

19-OCT-09  
14:40:14

GEORGIA DEPARTMENT OF TRANSPORTATION  
PRECONSTRUCTION DIVISION - OFFICE OF BRIDGE & STRUCTURAL DESIGN  
LIVE LOAD CASE PROGRAM  
REVISED: JUNE 26, 2008

PROB. NO. LL01

60.00' CURB-TO-CURB; 8 BEAMS; 140.00' AVERAGE SPAN

BRIDGE WIDTH	X1	X2	CENTER LINE DISTANCE	# OF BEAMS	REACTION FORCE	MAXIMUM # OF TRUCKS	# OF COLUMNS	COLUMN WIDTH	SKEW ANGLE
63.250	3.625	3.625	31.625	8	68.706	5	3	6.000	0

  

D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20
2.939	8.196	8.196	8.196	8.196	8.196	8.196	8.196												

  

XCOL1	XCOL2	XCOL3	XCOL4	XCOL5
11.000	20.625	20.625		

LIVE LOAD CASE # 1 1 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.1005	75.613
2	0.8995	61.799
3	0.0000	0.000
4	0.0000	0.000
5	0.0000	0.000
6	0.0000	0.000
7	0.0000	0.000
8	0.0000	0.000

LIVE LOAD CASE # 2 2 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.1005	75.613
2	1.5957	109.631
3	1.2679	87.115
4	0.0359	2.465
5	0.0000	0.000
6	0.0000	0.000
7	0.0000	0.000
8	0.0000	0.000

LIVE LOAD CASE # 3 3 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.1005	75.613
2	1.5957	109.631
3	1.7440	119.825
4	1.3038	89.579
5	0.2560	17.587
6	0.0000	0.000
7	0.0000	0.000
8	0.0000	0.000

LIVE LOAD CASE # 4 4 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.1005	75.613
2	1.5957	109.631
3	1.7440	119.825
4	1.5598	107.167
5	1.5239	104.702
6	0.4761	32.710
7	0.0000	0.000
8	0.0000	0.000

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LIVE LOAD CASE # 5                    5 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.1005	75.613
2	1.5957	109.631
3	1.7440	119.825
4	1.5598	107.167
5	1.5598	107.167
6	1.7440	119.825
7	0.6962	47.833
8	0.0000	0.000

LIVE LOAD CASE # 6                    1 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	0.0000	0.000
4	0.0000	0.000
5	0.0000	0.000
6	0.0000	0.000
7	0.8995	61.798
8	1.1005	75.614

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LIVE LOAD CASE # 7                    2 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	0.0000	0.000
4	0.0000	0.000
5	0.0359	2.465
6	1.2679	87.115
7	1.5957	109.631
8	1.1005	75.614

LIVE LOAD CASE # 8                    3 TRUCKS

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BEAM	WHEEL	FRACTION	P-LOAD
1	0.0000	0.0000	0.000
2	0.0000	0.0000	0.000
3	0.0000	0.0000	0.000
4	0.2560	17.587	
5	1.3038	89.579	
6	1.7440	119.825	
7	1.5957	109.631	
8	1.1005	75.614	

LIVE LOAD CASE # 9 4 TRUCKS

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BEAM	WHEEL	FRACTION	P-LOAD
1	0.0000	0.000	
2	0.0000	0.000	
3	0.4761	32.710	
4	1.5239	104.702	
5	1.5598	107.167	
6	1.7440	119.825	
7	1.5957	109.631	
8	1.1005	75.614	

LIVE LOAD CASE # 10 5 TRUCKS

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BEAM	WHEEL	FRACTION	P-LOAD
1	0.0000	0.000	
2	0.6962	47.833	
3	1.7440	119.825	
4	1.5598	107.167	
5	1.5598	107.167	
6	1.7440	119.825	
7	1.5957	109.631	
8	1.1005	75.614	

LIVE LOAD CASE # 11 1 TRUCKS

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BEAM	WHEEL	FRACTION	P-LOAD
1	0.0000	0.000	
2	0.0000	0.000	
3	0.3660	25.149	
4	1.2679	87.115	
5	0.3660	25.149	
6	0.0000	0.000	
7	0.0000	0.000	
8	0.0000	0.000	

LIVE LOAD CASE # 12 2 TRUCKS

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BEAM	WHEEL	FRACTION	P-LOAD
1	0.0000	0.000	
2	0.0000	0.000	
3	0.3660	25.149	
4	1.2679	87.115	
5	0.3660	25.149	
6	0.0000	0.000	
7	0.0000	0.000	
8	0.0000	0.000	

1	0.0000	0.000
2	0.5861	40.271
3	1.6340	112.263
4	1.4139	97.141
5	0.3660	25.149
6	0.0000	0.000
7	0.0000	0.000
8	0.0000	0.000

LIVE LOAD CASE # 13 3 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.5861	40.271
3	1.6340	112.263
4	1.5598	107.167
5	1.6340	112.263
6	0.5861	40.271
7	0.0000	0.000
8	0.0000	0.000

LIVE LOAD CASE # 14 4 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	0.8804	60.491
2	1.7057	117.193
3	1.6340	112.263
4	1.5598	107.167
5	1.6340	112.263
6	0.5861	40.271
7	0.0000	0.000
8	0.0000	0.000

LIVE LOAD CASE # 15 5 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	0.8804	60.491
2	1.7057	117.193
3	1.6340	112.263
4	1.5598	107.167
5	1.6340	112.263
6	1.7057	117.192
7	0.8804	60.491
8	0.0000	0.000

LIVE LOAD CASE # 16 2 TRUCKS

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I	I	I	I	I	I	I	I	I

BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	0.4761	32.710
4	1.5239	104.702

5	1.5239	104.702
6	0.4761	32.710
7	0.0000	0.000
8	0.0000	0.000

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LIVE LOAD CASE # 17                    3 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.6962	47.833
3	1.7440	119.825
4	1.5598	107.167
5	1.5239	104.702
6	0.4761	32.710
7	0.0000	0.000
8	0.0000	0.000

LIVE LOAD CASE # 18                    4 TRUCKS

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I   I   I   I   I   I   I   I
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BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.6962	47.833
3	1.7440	119.825
4	1.5598	107.167
5	1.5598	107.167
6	1.7440	119.825
7	0.6962	47.833
8	0.0000	0.000

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LIVE LOAD CASE # 19                    5 TRUCKS

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I   I   I   I   I   I   I   I

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BEAM	WHEEL FRACTION	P-LOAD
1	1.1005	75.613
2	1.5957	109.631
3	1.7440	119.825
4	1.5598	107.167
5	1.5598	107.167
6	1.7440	119.825
7	0.6962	47.833
8	0.0000	0.000

LIVE LOAD CASE # 20                    2 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.1005	75.613
2	0.8995	61.799
3	0.0000	0.000
4	0.0000	0.000
5	0.0000	0.000
6	0.0000	0.000
7	0.8995	61.798
8	1.1005	75.614

LIVE LOAD CASE # 21 3 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.1005	75.613
2	1.5957	109.631
3	1.2679	87.115
4	0.0359	2.465
5	0.0000	0.000
6	0.0000	0.000
7	0.8995	61.798
8	1.1005	75.614

LIVE LOAD CASE # 22 4 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.1005	75.613
2	1.5957	109.631
3	1.2679	87.115
4	0.0359	2.465
5	0.0359	2.465
6	1.2679	87.115
7	1.5957	109.631
8	1.1005	75.614

LIVE LOAD CASE # 23 5 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.1005	75.613
2	1.5957	109.631
3	1.7440	119.825
4	1.3038	89.579
5	0.2918	20.052
6	1.2679	87.115
7	1.5957	109.631
8	1.1005	75.614

19-OCT-09  
14:40:14

GEORGIA DEPARTMENT OF TRANSPORTATION  
PRECONSTRUCTION DIVISION - OFFICE OF BRIDGE & STRUCTURAL DESIGN  
SUMMARY OF THE LIVE LOAD CASE PROGRAM  
REVISED: JUNE 26, 2008

PROB. NO. LL01

60.00' CURB-TO-CURB; 8 BEAMS; 140.00' AVERAGE SPAN

BRIDGE WIDTH	X1	X2	CENTER LINE DISTANCE	# OF BEAMS	REACTION FORCE	MAXIMUM # OF TRUCKS	# OF COLUMNS	COLUMN WIDTH	SKEW ANGLE										
63.250	3.625	3.625	31.625	8	68.706	5	3	6.000	0										
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20
2.939	8.196	8.196	8.196	8.196	8.196	8.196	8.196												
XCOL1	XCOL2	XCOL3	XCOL4	XCOL5															
11.000	20.625	20.625																	
	NO. OF TRUCKS	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6	BEAM 7	BEAM 8	BEAM 9	BEAM 10								
LL CASE 1	1	75.613	61.799	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000								
LL CASE 2	2	75.613	109.631	87.115	2.465	0.000	0.000	0.000	0.000	0.000	0.000								

Case	Count	75.613	109.631	119.825	89.579	17.587	LL-60-8-140.OUT 0.000	0.000	0.000	0.000	0.000
LL CASE 3	3	75.613	109.631	119.825	89.579	17.587	0.000	0.000	0.000	0.000	0.000
LL CASE 4	4	75.613	109.631	119.825	107.167	104.702	32.710	0.000	0.000	0.000	0.000
LL CASE 5	5	75.613	109.631	119.825	107.167	107.167	119.825	47.833	0.000	0.000	0.000
LL CASE 6	1	0.000	0.000	0.000	0.000	0.000	0.000	61.798	75.614	0.000	0.000
LL CASE 7	2	0.000	0.000	0.000	0.000	2.465	87.115	109.631	75.614	0.000	0.000
LL CASE 8	3	0.000	0.000	0.000	17.587	89.579	119.825	109.631	75.614	0.000	0.000
LL CASE 9	4	0.000	0.000	32.710	104.702	107.167	119.825	109.631	75.614	0.000	0.000
LL CASE 10	5	0.000	47.833	119.825	107.167	107.167	119.825	109.631	75.614	0.000	0.000
LL CASE 11	1	0.000	0.000	25.149	87.115	25.149	0.000	0.000	0.000	0.000	0.000
LL CASE 12	2	0.000	40.271	112.263	97.141	25.149	0.000	0.000	0.000	0.000	0.000
LL CASE 13	3	0.000	40.271	112.263	107.167	112.263	40.271	0.000	0.000	0.000	0.000
LL CASE 14	4	60.491	117.193	112.263	107.167	112.263	40.271	0.000	0.000	0.000	0.000
LL CASE 15	5	60.491	117.193	112.263	107.167	112.263	117.192	60.491	0.000	0.000	0.000
LL CASE 16	2	0.000	0.000	32.710	104.702	104.702	32.710	0.000	0.000	0.000	0.000
LL CASE 17	3	0.000	47.833	119.825	107.167	104.702	32.710	0.000	0.000	0.000	0.000
LL CASE 18	4	0.000	47.833	119.825	107.167	107.167	119.825	47.833	0.000	0.000	0.000
LL CASE 19	5	75.613	109.631	119.825	107.167	107.167	119.825	47.833	0.000	0.000	0.000
LL CASE 20	2	75.613	61.799	0.000	0.000	0.000	0.000	61.798	75.614	0.000	0.000
LL CASE 21	3	75.613	109.631	87.115	2.465	0.000	0.000	61.798	75.614	0.000	0.000
LL CASE 22	4	75.613	109.631	87.115	2.465	2.465	87.115	109.631	75.614	0.000	0.000
LL CASE 23	5	75.613	109.631	119.825	89.579	20.052	87.115	109.631	75.614	0.000	0.000

FOR PIER PROGRAM INPUT

61LL 1 1 75613	0	61798	0	0	0	0	0	0	0	0	0	
62	0	0										
61LL 2 2 75613	0	109631	0	87114	2464	0	0	0	0	0	0	
62	0	0										
61LL 3 3 75613	0	109631	0	119824	89579	0	0	17587	0	0	0	
62	0	0										
61LL 4 4 75613	0	109631	0	119824	107166	0	0	104702	32709	0	0	
62	0	0										
61LL 5 5 75613	0	109631	0	119824	107166	0	0	107166	119824	0	47832	
62	0	0										
61LL 6 1 0	0	0	0	0	0	0	0	0	0	0	61798	
62	0	75613										
61LL 7 2 0	0	0	0	0	0	0	0	2464	87114	0	109631	
62	0	75613										
61LL 8 3 0	0	0	0	0	0	17587	0	0	89579	119824	0	109631
62	0	75613										
61LL 9 4 0	0	0	0	0	32709	104702	0	0	107166	119824	0	109631
62	0	75613										
61LL10 5 0	0	47832	0	119824	107166	0	0	107166	119824	0	109631	
62	0	75613										
61LL11 1 0	0	0	0	0	25148	87114	0	0	25148	0	0	0
62	0	0										
61LL12 2 0	0	40271	0	112263	97140	0	0	25148	0	0	0	
62	0	0										
61LL13 3 0	0	40271	0	112263	107166	0	0	112263	40271	0	0	
62	0	0										
61LL14 4 60490	0	117192	0	112263	107166	0	0	112263	40271	0	0	
62	0	0										
61LL15 5 60490	0	117192	0	112263	107166	0	0	112263	117192	0	60490	
62	0	0										
61LL16 2 0	0	0	0	0	32709	104702	0	0	104702	32709	0	0
62	0	0										
61LL17 3 0	0	47832	0	119824	107166	0	0	104702	32709	0	0	
62	0	0										
61LL18 4 0	0	47832	0	119824	107166	0	0	107166	119824	0	47832	
62	0	0										
61LL19 5 75613	0	109631	0	119824	107166	0	0	107166	119824	0	47832	
62	0	0										
61LL20 2 75613	0	61798	0	0	0	0	0	0	0	0	61798	
62	0	75613										
61LL21 3 75613	0	109631	0	87114	2464	0	0	0	0	0	61798	
62	0	75613										
61LL22 4 75613	0	109631	0	87114	2464	0	0	2464	87114	0	109631	
62	0	75613										
61LL23 5 75613	0	109631	0	119824	89579	0	0	20051	87114	0	109631	
62	0	75613										