

20-OCT-09
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GEORGIA DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION DIVISION - OFFICE OF BRIDGE & STRUCTURAL DESIGN
LIVE LOAD CASE PROGRAM
REVISED: JUNE 26, 2008

PROB. NO. LL01

48.00' CURB-TO-CURB; 7 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
51.250	3.625	3.625	25.625	7	68.706	4	2	5.000	0

D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20
3.398	7.409	7.409	7.409	7.409	7.409	7.409													

XCOL1	XCOL2	XCOL3	XCOL4	XCOL5
11.000	29.250			

LIVE LOAD CASE # 1 1 TRUCKS

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I	I	I	I	I	I	I
I	I	I	I	I	I	I
I	I	I	I	I	I	I
I	I	I	I	I	I	I
I	I	I	I	I	I	I

BEAM	WHEEL FRACTION	P-LOAD
1	1.1289	77.562
2	0.8711	59.850
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

LIVE LOAD CASE # 2 2 TRUCKS

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I	I	I	I	I	I	I
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I	I	I	I	I	I	I

BEAM	WHEEL FRACTION	P-LOAD
1	1.1289	77.562
2	1.4908	102.424
3	1.1902	81.772
4	0.1902	13.066
5	0.0000	0.000
6	0.0000	0.000
7	0.0000	0.000

LIVE LOAD CASE # 3 3 TRUCKS

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I	I	I	I	I	I	I
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I	I	I	I	I	I	I
I	I	I	I	I	I	I
I	I	I	I	I	I	I

BEAM	WHEEL FRACTION	P-LOAD
1	1.1289	77.562
2	1.4908	102.424
3	1.4601	100.319
4	1.3803	94.838
5	0.5399	37.093
6	0.0000	0.000
7	0.0000	0.000

LIVE LOAD CASE # 4 4 TRUCKS

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I      I      I      I      I      I      I
I      I      I      I      I      I      I
BEAM   WHEEL FRACTION   P-LOAD
1      1.1289          77.562
2      1.4908          102.424
3      1.4601          100.319
4      1.3803          94.838
5      1.5705          107.904
6      0.9694          66.601
7      0.0000          0.000

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LIVE LOAD CASE # 5 1 TRUCKS

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I      I      I      I      I      I      I
I      I      I      I      I      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      0.0000          0.000
4      0.0000          0.000
5      0.0000          0.000
6      0.8711          59.850
7      1.1289          77.562

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LIVE LOAD CASE # 6 2 TRUCKS

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I      I      I      I      I      I      I
I      I      I      I      I      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      0.0000          0.000
4      0.1902          13.066
5      1.1902          81.772
6      1.4908          102.424
7      1.1289          77.562

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LIVE LOAD CASE # 7 3 TRUCKS

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I      I      I      I      I      I      I
I      I      I      I      I      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      0.5399          37.093
4      1.3803          94.838
5      1.4601          100.319
6      1.4908          102.424
7      1.1289          77.562

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LIVE LOAD CASE # 8 4 TRUCKS

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I      I      I      I      I      I      I
I      I      I      I      I      I      I
BEAM   WHEEL FRACTION   P-LOAD
1      0.0000          0.000
2      0.9694          66.601
3      1.5705          107.904

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4	1.3803	94.838
5	1.4601	100.319
6	1.4908	102.424
7	1.1289	77.562

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LIVE LOAD CASE # 9 1 TRUCKS

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I	I	I	I	I	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	0.4049		27.820
4	1.1902		81.772
5	0.4049		27.820
6	0.0000		0.000
7	0.0000		0.000

LIVE LOAD CASE # 10 2 TRUCKS

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I	I	I	I	I	I	I
I	I	I	I	I	I	I

BEAM	WHEEL	FRACTION	P-LOAD
1	0.0000		0.000
2	0.7546		51.847
3	1.5951		109.592
4	1.2454		85.565
5	0.4049		27.820
6	0.0000		0.000
7	0.0000		0.000

□

LIVE LOAD CASE # 11 3 TRUCKS

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I	I	I	I	I	I	I
I	I	I	I	I	I	I
I	I	I	I	I	I	I
I	I	I	I	I	I	I
I	I	I	I	I	I	I

BEAM	WHEEL	FRACTION	P-LOAD
1	0.0000		0.000
2	0.7546		51.847
3	1.5951		109.592
4	1.3006		89.358
5	1.5951		109.592
6	0.7546		51.847
7	0.0000		0.000

LIVE LOAD CASE # 12 2 TRUCKS

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I	I	I	I	I	I	I
I	I	I	I	I	I	I
I	I	I	I	I	I	I
I	I	I	I	I	I	I

BEAM	WHEEL	FRACTION	P-LOAD
1	0.0000		0.000
2	0.0798		5.481
3	1.1902		81.772
4	1.4601		100.319
5	1.1902		81.772
6	0.0798		5.481
7	0.0000		0.000

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LIVE LOAD CASE # 13 3 TRUCKS

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I   I   I   I   I   I   I
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BEAM   WHEEL FRACTION   P-LOAD
  1         0.4295       29.508
  2         1.2699       87.253
  3         1.5705      107.904
  4         1.4601      100.319
  5         1.1902       81.772
  6         0.0798        5.481
  7         0.0000         0.000
    
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LIVE LOAD CASE # 14 4 TRUCKS

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I   I   I   I   I   I   I   I
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I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I

BEAM   WHEEL FRACTION   P-LOAD
  1         0.4295       29.508
  2         1.2699       87.253
  3         1.5705      107.904
  4         1.4601      100.319
  5         1.5705      107.904
  6         1.2699       87.253
  7         0.4295       29.508
    
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LIVE LOAD CASE # 15 2 TRUCKS

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I   I   I   I   I   I   I
I   I   I   I   I   I   I
I   I   I   I   I   I   I

BEAM   WHEEL FRACTION   P-LOAD
  1         1.1289       77.562
  2         0.8711       59.850
  3         0.0000         0.000
  4         0.0000         0.000
  5         0.0000         0.000
  6         0.8711       59.850
  7         1.1289       77.562
    
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LIVE LOAD CASE # 16 3 TRUCKS

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I   I   I   I   I   I   I
I   I   I   I   I   I   I
I   I   I   I   I   I   I
I   I   I   I   I   I   I

BEAM   WHEEL FRACTION   P-LOAD
  1         1.1289       77.562
  2         1.4908      102.424
  3         1.1902       81.772
  4         0.1902       13.066
  5         0.0000         0.000
  6         0.8711       59.850
  7         1.1289       77.562
    
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LIVE LOAD CASE # 17 4 TRUCKS

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BEAM	WHEEL	FRACTION	P-LOAD
1		1.1289	77.562
2		1.4908	102.424
3		1.1902	81.772
4		0.3803	26.132
5		1.1902	81.772
6		1.4908	102.424
7		1.1289	77.562

20-OCT-09
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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

48.00' CURB-TO-CURB; 7 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
51.250	3.625	3.625	25.625	7	68.706	4	2	5.000	0

D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20
3.398	7.409	7.409	7.409	7.409	7.409	7.409	7.409												

XCOL1	XCOL2	XCOL3	XCOL4	XCOL5	NO. OF TRUCKS									
11.000	29.250				BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6	BEAM 7	BEAM 8	BEAM 9	BEAM 10
LL CASE 1	1	1	77.562	59.850	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LL CASE 2	2	2	77.562	102.424	81.772	13.066	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LL CASE 3	3	3	77.562	102.424	100.319	94.838	37.093	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LL CASE 4	4	4	77.562	102.424	100.319	94.838	107.904	66.601	0.000	0.000	0.000	0.000	0.000	0.000
LL CASE 5	1	1	0.000	0.000	0.000	0.000	0.000	59.850	77.562	0.000	0.000	0.000	0.000	0.000
LL CASE 6	2	2	0.000	0.000	0.000	13.066	81.772	102.424	77.562	0.000	0.000	0.000	0.000	0.000
LL CASE 7	3	3	0.000	0.000	37.093	94.838	100.319	102.424	77.562	0.000	0.000	0.000	0.000	0.000
LL CASE 8	4	4	0.000	66.601	107.904	94.838	100.319	102.424	77.562	0.000	0.000	0.000	0.000	0.000
LL CASE 9	1	1	0.000	0.000	27.820	81.772	27.820	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LL CASE 10	2	2	0.000	51.847	109.592	85.565	27.820	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LL CASE 11	3	3	0.000	51.847	109.592	89.358	109.592	51.847	0.000	0.000	0.000	0.000	0.000	0.000
LL CASE 12	2	2	0.000	5.481	81.772	100.319	81.772	5.481	0.000	0.000	0.000	0.000	0.000	0.000
LL CASE 13	3	3	29.508	87.253	107.904	100.319	81.772	5.481	0.000	0.000	0.000	0.000	0.000	0.000
LL CASE 14	4	4	29.508	87.253	107.904	100.319	107.904	87.253	29.508	0.000	0.000	0.000	0.000	0.000
LL CASE 15	2	2	77.562	59.850	0.000	0.000	0.000	59.850	77.562	0.000	0.000	0.000	0.000	0.000
LL CASE 16	3	3	77.562	102.424	81.772	13.066	0.000	59.850	77.562	0.000	0.000	0.000	0.000	0.000
LL CASE 17	4	4	77.562	102.424	81.772	26.132	81.772	102.424	77.562	0.000	0.000	0.000	0.000	0.000

FOR PIER PROGRAM INPUT

61LL 1 1 77562	0 59849	0 0 0 0	0 0 0 0	0 0 0 0
61LL 2 2 77562	0102423	0 81772 13066	0 0 0 0	0 0 0 0
61LL 3 3 77562	0102423	0100318 94838 37093	0 0 0 0	0 0 0 0
61LL 4 4 77562	0102423	0100318 94838107904	0 66600	0 0 0 0
61LL 5 1 0	0 0 0	0 0 0 0	0 59850	0 77562
61LL 6 2 0	0 0 0	0 0 13066 81772	0102423	0 77562
61LL 7 3 0	0 0 0	0 37093 94838100318	0102423	0 77562
61LL 8 4 0	0 66600	0107904 94838100318	0102423	0 77562
61LL 9 1 0	0 0 0	0 27819 81772 27819	0 0 0 0	0 0 0 0
61LL10 2 0	0 51847	0109592 85564 27819	0 0 0 0	0 0 0 0
61LL11 3 0	0 51847	0109592 89357109592	0 51847	0 0 0 0
61LL12 2 0	0 5480	0 81772100318 81772	0 5480	0 0 0 0
61LL13 3 29507	0 87252	0107904100318 81772	0 5480	0 0 0 0
61LL14 4 29507	0 87252	0107904100318107904	0 87252	0 29507
61LL15 2 77562	0 59849	0 0 0 0	0 59850	0 77562
61LL16 3 77562	0102423	0 81772 13066	0 59850	0 77562
61LL17 4 77562	0102423	0 81772 26132 81772	0102423	0 77562