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PROJECT NAME: TELKWA 62.20

BULKLEY RIVER CROSSING WIDENING OF 24.0m SPAN, TPG BRIDGE

TASK: (7.2) SIDE-TRACK ABUTMENTS

SUBTASK: 7.2.3. ANALYSIS

JOB NUMBER:

CNRAIL0802

DGT

DATE:

10-Apr-08

PAGE NO

OF

CHECKED BY:

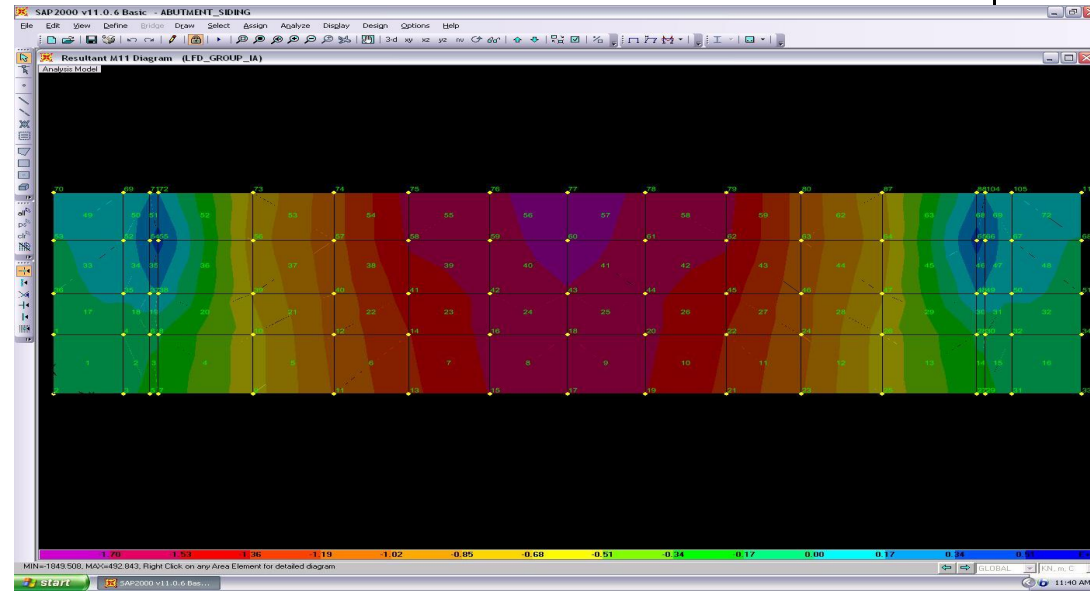
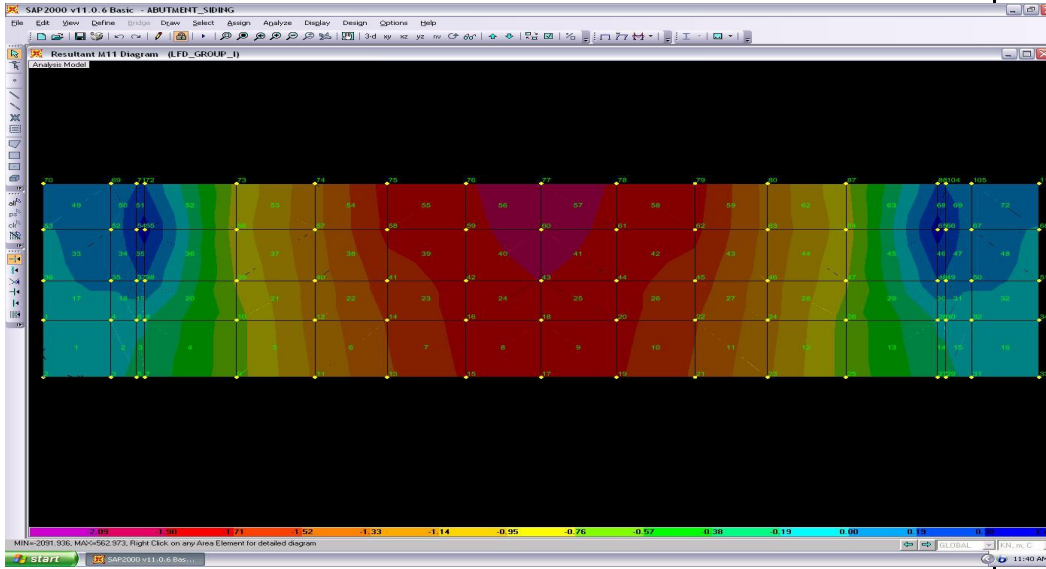
DATE:

REFERENCES

SAP MODEL  
SEE APPENDIX

Input from SAP 2000 is included in Appendix A.7.2.3 and Appendix A.7.2. for load cases graphical input

Analysis results:





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**Moments at mid-section (max pos-moment)**

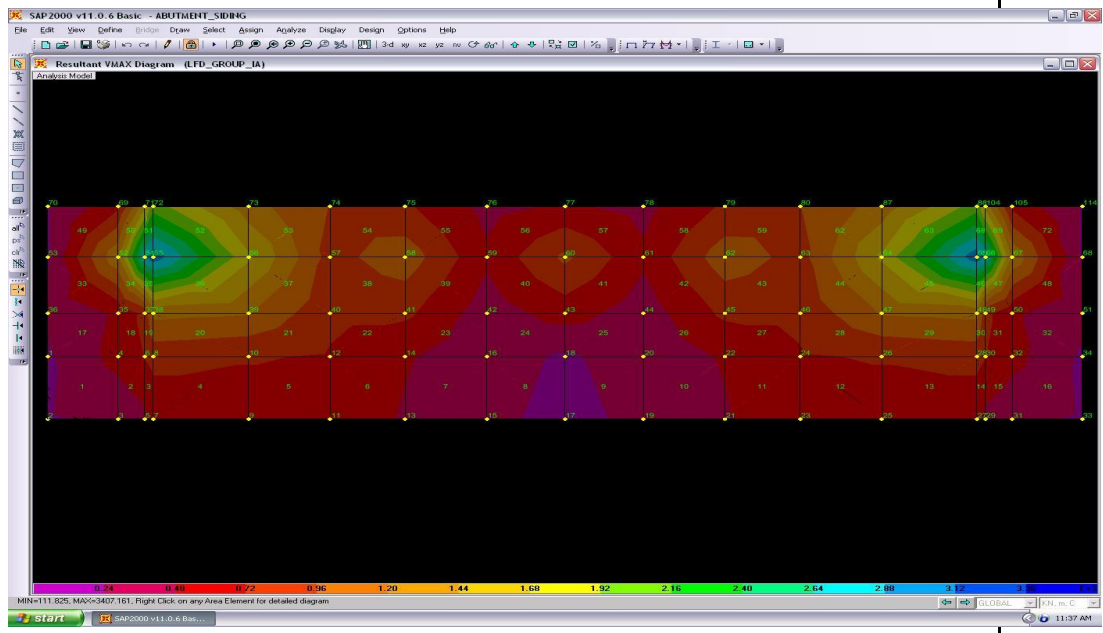
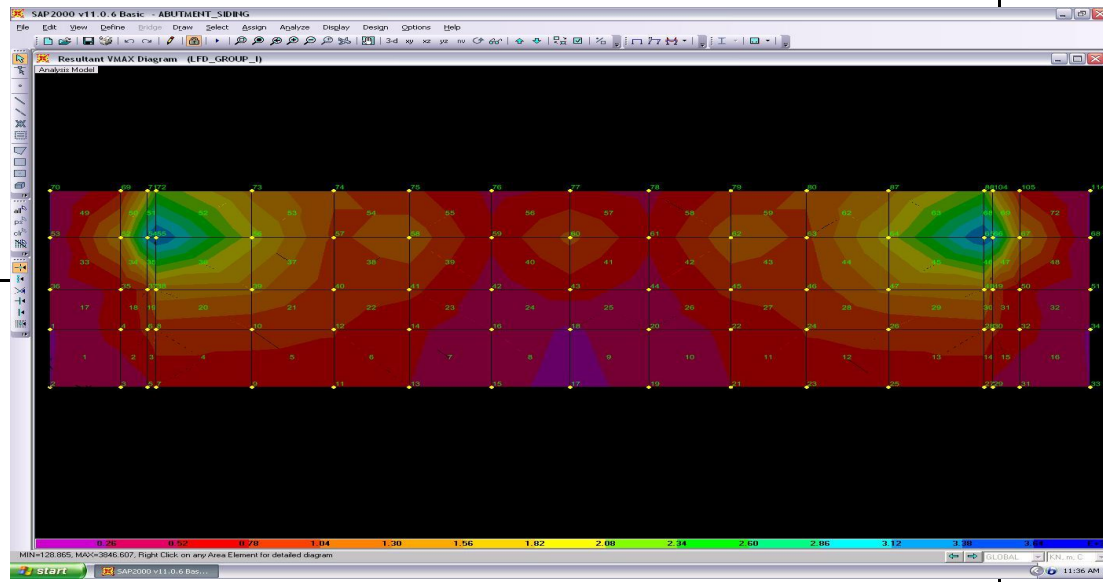
Joint	Load Combo			
	LFD_ GROUP_ I	LFD_ GROUP_ IA	LFD_ GROUP_ II	LFD_ GROUP_ III
77	-2087	-1842		
60	-2046	-1808		
43	-1908	-1683		
18	-1825	-1610		
17	-1794	-1583		
average	-1932	-1705.2	0	0
<b>KN-m</b>	<b>-3535.56</b>	<b>-3120.52</b>	<b>0</b>	<b>0</b>

absMn= 3535.56 kN-m negative moment

**Moments at section by end piles**

Joint	Load Combo			
	LFD_ GROUP_ I	LFD_ GROUP_ IA	LFD_ GROUP_ II	LFD_ GROUP_ III
72	201	172		
55	438	390		
38	188	172		
8	0	0		
7	0.00	0		
average	165.4	146.8	0	0
<b>KN-m</b>	<b>302.682</b>	<b>268.644</b>	<b>0</b>	<b>0</b>

Mn= 302.68 kN-m positive moment





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**Shears at section 1.828m from end**

**Load Combo**

Joint	LFD_ GROUP_I	LFD_ GROUP_ IA	LFD_ GROUP_ II	LFD_ GROUP_ III
74	1071	946	not	907
57	986	874	governing	950
40	872	775		935
12	793	702		842
11	704	621		537
average	885.2	783.6	0	834.2
KN	1619.916	1433.988	0	1526.586
<b>Vu=</b>	<b>1619.916 kN=</b>	<b>361.19 kip</b>		

**Shears at section 2.843m from end**

**Load Combo**

Joint	LFD_ GROUP_I	LFD_ GROUP_ IA	LFD_ GROUP_ II	LFD_ GROUP_ III
76	453	413		549
59	575	519		829
42	406	364		770
16	391	353		636
15	334	299		279
average	431.8	389.6	0	612.6
KN	790.194	712.968	0	1121.058
<b>Vu=</b>	<b>1121.058 kN=</b>	<b>249.96 kip</b>		

**Shears at section 2.315m from end**

**Load Combo**

Joint	LFD_ GROUP_I	LFD_ GROUP_ IA	LFD_ GROUP_ II	LFD_ GROUP_ III
75	858	777		821
58	1210	1093		1413
41	854	786		1057
14	574	517		643
13	529	462		498
average	805	727	0	886.4
KN	1473.15	1330.41	0	1622.112
<b>Vu=</b>	<b>1622.1 kN=</b>	<b>361.67 kip</b>		

**Shears at section 3.35m from end**

**Load Combo**

1103.028 Joint	LFD_ GROUP_I	LFD_ GROUP_ IA	LFD_ GROUP_ II	LFD_ GROUP_ III
77	572	519		643
60	1091	991		1383
43	651	575		942
18	233	213		543
17	191	170		286
average	547.6	493.6	0	759.4
KN	1002.108	903.288	0	1389.702
<b>Vu=</b>	<b>1389.7 kN=</b>	<b>309.86 kip</b>		

**Shears at section 1.30m from end**

**Load Combo**

Joint	LFD_ GROUP_I	LFD_ GROUP_ IA	LFD_ GROUP_ II	LFD_ GROUP_ III
73	1489	1318	not	1258
56	1944	1775	governing	1741
39	1370	1238		1273
10	860	761		651
9	684	607		564
average	1269.4	1139.8	0	1097.4
KN	2323.002	2085.834	0	2008.242
<b>Vu=</b>	<b>2323.002 kN=</b>	<b>517.95 kip</b>		

**Shears at section 0.455m from end**

**Load Combo**

Joint	LFD_ GROUP_I	LFD_ GROUP_ IA	LFD_ GROUP_ II	LFD_ GROUP_ III
69	735	663	not	609
52	1566	1407	governing	1243
35	578	513.8		371
4	634	562.8		207
3	346	294		364
average	771.8	688.12	0	558.8
KN	1412.394	1259.26	0	1022.604
<b>Vu=</b>	<b>1412.394 kN=</b>	<b>314.92 kip</b>		

**Shears at section 0.683m from end**

**Load Combo**

Joint	LFD_ GROUP_I	LFD_ GROUP_ IA	LFD_ GROUP_ II	LFD_ GROUP_ III
72	2299	2032		1849
55	3407	2993	not	2468
38	1463	1323	governing	833
8	941	814		1044
7	631	564		403
average	1748.2	1545.2	0	1319.4
KN	3199.206	2827.716	0	2414.502
<b>Vu=</b>	<b>3199.2 kN=</b>	<b>713.31 kip</b>		