Influence Line Analysis Logic

Comments:

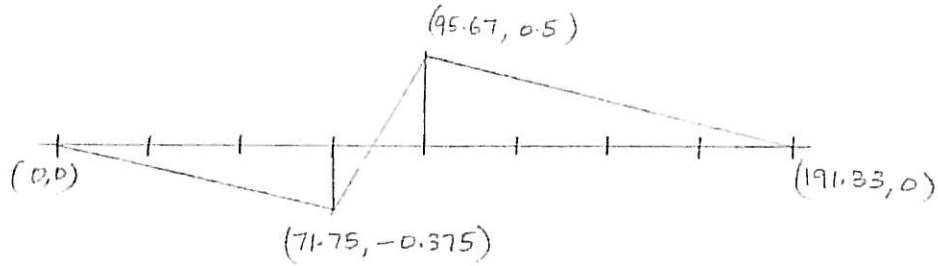
1. To investigate the discrepancy of results between HS20 Truck live loads and Ohio Legal Truck live loads (for trucks 2F1, 3F1, 4F1, 5C1) for member U4-L4 of 191'-4" Truss, various analysis runs were done. It was found out that LARS software gives correct influence lines when HS20 truck loads are used but gives incorrect influence lines when other trucks such as 2F1, 3F1, 4F1, and 5C1 are used. Another analysis run found out that even for HS20 truck loads, a change in distribution factor resulted in incorrect influence lines.
2. Various HS20 truck positions were analyzed in conjunction with correct influence lines to maximize and minimize the live loads. The results obtained match LARS values.
3. Various positions for 5C1 truck were analyzed with incorrect influence lines to maximize and minimize the respective live loads and the results obtained match the LARS values.
4. For maximum values (tension), various truck positions were considered.
5. For minimum values (compression), various truck positions were considered.

Made By: SSM	Date: 04/23/09	Job No: HAM-50-0376L
Checked By: MSL	Date: 5/28/09	Sheet No: 1

HAM-50-0376L — 191'-4" TRUSS

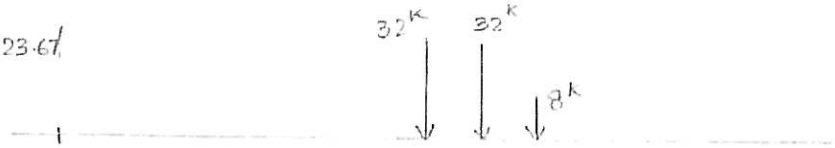
LARS analysis Run 1 ⟶

- Only HS20 truck used for Inv. & OPR. rating
- Influence line



- Truck location

(I) Front wheel = 123.67



Truck live load = $(8^K)(0.3536) + (32^K)(0.4268^{K/K}) + 32^K(0.5^{K/K})$

$= 32.48^K$

Distribution factor for each truss = 2.54 Wheels for 2 trucks Loaded

= 1.27 Wheels for a single truck loaded.

(Page 5 of D.F.)

Truck live load on each truss = $(32.48^K)(1.27)$

$= 41.25^K$

Impact factor = $\frac{50}{(125 + 109.33')} + 1 = 1.2134$

HS20 load = $(41.25^K)(1.2134) = 50.05^K$

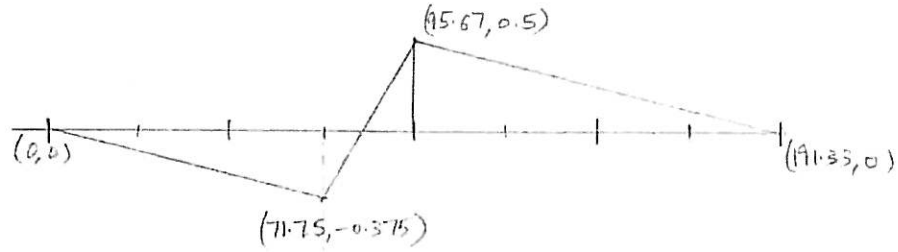
Calculations for 1/10 US Grid

Made By: SSM	Date: 04/23/09	Job No: HAM-50-0376	
Checked By: MSL	Date: 5/29/09	Sheet No: 2	

HAM-50-0376L – 191'-4" TRUSS

(*) Truck location

(II) Front wheel = 43.75'



Truck live load $= -\left[8^k(0.2287^{k/k}) + 32^k(0.3018^{k/k}) + 32^k(0.375^{k/k})\right]$

$= -23.49^k$

Distribution factor for each truss = 2.54 W for 2 Truck loads

= 1.27 W for 1 Truck load.

Truck live load on each truss $= -(23.49^k)(1.27)$

$= -29.85$

Impact factor $= \dfrac{50}{(125 + 82')} = 0.242$

HS20 load w Impact $= -37.04^k$

Calculations for 1/10 US Grid

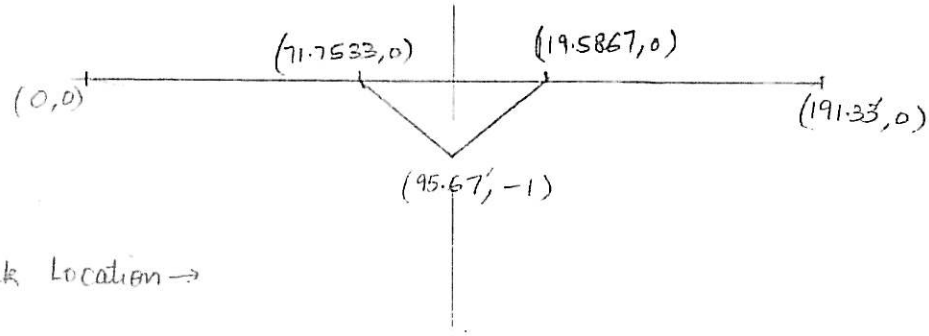
HAM-50-0376L — 191'-4" TRUSS

LARS Analysis Run 2 →

⊛. Use 2F1, 3F1, 4F1, 5C1, HS20 lane & Truck loads for Opr. & HS20 lane & Truck for Inv.

⊛ Influence line → The program produces wrong influence lines which are showing a unit value at midspan but zero value at all other locations. Moreover, the area under the influence lines is wrongly calculated as zero.

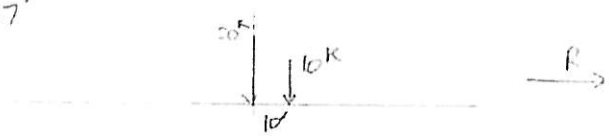
However, for purpose of clarity following calculations are done:



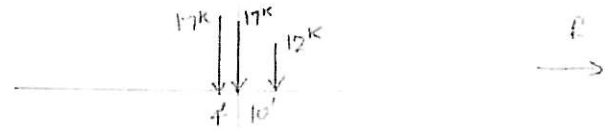
⊛ Truck Location →

(J) Front wheel = 105.67'

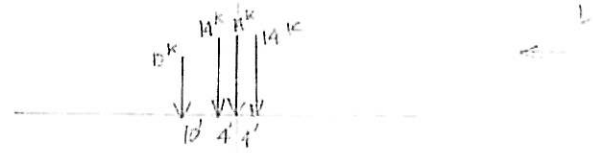
2F1



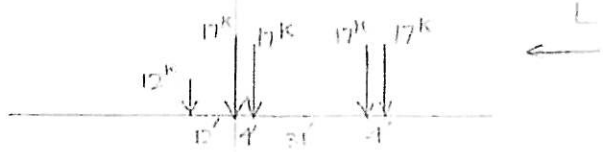
3F1



4F1



5C1



HAM-50-0376L — 191'-4" TRUSS

LARS ANALYSIS RUN 2 →

A. Check for SC1 using the above influence line

Truck live load = $(12^K)(0.4983^{K/K}) + 17^K(1^{K/K}) + (17^K)(0.8328^{K/K})$

$= 37.137^K$

D.F for each truss = 1.27 wheels per truck.

Truck live load on each truss = $(37.137^K)(1.27)$

$= 47.16^K$

matching 47.16^K calculated by LARS

B. Use influence line on sheet 1 →

See Next Page

Calculations for 1/10 US Grid

Spans 1 and 4

U4-L4 Influence Line

Compression and Tension Legal Truck Live Loads

TRUSS INFLUENCE LINE (ASD)

Structure I. D. HAM500

Member I. D. -- L 0 L 1

Loaded chord:

X ordinates:	0.000	23.917	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.747	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	8.938	62.564	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	23.917	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.747	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	8.938	62.564	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- L 0 U 1

Loaded chord:

X ordinates:	0.000	23.917	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.151	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-13.762	-96.332	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	23.917	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.151	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-13.762	-96.332	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 1 L 1

Loaded chord:

X ordinates:	0.000	0.000	23.917	47.833	191.333	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	11.958	11.958	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 1 U 2

Loaded chord:

X ordinates:	0.000	47.833	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-26.418	-79.255	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	47.833	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-26.418	-79.255	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TRUSS INFLUENCE LINE (ASD)

Structure I. D. HAM500

Member I. D. -- L 1 L 2

Loaded chord:

X ordinates:	0.000	23.917	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.747	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	8.938	62.564	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	23.917	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.747	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	8.938	62.564	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 1 L 2

Loaded chord:

X ordinates:	0.000	23.917	47.833	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.320	0.675	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	4.243	48.424	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-3.828	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	23.917	47.833	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.320	0.675	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	4.243	48.424	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-3.828	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 2 L 2

Loaded chord:

X ordinates:	0.000	47.833	71.750	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.487	-0.428	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	11.643	0.708	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-25.567	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	23.917	47.833	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.243	-0.513	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	2.911	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	-3.226	-36.822	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 2 U 3

Loaded chord:

X ordinates:	0.000	71.750	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.285	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-46.089	-76.814	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	71.750	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.285	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-46.089	-76.814	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 2 L 3

Loaded chord:

X ordinates:	0.000	47.833	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.079	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	25.804	77.411	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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.000     0.000     0.000


Unloaded chord:

  X ordinates:     0.000    47.833   191.333     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000     1.079     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000    25.804    77.411     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

Structure I. D. HAM500

Member I. D. -- U 2 L 3

Loaded chord:

X ordinates:	0.000	47.833	71.750	191.333	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-0.385	0.654	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	3.223	39.128	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-9.206	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	47.833	71.750	191.333	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-0.385	0.654	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	3.223	39.128	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-9.206	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 3 L 3

Loaded chord:

X ordinates:	0.000	71.750	95.667	191.333	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.469	-0.425	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	16.818	0.524	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-20.329	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	47.833	71.750	191.333	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.312	-0.531	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	7.474	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	-2.615	-31.761	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- L 3 L 4

Loaded chord:

X ordinates:	0.000	71.750	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	1.281	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	45.967	76.611	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	71.750	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	1.281	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	45.967	76.611	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 3 U 4

Loaded chord:

X ordinates:	0.000	95.667	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.367	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-65.374	-65.374	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	95.667	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.367	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-65.374	-65.374	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 3 L 4

Loaded chord:

X ordinates:	0.000	71.750	95.667	191.333	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-0.454	0.606	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	1.810	28.968	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-16.294	0.000	0.000	0.000	0.000	0.000	0			

```
.000     0.000     0.000


Unloaded chord:

  X ordinates:     0.000    71.750    95.667   191.333     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000    -0.454     0.606     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000     0.000     1.810    28.968     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000   -16.294     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

TRUSS INFLUENCE LINE (ASD)

Structure I. D. HAM500

Member I. D. -- L 3 U 4

Loaded chord:

X ordinates:	0.000	71.750	95.667	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.454	-0.606	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	16.294	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	-1.810	-28.968	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	71.750	95.667	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.454	-0.606	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	16.294	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	-1.810	-28.968	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 4 L 4

Loaded chord:

X ordinates:	0.000	71.750	95.667	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.375	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	1.495	23.917	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-13.453	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	95.667	119.583	191.333	2296.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.500	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	13.453	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-23.917	-1.495	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 4 L 5

Loaded chord:

X ordinates:	0.000	119.583	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	1.281	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	76.605	45.963	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	119.583	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	1.281	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	76.605	45.963	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 4 U 5

Loaded chord:

X ordinates:	0.000	95.667	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.367	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-65.374	-65.374	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	95.667	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.367	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-65.374	-65.374	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- L 4 U 5

Loaded chord:

X ordinates:	0.000	95.667	119.583	191.333	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.606	-0.454	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	28.968	1.810	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-16.294	0.000	0.000	0.000	0			

```
.000     0.000     0.000


Unloaded chord:

  X ordinates:     0.000    95.667   119.583   191.333     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000     0.606    -0.454     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000    28.968     1.810     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000     0.000     0.000   -16.294     0.000     0.000     0.000     0
.000     0.000     0.000
```

TRUSS INFLUENCE LINE (ASD)

Structure I. D. HAM500

Member I. D. -- U 4 L 5

Loaded chord:

X ordinates:	0.000	95.667	119.583	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.606	0.454	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	16.294	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-28.968	-1.810	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	95.667	119.583	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.606	0.454	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	16.294	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-28.968	-1.810	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 5 L 5

Loaded chord:

X ordinates:	0.000	95.667	119.583	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.425	0.469	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.523	16.815	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-20.329	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	119.583	143.500	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.531	0.312	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	7.474	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-31.767	-2.616	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 5 L 6

Loaded chord:

X ordinates:	0.000	143.500	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.079	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	77.411	25.804	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	143.500	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.079	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	77.411	25.804	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 5 U 6

Loaded chord:

X ordinates:	0.000	119.583	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.285	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-76.814	-46.089	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	119.583	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.285	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-76.814	-46.089	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 5 U 6

Loaded chord:

X ordinates:	0.000	119.583	143.500	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.654	-0.385	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	39.128	3.223	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-9.205	0.000	0.000	0.000	0		

```
.000     0.000     0.000


Unloaded chord:

  X ordinates:     0.000   119.583   143.500   191.333     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000     0.654    -0.385     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000    39.128     3.223     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000     0.000     0.000    -9.205     0.000     0.000     0.000     0
.000     0.000     0.000
```

Structure I. D. HAM500

Member I. D. -- U 6 L 6

Loaded chord:

X ordinates:	0.000	119.583	143.500	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.428	0.487	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.708	11.643	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-25.567	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	143.500	167.417	191.333	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.513	0.243	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	2.911	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-36.822	-3.226	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 6 L 7

Loaded chord:

X ordinates:	0.000	167.417	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.747	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	62.564	8.938	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	167.417	191.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.747	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	62.564	8.938	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 6 U 7

Loaded chord:

X ordinates:	0.000	143.500	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.105	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-79.255	-26.418	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	143.500	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.105	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-79.255	-26.418	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- L 6 U 7

Loaded chord:

X ordinates:	0.000	143.500	167.417	191.333	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.675	-0.320	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	48.424	4.243	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-3.828	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	143.500	167.417	191.333	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.675	-0.320	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	48.424	4.243	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-3.828	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 7 L 7

Loaded chord:

X ordinates:	0.000	143.500	167.417	191.334	191.333	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	11.958	11.958	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0			

```
.000     0.000     0.000


Unloaded chord:

  X ordinates:     0.000   191.333     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

TRUSS INFLUENCE LINE (ASD)

Structure I. D. HAM500

Member I. D. -- L 7 L 8

Loaded chord:

X ordinates:	0.000	167.417	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.747	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	62.564	8.938	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	167.417	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.747	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	62.564	8.938	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 7 L 8

Loaded chord:

X ordinates:	0.000	167.417	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.151	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-96.332	-13.762	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

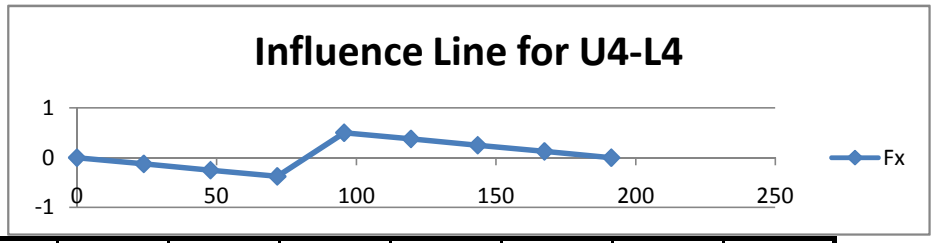
Unloaded chord:

X ordinates:	0.000	167.417	191.333	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.151	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-96.332	-13.762	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Client:	ODOT	**Design:** SSM	**Check:** MSL
Subject:	HAM50-0376L 191' Truss	**Date Printed:** 04/28/09	**Date:** 5/28/2009
Topic:	Compression Truck Live Load	**Page:** 1	

Truss Information

No. of Panels =	8
Panel Length =	23.92
Total Span length =	191.3336
LLDF =	1.27



Influence Line from LARS

MEMBER U4-L4

Distance	0	23.9167	47.8334	71.7501	95.6668	119.5835	143.5002	167.4169	191.3336
F_x	0	-0.125	-0.25	-0.375	0.5	0.375	0.25	0.125	0

TRUCK 2F1

Direction of movement R

2F1 Axles	2	1	**TOTAL**
Axle Loads (Kips)	20	10	30
Spacing (ft)	10	0	

Front Wheel Location	81.75		
Axle Location: Axle No.	2	1	
Axle Location: Location	71.75	81.75	
Influence value	-0.375	-0.009	
Truck Live Load	-7.50	-0.09	**-11.97**

Front Wheel Location	71.75		
Axle Location: Axle No.	2	1	
Axle Location: Location	61.75	71.75	
Influence value	-0.323	-0.375	
Truck Live Load	-6.45	-3.75	**-16.09**

Front Wheel Location	70		
Axle Location: Axle No.	2	1	
Axle Location: Location	60	70	
Influence value	-0.314	-0.366	
Truck Live Load	-6.27	-3.66	**-15.66**

Direction of movemen L

2F1 Axles	1	2	**TOTAL**
Axle Loads (Kips)	10	20	30
Spacing (ft)	0	10	

Front Wheel Location	71.75		
Axle Location: Axle No.	1	2	
Axle Location: Location	71.75	81.75	
Influence value	-0.375	-0.009	
Truck Live Load	-3.75	-0.18	**-6.20**

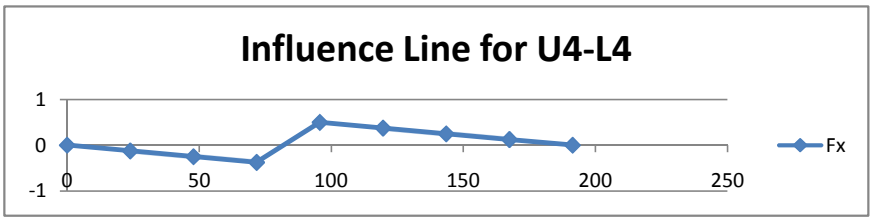
Front Wheel Location	61.75		
Axle Location: Axle No.	1	2	
Axle Location: Location	61.75	71.75	
Influence value	-0.323	-0.375	
Truck Live Load	-3.23	-7.50	**-16.91**

Front Wheel Location	60		
Axle Location: Axle No.	1	2	
Axle Location: Location	60	70	
Influence value	-0.314	-0.366	
Truck Live Load	-3.14	-7.32	**-16.48**

Client: ODOT		**Design:** SSM	**Check:** MSL
Subject: HAM50-0376L 191' Truss		**Date Printed:** 04/28/09	**Date:** 5/28/2009
Topic: Compression Truck Live Load		**Page:** 2	

Truss Information

No. of Panels =	8
Panel Length =	23.92
Total Span length =	191.3336
LLDF =	1.27



Influence Line from LARS

MEMBER U4-L4

Distance	0	23.9167	47.8334	71.7501	95.6668	119.5835	143.5002	167.4169	191.3336
F_x	0	-0.125	-0.25	-0.375	0.5	0.375	0.25	0.125	0

TRUCK 3F1

Direction of movement R

3F1 Axles	3	2	1	TOTAL
Axle Loads (Kips)	17	17	12	46
Spacing (ft)	4	10	0	

Front Wheel Location	81.75			
Axle Location	Axle No.	3	2	1
	Location	67.75	71.75	81.75
Influence value		-0.354	-0.375	-0.009
Truck Live Load		-6.02	-6.38	-0.11	**-19.72**

Front Wheel Location	71.75			
Axle Location	Axle No.	3	2	1
	Location	57.75	61.75	71.75
Influence value		-0.302	-0.323	-0.375
Truck Live Load		-5.13	-5.49	-4.50	**-23.84**

Front Wheel Location	70			
Axle Location	Axle No.	3	2	1
	Location	56	60	70
Influence value		-0.293	-0.314	-0.366
Truck Live Load		-4.98	-5.33	-4.39	**-23.17**

Direction of movemen L

3F1 Axles	1	2	3	TOTAL
Axle Loads (Kips)	12	17	17	46
Spacing (ft)	0	10	4	

Front Wheel Location	68			
Axle Location	Axle No.	1	2	3
	Location	68	78	82
Influence value		-0.355	-0.146	0.000
Truck Live Load		-4.26	-2.49	0.00	**-10.65**

Front Wheel Location	61.75			
Axle Location	Axle No.	1	2	3
	Location	61.75	71.75	75.75
Influence value		-0.323	-0.375	-0.229
Truck Live Load		-3.87	-6.37	-3.89	**-22.29**

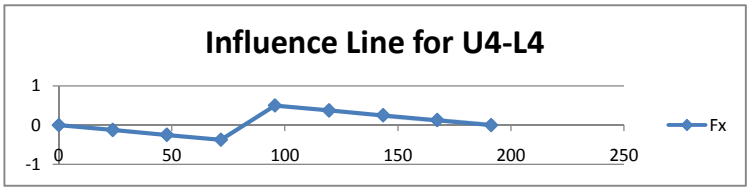
Front Wheel Location	57.75			
Axle Location	Axle No.	1	2	3
	Location	57.75	67.75	71.75
Influence value		-0.302	-0.354	-0.375
Truck Live Load		-3.62	-6.02	-6.37	**-25.25**

Front Wheel Location	56			
Axle Location	Axle No.	1	2	3
	Location	56	66	70
Influence value		-0.293	-0.345	-0.366
Truck Live Load		-3.51	-5.86	-6.22	**-24.59**

Client:	ODOT	**Design:** SSM	**Check:** MSL
Subject:	HAM50-0376L 191' Truss	**Date Printed:** 04/28/09	**Date:** 5/28/2009
Topic:	Compression Truck Live Load	**Page:** 3	

Truss Information

No. of Panels =	8
Panel Length =	23.92
Total Span length =	191.3336
LLDF =	1.27



Influence Line from LARS

MEMBER U4-L4

Distance	0	23.9167	47.8334	71.7501	95.6668	119.5835	143.5002	167.4169	191.3336
F_x	0	-0.125	-0.25	-0.375	0.5	0.375	0.25	0.125	0

TRUCK 4F1

Direction of movemen R

4F1 Axles	4	3	2	1	**TOTAL**
Axle Loads (Kips)	14	14	14	12	54
Spacing (ft)	4	4	10	0	

Front Wheel Location	81.75				
Axle Location: Axle No.	4	3	2	1	
Axle Location: Location	63.75	67.75	71.75	81.75	
Influence value	-0.333	-0.354	-0.375	-0.009	
Truck Live Load	-4.66	-4.96	-5.25	-0.11	**-23.62**

Front Wheel Location	71.75				
Axle Location: Axle No.	4	3	2	1	
Axle Location: Location	53.75	57.75	61.75	71.75	
Influence value	-0.281	-0.302	-0.323	-0.375	
Truck Live Load	-3.93	-4.23	-4.52	-4.50	**-27.08**

Front Wheel Location	70				
Axle Location: Axle No.	4	3	2	1	
Axle Location: Location	52	56	60	70	
Influence value	-0.272	-0.293	-0.314	-0.366	
Truck Live Load	-3.80	-4.10	-4.39	-4.39	**-26.30**

Direction of movemen L

4F1 Axles	1	2	3	4	**TOTAL**
Axle Loads (Kips)	12	14	14	14	54
Spacing (ft)	0	10	4	4	

Front Wheel Location	61.75				
Axle Location: Axle No.	1	2	3	4	
Axle Location: Location	61.75	71.75	75.75	79.75	
Influence value	-0.323	-0.375	-0.229	-0.082	
Truck Live Load	-3.87	-5.25	-3.20	-1.15	**-21.25**

Front Wheel Location	57.75				
Axle Location: Axle No.	1	2	3	4	
Axle Location: Location	57.75	67.75	71.75	75.75	
Influence value	-0.302	-0.354	-0.375	-0.229	
Truck Live Load	-3.62	-4.96	-5.25	-3.20	**-26.85**

Front Wheel Location	53.75				
Axle Location: Axle No.	1	2	3	4	
Axle Location: Location	53.75	63.75	67.75	71.75	
Influence value	-0.281	-0.333	-0.354	-0.375	
Truck Live Load	-3.37	-4.66	-4.96	-5.25	**-28.76**

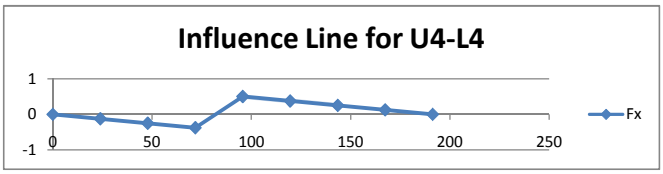
Front Wheel Location	52				
Axle Location: Axle No.	1	2	3	4	
Axle Location: Location	52	62	66	70	
Influence value	-0.272	-0.324	-0.345	-0.366	
Truck Live Load	-3.26	-4.54	-4.83	-5.12	**-27.99**

Client: ODOT
Subject: HAM50-0376L 191' Truss
Topic: Compression Truck Live Load

Design: SSM **Check:** MSL
Date Printed: 04/28/09 **Date:** 5/28/2009
Page: 4

Truss Information

No. of Panels =	8
Panel Length =	23.92
Total Span length =	191.3336
LLDF =	1.27



Influence Line from LARS

MEMBER U4-L4

Distance	0	23.9167	47.8334	71.7501	95.6668	119.5835	143.5002	167.4169	191.3336
F_x	0	-0.125	-0.25	-0.375	0.5	0.375	0.25	0.125	0

TRUCK 5C1

Direction of movemer R

5C1 Axles	5	4	3	2	1	TOTAL
Axle Loads (Kips)	17	17	17	17	12	80
Spacing (ft)	4	31	4	12	0	

Front Wheel Location 83.75

Axle Location	Axle No.	5	4	3	2	1	
	Location	32.75	36.75	67.75	71.75	83.75	
Influence value		-0.171	-0.192	-0.354	-0.375	0.064	
Truck Live Load		-2.91	-3.27	-6.02	-6.38	0.77	**-28.07**

Front Wheel Location 71.75

Axle Location	Axle No.	5	4	3	2	1	
	Location	20.75	24.75	55.75	59.75	71.75	
Influence value		-0.108	-0.129	-0.291	-0.312	-0.375	
Truck Live Load		-1.84	-2.20	-4.95	-5.31	-4.50	**-29.65**

Front Wheel Location 70

Axle Location	Axle No.	5	4	3	2	1	
	Location	19	23	54	58	70	
Influence value		-0.099	-0.120	-0.282	-0.303	-0.366	
Truck Live Load		-1.69	-2.04	-4.80	-5.15	-4.39	**-28.50**

Direction of movemer L

5C1 Axles	1	2	3	4	5	TOTAL
Axle Loads (Kips)	12	17	17	17	17	80
Spacing (ft)	0	12	4	31	4	

Front Wheel Location 24.75

Axle Location	Axle No.	1	2	3	4	5	
	Location	24.75	36.75	40.75	71.75	75.75	
Influence value		-0.129	-0.192	-0.213	-0.375	-0.229	
Truck Live Load		-1.55	-3.27	-3.62	-6.37	-3.89	**-29.49**

Front Wheel Location 20.75

Axle Location	Axle No.	1	2	3	4	5	
	Location	20.75	32.75	36.75	67.75	71.75	
Influence value		-0.108	-0.171	-0.192	-0.354	-0.375	
Truck Live Load		-1.30	-2.91	-3.27	-6.02	-6.38	**-31.33**

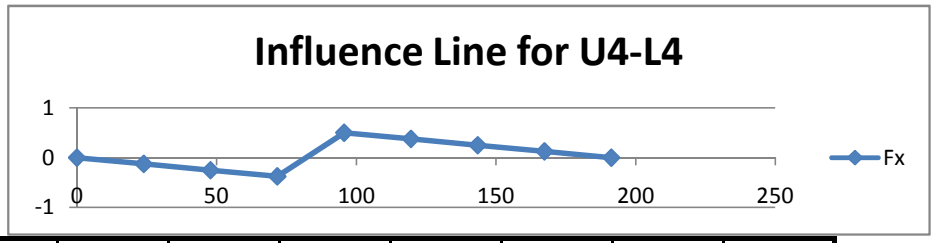
Front Wheel Location 20.5

Axle Location	Axle No.	1	2	3	4	5	
	Location	20.5	32.5	36.5	67.5	71.5	
Influence value		-0.107	-0.170	-0.191	-0.353	-0.374	
Truck Live Load		-1.29	-2.89	-3.24	-6.00	-6.35	**-31.17**

Client:	ODOT	**Design:** SSM	**Check:** MSL
Subject:	HAM50-0376L 191' Truss	**Date Printed:** 04/28/09	**Date:** 5/28/2009
Topic:	Tension Truck Live Load	**Page:** 1	

Truss Information

No. of Panels =	8
Panel Length =	23.92
Total Span length =	191.3336
LLDF =	1.27



Influence Line from LARS

MEMBER U4-L4

Distance	0	23.9167	47.8334	71.7501	95.6668	119.5835	143.5002	167.4169	191.3336
F_x	0	-0.125	-0.25	-0.375	0.5	0.375	0.25	0.125	0

TRUCK 2F1

Direction of movement R

2F1 Axles	2	1	**TOTAL**
Axle Loads (Kips)	20	10	30
Spacing (ft)	10	0	

Front Wheel Location	105.67		
Axle Location: Axle No.	2	1	
Axle Location: Location	95.67	105.67	
Influence value	0.500	0.448	
Truck Live Load	10.00	4.48	**22.31**

Front Wheel Location	95.67		
Axle Location: Axle No.	2	1	
Axle Location: Location	85.67	95.67	
Influence value	0.134	0.500	
Truck Live Load	2.69	5.00	**11.84**

Direction of movemen L

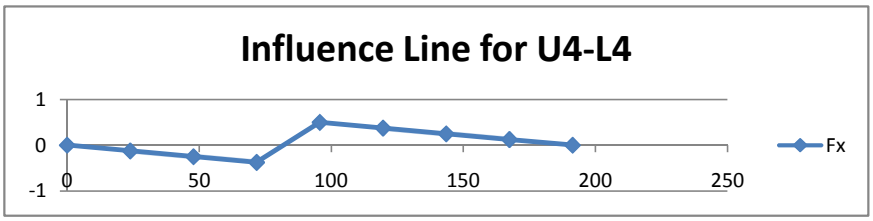
2F1 Axles	1	2	**TOTAL**
Axle Loads (Kips)	10	20	30
Spacing (ft)	0	10	

Front Wheel Location	85.67		
Axle Location: Axle No.	1	2	
Axle Location: Location	85.67	95.67	
Influence value	0.134	0.500	
Truck Live Load	1.34	10.00	**17.48**

Client: ODOT		**Design:** SSM	**Check:** MSL
Subject: HAM50-0376L 191' Truss		**Date Printed:** 04/28/09	**Date:** 5/28/2009
Topic: Tension Truck Live Load		**Page:** 2	

Truss Information

No. of Panels =	8
Panel Length =	23.92
Total Span length =	191.3336
LLDF =	1.27



Influence Line from LARS

MEMBER U4-L4

Distance	0	23.9167	47.8334	71.7501	95.6668	119.5835	143.5002	167.4169	191.3336
F_x	0	-0.125	-0.25	-0.375	0.5	0.375	0.25	0.125	0

TRUCK 3F1

Direction of movement	R			
3F1 Axles	3	2	1	**TOTAL**
Axle Loads (Kips)	17	17	12	46
Spacing (ft)	4	10	0	

Front Wheel Location	105.67			
Axle Location / Axle No.	3	2	1	
Axle Location / Location	91.67	95.67	105.67	
Influence value	0.354	0.500	0.448	
Truck Live Load	6.01	8.50	5.37	**30.65**

Front Wheel Location	109.67			
Axle Location / Axle No.	3	2	1	
Axle Location / Location	95.67	99.67	109.67	
Influence value	0.500	0.479	0.427	
Truck Live Load	8.50	8.14	5.12	**33.54**

Front Wheel Location	110			
Axle Location / Axle No.	3	2	1	
Axle Location / Location	96	100	110	
Influence value	0.498	0.477	0.425	
Truck Live Load	8.47	8.11	5.10	**33.42**

Direction of movemen	L			
3F1 Axles	1	2	3	**TOTAL**
Axle Loads (Kips)	12	17	17	46
Spacing (ft)	0	10	4	

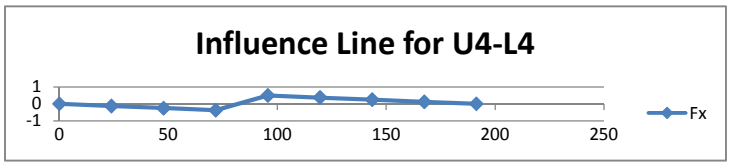
Front Wheel Location	95.67			
Axle Location / Axle No.	1	2	3	
Axle Location / Location	95.67	105.67	109.67	
Influence value	0.500	0.448	0.427	
Truck Live Load	6.00	7.61	7.26	**32.16**

Front Wheel Location	85.67			
Axle Location / Axle No.	1	2	3	
Axle Location / Location	85.67	95.67	99.67	
Influence value	0.134	0.500	0.479	
Truck Live Load	1.61	8.50	8.14	**28.13**

Client: ODOT		**Design:** SSM	**Check:** MSL
Subject: HAM50-0376L 191' Truss		**Date Printed:** 04/28/09	**Date:** 5/28/2009
Topic: Tension Truck Live Load		**Page:** 3	

Truss Information

No. of Panels =	8
Panel Length =	23.92
Total Span length =	191.3336
LLDF =	1.27



Influence Line from LARS

MEMBER U4-L4

Distance	0	23.9167	47.8334	71.7501	95.6668	119.5835	143.5002	167.4169	191.3336
F_x	0	-0.125	-0.25	-0.375	0.5	0.375	0.25	0.125	0

TRUCK 4F1

Direction of movemen R

4F1 Axles	4	3	2	1	**TOTAL**
Axle Loads (Kips)	14	14	14	12	54
Spacing (ft)	4	4	10	0	

Front Wheel Location	109.67				
Axle Location	Axle No.	4	3	2	1
	Location	91.67	95.67	99.67	109.67
Influence value		0.354	0.500	0.479	0.427
Truck Live Load		4.95	7.00	6.71	5.12	**36.65**

Front Wheel Location	113.67				
Axle Location	Axle No.	4	3	2	1
	Location	95.67	99.67	103.67	113.67
Influence value		0.500	0.479	0.458	0.406
Truck Live Load		7.00	6.71	6.41	4.87	**38.52**

Front Wheel Location	114				
Axle Location	Axle No.	4	3	2	1
	Location	96	100	104	114
Influence value		0.498	0.477	0.456	0.404
Truck Live Load		6.98	6.68	6.39	4.85	**38.37**

Direction of movemen L

4F1 Axles	1	2	3	4	**TOTAL**
Axle Loads (Kips)	12	14	14	14	54
Spacing (ft)	0	10	4	4	

Front Wheel Location	95.67				
Axle Location	Axle No.	1	2	3	4
	Location	95.67	105.67	109.67	113.67
Influence value		0.500	0.448	0.427	0.406
Truck Live Load		6.00	6.27	5.98	5.68	**36.87**

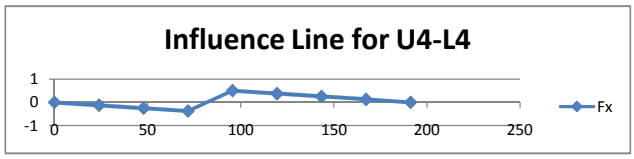
Front Wheel Location	85.67				
Axle Location	Axle No.	1	2	3	4
	Location	85.67	95.67	99.67	103.67
Influence value		0.134	0.500	0.479	0.458
Truck Live Load		1.61	7.00	6.71	6.41	**33.49**

Front Wheel Location	85				
Axle Location	Axle No.	1	2	3	4
	Location	85	95	99	103
Influence value		0.110	0.476	0.483	0.462
Truck Live Load		1.32	6.66	6.76	6.46	**32.66**

Client: ODOT		**Design:** SSM	**Check:** MSL
Subject: HAM50-0376L 191' Truss		**Date Printed:** 04/28/09	**Date:** 5/28/2009
Topic: Tension Truck Live Load		**Page:** 4	

Truss Information

No. of Panels =	8
Panel Length =	23.92
Total Span length =	191.3336
LLDF =	1.27



Influence Line from LARS

MEMBER U4-L4

Distance	0	23.9167	47.8334	71.7501	95.6668	119.5835	143.5002	167.4169	191.3336
F_x	0	-0.125	-0.25	-0.375	0.5	0.375	0.25	0.125	0

TRUCK 5C1

Direction of movemer R

5C1 Axles	5	4	3	2	1	**TOTAL**
Axle Loads (Kips)	17	17	17	17	12	80
Spacing (ft)	4	31	4	12	0	

Front Wheel Location 142.67

Axle Location	Axle No.	5	4	3	2	1	
	Location	91.67	95.67	126.67	130.67	142.67	
Influence value		0.354	0.500	0.338	0.317	0.254	
Truck Live Load		6.01	8.50	5.75	5.39	3.05	**44.23**

Front Wheel Location 146.67

Axle Location	Axle No.	5	4	3	2	1	
	Location	95.67	99.67	130.67	134.67	146.67	
Influence value		0.500	0.479	0.317	0.296	0.233	
Truck Live Load		8.50	8.14	5.39	5.03	2.80	**46.03**

Front Wheel Location 147

Axle Location	Axle No.	5	4	3	2	1	
	Location	96	100	131	135	147	
Influence value		0.498	0.477	0.315	0.294	0.232	
Truck Live Load		8.47	8.11	5.36	5.01	2.78	**45.82**

Direction of movemer L

5C1 Axles	1	2	3	4	5	**TOTAL**
Axle Loads (Kips)	12	17	17	17	17	80
Spacing (ft)	0	12	4	31	4	

Front Wheel Location 95.67

Axle Location	Axle No.	1	2	3	4	5	
	Location	95.67	107.67	111.67	142.67	146.67	
Influence value		0.500	0.437	0.416	0.254	0.233	
Truck Live Load		6.00	7.43	7.08	4.32	3.97	**44.39**

Front Wheel Location 83.67

Axle Location	Axle No.	1	2	3	4	5	
	Location	83.67	95.67	99.67	130.67	134.67	
Influence value		0.061	0.500	0.479	0.317	0.296	
Truck Live Load		0.73	8.50	8.14	5.39	5.03	**42.84**

Front Wheel Location 83

Axle Location	Axle No.	1	2	3	4	5	
	Location	83	95	99	130	134	
Influence value		0.037	0.503	0.483	0.321	0.300	
Truck Live Load		0.44	8.56	8.20	5.45	5.09	**42.76**

Spans 2 and 3

U5-L5 Influence Line

Compression and Tension Legal Truck Live Loads

TRUSS INFLUENCE LINE (ASD)

Structure I. D. HAM500

Member I. D. -- L 0 L 1

Loaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	10.045	90.405	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	10.045	90.405	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- L 0 U 1

Loaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.207	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-15.081	-135.731	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.207	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-15.081	-135.731	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 1 L 1

Loaded chord:

```
  X ordinates:     0.000     0.000    25.000    50.000   250.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000     0.000     1.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000     0.000    12.500    12.500     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

Unloaded chord:

```
  X ordinates:     0.000   250.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

Member I. D. -- U 1 U 2

Loaded chord:

```
  X ordinates:     0.000    50.000   250.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000    -1.194     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000   -29.853  -119.410     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

Unloaded chord:

```
  X ordinates:     0.000    50.000   250.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000    -1.194     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000   -29.853  -119.410     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

TRUSS INFLUENCE LINE (ASD)

Structure I. D. HAM500

Member I. D. -- L 1 L 2

Loaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	10.045	90.405	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	10.045	90.405	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 1 L 2

Loaded chord:

X ordinates:	0.000	25.000	50.000	250.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-0.340	0.660	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	3.992	65.980	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-4.255	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	25.000	50.000	250.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-0.340	0.660	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	3.992	65.980	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-4.255	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 2 L 2

Loaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.508	-0.431	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	12.695	0.964	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-37.686	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	25.000	50.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.254	-0.492	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	3.174	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	-2.979	-49.220	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 2 U 3

Loaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-51.559	-120.304	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-51.559	-120.304	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 2 L 3

Loaded chord:

X ordinates:	0.000	50.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.154	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	28.843	115.370	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

```
.000     0.000     0.000


Unloaded chord:

  X ordinates:     0.000    50.000   250.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000     1.154     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000    28.843   115.370     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

TRUSS INFLUENCE LINE (ASD)

Structure I. D. HAM500

Member I. D. -- U 2 L 3

Loaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.425	0.595	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	2.126	52.080	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-10.627	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.425	0.595	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	2.126	52.080	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-10.627	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 3 L 3

Loaded chord:

X ordinates:	0.000	75.000	100.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.517	-0.414	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	19.395	1.292	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-31.035	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.345	-0.483	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	8.620	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	-1.725	-42.245	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 3 U 4

Loaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-75.105	-112.658	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-75.105	-112.658	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- L 3 L 4

Loaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	50.910	118.790	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	50.910	118.790	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 3 L 4

Loaded chord:

X ordinates:	0.000	75.000	100.000	250.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-0.428	0.619	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	2.386	46.455	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-16.069	0.000	0.000	0.000	0.000	0.000	0			

```
.000     0.000     0.000


Unloaded chord:

  X ordinates:     0.000    75.000   100.000   250.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000    -0.428     0.619     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000     0.000     2.386    46.455     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000   -16.069     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

TRUSS INFLUENCE LINE (ASD)

Structure I. D. HAM500

Member I. D. -- U 4 L 4

Loaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.480	-0.433	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	23.990	0.579	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-27.094	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	75.000	100.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.360	-0.520	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	13.496	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	-2.004	-39.015	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 4 L 5

Loaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	75.000	112.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	75.000	112.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 4 U 5

Loaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-97.656	-97.656	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-97.656	-97.656	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 4 L 5

Loaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.472	0.590	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	1.474	36.850	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-23.585	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.472	0.590	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	1.474	36.850	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-23.585	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 4 U 5

Loaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.472	-0.590	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	23.585	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	-1.474	-36.850	0.000	0.000	0.000	0.000	0.000	0.000

```
.000     0.000     0.000


Unloaded chord:

  X ordinates:     0.000   100.000   125.000   250.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000     0.472    -0.590     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000    23.585     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000     0.000    -1.474   -36.850     0.000     0.000     0.000     0
.000     0.000     0.000
```

Structure I. D. HAM500

Member I. D. -- U 5 L 5

Loaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.400	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	1.250	31.250	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-20.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	125.000	150.000	250.000	3000.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.500	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	20.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-31.250	-1.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 5 L 6

Loaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	112.500	75.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	112.500	75.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 5 U 6

Loaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-97.656	-97.656	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-97.656	-97.656	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- L 5 U 6

Loaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.590	-0.472	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	36.850	1.474	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-23.585	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.590	-0.472	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	36.850	1.474	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-23.585	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 5 L 6

Loaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-0.590	0.472	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	23.585	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-36.850	-1.474	0.000	0.000	0.000	0.000	0			

```
.000     0.000     0.000


Unloaded chord:

  X ordinates:     0.000   125.000   150.000   250.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000    -0.590     0.472     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000     0.000     0.000    23.585     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000   -36.850    -1.474     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

Structure I. D. HAM500

Member I. D. -- U 6 L 6

Loaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.433	0.480	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.579	23.990	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-27.094	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.520	0.360	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	13.496	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-39.015	-2.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 6 L 7

Loaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	118.790	50.910	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	118.790	50.910	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 6 U 7

Loaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-112.658	-75.105	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-112.658	-75.105	0.000	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- L 6 U 7

Loaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.619	-0.428	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	46.455	2.386	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-16.069	0.000	0.000	0.000	0	.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	0.619	-0.428	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	46.455	2.386	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-16.069	0.000	0.000	0.000	0	.000	0.000	0.000

Member I. D. -- U 7 L 7

Loaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0	.000	0.000	0.000
Y ordinates:	0.000	-0.414	0.517	0.000	0.000	0.000	0.000	0	.000	0.000	0.000
POS. AREA	0.000	0.000	1.292	19.395	0.000	0.000	0.000	0	.000	0.000	0.000
NEG. AREA	0.000	-31.035	0.000	0.000	0.000	0.000	0.000	0			

```
.000     0.000     0.000


Unloaded chord:

  X ordinates:     0.000   175.000   200.000   250.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000    -0.483     0.345     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000     0.000     0.000     8.620     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000   -42.245    -1.725     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

Structure I. D. HAM500

Member I. D. -- L 7 L 8

Loaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.154	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	115.370	28.843	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	1.154	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	115.370	28.843	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 7 U 8

Loaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-120.304	-51.559	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-120.304	-51.559	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 7 U 8

Loaded chord:

X ordinates:	0.000	175.000	200.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.595	-0.425	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	52.080	2.126	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-10.627	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	175.000	200.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.595	-0.425	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	52.080	2.126	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-10.627	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 8 L 8

Loaded chord:

X ordinates:	0.000	175.000	200.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.431	0.508	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.964	12.695	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-37.686	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	200.000	225.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-0.492	0.254	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	3.174	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-49.220	-2.979	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 8 L 9

Loaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
POS. AREA	0.000	90.405	10.045	0.000	0.000	0.000	0.000	0.000	0.000	0
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

```
.000     0.000     0.000


Unloaded chord:

  X ordinates:     0.000   225.000   250.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000     0.804     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000    90.405    10.045     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

Structure I. D. HAM500

Member I. D. -- U 8 U 9

Loaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.194	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-119.410	-29.853	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.194	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-119.410	-29.853	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 8 U 9

Loaded chord:

X ordinates:	0.000	200.000	225.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.660	-0.340	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	65.980	3.992	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-4.255	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	200.000	225.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.660	-0.340	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	65.980	3.992	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	-4.255	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 9 L 9

Loaded chord:

X ordinates:	0.000	200.000	225.000	250.000	250.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	12.500	12.500	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- L 9 L10

Loaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	90.405	10.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Unloaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	90.405	10.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Member I. D. -- U 9 L10

Loaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Y ordinates:	0.000	-1.207	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
POS. AREA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEG. AREA	0.000	-135.731	-15.081	0.000	0.000	0.000	0.000	0.000	0.000	0.000

```
.000     0.000     0.000


Unloaded chord:

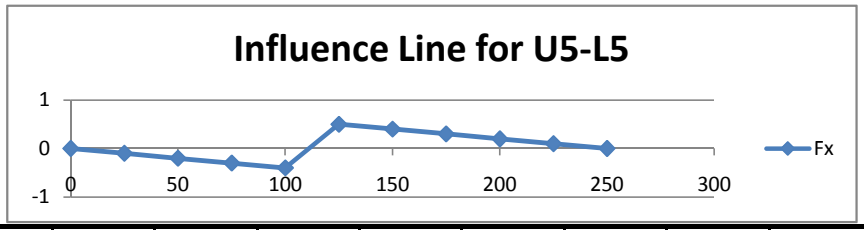
  X ordinates:     0.000   225.000   250.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  Y ordinates:     0.000    -1.207     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000

  POS. AREA        0.000     0.000     0.000     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
  NEG. AREA        0.000  -135.731   -15.081     0.000     0.000     0.000     0.000     0
.000     0.000     0.000
```

Client: ODOT		**Design:** SSM	**Check:** MSL
Subject: HAM50-0376L 250' Truss		**Date Printed:** 05/14/09	**Date:** 5/28/2009
Topic: Compression Truck Live Load		**Page:** 1	

Truss Information

No. of Panels =	10
Panel Length =	25.00
Total Span length =	250
LLDF =	1.27



Influence Line from LARS

MEMBER U5-L5

Distance	0	25	50	75	100	125	150	175	200	225	250
F_x	0	-0.1	-0.2	-0.3	-0.4	0.5	0.4	0.3	0.2	0.1	0

TRUCK 2F1

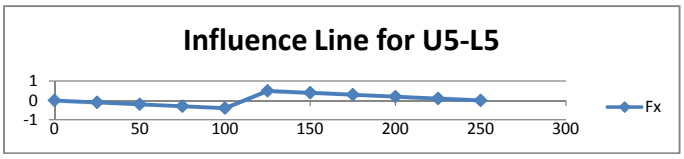
Direction of movement	R		
2F1 Axles	2	1	**TOTAL**
Axle Loads (Kips)	20	10	30
Spacing (ft)	10	0	
Front Wheel Location	110		
Axle Location: Axle No.	2	1	
Axle Location: Location	100	110	
Influence value	-0.400	-0.040	
Truck Live Load	-8.00	-0.40	**-12.93**
Front Wheel Location	100		
Axle Location: Axle No.	2	1	
Axle Location: Location	90	100	
Influence value	-0.360	-0.400	
Truck Live Load	-7.20	-4.00	**-17.24**
Front Wheel Location	99		
Axle Location: Axle No.	2	1	
Axle Location: Location	89	99	
Influence value	-0.356	-0.396	
Truck Live Load	-7.12	-3.96	**-17.05**

Direction of movement	L		
2F1 Axles	1	2	**TOTAL**
Axle Loads (Kips)	10	20	30
Spacing (ft)	0	10	
Front Wheel Location	100		
Axle Location: Axle No.	1	2	
Axle Location: Location	100	110	
Influence value	-0.400	-0.040	
Truck Live Load	-4.00	-0.80	**-7.39**
Front Wheel Location	90		
Axle Location: Axle No.	1	2	
Axle Location: Location	90	100	
Influence value	-0.360	-0.400	
Truck Live Load	-3.60	-8.00	**-17.85**
Front Wheel Location	89		
Axle Location: Axle No.	1	2	
Axle Location: Location	89	99	
Influence value	-0.356	-0.396	
Truck Live Load	-3.56	-7.92	**-17.67**

Client: ODOT		**Design:** SSM	**Check:** MSL
Subject: HAM50-0376L 250' Truss		**Date Printed:** 05/14/09	**Date:** 5/28/2009
Topic: Compression Truck Live Load		**Page:** 2	

Truss Information

No. of Panels =	10
Panel Length =	25.00
Total Span length =	250
LLDF =	1.27



Influence Line from LARS

MEMBER U5-L5

Distance	0	25	50	75	100	125	150	175	200	225	250
F_x	0	-0.1	-0.2	-0.3	-0.4	0.5	0.4	0.3	0.2	0.1	0

TRUCK 3F1

Direction of movement	R			
3F1 Axles	3	2	1	**TOTAL**
Axle Loads (Kips)	17	17	12	46
Spacing (ft)	4	10	0	

Front Wheel Location	110			
Axle Location: Axle No.	3	2	1	
Axle Location: Location	96	100	110	
Influence value	-0.384	-0.400	-0.040	
Truck Live Load	-6.53	-6.80	-0.48	**-21.25**

Front Wheel Location	100			
Axle Location: Axle No.	3	2	1	
Axle Location: Location	86	90	100	
Influence value	-0.344	-0.360	-0.400	
Truck Live Load	-5.85	-6.12	-4.80	**-25.81**

Front Wheel Location	99			
Axle Location: Axle No.	3	2	1	
Axle Location: Location	85	89	99	
Influence value	-0.340	-0.356	-0.396	
Truck Live Load	-5.78	-6.05	-4.75	**-25.52**

Direction of movemen	L			
3F1 Axles	1	2	3	**TOTAL**
Axle Loads (Kips)	12	17	17	46
Spacing (ft)	0	10	4	

Front Wheel Location	97			
Axle Location: Axle No.	1	2	3	
Axle Location: Location	97	107	111	
Influence value	-0.388	-0.148	-0.004	
Truck Live Load	-4.66	-2.52	-0.07	**-11.14**

Front Wheel Location	90			
Axle Location: Axle No.	1	2	3	
Axle Location: Location	90	100	104	
Influence value	-0.360	-0.400	-0.256	
Truck Live Load	-4.32	-6.80	-4.35	**-23.81**

Front Wheel Location	86			
Axle Location: Axle No.	1	2	3	
Axle Location: Location	86	96	100	
Influence value	-0.344	-0.384	-0.400	
Truck Live Load	-4.13	-6.53	-6.80	**-26.87**

Front Wheel Location	85			
Axle Location: Axle No.	1	2	3	
Axle Location: Location	85	95	99	
Influence value	-0.340	-0.380	-0.396	
Truck Live Load	-4.08	-6.46	-6.73	**-26.58**

Client: ODOT		**Design:** SSM	**Check:** MSL
Subject: HAM50-0376L 250' Truss		**Date Printed:** 05/14/09	**Date:** 5/28/2009
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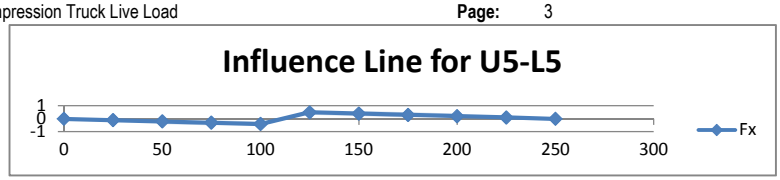
Truss Information

No. of Panels =	10
Panel Length =	25.00
Total Span length =	250
LLDF =	1.27



Influence Line from LARS

MEMBER U5-L5

Distance	0	25	50	75	100	125	150	175	200	225	250
F_x	0	-0.1	-0.2	-0.3	-0.4	0.5	0.4	0.3	0.2	0.1	0

TRUCK 4F1

Direction of movemen R

4F1 Axles	4	3	2	1	**TOTAL**
Axle Loads (Kips)	14	14	14	12	54
Spacing (ft)	4	4	10	0	

Front Wheel Location	110				
Axle Location: Axle No.	4	3	2	1	
Axle Location: Location	92	96	100	110	
Influence value	-0.368	-0.384	-0.400	-0.040	
Truck Live Load	-5.15	-5.38	-5.60	-0.48	**-25.56**

Front Wheel Location	100				
Axle Location: Axle No.	4	3	2	1	
Axle Location: Location	82	86	90	100	
Influence value	-0.328	-0.344	-0.360	-0.400	
Truck Live Load	-4.59	-4.82	-5.04	-4.80	**-29.62**

Front Wheel Location	99				
Axle Location: Axle No.	4	3	2	1	
Axle Location: Location	81	85	89	99	
Influence value	-0.324	-0.340	-0.356	-0.396	
Truck Live Load	-4.54	-4.76	-4.98	-4.75	**-29.29**

Direction of movemen L

4F1 Axles	1	2	3	4	**TOTAL**
Axle Loads (Kips)	12	14	14	14	54
Spacing (ft)	0	10	4	4	

Front Wheel Location	93				
Axle Location: Axle No.	1	2	3	4	
Axle Location: Location	93	103	107	111	
Influence value	-0.372	-0.412	-0.148	-0.004	
Truck Live Load	-4.46	-5.77	-2.07	-0.06	**-19.02**

Front Wheel Location	90				
Axle Location: Axle No.	1	2	3	4	
Axle Location: Location	90	100	104	108	
Influence value	-0.360	-0.400	-0.416	-0.112	
Truck Live Load	-4.32	-5.60	-5.82	-1.57	**-26.64**

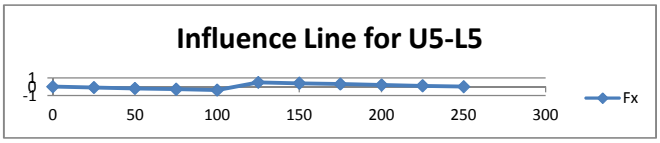
Front Wheel Location	86				
Axle Location: Axle No.	1	2	3	4	
Axle Location: Location	86	96	100	104	
Influence value	-0.344	-0.384	-0.400	-0.416	
Truck Live Load	-4.13	-5.38	-5.60	-5.82	**-32.21**

Front Wheel Location	82				
Axle Location: Axle No.	1	2	3	4	
Axle Location: Location	82	92	96	100	
Influence value	-0.328	-0.368	-0.384	-0.400	
Truck Live Load	-3.94	-5.15	-5.38	-5.60	**-30.88**

Client: ODOT		**Design:** SSM	**Check:** MSL
Subject: HAM50-0376L 250' Truss		**Date Printed:** 05/14/09	**Date:** 5/28/2009
Topic: Compression Truck Live Load		**Page:** 4	

Truss Information

No. of Panels =	10
Panel Length =	25.00
Total Span length =	250
LLDF =	1.27



Influence Line from LARS

MEMBER U5-L5

Distance	0	25	50	75	100	125	150	175	200	225	250
F_x	0	-0.1	-0.2	-0.3	-0.4	0.5	0.4	0.3	0.2	0.1	0

TRUCK 5C1

Direction of movemer R

5C1 Axles	5	4	3	2	1	**TOTAL**
Axle Loads (Kips)	17	17	17	17	12	80
Spacing (ft)	4	31	4	12	0	

Front Wheel Location 111

Axle Location	Axle No.	5	4	3	2	1	
	Location	60	64	95	99	111	
Influence value		-0.240	-0.256	-0.380	-0.400	-0.004	
Truck Live Load		-4.08	-4.35	-6.46	-6.80	-0.05	**-33.46**

Front Wheel Location 100

Axle Location	Axle No.	5	4	3	2	1	
	Location	49	53	84	88	100	
Influence value		-0.196	-0.212	-0.336	-0.352	-0.400	
Truck Live Load		-3.33	-3.60	-5.71	-5.98	-4.80	**-36.06**

Front Wheel Location 99

Axle Location	Axle No.	5	4	3	2	1	
	Location	48	52	83	87	99	
Influence value		-0.192	-0.208	-0.332	-0.348	-0.396	
Truck Live Load		-3.26	-3.54	-5.64	-5.92	-4.75	**-35.57**

Direction of movemer L

5C1 Axles	1	2	3	4	5	**TOTAL**
Axle Loads (Kips)	12	17	17	17	17	80
Spacing (ft)	0	12	4	31	4	

Front Wheel Location 60

Axle Location	Axle No.	1	2	3	4	5	
	Location	60	72	76	107	111	
Influence value		-0.240	-0.288	-0.304	-0.428	-0.004	
Truck Live Load		-2.88	-4.90	-5.17	-7.28	-0.07	**-31.22**

Front Wheel Location 53

Axle Location	Axle No.	1	2	3	4	5	
	Location	53	65	69	100	104	
Influence value		-0.212	-0.260	-0.276	-0.400	-0.256	
Truck Live Load		-2.54	-4.42	-4.69	-6.80	-4.35	**-35.10**

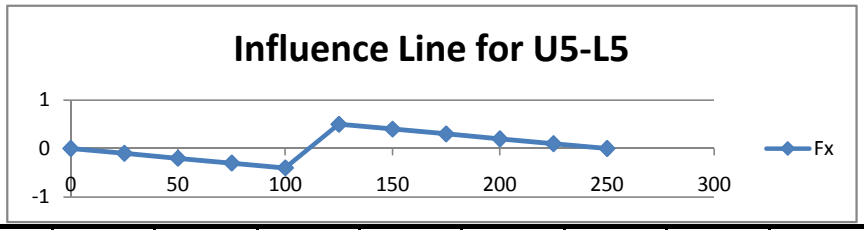
Front Wheel Location 49

Axle Location	Axle No.	1	2	3	4	5	
	Location	49	61	65	96	100	
Influence value		-0.196	-0.244	-0.260	-0.384	-0.400	
Truck Live Load		-2.35	-4.15	-4.42	-6.53	-6.80	**-37.32**

Client: ODOT		**Design:** SSM	**Check:** MSL
Subject: HAM50-0376L 250' Truss		**Date Printed:** 05/14/09	**Date:** 5/28/2009
Topic: Tension Truck Live Load		**Page:** 1	

Truss Information

No. of Panels =	10
Panel Length =	25.00
Total Span length =	250
LLDF =	1.27



Influence Line from LARS

MEMBER U5-L5

Distance	0	25	50	75	100	125	150	175	200	225	250
F_x	0	-0.1	-0.2	-0.3	-0.4	0.5	0.4	0.3	0.2	0.1	0

TRUCK 2F1

Direction of movement	R		
2F1 Axles	2	1	**TOTAL**
Axle Loads (Kips)	20	10	30
Spacing (ft)	10	0	

Front Wheel Location	125		
Axle Location: Axle No.	2	1	
Axle Location: Location	115	125	
Influence value	0.140	0.500	
Truck Live Load	2.80	5.00	**11.78**

Front Wheel Location	135		
Axle Location: Axle No.	2	1	
Axle Location: Location	125	135	
Influence value	0.500	0.460	
Truck Live Load	10.00	4.60	**22.06**

Direction of movement	L		
2F1 Axles	1	2	**TOTAL**
Axle Loads (Kips)	10	20	30
Spacing (ft)	0	10	

Front Wheel Location	125		
Axle Location: Axle No.	1	2	
Axle Location: Location	125	135	
Influence value	0.500	0.460	
Truck Live Load	5.00	9.20	**21.45**

Client: ODOT		**Design:** SSM	**Check:** MSL
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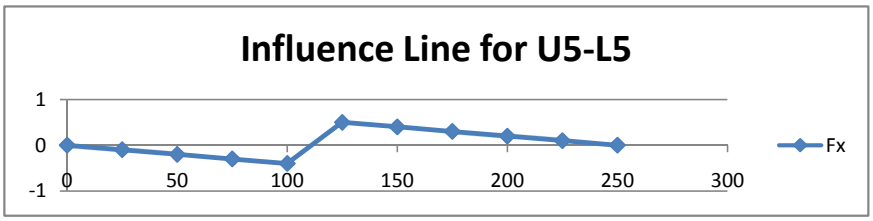
Topic: Tension Truck Live Load		**Page:** 2	

Truss Information

No. of Panels =	10
Panel Length =	25.00
Total Span length =	250
LLDF =	1.27



Influence Line from LARS

MEMBER U4-L4

Distance	0	25	50	75	100	125	150	175	200	225	250
F_x	0	-0.1	-0.2	-0.3	-0.4	0.5	0.4	0.3	0.2	0.1	0

TRUCK 3F1

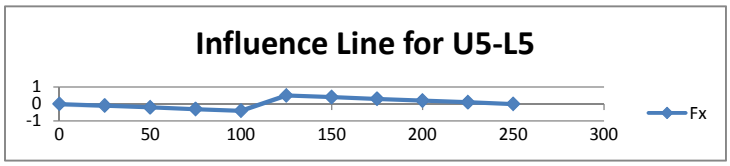
Direction of movement	R			
3F1 Axles	3	2	1	**TOTAL**
Axle Loads (Kips)	17	17	12	46
Spacing (ft)	4	10	0	
Front Wheel Location	125			
Axle Location / Axle No.	3	2	1	
Axle Location / Location	111	115	125	
Influence value	-0.004	0.140	0.500	
Truck Live Load	-0.07	2.38	6.00	**12.56**
Front Wheel Location	135			
Axle Location / Axle No.	3	2	1	
Axle Location / Location	121	125	135	
Influence value	0.356	0.500	0.460	
Truck Live Load	6.05	8.50	5.52	**30.32**
Front Wheel Location	139			
Axle Location / Axle No.	3	2	1	
Axle Location / Location	125	129	139	
Influence value	0.500	0.484	0.444	
Truck Live Load	8.50	8.23	5.33	**33.32**

Direction of movemen	L			
3F1 Axles	1	2	3	**TOTAL**
Axle Loads (Kips)	12	17	17	46
Spacing (ft)	0	10	4	
Front Wheel Location	125			
Axle Location / Axle No.	1	2	3	
Axle Location / Location	125	135	139	
Influence value	0.500	0.460	0.444	
Truck Live Load	6.00	7.82	7.55	**32.28**
Front Wheel Location	115			
Axle Location / Axle No.	1	2	3	
Axle Location / Location	115	125	129	
Influence value	0.140	0.500	0.484	
Truck Live Load	1.68	8.50	8.23	**27.81**

Client: ODOT		**Design:** SSM	**Check:** MSL
Subject: HAM50-0376L 250' Truss		**Date Printed:** 05/14/09	**Date:** 5/28/2009
Topic: Tension Truck Live Load		**Page:** 3	

Truss Information

No. of Panels =	10
Panel Length =	25.00
Total Span length =	250
LLDF =	1.27



Influence Line from LARS

MEMBER U4-L4

Distance	0	25	50	75	100	125	150	175	200	225	250
F_x	0	-0.1	-0.2	-0.3	-0.4	0.5	0.4	0.3	0.2	0.1	0

TRUCK 4F1

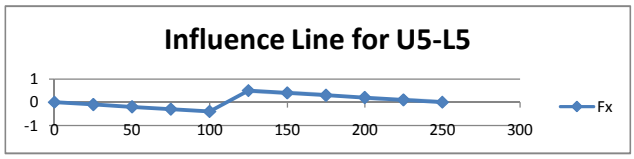
Direction of movemen	R				
4F1 Axles	4	3	2	1	**TOTAL**
Axle Loads (Kips)	14	14	14	12	54
Spacing (ft)	4	4	10	0	
Front Wheel Location	135				
Axle Location — Axle No.	4	3	2	1	
Axle Location — Location	117	121	125	135	
Influence value	0.212	0.356	0.500	0.460	
Truck Live Load	2.97	4.98	7.00	5.52	**30.93**
Front Wheel Location	139				
Axle Location — Axle No.	4	3	2	1	
Axle Location — Location	121	125	129	139	
Influence value	0.356	0.500	0.484	0.444	
Truck Live Load	4.98	7.00	6.78	5.33	**36.39**
Front Wheel Location	143				
Axle Location — Axle No.	4	3	2	1	
Axle Location — Location	125	129	133	143	
Influence value	0.500	0.484	0.468	0.428	
Truck Live Load	7.00	6.78	6.55	5.14	**38.47**

Direction of movemen	L				
4F1 Axles	1	2	3	4	**TOTAL**
Axle Loads (Kips)	12	14	14	14	54
Spacing (ft)	0	10	4	4	
Front Wheel Location	125				
Axle Location — Axle No.	1	2	3	4	
Axle Location — Location	125	135	139	143	
Influence value	0.500	0.460	0.444	0.428	
Truck Live Load	6.00	6.44	6.22	5.99	**37.23**
Front Wheel Location	115				
Axle Location — Axle No.	1	2	3	4	
Axle Location — Location	115	125	129	133	
Influence value	0.140	0.500	0.484	0.468	
Truck Live Load	1.68	7.00	6.78	6.55	**33.25**
Front Wheel Location	112				
Axle Location — Axle No.	1	2	3	4	
Axle Location — Location	112	122	126	130	
Influence value	0.032	0.392	0.496	0.480	
Truck Live Load	0.38	5.49	6.94	6.72	**29.51**

Client: ODOT		**Design:** SSM	**Check:** MSL
Subject: HAM50-0376L 250' Truss		**Date Printed:** 05/14/09	**Date:** 5/28/2009
Topic: Tension Truck Live Load		**Page:** 4	

Truss Information

No. of Panels =	10
Panel Length =	25.00
Total Span length =	250
LLDF =	1.27



Influence Line from LARS

MEMBER U4-L4

Distance	0	25	50	75	100	125	150	175	200	225	250
F_x	0	-0.1	-0.2	-0.3	-0.4	0.5	0.4	0.3	0.2	0.1	0

TRUCK 5C1

Direction of movemer R

5C1 Axles	5	4	3	2	1	**TOTAL**
Axle Loads (Kips)	17	17	17	17	12	80
Spacing (ft)	4	31	4	12	0	

Front Wheel Location 170

Axle Location	Axle No.	5	4	3	2	1	
	Location	119	123	154	158	170	
Influence value		0.284	0.428	0.384	0.368	0.320	
Truck Live Load		4.83	7.28	6.53	6.26	3.84	**43.40**

Front Wheel Location 172

Axle Location	Axle No.	5	4	3	2	1	
	Location	121	125	156	160	172	
Influence value		0.356	0.500	0.376	0.360	0.312	
Truck Live Load		6.05	8.50	6.39	6.12	3.74	**46.54**

Front Wheel Location 176

Axle Location	Axle No.	5	4	3	2	1	
	Location	125	129	160	164	176	
Influence value		0.500	0.484	0.360	0.344	0.296	
Truck Live Load		8.50	8.23	6.12	5.85	3.55	**48.72**

Direction of movemer L

5C1 Axles	1	2	3	4	5	**TOTAL**
Axle Loads (Kips)	12	17	17	17	17	80
Spacing (ft)	0	12	4	31	4	

Front Wheel Location 125

Axle Location	Axle No.	1	2	3	4	5	
	Location	125	137	141	172	176	
Influence value		0.500	0.452	0.436	0.312	0.296	
Truck Live Load		6.00	7.68	7.41	5.30	5.03	**47.48**

Front Wheel Location 113

Axle Location	Axle No.	1	2	3	4	5	
	Location	113	125	129	160	164	
Influence value		0.068	0.500	0.484	0.360	0.344	
Truck Live Load		0.82	8.50	8.23	6.12	5.85	**44.58**