

**TIGER3 FUNDING REQUEST  
FOR THE P&L SHORTLINE RAILROAD UPGRADE  
AND SHUTTLE TRAIN LOADER FACILITY  
LINE SEGMENT MILE POST 1 TO MILE POST 30.2**

ITEM	COST
DEFECTIVE TIE REPLACEMENT (24% OF EXISTING TIES)	\$2,642,016
RAIL JOINT MAINTENANCE (ALL JOINTS)	\$15,975
SURFACE, LINE AND DRESS TRACK + BALLAST DISTRIBUTION	\$616,712
TIMBER BRIDGE UPGRADES FOR 286K LOAD COMPATIBILITY	\$1,192,000
TIMBER & STEEL BRIDGE 5 YEAR CAPITAL MAINTENANCE	\$165,841
DEFECTIVE CROSSING REPLACEMENT (APPROX 200 FEET)	\$96,800
DITCHING FOR TRACK DRAINAGE	\$137,045
<b>SUBTOTAL OF ITEMS</b>	<b>\$4,866,389</b>
ENGINEERING (5% OF SUBTOTAL)	\$243,319
CONSTRUCTION MANAGEMENT (3.5% OF SUBTOTAL)	\$173,372
ENVIRONMENTAL PERMITTING/MITIGATION (4% OF SUBTOTAL)	\$194,656
<b>SUBTOTAL OF ADDITIONAL ITEMS</b>	<b>\$5,477,737</b>
Tax (7.8% of bid items and additional items)	\$427,263
<b>GRAND TOTAL</b>	<b>\$5,905,000</b>

**HDR** Engineering, Inc

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TIE REPLACEMENT							
M.P. BEGIN	M.P. END	MILES	% OF TIES CHANGED	TIES CHANGED PER MILE	TOTAL TIES REPLACED	UNIT PRICE	TOTAL PRICE
1	30.2	29.2	24%	754	22,017	\$120	\$2,642,016

ASSUMED TIES PER MILE = 3100  
 TIE SPACING (INCHES) = 20.4  
 TOTAL PRICE = \$2,642,016

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

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

ASSUMED RAIL LENGTH = 39  
TOTAL PRICE = \$15,975

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	30.2	29.20	154,176	15,418	\$2	\$20	\$616,712

BRIDGE UPGRADES FOR 286K							
BRIDGE LOCATION	BRIDGE T.F.	DEFECTIVE CAPS REPLACED <sup>1</sup>	DEFECTIVE STRINGERS REPLACED <sup>2</sup>	ADDITIONAL STRINGERS <sup>3</sup>	CAP UNIT PRICE	STRINGER UNIT PRICE	TOTAL PRICE
3.89	10	1	0	1	\$7,000	\$10,000	\$17,000
6.15	45	2	2	3	\$7,000	\$10,000	\$64,000
9.77*	132	0	0	0	\$7,000	\$10,000	\$0
10.50	60	2	2	4	\$7,000	\$10,000	\$74,000
12.39	45	2	2	3	\$7,000	\$10,000	\$64,000
12.72	30	1	1	2	\$7,000	\$10,000	\$37,000
13.24	30	1	1	2	\$7,000	\$10,000	\$37,000
13.73	30	1	1	2	\$7,000	\$10,000	\$37,000
14.36	75	3	3	5	\$7,000	\$10,000	\$101,000
16.25	15	1	1	1	\$7,000	\$10,000	\$27,000
17.63	30	1	1	2	\$7,000	\$10,000	\$37,000
17.82	15	1	1	1	\$7,000	\$10,000	\$27,000
18.62	30	1	1	2	\$7,000	\$10,000	\$37,000
20.37	45	2	2	3	\$7,000	\$10,000	\$64,000
21.92	45	2	2	3	\$7,000	\$10,000	\$64,000
23.77	75	3	3	5	\$7,000	\$10,000	\$101,000
23.89	30	1	1	2	\$7,000	\$10,000	\$37,000
24.89	15	1	1	1	\$7,000	\$10,000	\$27,000
27.67	15	1	1	1	\$7,000	\$10,000	\$27,000
28.45*	60	0	0	0	\$7,000	\$10,000	\$0
28.85	15	1	1	1	\$7,000	\$10,000	\$27,000
28.89	60	2	2	4	\$7,000	\$10,000	\$74,000
29.01	45	2	2	3	\$7,000	\$10,000	\$64,000
29.46	60	2	2	4	\$7,000	\$10,000	\$74,000
30.20	60	2	2	4	\$7,000	\$10,000	\$74,000

\* DENOTES STEEL BRIDGE AND UNKNOWN UPGRADE REQUIREMENTS

1) Replacement of caps is based on 50% replacement of existing caps which is inclusive of caps that have become defective since the last inspection and caps of insufficient size for 286K loading.

2) Replacement of defective stringers is based on 15% replacement of existing stringers estimated to have become defective since last inspection.

3) 30 FT stringer length basis

TOTAL PRICE = \$1,192,000

BRIDGE LOCATION	BRIDGE T.F.	# TIMES REPLACED	TOTAL T.F. REPLACED	UNIT PRICE	TOTAL PRICE
3.89	10	1	10	\$5,100	\$51,000
6.15	45	1	45	\$5,100	\$229,500
9.77*	132	1	132	\$4,000	\$528,000
10.50	60	1	60	\$5,100	\$306,000
12.39	45	1	45	\$5,100	\$229,500
12.72	30	1	30	\$5,100	\$153,000
13.24	30	1	30	\$5,100	\$153,000
13.73	30	1	30	\$5,100	\$153,000
14.36	75	1	75	\$5,100	\$382,500
16.25	15	1	15	\$5,100	\$76,500
17.63	30	1	30	\$5,100	\$153,000
17.82	15	1	15	\$5,100	\$76,500
18.62	30	1	30	\$5,100	\$153,000
20.37	45	1	45	\$5,100	\$229,500
21.92	45	1	45	\$5,100	\$229,500
23.77	75	1	75	\$5,100	\$382,500
23.89	30	1	30	\$5,100	\$153,000
24.89	15	1	15	\$5,100	\$76,500
27.67	15	1	15	\$5,100	\$76,500
28.45*	60	1	60	\$4,000	\$240,000
28.85	15	1	15	\$5,100	\$76,500
28.89	60	1	60	\$5,100	\$306,000
29.01	45	1	45	\$5,100	\$229,500
29.46	60	1	60	\$5,100	\$306,000
30.20	60	1	60	\$5,100	\$306,000

\* DENOTES STEEL BRIDGE

LENGTH OF LINE SEGMENT (MILES) = 30.20

TOTAL PRICE = \$5,256,000

ANNUAL PRICE PER BRIDGE T.F. BASED ON 5 YEAR PERIOD = \$155

BRIDGE MAINTENANCE FOR 10 YEAR PERIOD = \$165,841

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

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

1) Only 20% of the total amount is considered for the immediate 286K capacity requirements

TOTAL PRICE = \$484,000



DITCHING				
M.P. BEGIN	M.P. END	DITCH L.F.	UNIT PRICE	TOTAL PRICE
1	30.20	13,705	\$10.00	\$137,045

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 = \$137,045