.12	108.43	38,597	\$100	\$3,859,700

TOTAL PRICE = \$49,447,200

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

TIE REPLACEMENT							
M.P. BEGIN	M.P. END	MILES	% OF TIES CHANGED	TIES CHANGED PER MILE	TOTAL TIES REPLACED	UNIT PRICE	TOTAL PRICE
1	108.44	107.44	22%	674	72,414	\$120	\$8,689,733

ASSUMED TIES PER MILE = 3100
 TIE SPACING (INCHES) = 20.4
 TOTAL PRICE = \$8,689,733

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

JOINT MAINTENANCE					
M.P. BEGIN	M.P. END	T.F.	RAIL WT#	UNIT PRICE	TOTAL PRICE
1.95	2.51	2,957	115	\$20	\$3,033
2.73	2.94	1,109	115	\$20	\$1,137
10.71	10.84	686	115	\$20	\$704
31.97	32.24	1,426	112	\$20	\$1,463
50.13	51.73	8,448	115	\$20	\$8,665
51.73	52.03	1,584	112	\$20	\$1,625

ASSUMED RAIL LENGTH = 39
 TOTAL PRICE = \$16,626

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

SLD + BALLAST DISTRIBUTION							
M.P. BEGIN	M.P. END	TOTAL MILES	TOTAL T.F.	BALLAST DISTRIBUTION RATE 0.10 TON/T.F.	SLD UNIT PRICE T.F.	BALLAST UNIT PRICE	TOTAL PRICE
1	108.44	107.44	567,283	56,729	\$2	\$20	\$2,269,146

TOTAL PRICE = \$2,269,146

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

BRIDGE UPGRADES 286K							
BRIDGE LOCATION	BRIDGE T.F.	CAPS REPLACED	STRINGERS REPLACED	CAP UNIT PRICE	STRINGER UNIT PRICE	MAINT. COSTS	TOTAL PRICE
1.38	15	1	1	\$5,000	\$8,000	\$5,100	\$18,100
1.63	15	1	1	\$5,000	\$8,000	\$5,100	\$18,100
11.96	30	1	2	\$5,000	\$8,000	\$10,200	\$31,200
12.14	15	1	1	\$5,000	\$8,000	\$5,100	\$18,100
13.69	75	3	5	\$5,000	\$8,000	\$25,500	\$80,500
15.54	15	1	1	\$5,000	\$8,000	\$5,100	\$18,100
67.81	15	1	1	\$5,000	\$8,000	\$5,100	\$18,100
68.26	45	2	3	\$5,000	\$8,000	\$15,300	\$49,300
69.89	45	2	3	\$5,000	\$8,000	\$15,300	\$49,300
70.59	45	2	3	\$5,000	\$8,000	\$15,300	\$49,300
71.30	15	1	1	\$5,000	\$8,000	\$5,100	\$18,100
72.23	45	2	3	\$5,000	\$8,000	\$15,300	\$49,300
73.16	30	1	2	\$5,000	\$8,000	\$10,200	\$31,200
76.61	75	3	5	\$5,000	\$8,000	\$25,500	\$80,500
85.01	45	2	3	\$5,000	\$8,000	\$15,300	\$49,300
85.46	90	3	6	\$5,000	\$8,000	\$30,600	\$93,600
87.95	45	2	3	\$5,000	\$8,000	\$15,300	\$49,300
94.65	75	3	5	\$5,000	\$8,000	\$25,500	\$80,500
95.07	60	2	4	\$5,000	\$8,000	\$20,400	\$62,400
98.59	45	2	3	\$5,000	\$8,000	\$15,300	\$49,300

1) 75 year capital maintenance costs for CW bridges = \$4,360,500/855 T.F. = \$5,100 per T.F. of bridge.
 Maintenance costs will be based on on half of the \$5,100 cost over 10 years/75 years.

TOTAL PRICE = \$913,600

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
1.33	60	No	\$550	\$33,000
3.18	24	No	\$550	\$13,200
3.46	16	No	\$550	\$8,800
4.73	16	No	\$550	\$8,800
5.99	24	No	\$550	\$13,200
6.23	16	No	\$550	\$8,800
7.72	24	No	\$550	\$13,200
8.3	24	No	\$550	\$13,200
10.12	32	No	\$550	\$17,600
11.16	24	No	\$550	\$13,200
11.62	16	No	\$550	\$8,800
11.99	48	No	\$550	\$26,400
12.21	24	Yes	\$200	\$4,800
13.55	24	No	\$550	\$13,200
13.85	16	No	\$550	\$8,800
14.03	24	Yes	\$200	\$4,800
14.22	24	Yes	\$200	\$4,800
14.65	24	No	\$550	\$13,200
15.8	16	No	\$550	\$8,800
16.46	16	No	\$550	\$8,800
17.15	32	No	\$550	\$17,600
17.59	16	No	\$550	\$8,800
18.53	24	Yes	\$200	\$4,800
19.44	16	No	\$550	\$8,800
19.83	24	No	\$550	\$13,200
20.37	16	No	\$550	\$8,800
21.5	16	No	\$550	\$8,800
22.16	32	No	\$550	\$17,600
22.98	32	Yes	\$200	\$6,400
23.01	24	No	\$550	\$13,200
24.16	16	No	\$550	\$8,800
24.77	24	No	\$550	\$13,200
26.61	32	No	\$550	\$17,600
26.67	24	Yes	\$200	\$4,800
26.74	32	No	\$550	\$17,600
27.81	32	No	\$550	\$17,600
29.13	16	No	\$550	\$8,800

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
30.21	16	No	\$550	\$8,800
30.5	24	No	\$550	\$13,200
31.43	16	No	\$550	\$8,800
31.61	24	No	\$550	\$13,200
31.71	16	No	\$550	\$8,800
32.85	24	No	\$550	\$13,200
33.74	16	No	\$550	\$8,800
34.17	32	No	\$550	\$17,600
34.82	24	No	\$550	\$13,200
35.58	16	No	\$550	\$8,800
36.32	16	No	\$550	\$8,800
38.02	60	No	\$550	\$33,000
38.51	24	No	\$550	\$13,200
39.37	16	No	\$550	\$8,800
41.46	24	No	\$550	\$13,200
41.7	32	No	\$550	\$17,600
41.83	24	No	\$550	\$13,200
42.49	48	No	\$550	\$26,400
43.57	16	No	\$550	\$8,800
44.05	24	No	\$550	\$13,200
44.57	24	No	\$550	\$13,200
45.91	24	No	\$550	\$13,200
48.04	32	Yes	\$200	\$6,400
48.41	16	No	\$550	\$8,800
50.66	16	No	\$550	\$8,800
53.74	16	No	\$550	\$8,800
55.27	16	No	\$550	\$8,800
56.67	16	No	\$550	\$8,800
59.09	16	No	\$550	\$8,800
60.63	16	No	\$550	\$8,800
61.49	16	No	\$550	\$8,800
63.85	16	No	\$550	\$8,800
64.21	16	No	\$550	\$8,800
64.4	24	No	\$550	\$13,200
64.5	24	Yes	\$200	\$4,800
64.59	16	No	\$550	\$8,800
64.68	24	No	\$550	\$13,200

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
64.9	32	No	\$550	\$17,600
65.81	24	No	\$550	\$13,200
66.26	16	No	\$550	\$8,800
66.84	24	No	\$550	\$13,200
67.3	16	No	\$550	\$8,800
67.67	16	No	\$550	\$8,800
69.31	24	No	\$550	\$13,200
69.57	24	No	\$550	\$13,200
70.36	16	No	\$550	\$8,800
70.71	24	No	\$550	\$13,200
71.25	24	No	\$550	\$13,200
71.91	16	No	\$550	\$8,800
73.1	16	No	\$550	\$8,800
74.13	32	No	\$550	\$17,600
74.23	32	No	\$550	\$17,600
74.28	24	Yes	\$200	\$4,800
74.44	24	No	\$550	\$13,200
74.63	32	No	\$550	\$17,600
77.41	16	No	\$550	\$8,800
79.47	16	No	\$550	\$8,800
80.93	32	No	\$550	\$17,600
81.22	32	No	\$550	\$17,600
82.03	16	No	\$550	\$8,800
85.31	24	No	\$550	\$13,200
87.05	16	Yes	\$200	\$3,200
87.78	24	No	\$550	\$13,200
87.91	32	No	\$550	\$17,600
88	32	No	\$550	\$17,600
88.59	16	No	\$550	\$8,800
88.98	16	Yes	\$200	\$3,200
89.79	16	No	\$550	\$8,800
91.73	16	No	\$550	\$8,800
92.73	16	No	\$550	\$8,800
93.4	24	No	\$550	\$13,200
93.98	16	No	\$550	\$8,800
94.72	16	No	\$550	\$8,800
95.61	16	No	\$550	\$8,800

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

CROSSING REPLACEMENT				
CROSSING LOCATION	CROSSING T.F.	Retrofit	UNIT PRICE	TOTAL PRICE
96.67	32	No	\$550	\$17,600
96.81	32	No	\$550	\$17,600
96.98	16	No	\$550	\$8,800
97.76	24	No	\$550	\$13,200
98.85	32	No	\$550	\$17,600
99.46	16	No	\$550	\$8,800
100.24	16	No	\$550	\$8,800
103.21	24	No	\$550	\$13,200
103.53	24	No	\$550	\$13,200
103.76	24	No	\$550	\$13,200
103.92	16	No	\$550	\$8,800
106.74	24	No	\$550	\$13,200
107.32	16	No	\$550	\$8,800
107.72	48	No	\$550	\$26,400
108.11	24	No	\$550	\$13,200
108.43	32	No	\$550	\$17,600

TOTAL PRICE = \$1,518,000

Note: This does NOT take into account any crossings that may have been replaced in the Lincoln County 2009 Crossing Replacement program.

These crossings (when identified) will fall into the "retrofit" category.

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

CULVERT REPLACEMENT					
AVERAGE CULVERT LENGTH L.F.	WEIGHTED CULVERT SIZE (INCHES)	KNOWN CULVERTS	TOTAL L.F. REPLACED	UNIT PRICE	TOTAL PRICE
36.01	33.27	314	1,508	\$100	\$150,773

1) Replace a ratio of 10 years/75 years of the total know culverts based on the average culvert length and weighted culvert size.

TOTAL PRICE = \$150,773

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

DITCHING				
M.P. BEGIN	M.P. END	DITCH L.F.	UNIT PRICE	TOTAL PRICE
1	108.44	50,425	\$10.00	\$504,252

1) Includes ditching a ratio of 10 years/75 years of 1/6 of overall subdivision length will be ditched 2 times in 75 years - both sides of track.

TOTAL PRICE = \$504,252

CW SUBDIVISION OPERATIONAL/LOADING 286K COMPATIBLE PRIORITY ANALYSIS CHENEY TO COULEE CITY

TURNOUTS			
M.P. BEGIN	STATION	RAIL WEIGHT	UNIT PRICE
26.88	Reardan	90	\$30,000
27.05	Reardan	90	\$30,000
41.31	Davenport	90	\$30,000
41.79	Davenport	90	\$30,000
41.82	Davenport	90	\$30,000
63.01	Webb	100	\$30,000
73.86	Wilbur	90	\$30,000
74.54	Wilbur	90	\$30,000
74.57	Wilbur	90	\$30,000
80.78	Govan	90	\$30,000
81.18	Govan	90	\$30,000
87.59	Almira	90	\$30,000
87.61	Almira	90	\$30,000
87.89	Almira	90	\$30,000
87.94	Almira	90	\$30,000
88.01	Almira	90	\$30,000
88.12	Almira	90	\$30,000
88.47	Almira	90	\$30,000
91.44	Hanson	90	\$30,000
96.59	Hartline	90	\$30,000
96.6	Hartline	90	\$30,000
96.61	Hartline	90	\$30,000
96.68	Hartline	90	\$30,000
96.92	Hartline	90	\$30,000
96.96	Hartline	90	\$30,000
103.46	Cement	90	\$30,000
103.83	Cement	90	\$30,000
106.68	Odair	85	\$30,000
106.69	Odair	90	\$30,000
106.99	Odair	90	\$30,000
108.21	Coulee City	90	\$30,000
108.42	Coulee City	90	\$30,000
108.44	Coulee City	90	\$30,000

1) Turnout maintenance costs are based on 2/3 of the 75 year capital maintenance cost times a ratio of 10/75 for the subdivision segment.

TOTAL PRICE = \$990,000

APPENDIX B
PV OPERATIONAL/LOADING CONDITION PRIORITY ANALYSIS - SELECTED SIDINGS

SIDING ANALYSIS									
SIDING LOCATION/STATION	CONDITION & TRACK LENGTH								TOTAL COST
	A	T.F.	B	T.F.	C	T.F.	D	T.F.	
WILLADA EAST #1			X	2000					\$64,000
WILLADA EAST #2			X	1200					\$38,400
WILLADA X-OVER (SOUTH)			X	150					\$4,800
ST. JOHN							X	1100	\$121,000
ST. JOHN X-OVER			X	150					\$4,800
SUNSET							X	1580	\$173,800
THORNTON					X	3180			\$159,000

REPAIR COSTS PER CONDITION	
CONDITION B	\$32
CONDITION C	\$50
CONDITION D	\$110

TOTAL = \$565,800

HOOPER OPERATIONAL/LOADING CONDITION PRIORITY ANALYSIS - SELECTED SIDINGS

SIDING ANALYSIS									
SIDING LOCATION/STATION	CONDITION & TRACK LENGTH								TOTAL COST
	A	T.F.	B	T.F.	C	T.F.	D	T.F.	
LACROSSE (McGREGOR)	X	600					X	600	\$66,000
LACROSSE (OLD RIPARIA MAIN)							X	3820	\$420,200
LACROSSE (NORTH SIDING)							X	1250	\$137,500
LACROSSE (SOUTH SIDING)							X	1500	\$165,000
ENDICOTT			X	750					\$24,000
ENDICOTT (SOUTH SPUR)							X	360	\$39,600
ENDICOTT (NORTH SPUR)			X	300					\$9,600
THERA							X	1020	\$112,200
MOCKONEMA WEST							X	1650	\$181,500

REPAIR COSTS PER CONDITION	
CONDITION B	\$32
CONDITION C	\$50
CONDITION D	\$110

TOTAL = \$1,155,600

P&L OPERATIONAL/LOADING CONDITION PRIORITY ANALYSIS - SELECTED SIDINGS

SIDING ANALYSIS									
SIDING LOCATION/STATION	CONDITION & TRACK LENGTH								TOTAL COST
	A	T.F.	B	T.F.	C	T.F.	D	T.F.	
SPANGLE (WEST SIDING)	X	3175							\$0
SPANGLE (EAST SIDING)	X	2450							\$0
SPANGLE (EAST SPUR)	X	500							\$0
SPANGLE (WEST SPUR)	X	425							\$0
PLAZA (SIDING)	X	3200							\$0
PLAZA (HOUSE TRACK)	X	1250							\$0
OAKESDALE (WEST)			X	2700					\$86,400
BELMONT (WEST)			X	3200					\$102,400
BELMONT (EAST)	X	1750							\$0
PALOUSE (NORTH SPUR)			X	1800					\$57,600
PALOUSE (WEST SPUR #1)			X	1500					\$48,000
PALOUSE (WEST SPUR #2)			X	1150					\$36,800
FALLON (WEST SIDING)			X	2750					\$88,000
FALLON (EAST SIDING)			X	1750					\$56,000
WILSON (SPUR)			X	3800					\$121,600

REPAIR COSTS PER CONDITION	
CONDITION B	\$32
CONDITION C	\$50
CONDITION D	\$110

TOTAL = \$596,800

CW OPERATIONAL/LOADING CONDITION PRIORITY ANALYSIS - SELECTED SIDINGS

SIDING ANALYSIS									
SIDING LOCATION/STATION	CONDITION & TRACK LENGTH								TOTAL COST
	A	T.F.	B	T.F.	C	T.F.	D	T.F.	
HITE (SIDING)	X	1390							\$0
REARDAN (SOUTH SIDING)			X	3606					\$115,392
REARDAN (NORTH SIDING)	X	1400							\$0
DAVENPORT (ELEVATOR SPUR)			X	3000					\$96,000
DAVENPORT (X-OVER)			X	360					\$11,520
DAVENPORT (SPUR)			X	1300					\$41,600
CRESTON (SIDING)	X	3657							\$0
ALMIRA (EAST SIDING)			X	1600					\$51,200
ALMIRA (HOUSE TRACK)			X	730			X	500	\$78,360
HANSON (SPUR)	X	880							\$0
HARTLINE (SOUTH SIDING)			X	1600					\$51,200
HARTLINE (NORTH SIDING)	X	1020							\$0
ODAIR (WYE)			X	3300					\$105,600
COULEE CITY (SIDING)			X	1210					\$38,720

REPAIR COSTS PER CONDITION	
CONDITION B	\$32
CONDITION C	\$50
CONDITION D	\$110

TOTAL = \$589,592