BLACK'S RUN BRIDGE INSPECTION

PRIVATE HAUL ROAD
over
SR 0051 AND CSX RAILROAD

CENTER TOWNSHIP, BEAVER COUNTY, PENNSYLVANIA

Submitted to:
Ohio River Trails Council
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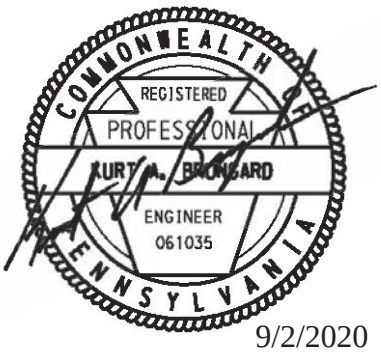

9/2/2020

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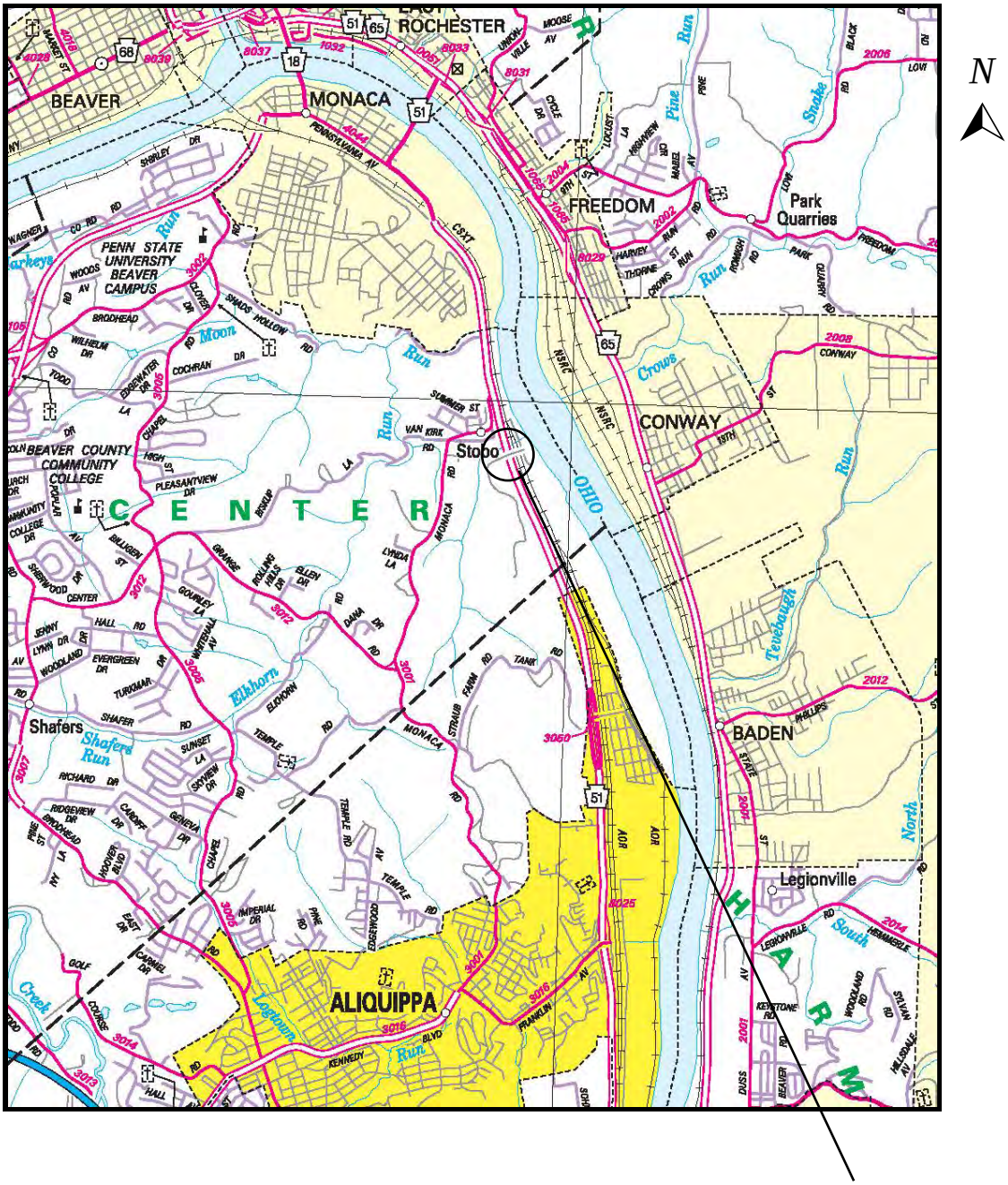
SITE LOCATION MAP



BRIDGE LOCATION

Private Haul Road over SR 0051 and CSX Railroad

INSPECTION SUMMARY

General Description

The structure carrying the Private Haul Road over SR 0051 and CSX Railroad is a four span continuous steel deck truss on reinforced concrete cellular and cantilever abutments and steel bents.

- Year built: 1943
- Total span: Span 1: 103.55'
Span 2: 114.15'
Span 3: 109.13'
Span 4: 94.0'
- Structure Length: 424'
- Clear roadway width: 18.0'
- Skew: 90°

Larson Design Group was tasked with performing a routine hands on inspection of the bridge. The inspection was performed on May 27th and July 20th through July 22nd, 2020 by Steve R. Haluska, P.E., C.B.S.I. and John J. Seibel, C.B.S.I. and William B Sosko Jr., C.B.S.I. A 60' under-bridge inspection crane, 35' bucket truck and traffic control were used to complete the inspection and was provided by Sofis Company, Inc.

Historical data was investigated for this structure. The structure is not located over a waterway and is currently gated with restricted pedestrian and vehicular access. The bridge was previously used as a haul road for a steel manufacturing facility. The bridge is currently being considered to provide pedestrian and maintenance vehicle access for a pedestrian trail.

Summary of Inspection Findings:

The overall physical condition is fair.

The bituminous wearing surface on the deck has wide cracking and areas where the wearing surface is popping off.

The underside of the concrete deck has areas of cracking, delaminations and spalls with exposed and rusted rebar.

The deck joints are heavily deteriorated and paved over.

The concrete curbs have areas of cracking and spalling with exposed and rusted rebar.

The concrete sidewalk steel access panels are bowed, deteriorated and non-functional.

The steel bridge railing panels have corrosion holes and are heavily deteriorated.

The bridge light polls are severely deteriorated.

The truss members have areas of laminated rust and section loss.

The below deck drainage systems are non-functional.

The expansion bearings at the far abutment are deteriorated and non-functional.

The concrete abutments and wingwalls have areas of cracking, delaminations and spalls with exposed and deteriorated rebar.

Approach Roadway Description:

The overall condition of the approach roadway is poor.

No transitions are provided between the bridge railings and near left and right approach railings. No transition is provided at the far left corner of the bridge and the structure mounted bridge railing and concrete curbs have blunt ends. The transition at the far right corner of the bridge consists of pipe sleeves welded to the bridge railing end post fitted with the pipe rails of the approach railing. The near left approach railing (photos 10) consists of welded steel I-beam posts and channels anchored to the abutment sidewall. The railing has a few scattered minor collision dents and is heavily rusted. Several of the railing posts have small to large corrosion holes through the webs of the I-beam posts adjacent the channel connections. The near left approach railing consists of welded steel pipe anchored to the exterior sidewalk curb. The pipe railing is heavily rusted and overgrown with vegetation. No approach rails are present at the far left shoulder. The safety feature consists of a large mound of heavily vegetated dirt and gravel along the edge of the roadway. The far right approach railing consists of welded steel pipe anchored in the ground. The pipe railing is heavily vegetated.

The near approach (photo 1) is the reinforced concrete top slab of the cellular abutment and is covered with a bituminous wearing surface. The wearing surface exhibits widespread multi-directional cracks up to 1" wide, some with vegetation growth. A gutter up to 2'-8" wide and up to 4" deep is present along the right edge of the pavement adjacent to the concrete curb and is mostly filled with dirt and vegetation growth. Heavy vegetation growth is present along the left curb. A chain link fence blocks access to the near end of the bridge roadway and sidewalk. The right panel of the fence is collision damaged and the right half of the fence is partially covered with vegetation.

The bituminous pavement at the far approach (photo 2) exhibits widespread map cracking up to 1/2" wide, a few scattered small to large shallow potholes, and two large bituminous patches. The approach transition, end of deck and deck joint were previously covered with a full roadway width bituminous patch. The patch at the transition and deck joint is severely cracked and breaking apart and has been partially covered with 10'-8" long by 6'-8" wide steel plate.

No storm drains are present at either approach.

The near left shoulder is an 18" high by 16" wide reinforced concrete curb that typically exhibits light scaling. The near right shoulder has a similar curb and a 6' wide reinforced concrete sidewalk. The near end of the curb is heavily spalled and the top of the curb near mid-length has a large spall. The sidewalk exhibits light scaling, an accumulation of dirt and debris and vegetation growth. The far left shoulder is a large heavily vegetated gravel and dirt mound. The far right shoulder is vegetated gravel and dirt. Both far shoulders appear stable.

Superstructure Description:

The overall condition of the superstructure is fair.

The bridge railings consist of structure mounted steel I-beams with welded steel channels and steel plate panels that are 11' high (photo 5). The steel plate panels are heavily deteriorated at the joints (photo 15) with the posts and along the bottom edges of the panels behind the connection angles at the sidewalk and curb. The deterioration includes section loss and large holes and is typical throughout the bridge. The panel sections are split along vertical welds at the railing posts and have separated and pushed toward the bridge roadway due to rust packing. Collision damage is present at the far left end post of the bridge railing with the top of the cap post being bent inward. The second and third right railing posts in Span 1 are bent and lean away from the bridge deck. Collision dents and scrapes are present throughout the panels. A concrete curb is present at the base of the left bridge railing and the right bridge railing is fronted by a reinforced concrete sidewalk and concrete curb.

The top of the deck is overlaid with a maximum 6" thick bituminous wearing surface (photo 18) that exhibits widespread multi-directional cracks up to 1" wide throughout the bridge. The right side of the wearing surface has random areas along the curb line that are peeling off up to 2" - 4" wide exposing the top of the deck (photo 19). This condition is present for the full length of the bridge in all spans. Vegetation growth is present along the joint with the left and right curbs for the full length of the bridge. Railroad personnel indicated that the top of the concrete deck was heavily deteriorated to the point of not driving on the bridge until the bituminous wearing surface was placed over the concrete deck.

The underside of the deck exhibits areas of hairline map cracking, transverse hairline cracks with efflorescence, pinpoint rust stains and areas of honeycombing throughout. Random small and large areas of delaminated concrete and concrete spalls with exposed and rusted rebar are present throughout the deck underside (photo 21). The left deck overhang has random transverse hairline cracks with efflorescence. The left deck fascia has random scattered small and large concrete spalls with exposed and rusted rebar. The underside of the right sidewalk has hairline map cracks, transverse hairline cracks and areas of honeycombing throughout.

Deck scuppers are present along the right curb line of each span. The scuppers vary from being open to partially or completely clogged with dirt and vegetation (photo 23).

The bridge expansion dams have been paved over (photo 24). The bituminous material over the joints is cracked full width of the bridge roadway. A 10" long hole is present through the expansion dam at the far end of Span 3 adjacent the right curb. The bituminous paving over the expansion dam at the far abutment is severely cracked and deteriorated and most of the joint has been covered with a large steel plate. The top plates of the sidewalk expansion dams are heavily rusted and have small to large corrosion holes.

A 6'-wide reinforced concrete sidewalk is present along the right side of the bridge. The sidewalk typically exhibits light scaling and very scattered transverse hairline cracks. An accumulation of dirt and debris is present on the sidewalk for the length of the bridge. A total of 23 access hatches are present in the sidewalk of Spans 1 through 4. The hatch covers are typically bowed, twisted, loose and settled into the openings (photo 26). The sidewalk support bracket angles typically exhibit paint peeling and loss of paint with heavy surface rusting and scattered laminated rust (photo 27 and 28). The support beams at the tops of the brackets are similar except at the sidewalk hatch locations where the beams have heavy laminated rust and section loss.

Concrete curbs 18" high by 16" wide are present along both sides of the bridge roadway. The curbs have very scattered full height full width hairline cracks. The corners of the left curb have small chip-type spalls for the length of the bridge. The front corners of the right curb have similar chip-type spalls and the back side of the curb along the sidewalk has scattered spalls with exposed rebar for the length of the

bridge. Large concrete spalls with exposed and corroded reinforcing are present in the top of the right curb in Spans 2, 3 and 4 (photo 29). Through drains are present in the right curb at the sidewalk level for the length of the bridge. The drains are open and functional.

One light pole is present in each span connected by four U-bolts to the right bridge railing posts. The light poles are non-functional and heavily rusted. The near side of the U-bolts is severely deteriorated with up to 100% loss. The far side of the U-bolts have varying amounts of section loss. Rust pack between the railing posts and steel plates and steel plates and poles is causing the poles to twist due to the loss of the near side of the U-bolts. The near side of the four U-bolts at the pole in Span 1 is completely sheared. The far side of the U-bolt varies from 3/8" to 1/2" remaining section. Full section is 3/4". The near side of two bolts at the pole in Span 2 is completely sheared and the remaining two bolts have 3/8" remaining section. The far side of the U-bolts vary from 3/8" to 1/2" remaining section. The bottom U-bolt for the pole in Span 3 is missing (photo 30). The near side of the three in place U-bolts is completely sheared. The far side of the three U-bolts vary from 1/2" to 5/8" remaining section. Three of the four U-bolts at the near side of the pole in Span 4 are sheared (photo 31) and the fourth bolt has 7/16" remaining section. The far side of the U-bolts vary between 3/8" and 5/8" remaining thickness.

The superstructure consists of four deck truss spans with suspended spans within Spans 2 and 4 and a rolled steel floorbeam floor system.

The rolled steel floorbeams typically exhibit areas of paint peeling and surface rust with minimal section loss throughout the bridge (photo 32). Except for the underside of the bottom flange, the end floorbeams at the abutments are not visible due to the haunch configuration of the deck for the deck joints. The underside of the bottom flanges typically exhibits heavy laminated rust. Steel channels are present at the deck haunches beneath the expansion joints at the ends of the suspended spans (photo 33). The channels typically exhibit heavy surface rusting with areas of laminated rust and because of the haunch configuration are generally inaccessible.

The left right and mid-line trusses consist of rolled steel beams and steel gusset plates with riveted connections. Generally, the truss members have areas of peeling paint with light to heavy surface rusting. The truss top chords, verticals and diagonals have scattered laminated rust at the edges of the gusset plates and fill plates with minimal section loss. Scattered areas of rust packing are present at the edges of the joints between the gusset plates and fill plates and truss members.

The bottom chords have accumulations of dirt and debris and piles of laminated rust on top of the webs (photo 42). The tops of the webs and bottoms of the flanges along the tops of the webs have areas of laminated rust with measurable section loss. The affected areas of the webs vary 1" to 3" outward from both flanges in a scalloped pattern and is scattered for the length of the member (photo 43). The affected areas of the flanges vary 1" to 3" high on the interior faces of the flanges and is in a scalloped pattern and is scattered for the length of the member. The amount of section loss varies but was generally between .0625" and .125". Three bottom chord members of the left truss in Span 1 exhibit more significant deterioration to the flanges and webs.

The truss pin connections to the pier bents (photo 44) have areas of paint peeling with light to heavy surface rust and scattered laminated rust on the plates and pins, but no significant problems were noted.

The truss sway bracing members typically have areas of paint peeling with light to heavy surface rust.

The fixed bearings at the near abutment have paint peeling and heavy surface rust and laminated rust with scattered section loss on the members (photo 45). The expansion roller bearings at the far abutment are in poor condition (photo 46). The right bearing has less than 10% remaining on the anchor bolts. The right keeper plate is broken off. The three rollers are all in different positions and appear non-functional. All the bearing members have complete loss of paint and heavy rust and areas of laminated rust. The left

bearing is partially buried in dirt and asphalt. The front anchor bolts have 100% section loss. The keeper plates are missing. All the visible members are heavily rusted, and the bearing is non-functional.

The below deck drainage systems are non-functional (photo 47 and 48). The sidewalk drain trough is filled with dirt and debris and has areas with 100% section loss. The drainpipe on the left side of the bridge has areas of 100% section loss. The drain troughs below the deck joints are filled with dirt and debris and have areas of 100% section loss. The downspout at the far end of the sidewalk drain trough is missing.

Substructure Description:

The overall condition of the substructure is fair.

The near abutment is a reinforced concrete cellular abutment (photo 7). The near backwall has scattered random vertical hairline cracks with areas of water and rust stains and heavy efflorescence. The bridge seat is covered with a heavy accumulation of dirt and debris. The front stem of the abutment has areas of hairline cracking with efflorescence, a few light cover pop-offs with exposed rebar and several large concrete spalls with exposed and deteriorated rebar (photo 49). The far abutment is a reinforced concrete cantilever abutment (photo 8). The far backwall has hairline map cracking throughout and vertical and diagonal hairline to open cracks. A 1/4" to 3/8" wide vertical crack with edge spalls is present at the end of the backwall. The bridge seat is completely covered with a heavy accumulation of dirt, debris, concrete and asphalt. A full height hairline crack with efflorescence and a full height 1/16" to 1/4" wide crack with edge spalls are present toward the left end of the stem. A full height 9' wide by up to 10" deep spall with exposed and deteriorated rebar is present on the stem (photo 50) and continues across the bridge seat under the middle of the bridge. The far right wingwall has scattered hairline map cracks and is covered with vegetation. The far left wingwall has a full height vertical hairline crack and a full height 1/16" to 1/4" wide crack with delaminations and spalls along the edges. The wingwall also has a large area of delaminated concrete and a large concrete spall with exposed and rusted rebar. The foundations are not exposed at the abutments.

The piers are steel bents on reinforced concrete foundations (photo 9). The steel members of the piers typically exhibit paint peeling and paint loss with varying degrees of surface rust and scattered laminations with minimal section loss. No significant problems were noted at the pin connections at the tops and bottoms of the piers. The top cover plate of the bottom strut at Pier 1 has a 6" diameter corrosion hole (photo 51). The foundation at Pier 1 is covered with dirt and vegetation. The foundation at Pier 2 was not accessible due to parked train cars. The foundation at Pier 3 has scattered light scaling to exposed aggregate, areas of minor honeycombing, and random chip type spalls along the corners. The Pier 3 foundation is covered with railroad supplies.

RECOMMENDATIONS AND SUMMARIES

We recommend that the following repairs be made in order of priority to open the structure to pedestrian traffic, retard further deterioration, preserve the structural integrity of the bridge and extend its useful life.

** Costs for each recommendation are an Engineer's opinion of probable construction cost based on Engineer's best judgement as an experienced and qualified professional generally familiar with the construction industry. The Engineer cannot and does not guarantee that actual construction costs will not vary from the opinions of probable construction costs noted below.

Current Recommendations:

Immediate Improvements (repairs completed prior to opening the structure to pedestrians):

1. Remove the bridge light poles ($5,000). **
2. Clean and flush the near and far abutment bridge seats, replace the fixed and expansion bearings and repair the concrete abutment seats ($250,000). **
3. Replace/rehabilitate the bridge expansion joints and troughs ($25,000). **
4. Repair areas of deteriorated concrete curb ($15,000). **
5. Mill bridge wearing surface, install waterproofing membrane and new bituminous wearing surface overlay ($85,000). **
6. New bituminous overlay on the near and far approaches ($10,000). **
7. Install chain link fences along the deck curb lines restricting the bridge pathway from the existing vertical wall barriers and sidewalk ($120,000). **
8. Clean and flush all truss horizontal steel truss surfaces ($15,000). **
9. Clean, flush and repair the under bridge drainage system ($15,000). **

Long Term Improvements: (10 years)

1. Remove existing concrete deck, sidewalk and vertical steel plate barriers and replace with a new reinforced concrete deck ($900,000). **
2. Sandblast clean and paint the entire structure ($1,500,000). **
3. Repair the areas of delaminated and spalled concrete on the near and far abutments and wingwalls ($150,000). **
4. Replace the below deck drainage systems to match the new concrete deck ($50,000). **
5. Rehabilitate any areas of deteriorated concrete on the abutments ($50,000). **

Load Rating Summary:

A current Load Rating Analysis has been performed for this structure to determine if it can be utilized as a pedestrian walkway. In addition, the structure was also analyzed for a F-550 maintenance truck. The structure was analyzed using inputs from the 2008 analysis performed by HGR. Section properties for the main load carrying members were gathered during this inspection and compared to the section properties used in the analysis. The section properties used in the analysis were determined to still be valid. Therefore, the bridge has adequate capacity to carry both the pedestrian loads and F-550 maintenance truck.

Signing Needs:

There are no signs required at this structure.

References Used in Preparation of this Report

Reference documents for the inspection included the following:

2008 Bridge Inspection Report Performed by HRG (Herbert, Rowland & Gruber, Inc.)

PHOTO 1 - NEAR APPROACH
Note: Pavement cracking and vegetation growth at curb lines.

PHOTO 2 - FAR APPROACH
Note: Widespread pavement map cracking, few shallow potholes, large previous patches and steel plate at transition.

PHOTO 3 - LEFT ELEVATION

PHOTO 4 - RIGHT ELEVATION

PHOTO 5 - GENERAL VIEW OF BRIDGE WEARING SURFACE AND RAILING
Note: Left railing shown.

PHOTO 6 - GENERAL UNDERSIDE
Note: Span 3 shown.

PHOTO 7 - NEAR ABUTMENT

PHOTO 8 - FAR ABUTMENT

Note: Full height wide deep spall at mid-stem and wide crack left of bridge.

PHOTO 9 - TYPICAL PIER
Note: Pier 2 shown.

PHOTO 10 - NEAR LEFT APPROACH RAILING
Note: Holes in railing posts.

PHOTO 11 - TYPICAL EXPANSION BEARING
Note: Severe rust, broken keeper plate and rollers disoriented.

PHOTO 12 - TYPICAL TRUSS CONFIGURATION
Note: Left side Span 2 shown.

PHOTO 13 - FAR RIGHT APPROACH RAILING

PHOTO 14 - NEAR RIGHT APPROACH CURB AND SIDEWALK
Note: Curb spalled, accumulation of dirt, debris and vegetation.

PHOTO 15 - LEFT BRIDGE RAILING
Note: Typical deterioration and holes through steel plate panels at railing posts.

PHOTO 16 - LEFT BRIDGE RAILING END PANEL SPAN 4
Note: Collision damaged end post and holes through panel plate at bottom and lower web channel.

PHOTO 17 - SPAN 1 RIGHT BRIDGE RAILING AT PANEL POINTS 3 AND 4
Note: Railing support posts bent outward.

PHOTO 18 - TYPICAL WIDE CRACKS IN BRIDGE DECK WEARING SURFACE

PHOTO 19 - BRIDGE DECK WEARING SURFACE ALONG RIGHT CURB
Note: Typical wearing surface peeling and exposed top of deck.

PHOTO 20 - TYPICAL UNDERSIDE OF DECK

PHOTO 21 - UNDERSIDE OF DECK SPAN 4
Note: Large area of delaminated and spalled concrete with exposed and rusted rebar.

PHOTO 22 - LEFT DECK FASCIA
Note: Typical spalls with exposed and rusted rebar.

PHOTO 23 - TYPICAL CLOGGED DECK SCUPPER

PHOTO 24 - TYPICAL PAVED OVER DECK EXPANSION DAM

PHOTO 25 - DECK EXPANSION JOINT FAR END SPAN 3
Note: Hole through paved over deck joint.

PHOTO 26 - TYPICAL BOWED AND LOOSE SIDEWALK ACCESS HATCH COVERS

PHOTO 27 - TYPICAL SIDEWALK SUPPORT BRACKETS

PHOTO 28 - TYPICAL CONDITION OF SIDEWALK SUPPORT BEAM UNDER SIDEWALK HATCHES

PHOTO 29 - RIGHT CURB SPAN 2
Note: Large concrete spall with exposed and deteriorated rebar.

PHOTO 30 - BOTTOM OF LIGHT POLE SPAN 3
Note: Connection U-bolt missing at bottom of light pole.

PHOTO 31 - LIGHT POLE SPAN 4
Note: 100% loss to near side of connection U-bolt 2; U-bolts 1, 2 and 4 typical.

PHOTO 32 - TYPICAL CONDITION OF FLOORBEAMS
Note: Floorbeam 12 Span 2 shown.

PHOTO 33 - TYPICAL CHANNELS UNDER DECK EXPANSION JOINTS
Note: Joint at U40 Span 4 shown.

PHOTO 34 - TYPICAL CONNECTION OF MID-LINE TRUSS AT PIER SWAY BRACING

PHOTO 35 - ENDS OF MID-LINE TRUSS UNDER DECK JOINT
Note: Heavy laminated rust on top gusset plate and heavy rust on ends of truss members.

PHOTO 36 - TYPICAL CONDITION OF TRUSS VERTICALS AND DIAGONALS
Note: Left truss Span 1 shown.

PHOTO 37 - TYPICAL CONDITION OF TRUSS TOP CHORDS

PHOTO 38 - TYPICAL CONDITION OF TRUSS GUSSET PLATES

PHOTO 39 - LEFT TRUSS PANEL POINT L27 SPAN 3
Note: Rust pack between diagonal and fill plate.

PHOTO 40 - LEFT TRUSS BOTTOM CHORD L41-L43 SPAN 4
Note: Typical accumulation of laminated rust debris.

PHOTO 41 - TYPICAL DETERIORATION TO BOTTOM CHORD WEB AND FLANGES

PHOTO 42 - LEFT TRUSS BOTTOM CHORD L1-L3 SPAN 1
Note: Accumulation of laminated rust and debris and section loss to flange.

PHOTO 43 - LEFT TRUSS BOTTOM CHORD L11-L12 SPAN 2
Note: Typical scattered areas of section loss on top of web and flanges.

PHOTO 44 - TYPICAL TRUSS TO PIER PIN CONNECTION

PHOTO 45 - LEFT TRUSS FIXED BEARING AT NEAR ABUTMENT
Note: Areas of heavy laminated rust.

PHOTO 46 - LEFT TRUSS EXPANSION BEARING AT FAR ABUTMENT
Note: Partially covered, 100% loss to anchor bolts, keeper bar missing and heavy rusting.

PHOTO 47 - BELOW DECK DOWNSPOUT AT LEFT TRUSS
Note: Severe section loss and large hole.

PHOTO 48 - UNDER SIDEWALK DRAIN TROUGH
Note: Trough broken.

PHOTO 49 - FAR ABUTMENT BRIDGE SEAT
Note: Seat covered with debris and large spall in top of stem.

PHOTO 50 - RIGHT SIDE OF NEAR ABUTMENT
Note: Large spall with exposed and rusted rebar.

PHOTO 51 - BOTTOM SWAY STRUT PIER 1
Note: 6" diameter corrosion hole in top cover plate.

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SAFETY FEATURES RATING SHEET

REFER TO PUB 100-A CODING GUIDE AND PDT FORM D-450-A FOR ADDITIONAL INFORMATION

Created by : INITIALS AND DATE

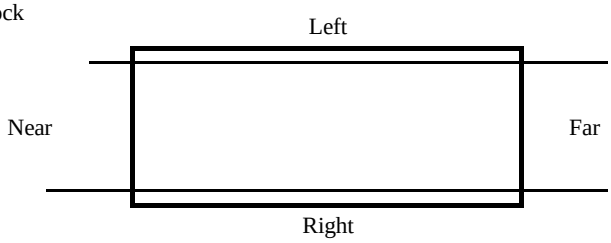
Checked by:

Near Left Notes:

No trans provided betwn structure mounted panels and railing. Approach GR consists of structure mounted channel and beam railing attached to abut wall w/ blunt end. No rail ends provided. Mounded dirt and rock beyond shoulder on approach.

Far Left Notes:

No trans provided. Conc curbs and sturcture mounted panelsblunt end at abutment. No GR provided. Mounded dirt and rock beyond shoulder on approach.



Near Right Notes:

No trans provided betwn structure mounted panels and railing. Approach GR consists of structure mounted pipe railing attached to abut wall w/ blunt end behind conrete curb and sidewalk. No rail ends provided. Wide parking area at railing end.

Far Right Notes:

Trans consists of pipe sleeves welded to the end post of structure mounted panels with fitted pipes from approach rails. Approach GR consists of ground mounted pipe railing w/ blunt end. No rail ends provided. Mounded dirt and rock beyond shoulder on approach.

LEGEND: Appr. Rdwy: N=18', F=18' to 25' Speed Limit: 15

Measure guide rail height = guide lines ---

If between 2' 6$^{15/16}$" and 2' 3" code no higher than "6"

If between 2' 3" and 2' 0" code no higher than "4"

If less than 2' then code G.R. "3"

T - Trailing Edge

R - Required/Missing

D - Damaged

■ - Steel Brackets

Trans - Remember Spacer Tube

Rubrail

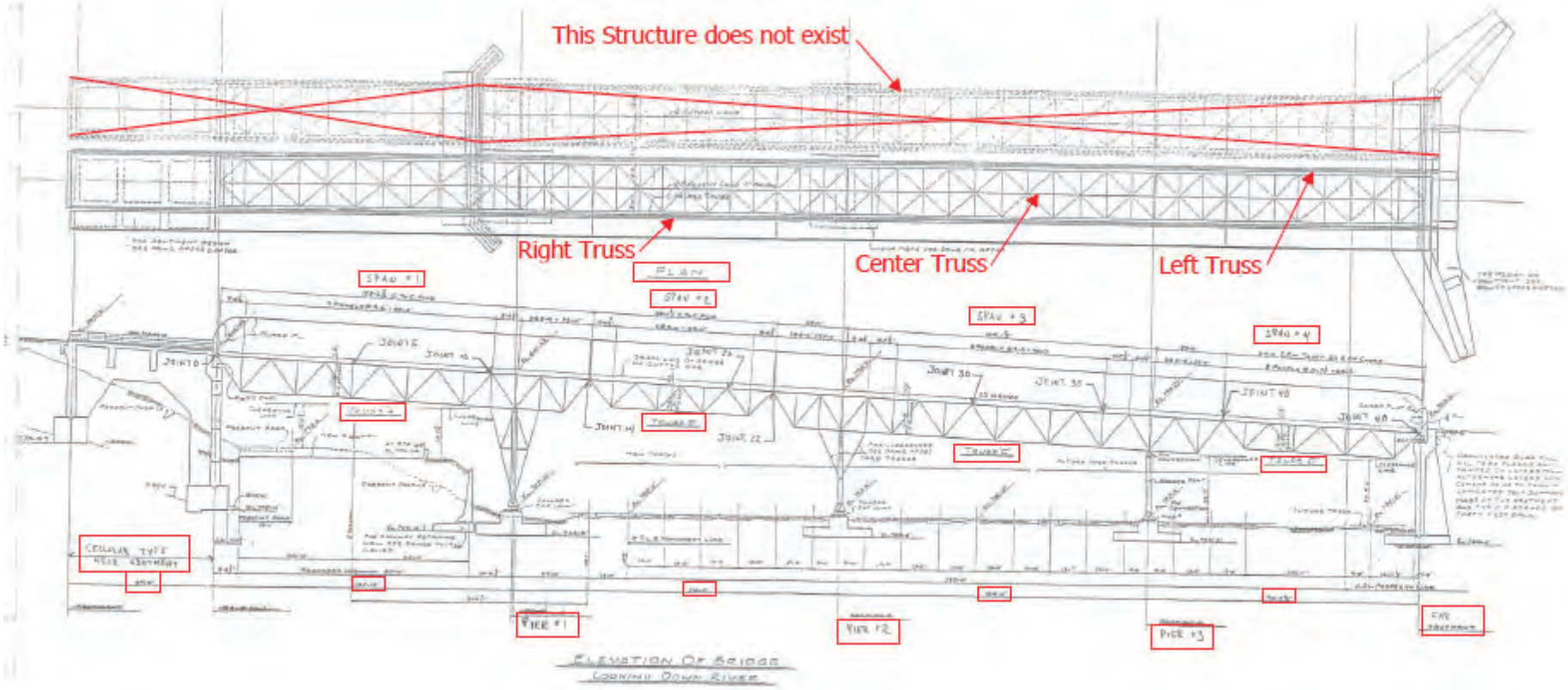
Distance from Roadway includes SPET Offset when applicable.

	BRIDGE RAILING RATING		
	Height	Description	Code
Left	11'	Concrete curb and structure mounted steel panel railings	3
Right	11'	Concrete curb and sidewalk and structure mounted steel panel railings	3

Controlling Rating (IA02)
3

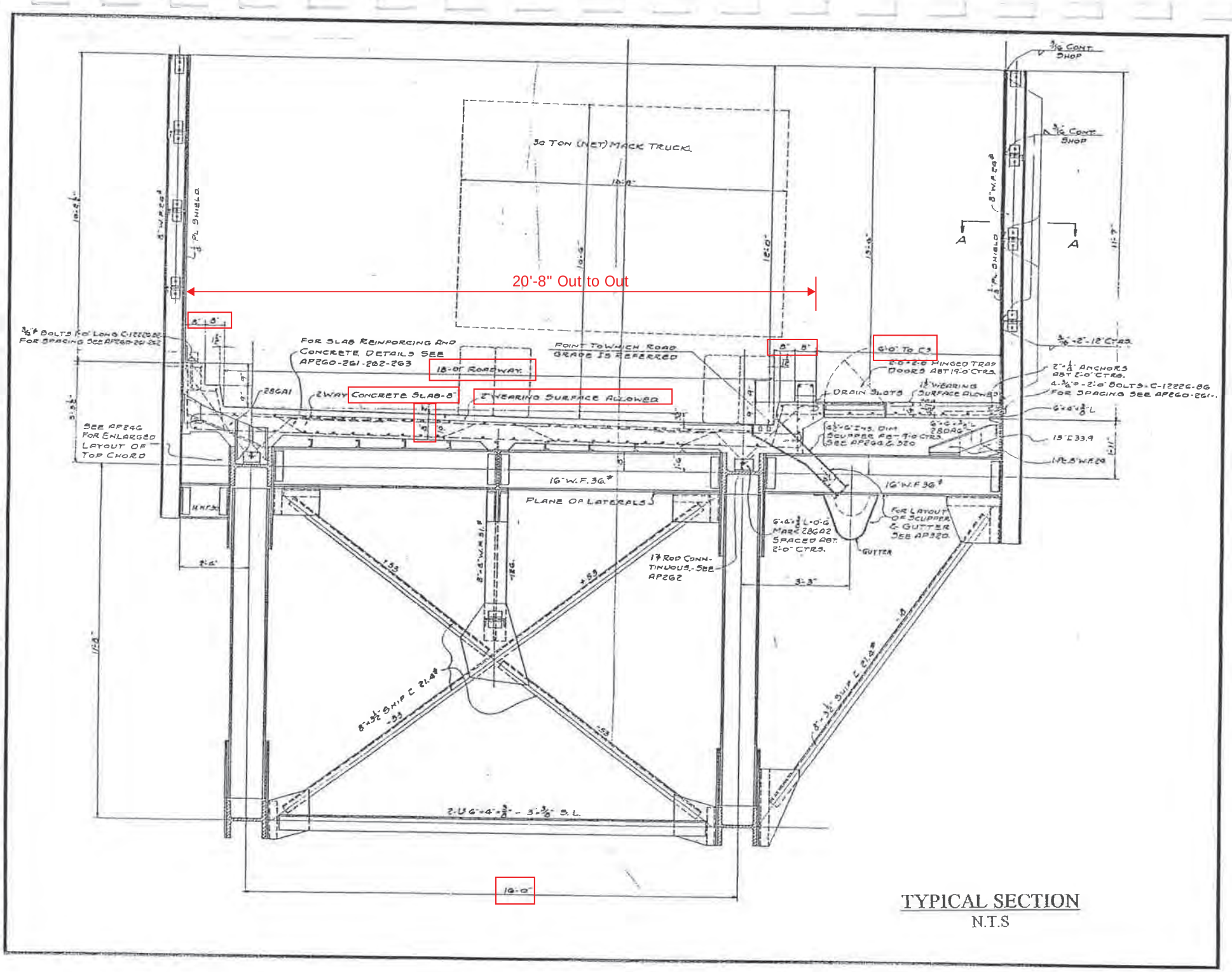
LOCATION	TRANSITION = First 25' GR				APPROACH GUIDE RAIL (25' plus)				APPROACH RAIL ENDS			
	Length	Height	Gradual Stiffening/ Spacing	Code	Length	Height	Post Spacing	Code	Length	SPET Offset Dist.	Distance From Roadway	Code
Near Left	None Provided			2	48'-6"	50"	6'	3	None Provided			2
Near Right	None Provided			2	48'-6"	50"	6'	4	None Provided			2
Far Left	None Provided			2	None Provided			2	None Provided			2
Far Right	20'	50"	7'	3	16'-6"	50"	7'	3	None Provided			2

CONTROLLING RATINGS: **2** **2** **2**



Black's Run Bridge

Right Elevation



TYPICAL SECTION
N.T.S

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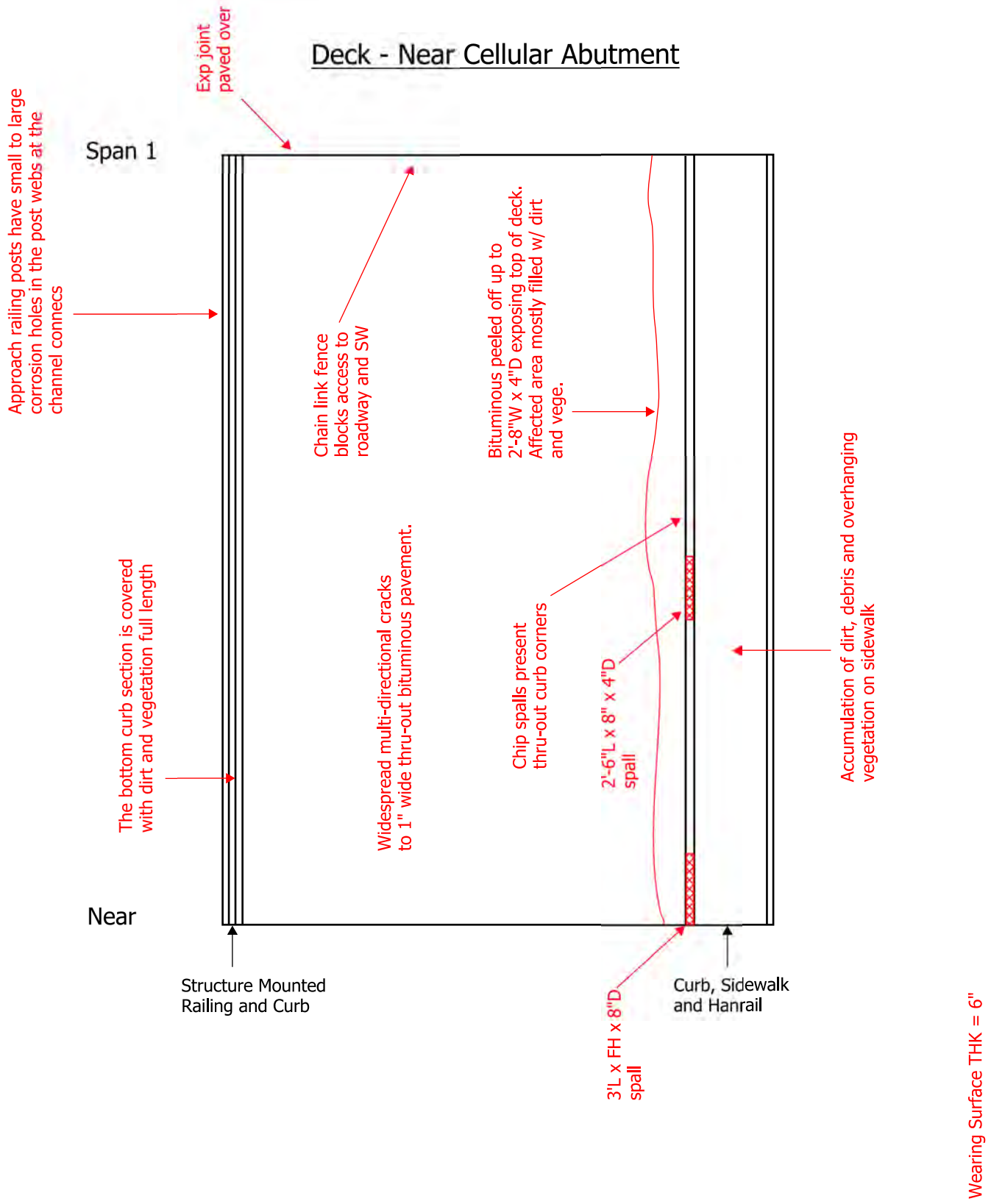
JOB	Black's Run Bridge		
SHEET NO.	1	OF	27
CALCULATED BY	WBS	DATE	7/22/2020
CHECKED BY		DATE	
SCALE	NTS		

Deck - Near Cellular Abutment



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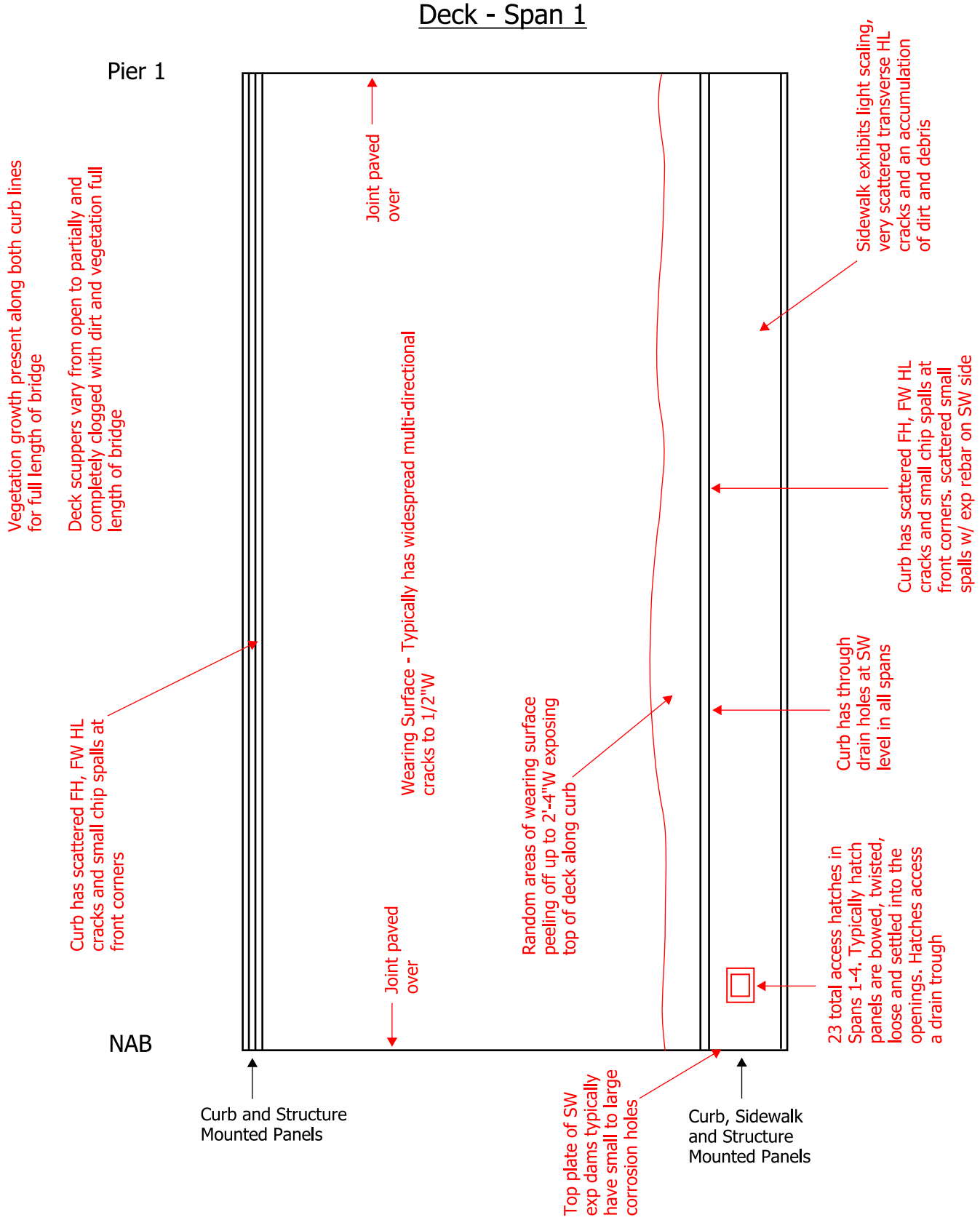
SCALE	NTS		

Deck - Span 1



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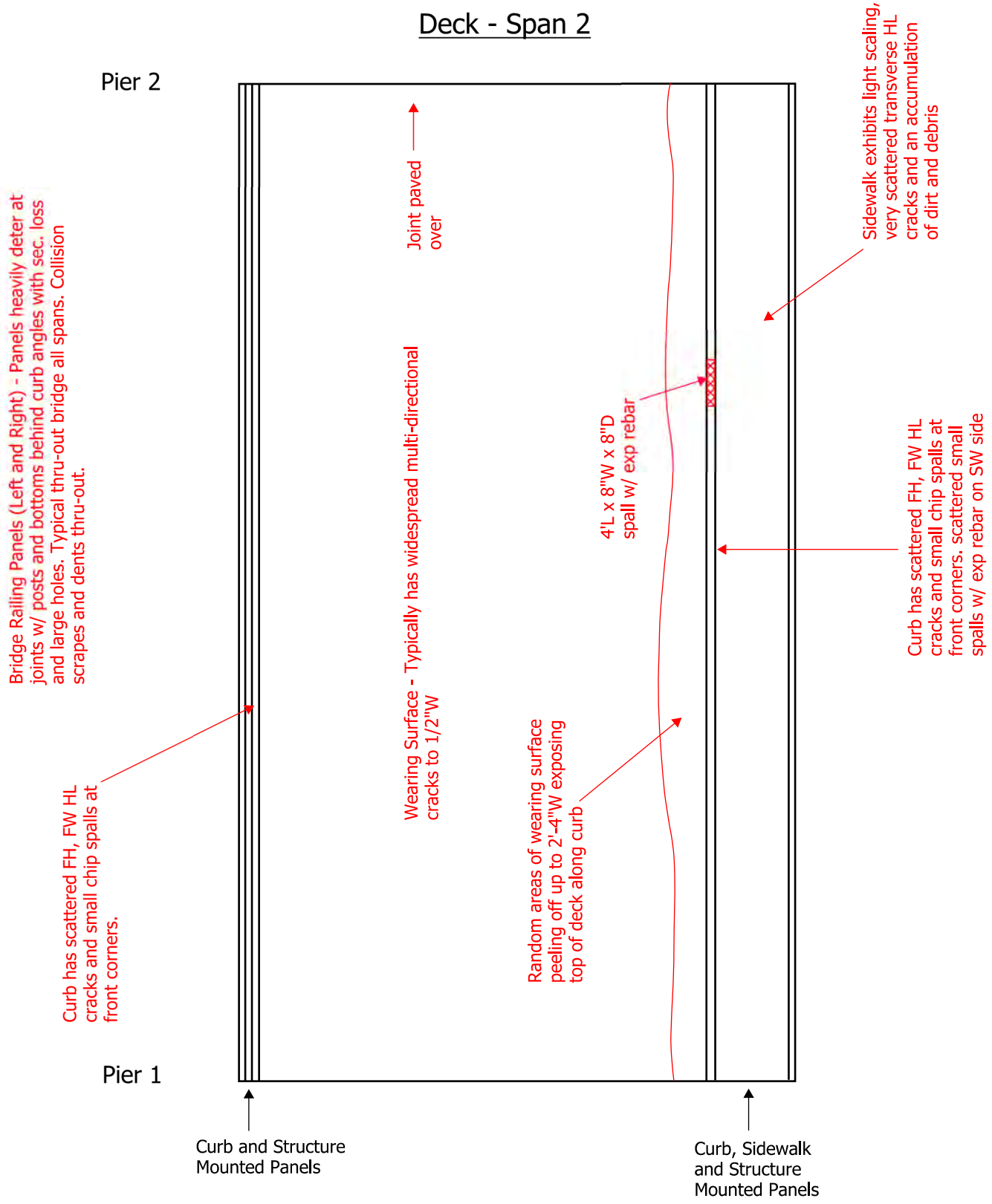
Deck - Span 2



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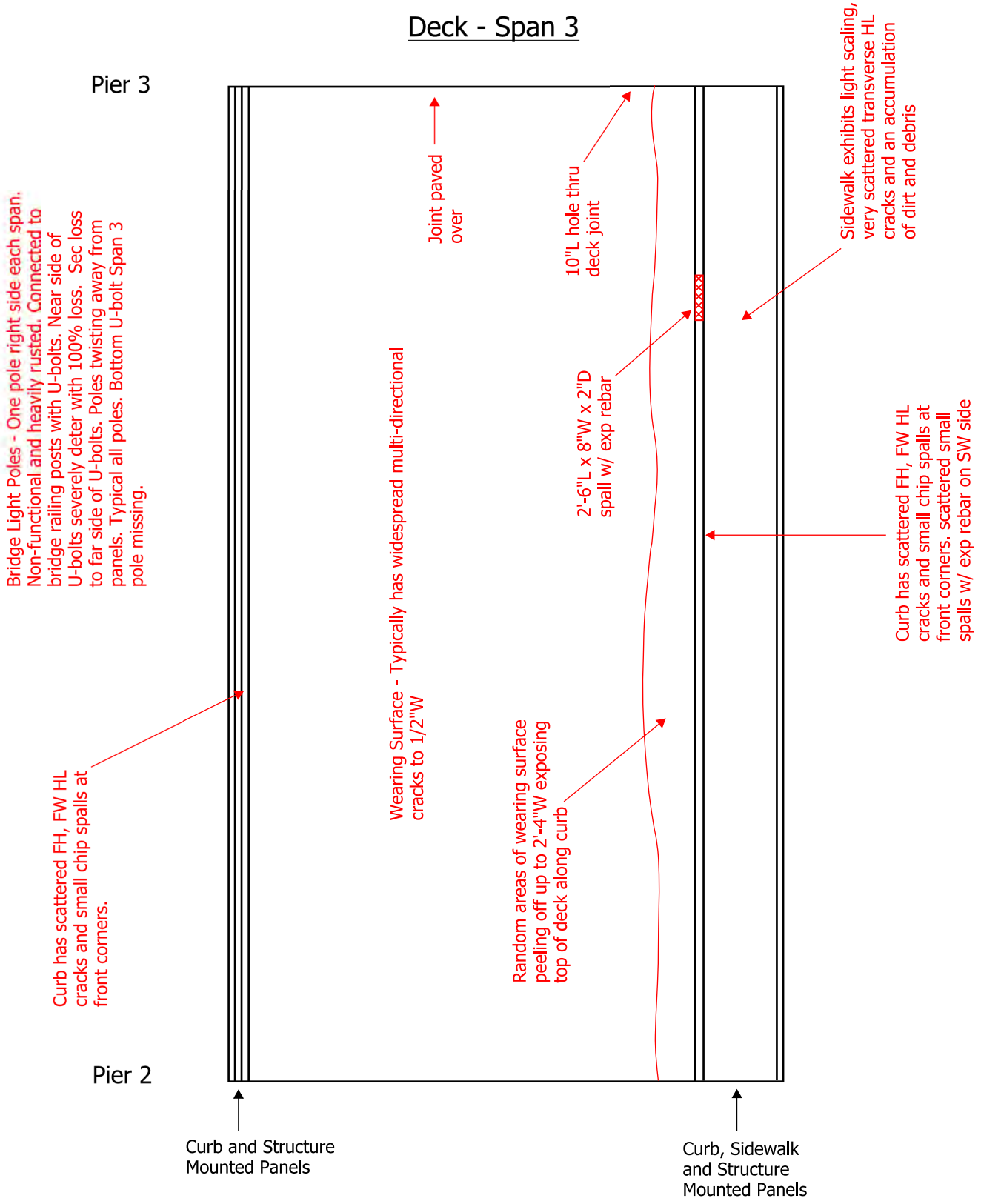
Deck - Span 3



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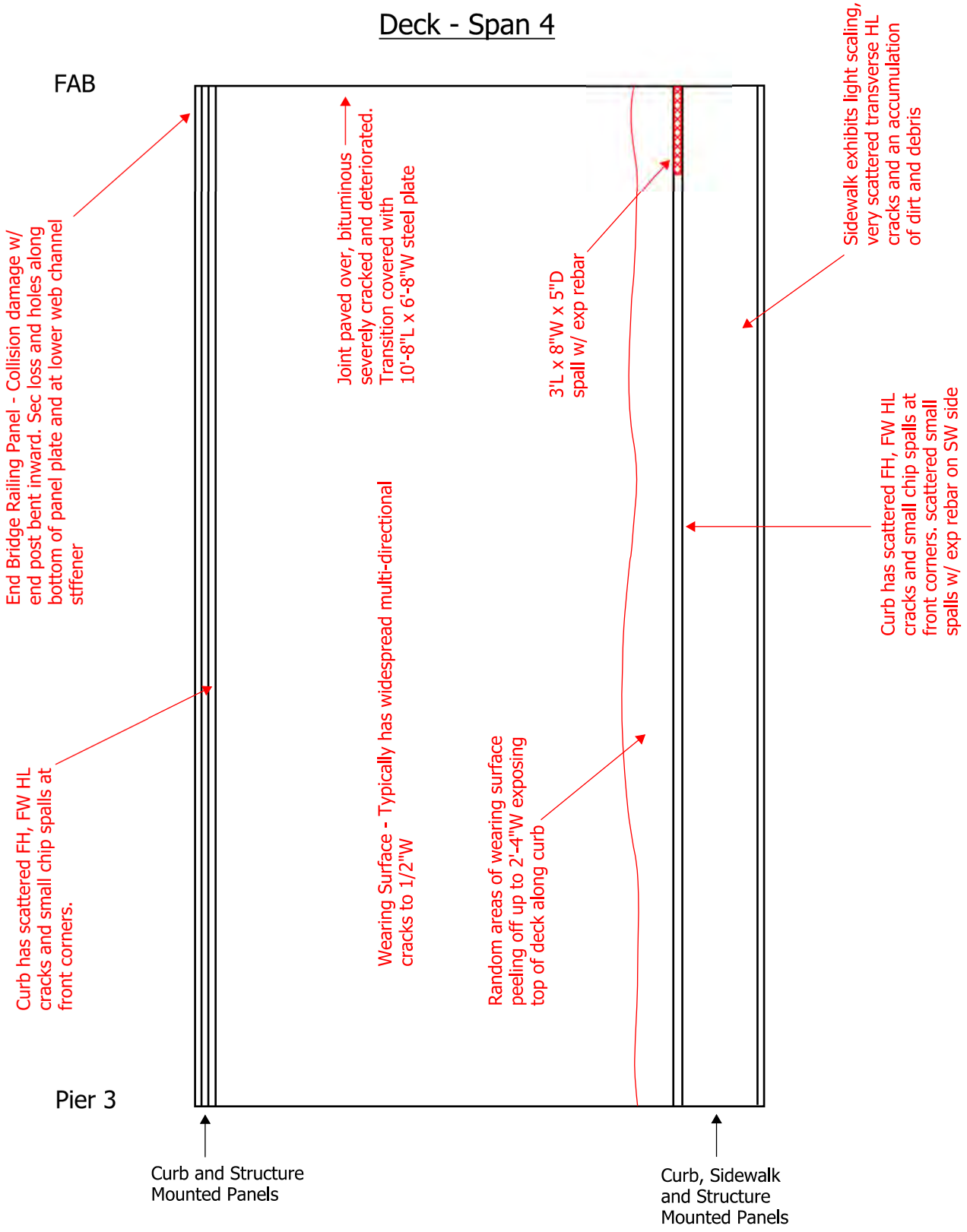
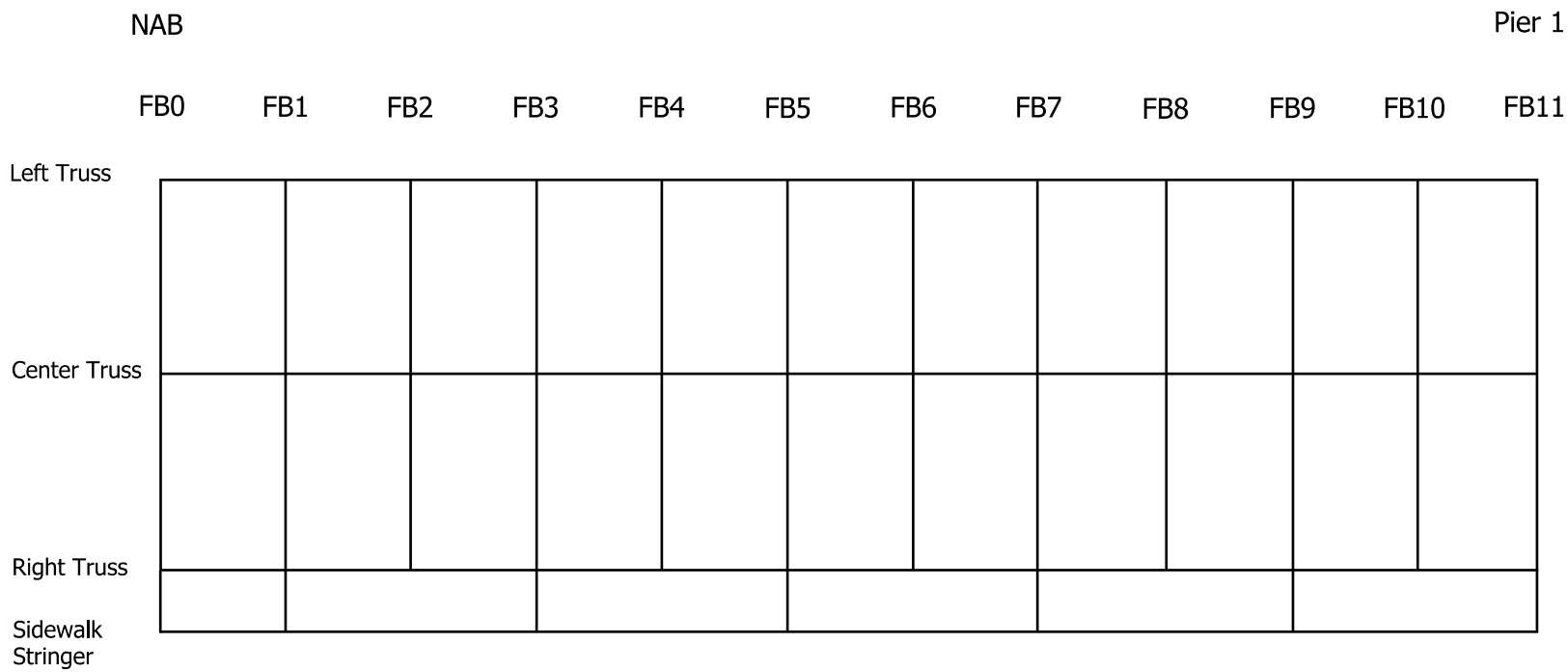
SCALE	NTS		

Deck - Span 4



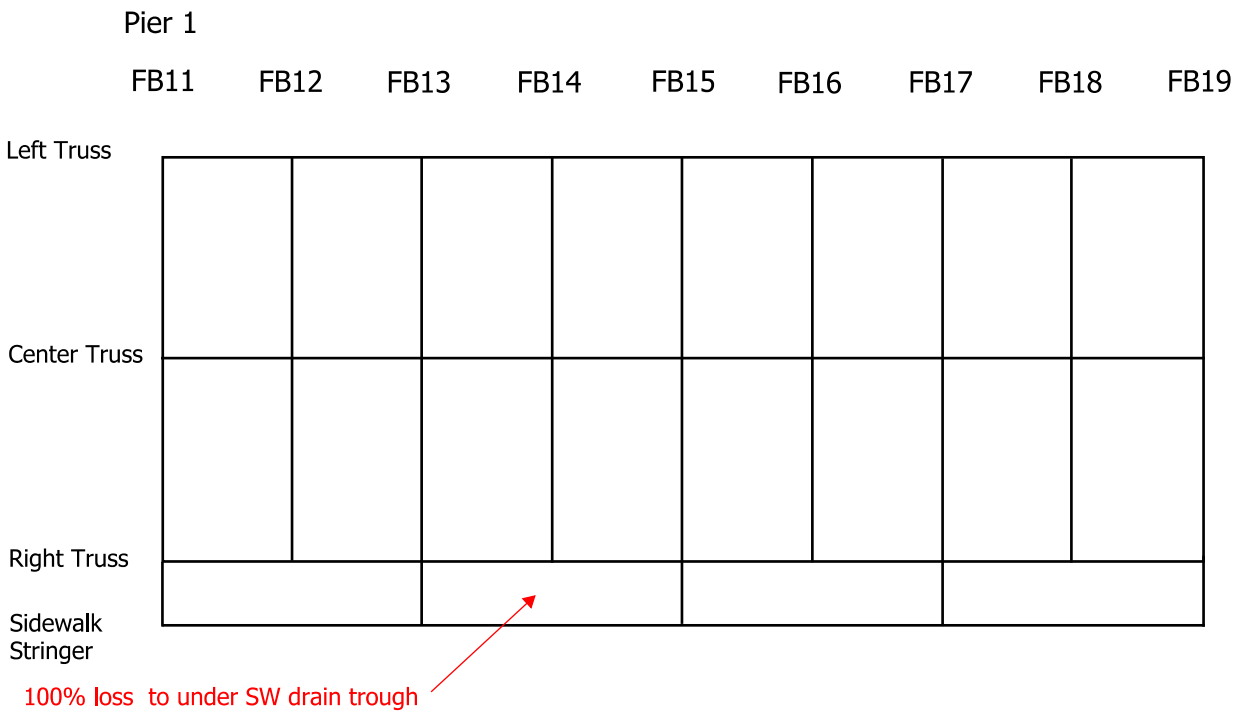
Span 1 Framing Plan



General Notes:

All steel members with heavy paint peel and surface corrosion with isolated areas of 1/16" deep pitting.
Floorbeams have areas of paint peeling and surface rust with minor previous pitting with zero to minimal section loss.
The drain trough running under the sidewalk is 100% full of debris, heavy corrosion throughout, and leaks at all joints in trough.
Underside of deck has HL map cracks and transverse HL cracks with efflorescence, pin point rust stains and honeycombing throughout.
The underside of deck has scattered random areas of delaminated concrete and minor spalls with significant areas noted.
The left deck fascia has scattered random spalls with exposed and corroded rebar.
The left deck overhang has random transverse HL cracks with efflorescence full length of the bridge.
Underside of sidewalk has HL map cracks and transverse HL cracks with efflorescence and honeycombing.
The sidewalk brackets typically have paint peeling and paint loss with surface rust and areas of laminated rust with minor section loss.
The sidewalk stringer typically exhibits paint peeling and paint loss with varying degrees of surface rust and areas of heavy laminated rust.
The center truss typically exhibits paint peeling and paint loss with varying degrees of surface rust. The gusset plates under the deck joints exhibit heavy laminated rust.

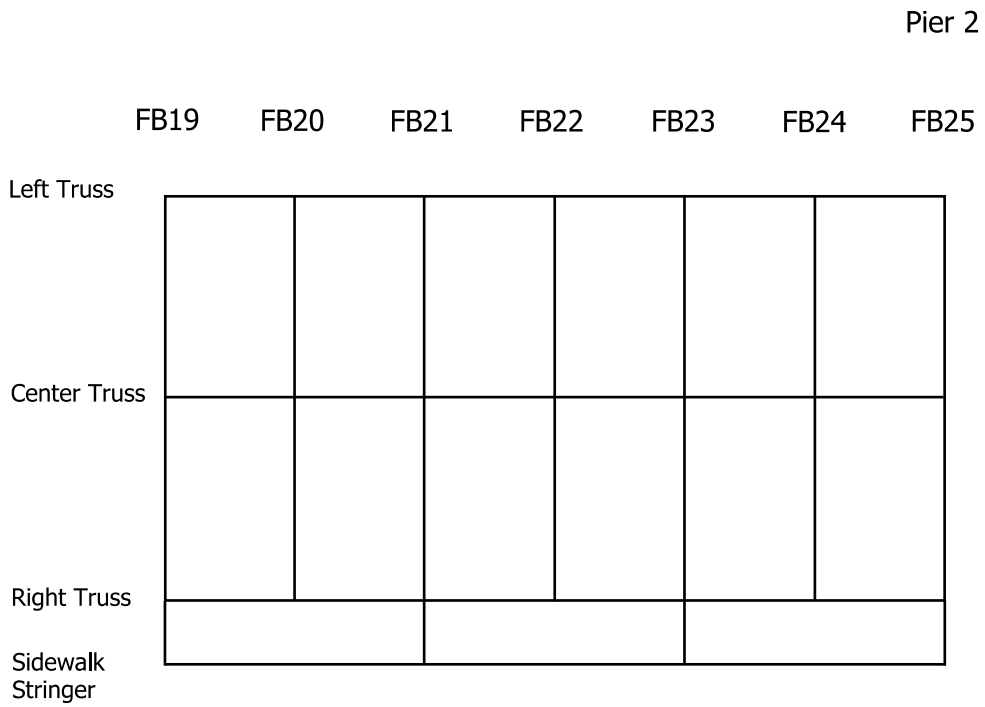
Span 2 Framing Plan (Near)



General Notes:

All steel members with heavy paint peel and surface corrosion with isolated areas of 1/16" deep pitting.
Floorbeams have areas of paint peeling and surface rust with minor previous pitting with zero to minimal section loss.
The drain trough running under the sidewalk exhibits heavy corrosion throughout and leaks at all joints in trough.
Underside of deck has HL map cracks and transverse HL cracks with efflorescence, pin point rust stains and honeycombing throughout.
The underside of deck has scattered random areas of delaminated concrete and minor spalls with significant areas noted.
The left deck fascia has scattered random spalls with exposed and corroded rebar.
The left deck overhang has random transverse HL cracks with efflorescence full length of the bridge.
Underside of sidewalk has HL map cracks and transverse HL cracks with efflorescence and honeycombing.
The sidewalk brackets typically have paint peeling and paint loss with surface rust and areas of laminated rust with minor section loss.
The sidewalk stringer typically exhibits paint peeling and paint loss with varying degrees of surface rust and areas of heavy laminated rust.
The center truss typically exhibits paint peeling and paint loss with varying degrees of surface rust. The gusset plates under the deck joints exhibit heavy laminated rust.

Span 2 Framing Plan (Far)



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The underside of deck has scattered random areas of delaminated concrete and minor spalls with significant areas noted.
The left deck fascia has scattered random spalls with exposed and corroded rebar.
The left deck overhang has random transverse HL cracks with efflorescence full length of the bridge.
Underside of sidewalk has HL map cracks and transverse HL cracks with efflorescence and honeycombing.
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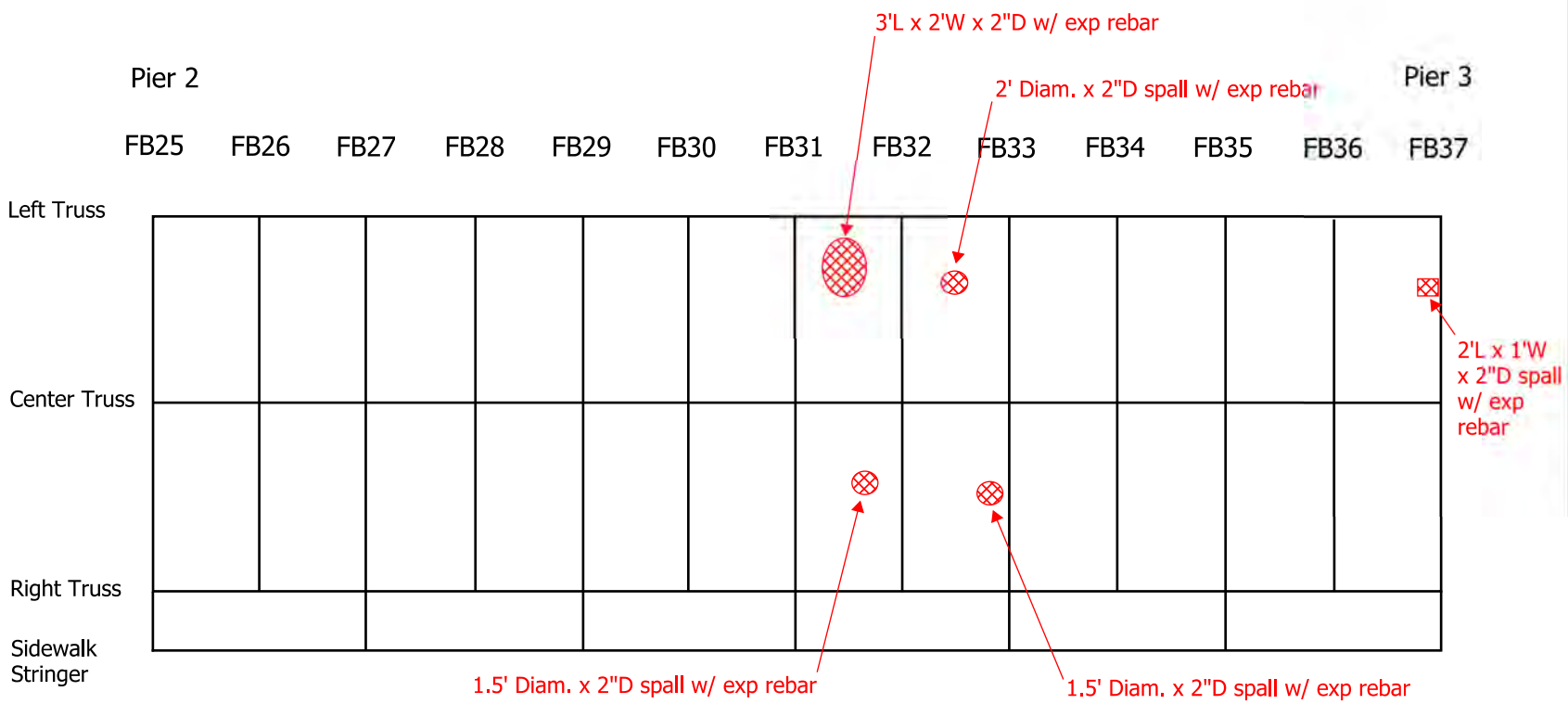
The center truss typically exhibits paint peeling and paint loss with varying degrees of surface rust. The gusset plates under the deck joints exhibit heavy laminated rust.

Span 3 Framing Plan



General Notes:

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The underside of deck has scattered random areas of delaminated concrete and minor spalls with significant areas noted.
The left deck fascia has scattered random spalls with exposed and corroded rebar.
The left deck overhang has random transverse HL cracks with efflorescence full length of the bridge.
Underside of sidewalk has HL map cracks and transverse HL cracks with efflorescence and honeycombing.
The sidewalk brackets typically have paint peeling and paint loss with surface rust and areas of laminated rust with minor section loss.
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The center truss typically exhibits paint peeling and paint loss with varying degrees of surface rust. The gusset plates under the deck joints exhibit heavy laminated rust.

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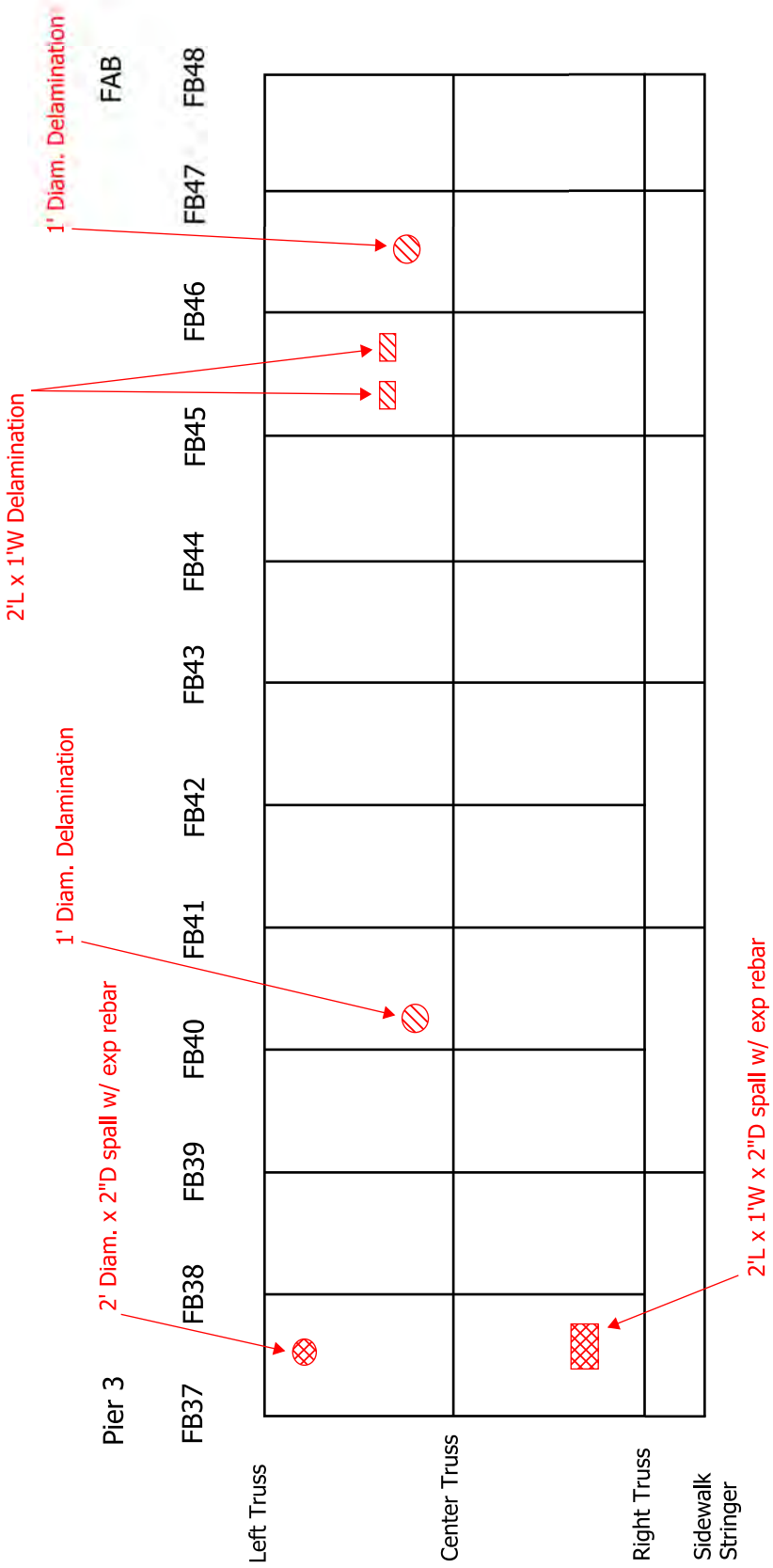
Span 4 Framing Plan



General Notes:

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Floorbeams have areas of paint peeling and surface rust with minor previous pitting with zero to minimal section loss.
The drain trough running under the sidewalk exhibits heavy corrosion throughout and leaks at all joints in trough.
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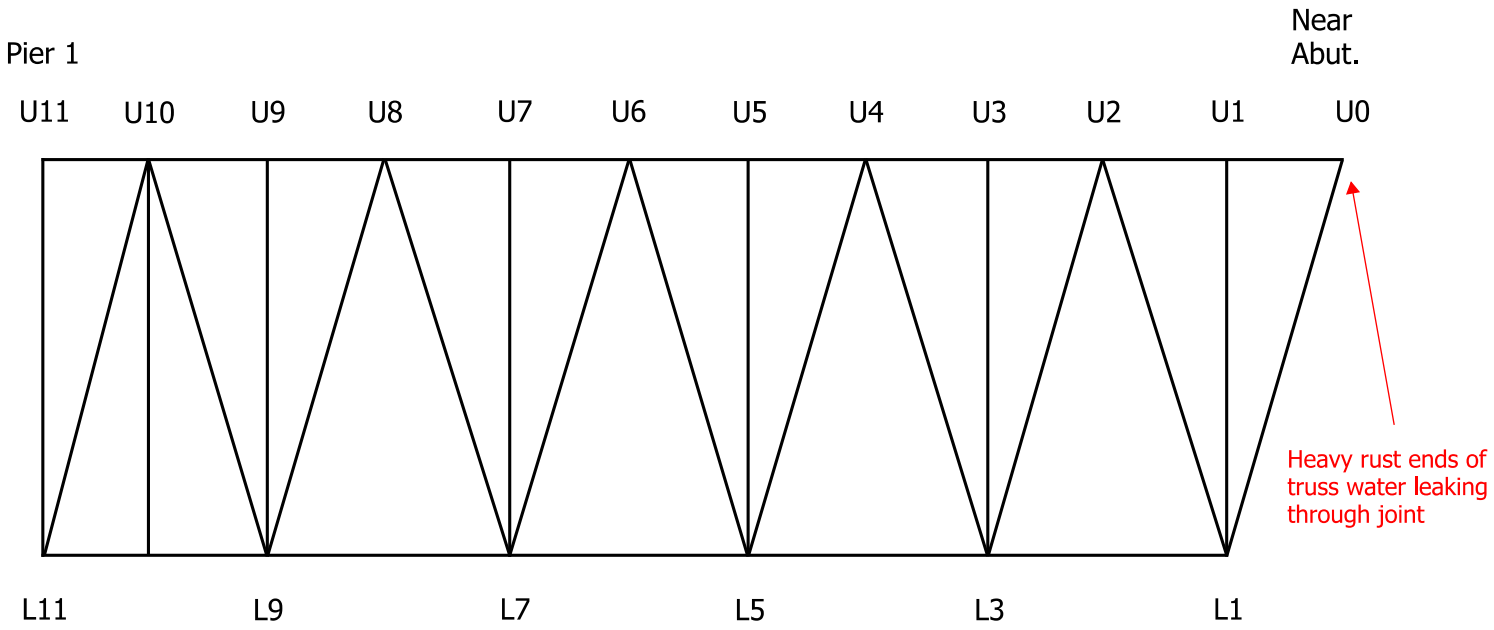
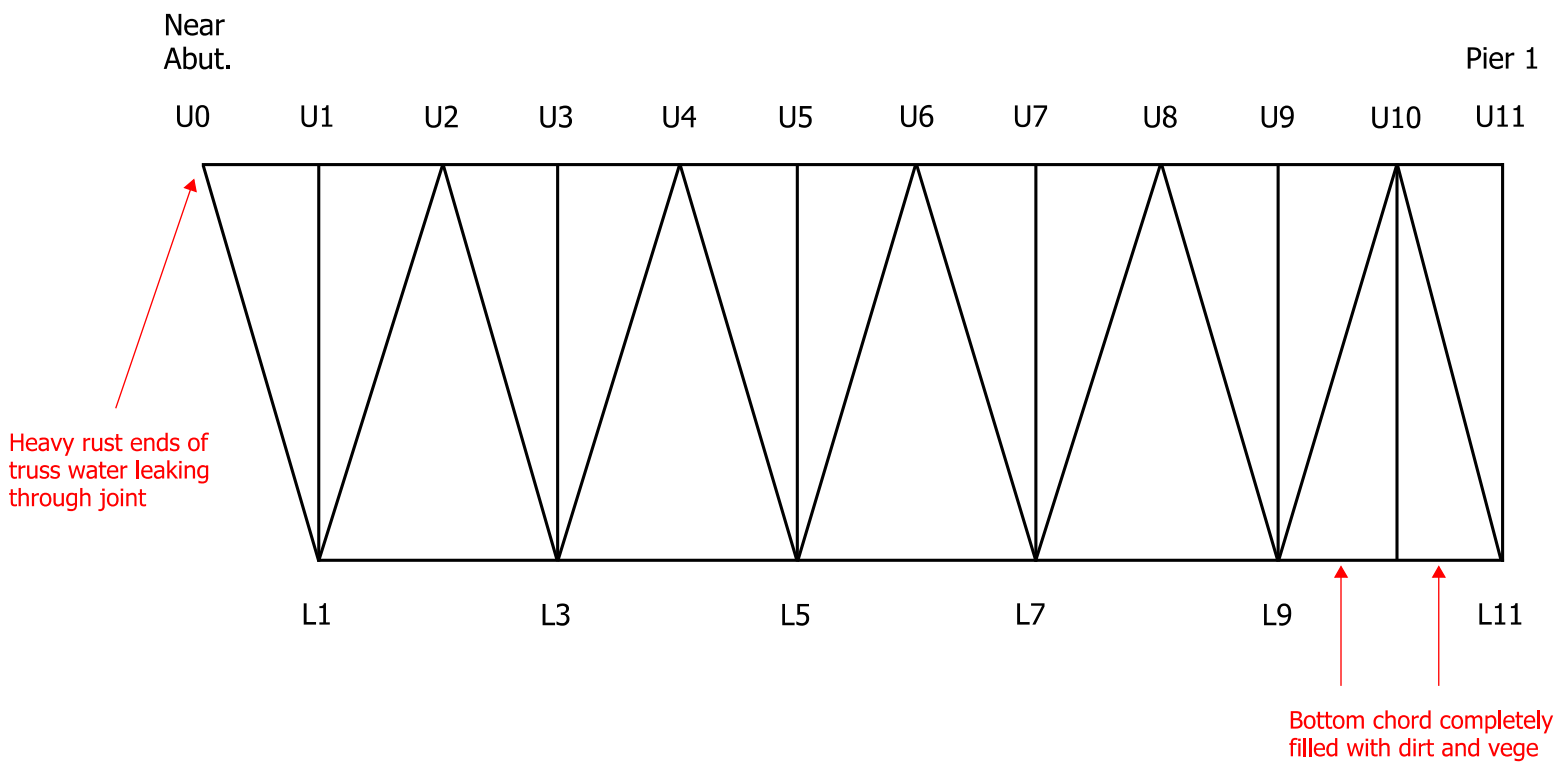
The center truss typically exhibits paint peeling and paint loss with varying degrees of surface rust. The gusset plates under the deck joints exhibit heavy laminated rust.

Span 1 Left Truss



General Notes:
Truss members have areas of peeling paint with light to heavy surface rusting.
Truss top chords, verticals and diagonals have scattered laminated rust at the edges of the gusset plates and fill plates with minimal section loss.
Scattered areas of rust packing are present at the edges of the joints between the gusset plates and fill plates and truss members.
Bottom chords have accumulations of dirt and debris and piles of laminated rust on top of the webs.
Tops of the webs and bottoms of the flanges along the tops of the webs have areas of laminated rust with measurable section loss.
Truss sway bracing members typically have areas of paint peeling with light to heavy surface rust.
Bottom chord members L1-L3, L3-L5 and L7-L8 have section loss on the webs and flanges.
Below deck drainage system non-functional with areas of 100% loss and holes

Span 1 Right Truss



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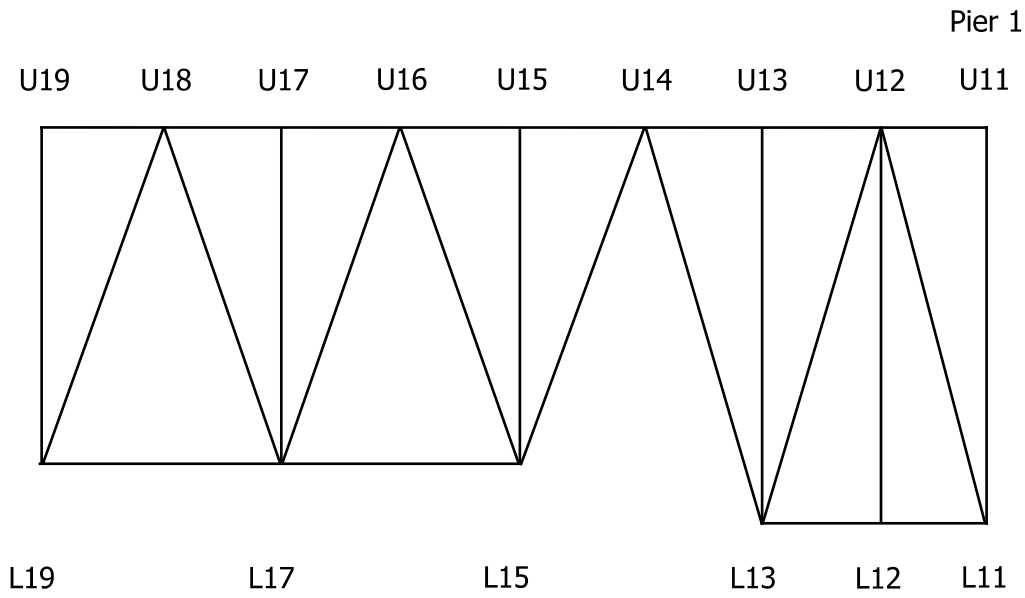
Truss sway bracing members typically have areas of paint peeling with light to heavy surface rust.
Below deck drainage system non-functional with areas of 100% loss and holes

Span 2 Left Truss



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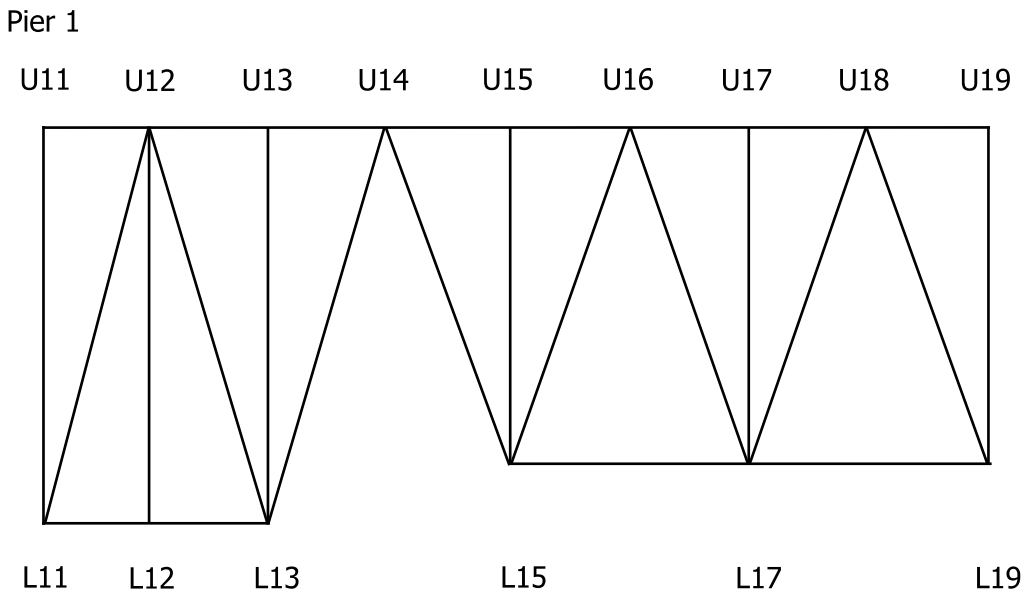
Truss sway bracing members typically have areas of paint peeling with light to heavy surface rust.
Below deck drainage system non-functional with areas of 100% loss and holes

Span 2 Right Truss



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Below deck drainage system non-functional with areas of 100% loss and holes

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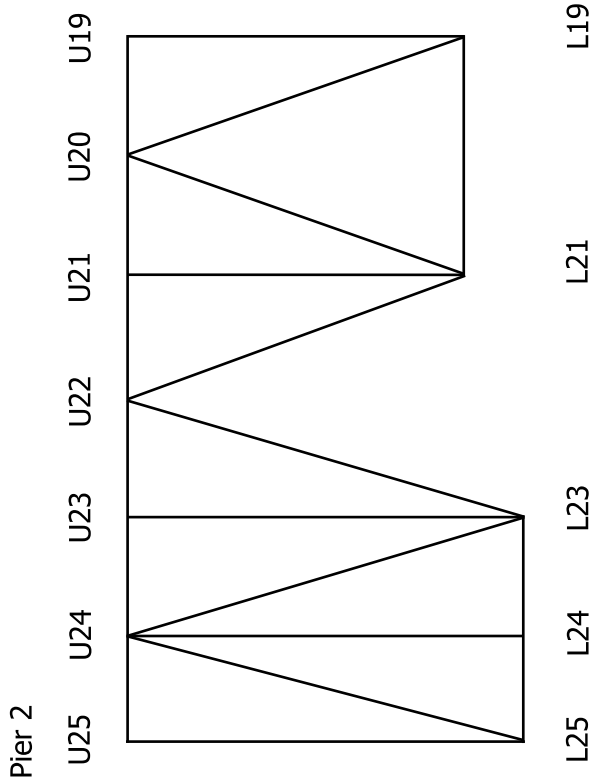
Span 2 Left Truss



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Below deck drainage system non-functional with areas of 100% loss and holes

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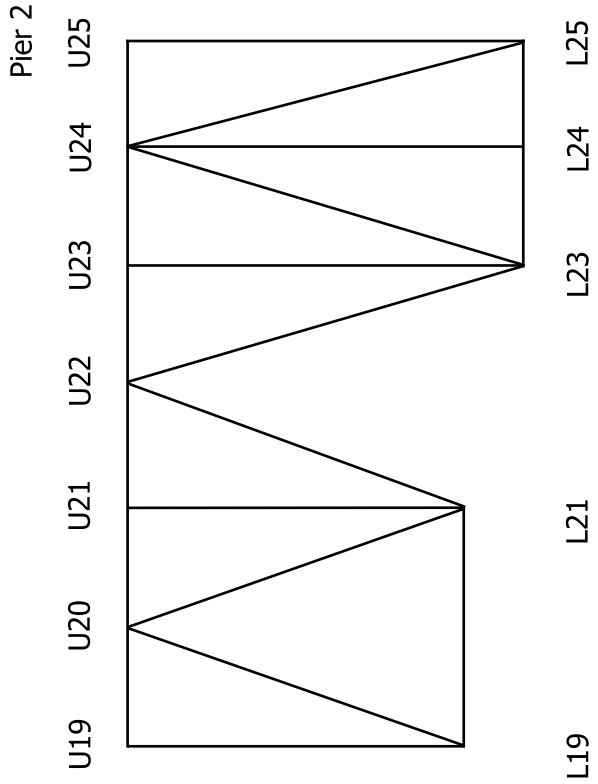
Span 2 Right Truss



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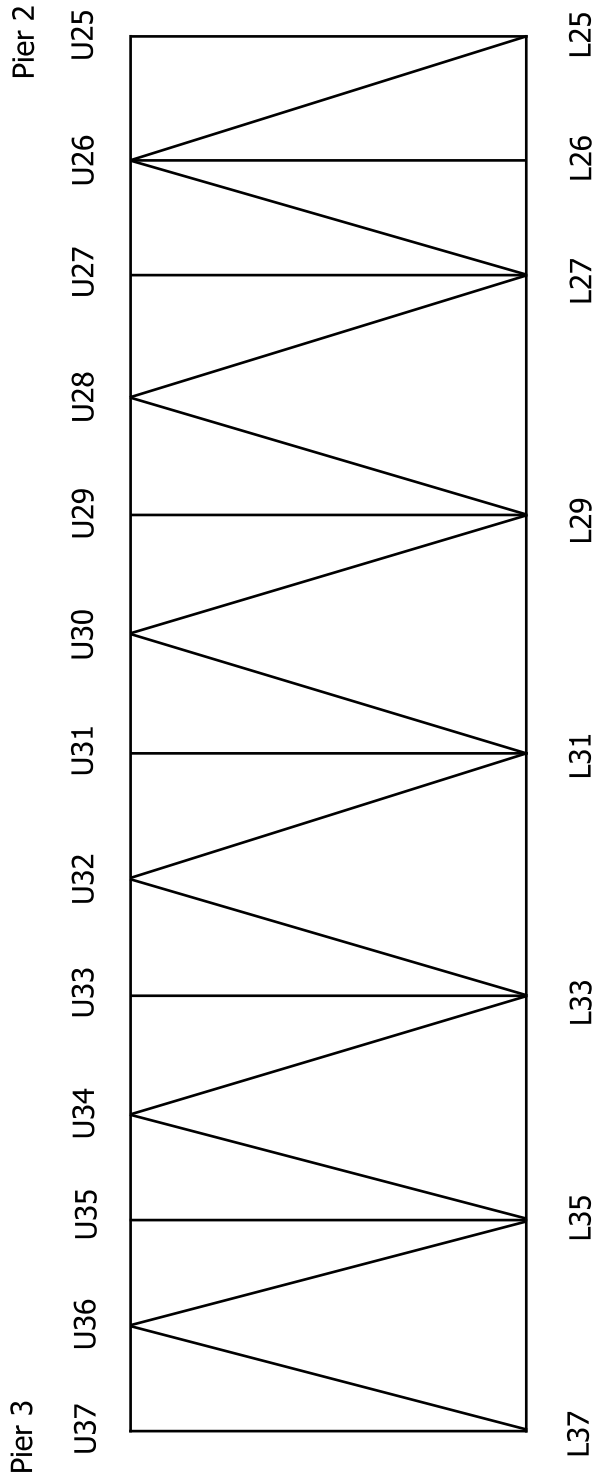
Span 3 Left Truss



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Below deck drainage system non-functional with areas of 100% loss and holes

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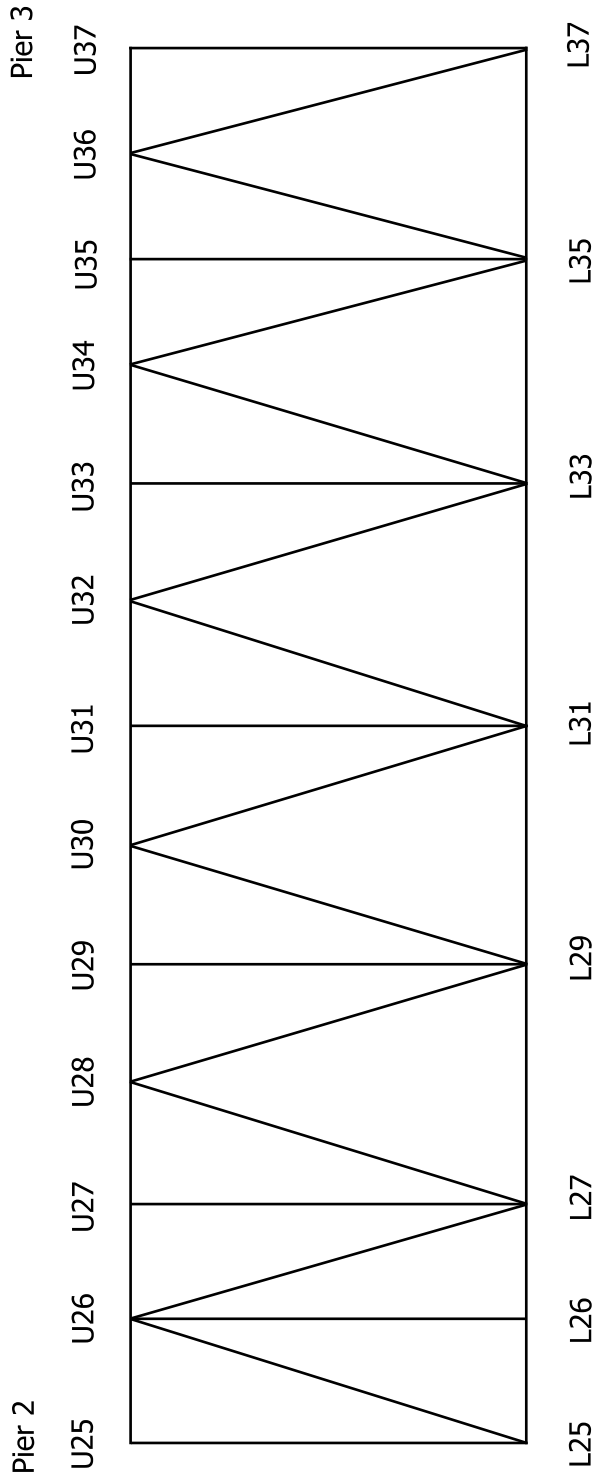
Span 3 Right Truss



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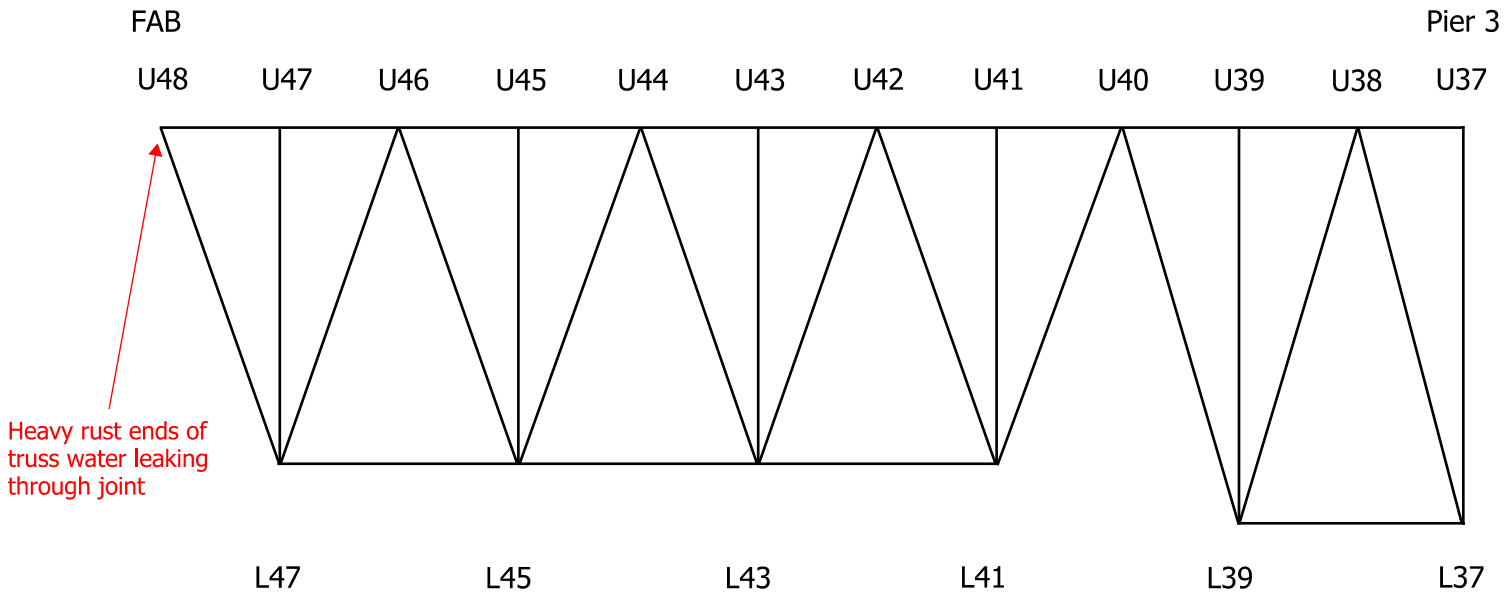
Below deck drainage system non-functional with areas of 100% loss and holes

Span 4 Left Truss



General Notes:
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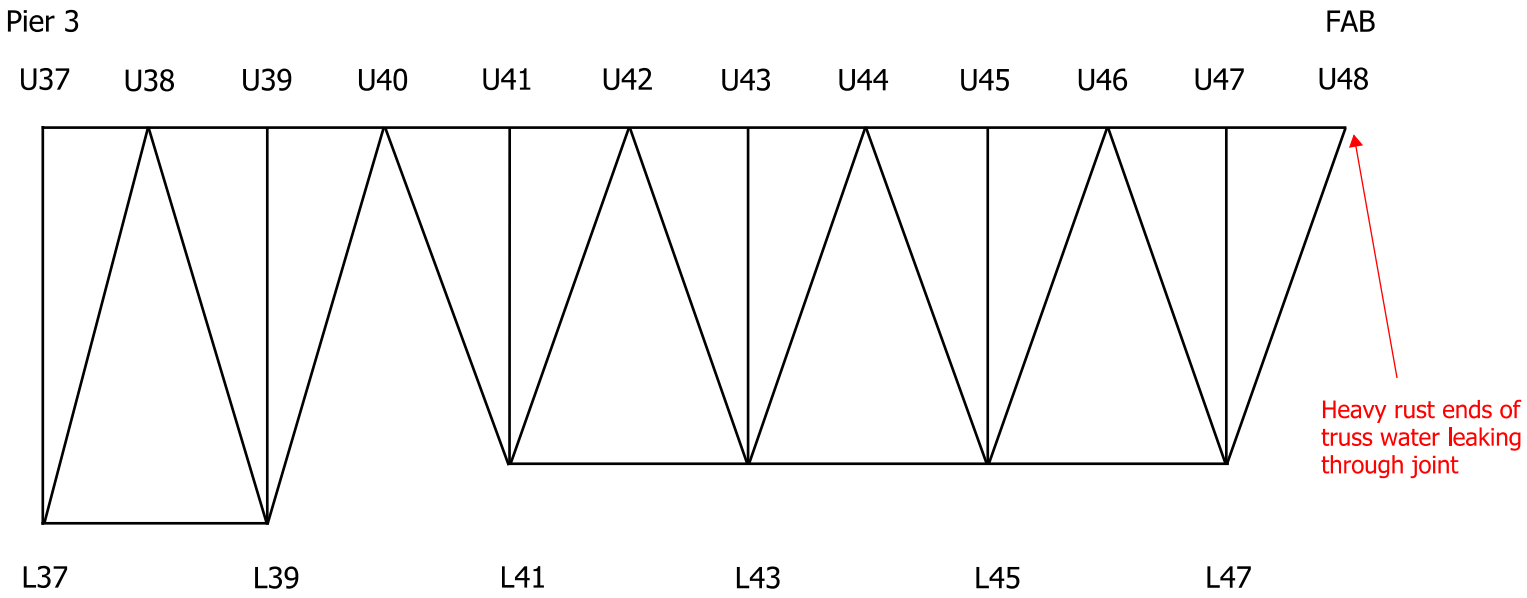
Below deck drainage system non-functional with areas of 100% loss and holes

Span 4 Right Truss



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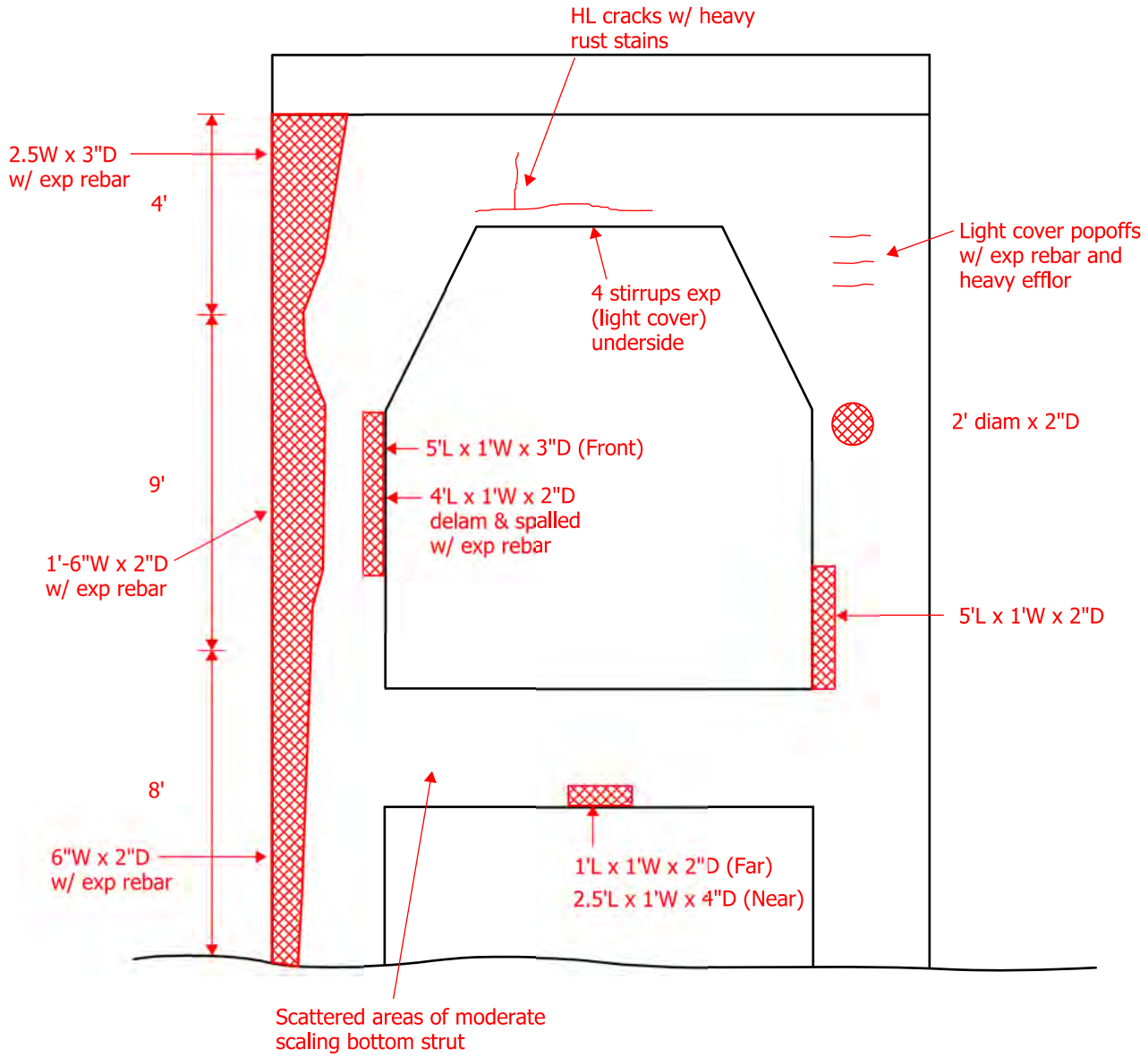
Near Abutment
Far Elevation



Concrete Spall

Concrete Delamination

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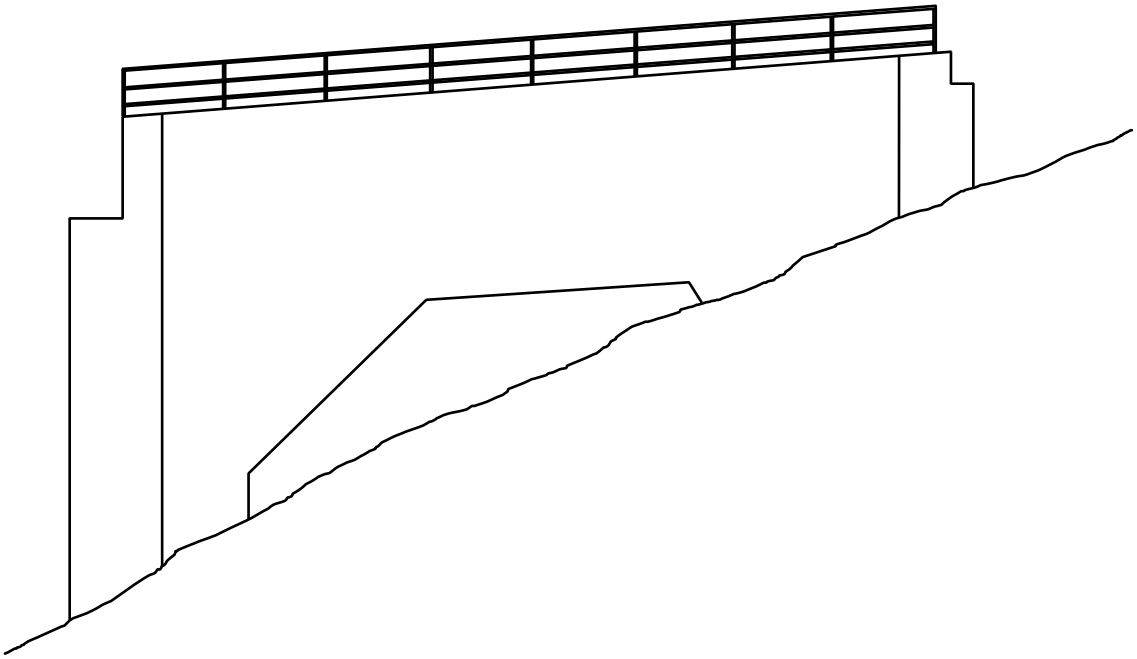
Near Abutment

Left Elevation



No Problems Noted

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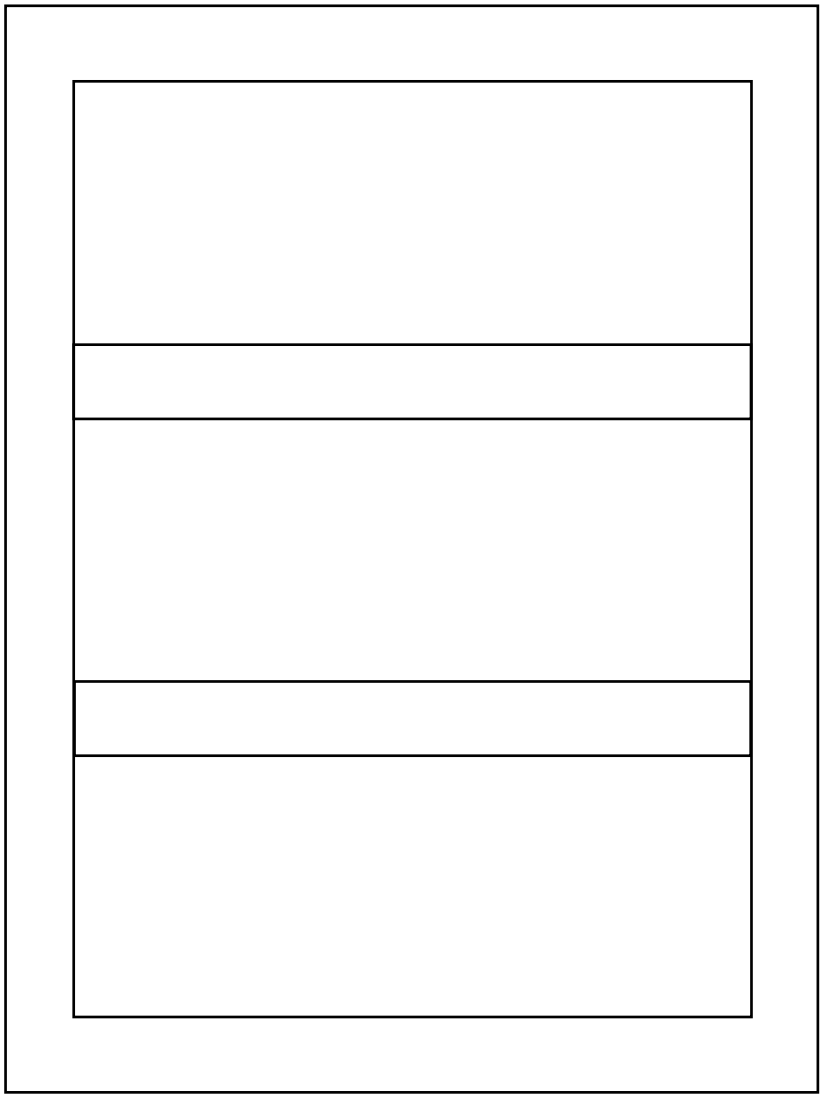
Near Abutment

Plan View

Near



Far

Scattered light cover popoffs on underside of deck and struts.
No other problems noted.

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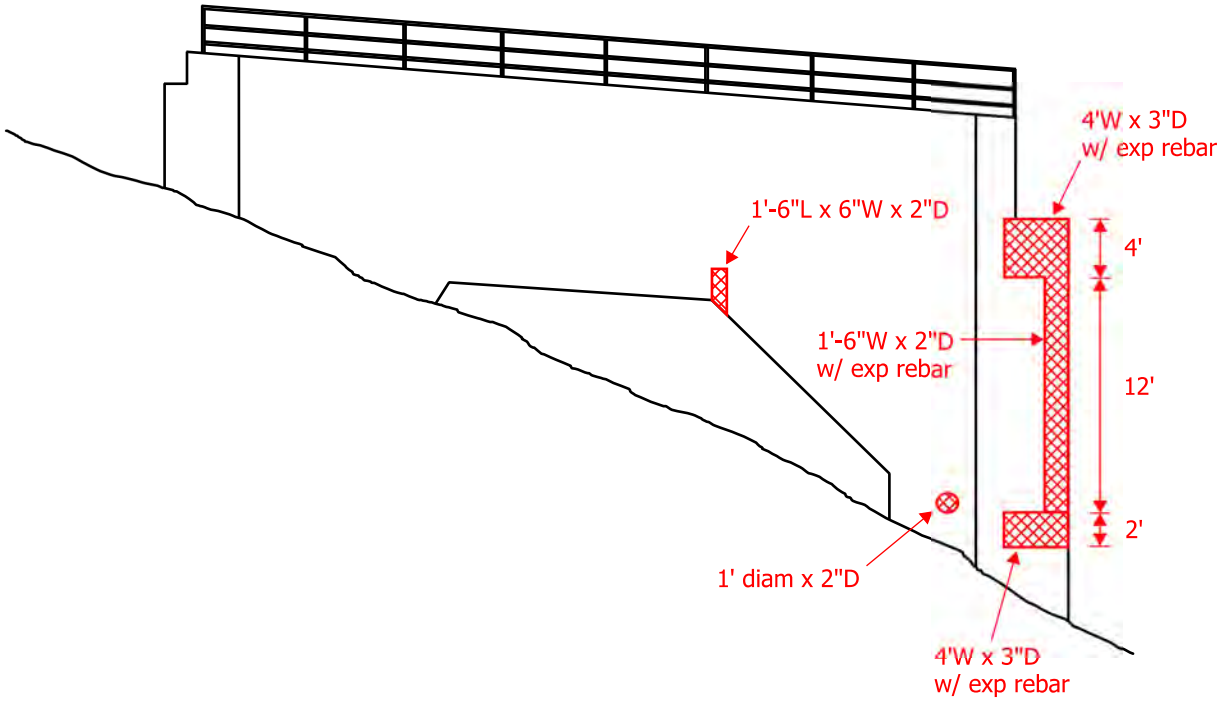
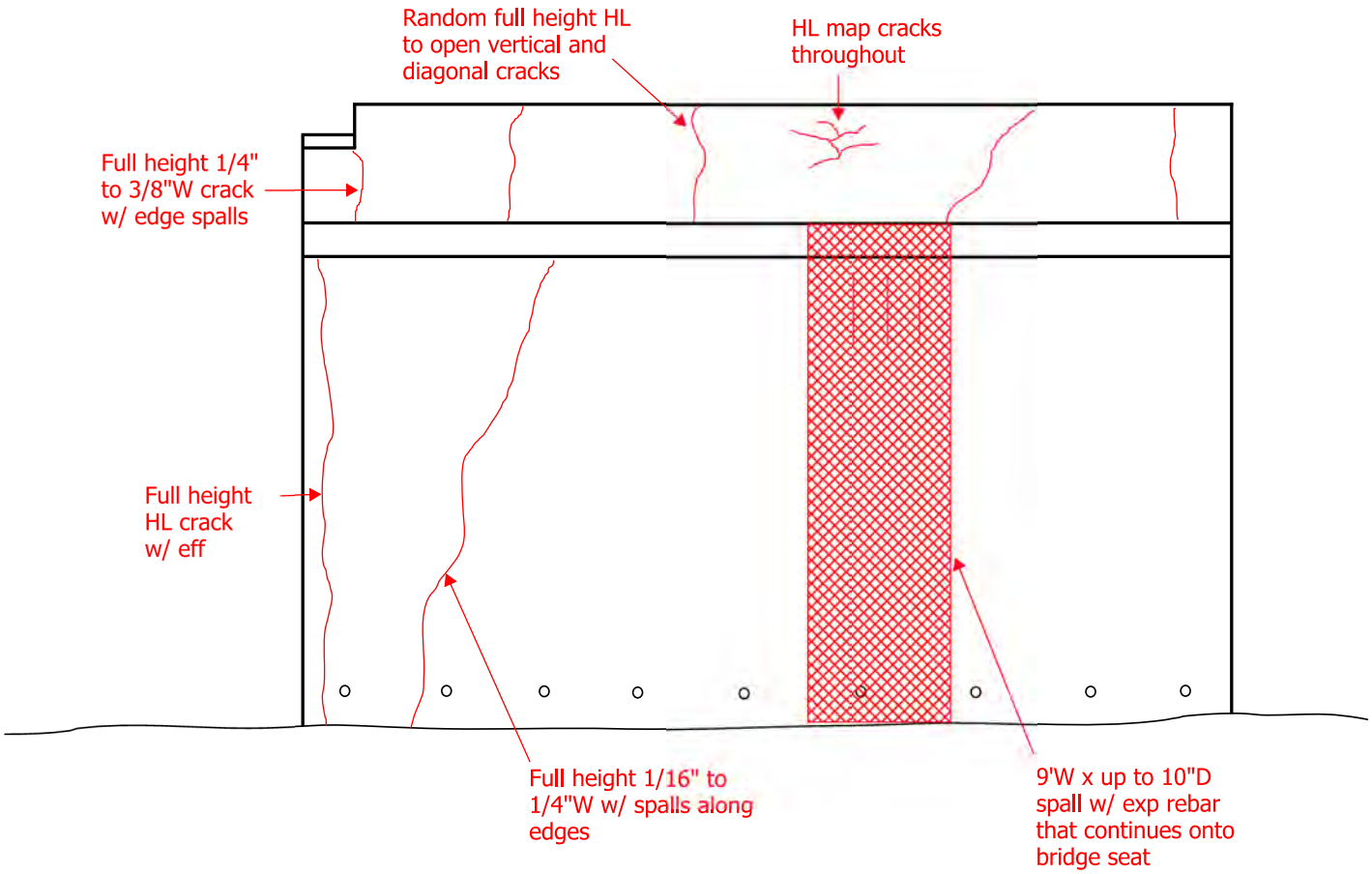
Near Abutment
Right Elevation



Far Abutment



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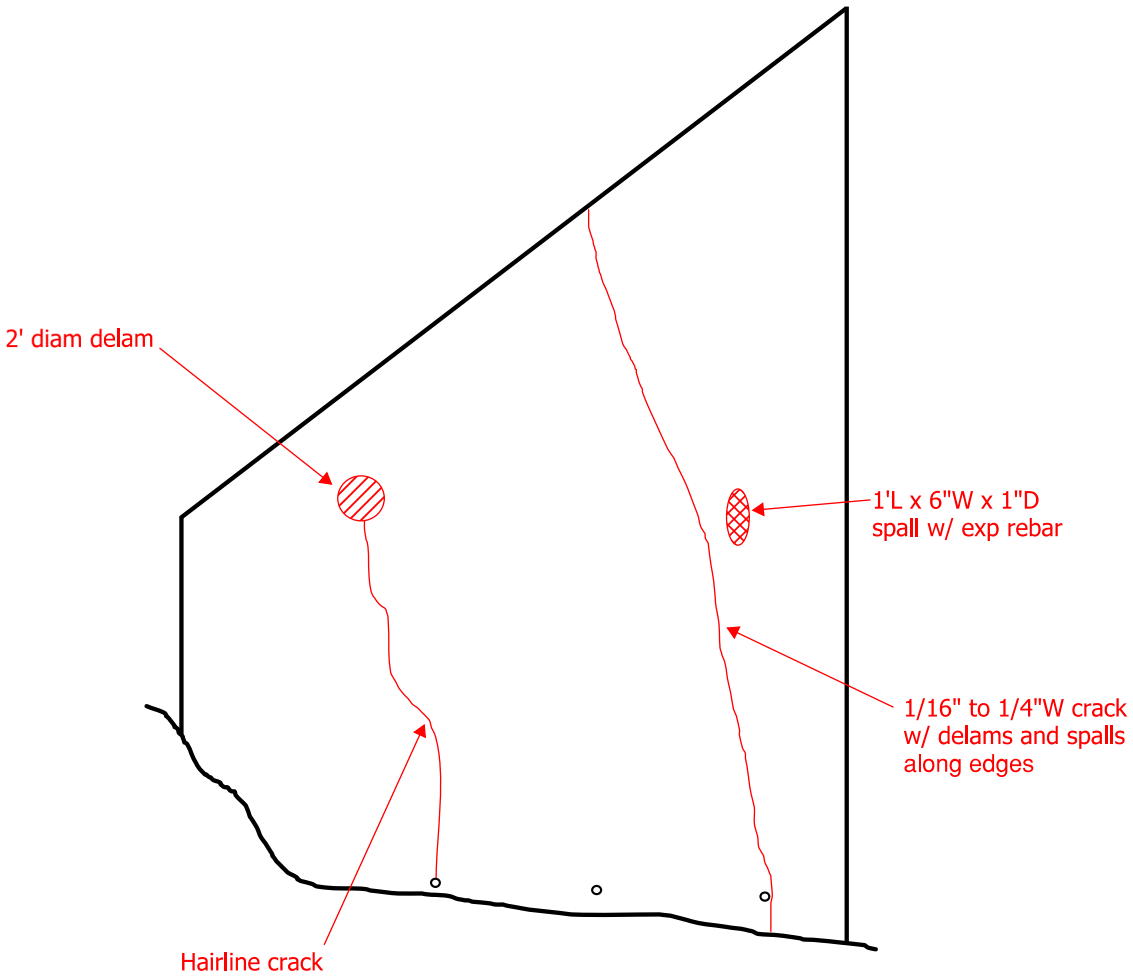
JOB	Black's Run Bridge		
SHEET NO.	26	OF	27
CALCULATED BY	WBS	DATE	7/22/2020
CHECKED BY		DATE	
SCALE	NTS		

Far Left Wingwall



Wingwall has scattered hairline
map cracks throughout

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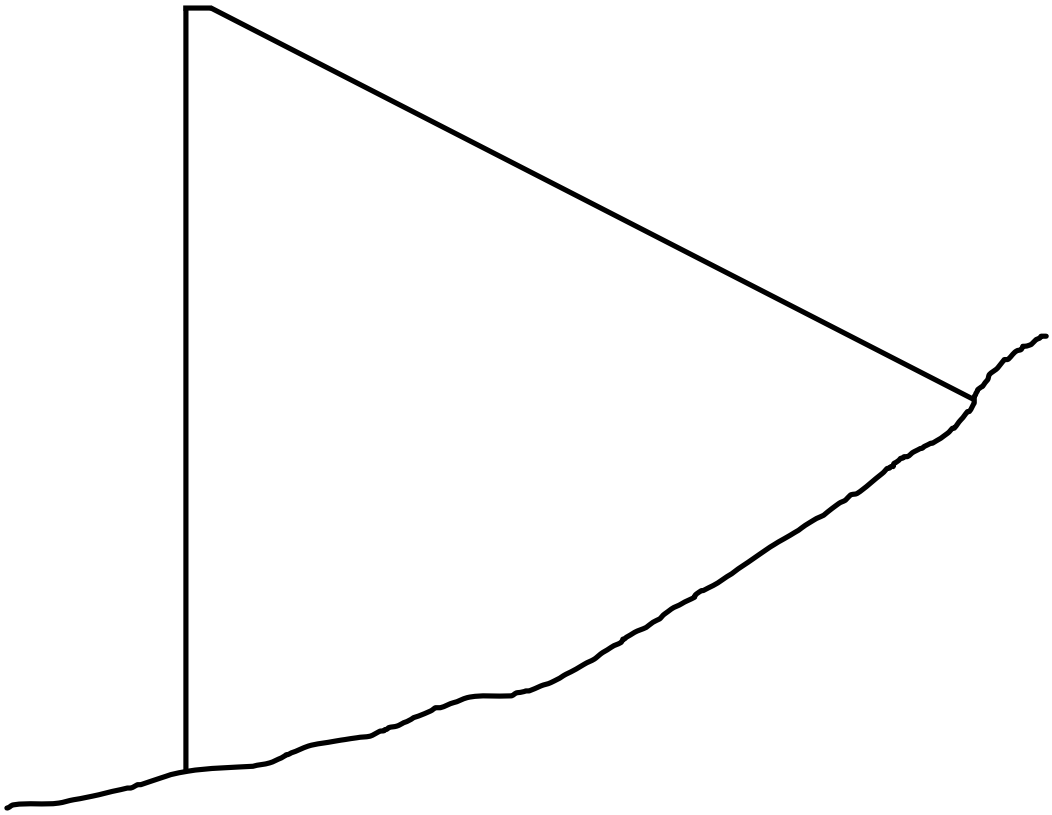
JOB	Black's Run Bridge		
SHEET NO.	27	OF	27
CALCULATED BY	WBS	DATE	7/22/2020
CHECKED BY		DATE	
SCALE	NTS		

Far Right Wingwall



Wingwall has areas of hairline map cracking throughout and is covered with vegetation.

ANALYSIS COMPUTATIONS

Black's Run Bridge Inspection

Prepared for:

Ohio River Trail Council
1100 Pennsylvania Ave
Monaca, PA 15061

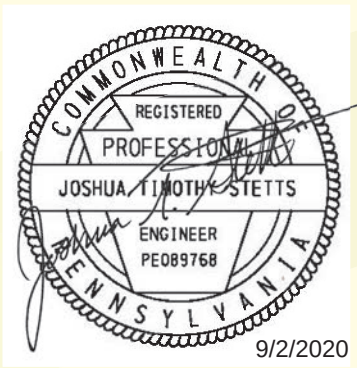
Prepared by:

LARSON DESIGN GROUP
1000 Commerce Park Drive, Suite 201
Williamsport, PA 17701

LDG Project No. 12590-001

April 2020

Report Approved By:



Joshua T. Stetts, P.E.

SUBMISSION QUALITY ASSURANCE

Prepared By:	ATR	Date:	4/8/2020
Checked By:	JTS	Date:	4/14/2020
QA/QC'd By:	JTS	Date:	9/2/2020

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Appendix 118

- Truss Section Data
- Truck Cut Sheet
- Previous Analysis
- Drawings

Section 1 – Results

SCOPE AND RESULTS

FOR

Black's Run Bridge

- The analysis was performed to determine if the structure could be utilized as a pedestrian walkway.
- In addition to the pedestrian live load, the structure was analyzed for a maintenance vehicle per AASHTO 3.14.1.4. A F-550 truck was selected and input as a Special Live Load in BAR7. A cut sheet for the F-550 is attached to this document for the loading and axle spacing.
- If any additional vehicles are required to cross the structure additional analysis will be required.
- The structure was analyzed using inputs from the previous analysis completed by HRG, dated 5/28/2008. These values were not checked and assumed to be accurate. A couple of minor invalid inputs were corrected and will be discussed later in this document.
- It was determined that the truss can service the pedestrian live load and F-550 maintenance truck with Operating Ratings above 1.0 for all analyzed components.
    - Truss
        - IR = 2.63
        - OR = 6.05
    - Stringer
        - IR = 1.97
        - OR = 3.28
    - Floorbeam
        - IR = 0.83
        - OR = 1.38

Section 2 – Analysis Notes

ANALYSIS NOTES

FOR

Black's Run Bridge

- This analysis reflects the structure's condition as detailed in the 2008 inspection report performed by HRG.
- In addition to the pedestrian live load, the structure was analyzed for a maintenance vehicle per AASHTO 3.14.1.4. A F-550 truck was selected and input as a Special Live Load in BAR7. A cut sheet for the F-550 is attached to this document for the loading and axle spacing.
- A pedestrian live load of 85 psf was used per AASHTO 3.14.1.3. The live load was input into BAR7 by increasing the DL on the floorbeam (Floorbeam DL1) and truss panel points.
- The analysis run was created from BAR7 inputs from the previous analysis (see Sheets 55 – 58 of 97). Several inputs were changed to correct mistakes or to account for additional load (Pedestrian Live Load) as follows:
    - The Stringer DL1 was increased to account for additional Pedestrian LL. See calculations later in this document for additional information.
    - The Truss DL was also increased to account for additional Pedestrian LL. The total load was divided by 48 joints (assuming each end joint counts as 1/2 of a full joint). See calculations later in this document for additional information.
    - Member ID U8L9 incorrectly input the area for Gross Area Compression as 25.52. This should be 25.56 per the Section Properties Table. This has been updated.
    - Member ID U39U39 does not exist. In sequential order, the next member should have been U38U39. This has been updated.
    - The truss rating run reduces the area of the bottom chord member by 25%. Member L35L36 did not reduce the area for Gross Area Compression or Net Area Tensions. These areas were reduced to 31.39 and 25.01, respectively. This is 75% of the numbers shown (41.85 and 33.35). This has been updated.
- The floor system acts as a two way slab spanning between the truss and stringer and between floorbeams. The structure was analyzed by applying 5/8 of the floor LL to the stringer (5/8 was used using common engineering equations for a equal spacing continuous span). The stringer acts a point load on the floorbeam. The remaining load is supported by the truss. This is modeled by increasing the truss DLs at each panel point.
- Previously, the truss was analyzed assuming the floorbeam to be supported in the middle by the center truss. Also, the stringer was not rated in the previous analysis. The DL acting on the floorbeam and truss included the weight of the center truss which would indicate the center truss was not supporting the floorbeam. This analysis assumes the floorbeam to span between outside trusses. The center truss supports its own DL only. This is conservative.
- Section properties for the main load carrying members were gathered during this inspection and compared to the section properties used in the analysis. The section properties used in the analysis were determined to still be valid.
- Analysis Program used was BAR7 version 7.15.0.0.

Section 3 - Dead Load

STRINGER DEAD LOAD

(Calculated for Spans 1 to 4)

References:

1. Standard Specifications for Highway Bridges, Sixteenth Edition, 1996 [AASHTO]
2. Steel Construction Manual, Thirteenth Edition, 2005 [AISC]

Calculations:

According to Article 3.14.1.3 [AASHTO], bridges for pedestrian and/or bicycle traffic shall be designed for a live load of 85 PSF. In order to apply that load to the stringer in BAR7, the load is entered as a linear load in Stringer DL1. The previous analysis calculate the load for the stringer as 0.020 k/ft (see Sheet 55 of 97). The stringer frames down the center of the bridge. The deck in this configuration will act like a continuous span with two equal spans on either side of the stringer. Table 3-22c [AISC] says that 5/8 of the load will be distributed to the center support. An additional 0.956 k/ft will be applied as follows:

0.956 k/ft = (5/8) * 85 psf [*Ped LL*] * 18.00' [*Roadway width*] / 1000 [*lbs/K*]

The additional DL will be added to BAR7 inputs as follows:

Input	Old	New
SDL1	0.020	0.976

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BRIDGE	Black's Run Bridge		
SHEET NO.		LDG NO.	12590-001
CALCULATED BY	ATR	DATE	4/7/2020
CHECKED BY	JTS	DATE	4/14/2020
BMS NO.	-		

TRUSS DEAD LOAD

(Calculated for Spans 1 to 4)

References:

1. Standard Specifications for Highway Bridges, Sixteenth Edition, 1996 [AASHTO]

Calculations:

According to Article 3.14.1.3 [AASHTO], bridges for pedestrian and/or bicycle traffic shall be designed for a live load of 85 PSF. In order to apply that load to the truss in BAR7, the load is entered as Truss DL at each panel point. The previous analysis calculate the load for the Floorsystem on Sheet 5 of 97. The total calulated equals 1.25K. This load gets applied to all upper joints. An additional 6.71 K should be added to account for additional Pedestrian LL as follows:

6.71K = 85 psf [*Ped LL*] * 420.83' [*Length of Bridge*] * 18.00' [*Roadway width*] / 48 joints [*assumed even dist*] / 2 [*ea truss*] / 1000 [*lbs/K*]

The additional DL will be added to BAR7 inputs as follows:

Joint	Old	New
U0	23.00	29.71
U1	55.00	61.71
U2	23.00	29.71
U3	57.00	63.71

Joint	Old	New
U4	23.00	29.71
U5	57.00	63.71
U6	23.00	29.71
U7	57.00	63.71

Joint	Old	New
U8	23.00	29.71
U9	57.00	63.71
U10	23.00	29.71
U11	50.00	56.71

Joint	Old	New
U12	23.00	29.71
U13	50.00	56.71
U14	20.50	27.21
U15	47.00	53.71

Joint	Old	New
U16	18.00	24.71
U17	47.00	53.71
U18	18.00	24.71
U19	47.00	53.71

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BRIDGE	Black's Run Bridge		
SHEET NO.		LDG NO.	12590-001
CALCULATED BY	ATR	DATE	4/7/2020
CHECKED BY	JTS	DATE	4/14/2020
BMS NO.	-		

TRUSS DEAD LOAD

(Calculated for Spans 1 to 4)

Joint	Old	New
U20	18.00	24.71
U21	47.00	53.71
U22	20.50	27.21
U23	50.00	56.71

Joint	Old	New
U24	23.00	29.71
U25	50.00	56.71
U26	23.00	29.71
U27	55.00	61.71

Joint	Old	New
U28	23.00	29.71
U29	55.00	61.71
U30	23.00	29.71
U31	55.00	61.71

Joint	Old	New
U32	23.00	29.71
U33	55.00	61.71
U34	23.00	29.71
U35	55.00	61.71

Joint	Old	New
U36	23.00	29.71
U37	50.00	56.71
U38	23.00	29.71
U39	50.00	56.71

Joint	Old	New
U40	21.50	28.21
U41	50.00	56.71
U42	20.00	26.71
U43	50.00	56.71

Joint	Old	New
U44	20.00	26.71
U45	50.00	56.71
U46	20.00	26.71
U47	50.00	56.71

Joint	Old	New
U48	20.00	26.71

Section 4 - Analysis and Ratings

```
*****************************************************************************
*                                                                           *
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*                                                                           *
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*****************************************************************************
```


TFS

Calc By: ATR Date: 04/08/20
Chk'd By: JTS Date: 04/15/20

PROGRAM P4353000 04/15/2020 13:50
VERSION 7.15.0.0 LAST UPDATED 02/15/2018 DOCUMENTATION 02/2018

INPUT: TFS.dat

PROJECT IDENTIFICATION

STRUCTURE ID - -

BRG TYPE	SLC LEV	LANES	LIVE LOAD	OUT-PUT	IMP FACT	GAGE DIST	PASS DIST	FAT-IGUE	CONC DECK	SPEC	RE-DIST	DIR	S OVER FACTOR	END PAN
TFS		D	1	0	0.00	0.0	0.0						0.00	

HYB	SKEW CORR FACTOR	PONY TRUSS	PDF	COMPACT
	0.000		Y	

BRIDGE CROSS SECTION AND LOADING

DECK WIDTH	OVERHANG OR SPACING	CL OF GIRDER OR TRUSS TO CURB	ROADWAY WIDTH	DISTRIBUTION FACTORS SHEAR	MOMENT	DEFLECT
20.67	0.00	-1.00	18.00	0.625	0.727	0.670

SLAB THICKNESS	HAUNCH	DEAD LOADS DL1	DL2	F'C	N	SYMMETRY
10.00	0.00	0.000	0.000	0.000	0.	

LIVE LOAD LOCATION	NO. OF PANELS	END COND.	CORS	HINGE AT	TEMP CHANGE	END BRG.
U	48	R		L37	0.	U

STRINGER DL1	FLOORBEAM DL1	UNIT WEIGHT DECK CONCRETE	GUSSET ANALYSIS	PATCH LOAD ANALYSIS
0.976	0.000	0.00		

UNSYMM PIER
SUPPORT

SPAN LENGTHS (CANTILEVER)

SPAN #	1	2	3	4
LENGTH	103.55	114.15	109.13	94.00

HINGE #	1	2	3
DISTANCE	128.6	192.7	351.8

TRAFFIC LANE LOCATIONS

LANE #	1	2	3	4	5	6	7
DIST							
WIDTH							
% LL							

STRINGER SPAN LENGTHS (SIMPLE)

SPAN #	1	2	3
LENGTH	9.50	9.50	9.50

STRINGER LOCATIONS

STRINGER # 1
DISTANCE 8.00

TRUSS GEOMETRY

PANEL NO.	PANEL WIDTH		VERTICAL POST H1	H2	H3	PANEL TYPE
1	9.67	Y	11.67	0.00	-11.67	3
2	9.50	N	11.67	0.00	-11.67	5
3	9.50	Y	11.67	0.00	-11.67	6
4	9.50	N	11.67	0.00	-11.67	5
5	9.50	Y	11.67	0.00	-11.67	6
6	9.50	N	11.67	0.00	-11.67	5
7	9.50	Y	11.67	0.00	-11.67	6
8	9.50	N	11.67	0.00	-11.67	5
9	9.50	Y	11.67	0.00	-11.67	6
10	9.50	Y	11.67	0.00	-11.67	5
11	8.38	Y	11.67	0.00	-11.67	6
12	8.33	Y	11.67	0.00	-11.67	5
13	8.33	Y	11.67	0.00	-11.67	6
14	8.33		0.00	0.00	0.00	4
15	8.07	Y	9.00	0.00	-9.00	3
16	8.00	N	9.00	0.00	-9.00	5
17	8.00	Y	9.00	0.00	-9.00	6
18	8.01	N	9.00	0.00	-9.00	5
19	8.01	Y	9.00	0.00	-9.00	6
20	8.01	N	9.00	0.00	-9.00	5
21	8.00	Y	9.00	0.00	-9.00	6
22	8.07		0.00	0.00	0.00	4
23	8.33	Y	11.67	0.00	-11.67	3
24	8.33	Y	11.67	0.00	-11.67	5
25	8.33	Y	11.67	0.00	-11.67	6
26	8.38	Y	11.67	0.00	-11.67	5
27	9.18	Y	11.67	0.00	-11.67	6
28	9.25	N	11.67	0.00	-11.67	5
29	9.25	Y	11.67	0.00	-11.67	6
30	9.25	N	11.67	0.00	-11.67	5
31	9.25	Y	11.67	0.00	-11.67	6
32	9.25	N	11.67	0.00	-11.67	5
33	9.25	Y	11.67	0.00	-11.67	6
34	9.25	N	11.67	0.00	-11.67	5
35	9.25	Y	11.67	0.00	-11.67	6
36	9.19	N	11.67	0.00	-11.67	5
37	8.38	Y	11.67	0.00	-11.67	6
38	8.33	N	11.67	0.00	-11.67	5
39	8.33	Y	11.67	0.00	-11.67	6
40	8.33		0.00	0.00	0.00	4
41	8.63	Y	9.00	0.00	-9.00	3
42	8.63	N	9.00	0.00	-9.00	5
43	8.63	Y	9.00	0.00	-9.00	6
44	8.63	N	9.00	0.00	-9.00	5
45	8.63	Y	9.00	0.00	-9.00	6
46	8.62	N	9.00	0.00	-9.00	5
47	8.62	Y	9.00	0.00	-9.00	6
48	8.62		0.00	0.00	0.00	4

TRUSS DEAD LOADS

LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD
U 0	29.71	U 1	61.71	U 2	29.71	U 3	63.71
U 4	29.71	U 5	63.71	U 6	29.71	U 7	63.71
U 8	29.71	U 9	63.71	U 10	29.71	U 11	56.71
U 12	29.71	U 13	56.71	U 14	27.21	U 15	53.71
U 16	24.71	U 17	53.71	U 18	24.71	U 19	53.71
U 20	24.71	U 21	53.71	U 22	27.21	U 23	56.71
U 24	29.71	U 25	56.71	U 26	29.71	U 27	61.71
U 28	29.71	U 29	61.71	U 30	29.71	U 31	61.71
U 32	29.71	U 33	61.71	U 34	29.71	U 35	61.71
U 36	29.71	U 37	56.71	U 38	29.71	U 39	56.71

```
U  40   28.21   U  41   56.71   U  42   26.71   U  43   56.71
U  44   26.71   U  45   56.71   U  46   26.71   U  47   56.71
U  48   26.71       0    0.00       0    0.00       0    0.00


                         TRUSS MEMBER PROPERTIES


         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U 0U 1  25.56  20.06   349.7 33.0  0.00 0.00    0.00  0.00        0.0  23.89

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U 1U 2  25.56  20.06   349.7 33.0  0.00 0.00    0.00  0.00        0.0  23.89

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U 2U 3  46.47  36.97   745.0 33.0  0.00 0.00    0.00  0.00        0.0  43.94

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U 3U 4  46.47  36.97   745.0 33.0  0.00 0.00    0.00  0.00        0.0  43.94

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U 4U 5  51.73  41.20   837.9 33.0  0.00 0.00    0.00  0.00        0.0  48.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U 5U 6  51.73  41.20   837.9 33.0  0.00 0.00    0.00  0.00        0.0  48.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U 6U 7  51.73  41.20   837.9 33.0  0.00 0.00    0.00  0.00        0.0  48.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
```

```
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U 7U 8  51.73  41.20   837.9 33.0  0.00 0.00    0.00  0.00       0.0  48.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U 8U 9  41.85  33.35   660.1 33.0  0.00 0.00    0.00  0.00       0.0  39.63

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U 9U10  41.85  33.35   660.1 33.0  0.00 0.00    0.00  0.00       0.0  39.63

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U10U11  51.73  41.20   837.9 33.0  0.00 0.00    0.00  0.00       0.0  48.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U11U12  51.73  41.20   837.9 33.0  0.00 0.00    0.00  0.00       0.0  48.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U12U13  25.56  20.06   349.7 33.0  0.00 0.00    0.00  0.00       0.0  23.89

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U13U14  25.56  20.06   349.7 33.0  0.00 0.00    0.00  0.00       0.0  23.89

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.
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MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U14U15	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U15U16	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U16U17	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U17U18	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U18U19	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U19U20	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U20U21	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U21U22	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

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                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U22U23  25.56  20.06   349.7 33.0  0.00 0.00    0.00  0.00       0.0  23.89

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U23U24  25.56  20.06   349.7 33.0  0.00 0.00    0.00  0.00       0.0  23.89

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U24U25  51.73  41.20   837.9 33.0  0.00 0.00    0.00  0.00       0.0  48.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U25U26  51.73  41.20   837.9 33.0  0.00 0.00    0.00  0.00       0.0  48.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U26U27  41.85  33.35   660.1 33.0  0.00 0.00    0.00  0.00       0.0  39.63

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U27U28  41.85  33.35   660.1 33.0  0.00 0.00    0.00  0.00       0.0  39.63

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U28U29  56.73  45.20   930.1 33.0  0.00 0.00    0.00  0.00       0.0  53.71

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
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         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U29U30  56.73  45.20   930.1 33.0  0.00 0.00    0.00  0.00       0.0  53.71

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U30U31  56.73  45.20   930.1 33.0  0.00 0.00    0.00  0.00       0.0  53.71

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U31U32  56.73  45.20   930.1 33.0  0.00 0.00    0.00  0.00       0.0  53.71

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U32U33  56.73  45.20   930.1 33.0  0.00 0.00    0.00  0.00       0.0  53.71

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U33U34  56.73  45.20   930.1 33.0  0.00 0.00    0.00  0.00       0.0  53.71

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U34U35  41.85  33.35   660.1 33.0  0.00 0.00    0.00  0.00       0.0  39.63

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U35U36  41.85  33.35   660.1 33.0  0.00 0.00    0.00  0.00       0.0  39.63

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
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  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U36U37  51.73  41.20   837.9 33.0  0.00 0.00    0.00  0.00       0.0  48.96

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U37U38  51.73  41.20   837.9 33.0  0.00 0.00    0.00  0.00       0.0  48.96

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U38U39  25.56  20.06   349.7 33.0  0.00 0.00    0.00  0.00       0.0  23.89

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U39U40  25.56  20.06   349.7 33.0  0.00 0.00    0.00  0.00       0.0  23.89

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U40U41  34.99  27.49   491.8 33.0  0.00 0.00    0.00  0.00       0.0  32.74

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U41U42  34.99  27.49   491.8 33.0  0.00 0.00    0.00  0.00       0.0  32.74

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U42U43  34.99  27.49   491.8 33.0  0.00 0.00    0.00  0.00       0.0  32.74

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U43U44  34.99  27.49   491.8 33.0  0.00 0.00    0.00  0.00       0.0  32.74

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
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                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U44U45  34.99  27.49   491.8 33.0  0.00 0.00    0.00  0.00       0.0  32.74

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U45U46  34.99  27.49   491.8 33.0  0.00 0.00    0.00  0.00       0.0  32.74

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U46U47  34.99  27.49   491.8 33.0  0.00 0.00    0.00  0.00       0.0  32.74

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U47U48  34.99  27.49   491.8 33.0  0.00 0.00    0.00  0.00       0.0  32.74

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U 1L 1  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U 3L 3  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U 5L 5  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.
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MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 7L 7	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00		0.0	11.17

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U 9L 9	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00		0.0	11.17

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U10L10	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00		0.0	11.17

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U11L11	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00		0.0	11.17

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U12L12	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00		0.0	11.17

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U13L13	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00		0.0	11.17

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U15L15	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00		0.0	9.70

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U17L17	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00		0.0	9.70

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                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U19L19  10.00   8.20    21.3 33.0  0.00 0.00    0.00  0.00       0.0   9.70

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U21L21  10.00   8.20    21.3 33.0  0.00 0.00    0.00  0.00       0.0   9.70

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U23L23  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U24L24  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U25L25  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U26L26  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
U27L27  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
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         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U29L29  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U31L31  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U33L33  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U35L35  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U37L37  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U39L39  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U41L41  10.00   8.20    21.3 33.0  0.00 0.00    0.00  0.00       0.0   9.70

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
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  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U43L43  10.00   8.20    21.3 33.0  0.00 0.00    0.00  0.00       0.0   9.70

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U45L45  10.00   8.20    21.3 33.0  0.00 0.00    0.00  0.00       0.0   9.70

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U47L47  10.00   8.20    21.3 33.0  0.00 0.00    0.00  0.00       0.0   9.70

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U 0L 1  30.26  23.76   419.7 33.0  0.00 0.00    0.00  0.00       0.0  28.30

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L 1U 2  24.71  19.40   225.5 33.0  0.00 0.00    0.00  0.00       0.0  23.11

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U 2L 3  17.94  15.37   107.3 33.0  0.00 0.00    0.00  0.00       0.0  17.82

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L 3U 4  15.59  13.40    57.5 33.0  0.00 0.00    0.00  0.00       0.0  15.44

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U 4L 5  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
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                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L 5U 6  11.17   9.17    24.6 33.0  0.00 0.00    0.00  0.00       0.0  11.17

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U 6L 7  15.59  13.40    57.5 33.0  0.00 0.00    0.00  0.00       0.0  15.44

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L 7U 8  22.94  17.20   206.9 33.0  0.00 0.00    0.00  0.00       0.0  20.64

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U 8L 9  25.56  20.06   349.7 33.0  0.00 0.00    0.00  0.00       0.0  23.89

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L 9U10  30.26  23.76   419.7 33.0  0.00 0.00    0.00  0.00       0.0  28.30

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U10L11  39.98  31.86   567.7 33.0  0.00 0.00    0.00  0.00       0.0  37.86

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L11U12  39.98  31.86   567.7 33.0  0.00 0.00    0.00  0.00       0.0  37.86

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.
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MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U12L13	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L13U14	27.94	21.57	383.7	33.0	0.00	0.00	0.00	0.00		0.0	25.76

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U14L15	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00		0.0	20.64

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L15U16	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00		0.0	17.82

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U16L17	12.65	10.53	45.1	33.0	0.00	0.00	0.00	0.00		0.0	12.65

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L17U18	8.81	7.20	17.5	33.0	0.00	0.00	0.00	0.00		0.0	8.52

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U18L19	8.81	7.20	17.5	33.0	0.00	0.00	0.00	0.00		0.0	8.52

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L19U20	12.65	10.53	45.1	33.0	0.00	0.00	0.00	0.00		0.0	12.65

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U20L21	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00		0.0	17.82

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L21U22	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00		0.0	20.64

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U22L23	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L23U24	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U24L25	39.98	31.86	567.7	33.0	0.00	0.00	0.00	0.00		0.0	37.86

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L25U26	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00		0.0	32.74

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
U26L27	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY

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         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L27U28  25.56  20.06   349.7 33.0  0.00 0.00    0.00  0.00       0.0  23.89

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U28L29  20.00  17.14   121.2 33.0  0.00 0.00    0.00  0.00       0.0  20.00

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L29U30  15.59  13.40    57.5 33.0  0.00 0.00    0.00  0.00       0.0  15.44

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U30L31  10.00   8.20    21.3 33.0  0.00 0.00    0.00  0.00       0.0   9.70

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L31U32  10.00   8.20    21.3 33.0  0.00 0.00    0.00  0.00       0.0   9.70

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U32L33  15.59  13.40    57.5 33.0  0.00 0.00    0.00  0.00       0.0  15.44

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L33U34  20.00  17.14   121.2 33.0  0.00 0.00    0.00  0.00       0.0  20.00

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
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  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U34L35  25.56  20.06   349.7 33.0  0.00 0.00    0.00  0.00       0.0  23.89

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L35U36  30.26  23.76   419.7 33.0  0.00 0.00    0.00  0.00       0.0  28.30

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U36L37  34.99  27.49   491.8 33.0  0.00 0.00    0.00  0.00       0.0  32.74

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L37U38  39.98  31.86   567.7 33.0  0.00 0.00    0.00  0.00       0.0  37.86

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U38L39  30.26  23.76   419.7 33.0  0.00 0.00    0.00  0.00       0.0  28.30

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L39U40  30.26  23.76   419.7 33.0  0.00 0.00    0.00  0.00       0.0  28.30

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U40L41  22.94  17.20   206.9 33.0  0.00 0.00    0.00  0.00       0.0  20.64

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
               FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L41U42  17.94  15.37   107.3 33.0  0.00 0.00    0.00  0.00       0.0  17.82

               UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
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                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U42L43  12.65  10.53    45.1 33.0  0.00 0.00    0.00  0.00       0.0  12.65

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L43U44   8.81   7.20    17.5 33.0  0.00 0.00    0.00  0.00       0.0   8.52

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U44L45   8.81   7.20    17.5 33.0  0.00 0.00    0.00  0.00       0.0   8.52

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L45U46  12.65  10.53    45.1 33.0  0.00 0.00    0.00  0.00       0.0  12.65

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
U46L47  17.94  15.37   107.3 33.0  0.00 0.00    0.00  0.00       0.0  17.82

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L47U48  22.94  17.20   206.9 33.0  0.00 0.00    0.00  0.00       0.0  20.64

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT          AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L 1L 2  22.69  17.82   419.7 33.0  0.00 0.00    0.00  0.00       0.0  21.23

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.
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         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
L 2L 3  22.69  17.82   419.7 33.0  0.00 0.00    0.00  0.00        0.0  21.23

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
L 3L 4  34.85  27.73   745.0 33.0  0.00 0.00    0.00  0.00        0.0  32.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
L 4L 5  34.85  27.73   745.0 33.0  0.00 0.00    0.00  0.00        0.0  32.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
L 5L 6  34.85  27.73   745.0 33.0  0.00 0.00    0.00  0.00        0.0  32.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
L 6L 7  34.85  27.73   745.0 33.0  0.00 0.00    0.00  0.00        0.0  32.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
L 7L 8  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00        0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
L 8L 9  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00        0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
         DEPTH  LENGTH     SXC      IYC       JXY         IY
          0.0    0.00      0.00     0.00      0.000        0.

         GROSS   NET   MOMENT     UNBRACED                                GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT           AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU     TENS
L 9L10  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00        0.0  29.72
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DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L10L11	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00		0.0	29.72

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L11L12	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00		0.0	29.72

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L12L13	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00		0.0	29.72

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L15L16	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00		0.0	21.23

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L16L17	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00		0.0	21.23

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L17L18	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00		0.0	21.23

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	UNBRACED LENGTH L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L18L19	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00		0.0	21.23

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY

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         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L19L20  22.69  17.82   419.7 33.0  0.00 0.00    0.00  0.00       0.0  21.23

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L20L21  22.69  17.82   419.7 33.0  0.00 0.00    0.00  0.00       0.0  21.23

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L23L24  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L24L25  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L25L26  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L26L27  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L27L28  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
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  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L28L29  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L29L30  34.85  27.73   745.0 33.0  0.00 0.00    0.00  0.00       0.0  32.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L30L31  34.85  27.73   745.0 33.0  0.00 0.00    0.00  0.00       0.0  32.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L31L32  34.85  27.73   745.0 33.0  0.00 0.00    0.00  0.00       0.0  32.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L32L33  34.85  27.73   745.0 33.0  0.00 0.00    0.00  0.00       0.0  32.96

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L33L34  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L34L35  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                            GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT        AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L35L36  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
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                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L36L37  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L37L38  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L38L39  31.39  25.01   660.1 33.0  0.00 0.00    0.00  0.00       0.0  29.72

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L41L42  26.24  20.62   491.8 33.0  0.00 0.00    0.00  0.00       0.0  24.56

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L42L43  26.24  20.62   491.8 33.0  0.00 0.00    0.00  0.00       0.0  24.56

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L43L44  26.24  20.62   491.8 33.0  0.00 0.00    0.00  0.00       0.0  24.56

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.

        GROSS   NET   MOMENT     UNBRACED                              GROSS
MEMBER   AREA   AREA    OF        LENGTH       FLANGE      FAT         AREA
  ID    COMPR   TENS INERTIA  FY    L    ECC   WIDTH   C   CAT   FU    TENS
L44L45  26.24  20.62   491.8 33.0  0.00 0.00    0.00  0.00       0.0  24.56

                UNSUPP   SECTION MOMENT OF  TORSION   MOMENT OF
                FLANGE   MODULUS  INERTIA   INERTIA    INERTIA
        DEPTH  LENGTH     SXC      IYC       JXY         IY
         0.0    0.00      0.00     0.00      0.000        0.
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MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	UNBRACED LENGTH FY	L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L45L46	26.24	20.62	491.8	33.0	0.00	0.00	0.00	0.00		0.0	24.56

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	UNBRACED LENGTH FY	L	ECC	FLANGE WIDTH	C	FAT CAT	FU	GROSS AREA TENS
L46L47	26.24	20.62	491.8	33.0	0.00	0.00	0.00	0.00		0.0	24.56

DEPTH	UNSUPP FLANGE LENGTH	SECTION MODULUS SXC	MOMENT OF INERTIA IYC	TORSION INERTIA JXY	MOMENT OF INERTIA IY
0.0	0.00	0.00	0.00	0.000	0.

STEEL MEMBER PROPERTIES

G F S	S P A N 1	RANGE	T Y P E W	WF BM M OF I OR VRT LEG	WF BM AREA OR HRZ LEG	FLANGE OR ANGLE THICK	FLANGE WIDTH	V A R	WF BM OR WEB PLATE DEPTH	WEB THICK	SHAPE
		8.00	W	446.30	10.59	0.4280	6.942		15.85	0.2990	

TPW	TPT	BPW	BPT	COMP	FY	FY TOP	FY BOT	CG TOP	CG BOT
0.00	0.0000	0.00	0.0000	N	33.0	0.0	0.0	0.000	0.000

	RANGE		M OF I	AREA	THICK	WIDTH	V	DEPTH	THICK	SHAPE
S	0.00	W	446.30	10.59	0.4280	6.942		15.85	0.2990	

TPW	TPT	BPW	BPT	COMP	FY	FY TOP	FY BOT	CG TOP	CG BOT
0.00	0.0000	0.00	0.0000	N	33.0	0.0	0.0	0.000	0.000

LATERAL BRACE POINTS AND STIFFENER SPACINGS

B OR G OR CODE	SPAN	C O D E	NO. OF SPCS	SPACING	C O D E	NO. OF SPCS	SPACING	C O D E	NO. OF SPCS	SPACING	C O D E	NO. OF SPCS	SPACING
BF	1	C	1	16.00	B	2	8.00		0	0.00		0	0.00
			0	0.00		0	0.00		0	0.00		0	0.00

SPECIAL LIVE LOADING 1 AXLE LOADS HAVE BEEN INCREASED BY 3 PERCENT

LANE LOADING

NUMBER OF AXLES	3% INCR	UNIFORM LANE LOAD	CONC LOAD MOMENT	CONC LOAD SHEAR	GAGE DISTANCE	PASSING DISTANCE	VARY LAST	MAX AXLE DIST
2	Y	0.000	0.000	0.000	6.0	3.0		0.0

TRUCK LOAD

AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST	AXLE NO.	LOAD	DIST
1	7.21	13.90	2	14.07	0.00						

DEFAULT VALUES

SLC LEVEL	LANES	GAGE DISTANCE	PASSING DISTANCE	CORS	END COND	UNIT WEIGHT DECK	END BRG LOC	GUSSET PLATE FU
I	---	---	---	S	---	150.0	-	---

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+ +

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+        T R U S S   A N A L Y S I S        +
+                                           +
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LIVE LOAD DISTRIBUTION FACTORS

BASED ON DESIGN LANES

TRUSS FORCE	TRUSS DEFLECTION
1.000(2)	1.000(2)

NOTE: IF THE LIVE LOAD STRESS IS ZERO AT ANY SECTION THE RATING FACTOR IS PRINTED AS 999.99 INDICATING THAT IT IS INFINITE.

NOTE: IF A SECTION DOES NOT MEET FLANGE OR WEB BUCKLING CRITERIA OF CURRENT AASHTO SPECIFICATIONS FOR LOAD FACTOR METHOD, THE RATING FACTORS ARE REPRINTED AS 888.88. THIS INDICATES THAT THERE IS A POTENTIAL FATIGUE PROBLEM.

NOTE: THE ALLOWABLE STRESS IN AN ECCENTRICALLY LOADED COMPRESSION MEMBER IS COMPUTED BY THE SECANT FORMULA. SEE ARTICLE 5.4.2 OF THE 1978 AASHTO MANUAL FOR MAINTENANCE INSPECTION OF BRIDGES.

NOTE: THE COMPRESSION CAPACITY OF THE CORRESPONDING TOP CHORDS AND VERTICAL CHORDS AT EACH SPECIFIED FLOORBEAM LOCATION MAY NOT BE MODIFIED BECAUSE THIS IS NOT A PONY TRUSS OR THE LATERAL STABILITY ANALYSIS IS NOT REQUESTED.

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*  TRUSS  -  LIVE LOAD  SP-1  *
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MEMBER FORCES AND ALLOWABLE STRESS RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	MEMBER LENGTH	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS		RATING FACTORS
U 0U 1	9.67	-152.1	-18.5	1.22	4.8	1.21	IR	-391.5	430.0	IR	12.937
							OR	-488.2	585.3	OR	18.164
U 1U 2	9.50	-152.1	-18.5	1.22	4.8	1.21	IR	-391.7	430.0	IR	12.949
							OR	-488.5	585.3	OR	18.179
U 2U 3	9.50	-326.3	-43.2	1.22	14.2	1.21	IR	-713.8	790.9	IR	8.976
							OR	-890.2	1076.5	OR	13.060
U 3U 4	9.50	-326.3	-43.2	1.22	14.2	1.21	IR	-713.8	790.9	IR	8.976
							OR	-890.2	1076.5	OR	13.060
U 4U 5	9.50	-348.4	-52.4	1.22	23.6	1.21	IR	-794.8	881.3	IR	8.526
							OR	-991.1	1199.5	OR	12.276
U 5U 6	9.50	-348.4	-52.4	1.22	23.6	1.21	IR	-794.8	881.3	IR	8.526
							OR	-991.1	1199.5	OR	12.276
U 6U 7	9.50	-218.4	-49.0	1.22	33.0	1.21	IR	-794.8	881.3	IR	11.752
							OR	-991.1	1199.5	OR	15.755
U 7U 8	9.50	-218.4	-49.0	1.22	33.0	1.21	IR	-794.8	881.3	IR	11.752
							OR	-991.1	1199.5	OR	15.755
U 8U 9	9.50	63.7	-31.1	1.22	42.4	1.21	IR	-642.7	713.3	IR	15.307
							OR	-801.5	970.9	OR	21.376
U 9U10	9.50	63.7	-31.1	1.22	42.4	1.21	IR	-642.7	713.3	IR	15.307
							OR	-801.5	970.9	OR	21.376

U10U11	8.38	470.8	0.0	1.22	51.3	1.21	IR	-797.1	881.3	IR	8.001
							OR	-994.0	1199.5	OR	14.204
U11U12	8.33	470.8	0.0	1.21	51.3	1.21	IR	-797.2	881.3	IR	8.001
							OR	-994.1	1199.5	OR	14.204
U12U13	8.33	123.4	0.0	1.21	17.1	1.21	IR	-393.2	430.0	IR	17.907
							OR	-490.3	585.3	OR	26.975
U13U14	8.33	123.4	0.0	1.21	17.1	1.21	IR	-393.2	430.0	IR	17.907
							OR	-490.3	585.3	OR	26.975
U14U15	8.07	-128.7	-18.4	1.21	0.0	1.21	IR	-465.9	509.4	IR	18.369
							OR	-581.0	693.4	OR	24.640
U15U16	8.00	-128.7	-18.4	1.21	0.0	1.21	IR	-466.0	509.4	IR	18.374
							OR	-581.1	693.4	OR	24.646
U16U17	8.00	-268.3	-37.9	1.21	0.0	1.21	IR	-466.0	509.4	IR	5.216
							OR	-581.1	693.4	OR	8.255
U17U18	8.01	-268.3	-37.9	1.21	0.0	1.21	IR	-465.9	509.4	IR	5.216
							OR	-581.1	693.4	OR	8.254
U18U19	8.01	-268.6	-37.9	1.21	0.0	1.21	IR	-465.9	509.4	IR	5.206
							OR	-581.1	693.4	OR	8.242
U19U20	8.01	-268.6	-37.9	1.21	0.0	1.21	IR	-465.9	509.4	IR	5.206
							OR	-581.1	693.4	OR	8.242
U20U21	8.00	-129.3	-18.5	1.21	0.0	1.21	IR	-466.0	509.4	IR	18.246
							OR	-581.1	693.4	OR	24.485
U21U22	8.07	-129.3	-18.5	1.21	0.0	1.21	IR	-465.9	509.4	IR	18.241
							OR	-581.0	693.4	OR	24.479
U22U23	8.33	122.6	0.0	1.21	17.1	1.21	IR	-393.2	430.0	IR	18.027
							OR	-490.3	585.3	OR	27.132
U23U24	8.33	122.6	0.0	1.21	17.1	1.21	IR	-393.2	430.0	IR	18.027
							OR	-490.3	585.3	OR	27.132
U24U25	8.33	469.7	0.0	1.21	51.1	1.21	IR	-797.2	881.3	IR	8.047
							OR	-994.1	1199.5	OR	14.268
U25U26	8.38	469.7	0.0	1.21	51.1	1.21	IR	-797.1	881.3	IR	8.047
							OR	-994.0	1199.5	OR	14.268
U26U27	9.18	130.2	-30.9	1.21	42.9	1.21	IR	-643.3	713.3	IR	13.588
							OR	-802.2	970.9	OR	19.590
U27U28	9.25	130.2	-30.9	1.21	42.9	1.21	IR	-643.2	713.3	IR	13.588
							OR	-802.1	970.9	OR	19.590
U28U29	9.25	-83.7	-50.0	1.21	34.2	1.21	IR	-872.3	966.8	IR	15.777
							OR	-1087.8	1315.9	OR	20.088
U29U30	9.25	-83.7	-50.0	1.21	34.2	1.21	IR	-872.3	966.8	IR	15.777
							OR	-1087.8	1315.9	OR	20.088
U30U31	9.25	-152.6	-55.2	1.21	25.7	1.21	IR	-872.3	966.8	IR	13.047
							OR	-1087.8	1315.9	OR	16.953
U31U32	9.25	-152.6	-55.2	1.21	25.9	1.22	IR	-872.3	966.8	IR	13.047
							OR	-1087.8	1315.9	OR	16.953
U32U33	9.25	-76.6	-50.0	1.21	34.7	1.22	IR	-872.3	966.8	IR	15.916
							OR	-1087.8	1315.9	OR	20.227
U33U34	9.25	-76.6	-50.0	1.21	34.7	1.22	IR	-872.3	966.8	IR	15.916
							OR	-1087.8	1315.9	OR	20.227
U34U35	9.25	144.3	-30.9	1.21	43.4	1.22	IR	-643.2	713.3	IR	13.100
							OR	-802.1	970.9	OR	19.031

U35U36	9.19	144.3	-30.9	1.21	43.4	1.22	IR	-643.3	713.3	IR	13.100
							OR	-802.2	970.9	OR	19.031
U36U37	8.38	490.7	0.0	1.21	51.8	1.22	IR	-797.1	881.3	IR	7.544
							OR	-994.0	1199.5	OR	13.691
U37U38	8.33	490.7	0.0	1.23	51.8	1.22	IR	-797.2	881.3	IR	7.544
							OR	-994.1	1199.5	OR	13.691
U38U39	8.33	129.3	0.0	1.23	17.2	1.22	IR	-393.2	430.0	IR	17.453
							OR	-490.3	585.3	OR	26.466
U39U40	8.33	129.3	0.0	1.23	17.2	1.22	IR	-393.2	430.0	IR	17.453
							OR	-490.3	585.3	OR	26.466
U40U41	8.63	-147.5	-20.3	1.23	0.0	1.22	IR	-537.9	589.3	IR	19.271
							OR	-670.8	802.1	OR	25.831
U41U42	8.63	-147.5	-20.3	1.23	0.0	1.22	IR	-537.9	589.3	IR	19.271
							OR	-670.8	802.1	OR	25.831
U42U43	8.63	-307.3	-41.9	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.508
							OR	-670.8	802.1	OR	8.682
U43U44	8.63	-307.3	-41.9	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.508
							OR	-670.8	802.1	OR	8.682
U44U45	8.63	-307.1	-41.8	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.516
							OR	-670.8	802.1	OR	8.692
U45U46	8.62	-307.1	-41.8	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.517
							OR	-670.8	802.1	OR	8.693
U46U47	8.62	-147.1	-20.2	1.23	0.0	1.22	IR	-537.9	589.3	IR	19.348
							OR	-670.8	802.1	OR	25.927
U47U48	8.62	-147.1	-20.2	1.23	0.0	1.22	IR	-537.9	589.3	IR	19.348
							OR	-670.8	802.1	OR	25.927
L 1L 2	9.50	251.3	-9.5	1.21	32.8	1.22	IR	-349.2	382.1	IR	3.992
							OR	-435.4	520.1	OR	8.202
L 2L 3	9.50	251.3	-9.5	1.21	32.8	1.22	IR	-349.2	382.1	IR	3.992
							OR	-435.4	520.1	OR	8.202
L 3L 4	9.50	349.5	-18.9	1.21	49.7	1.22	IR	-537.1	593.3	IR	4.906
							OR	-669.8	807.5	OR	9.216
L 4L 5	9.50	349.5	-18.9	1.21	49.7	1.22	IR	-537.1	593.3	IR	4.906
							OR	-669.8	807.5	OR	9.216
L 5L 6	9.50	295.5	-28.3	1.21	52.2	1.22	IR	-537.1	593.3	IR	5.702
							OR	-669.8	807.5	OR	9.805
L 6L 7	9.50	295.5	-28.3	1.21	52.2	1.22	IR	-537.1	593.3	IR	5.702
							OR	-669.8	807.5	OR	9.805
L 7L 8	9.50	89.5	-37.7	1.21	42.0	1.22	IR	-483.7	535.0	IR	10.609
							OR	-603.2	728.1	OR	15.209
L 8L 9	9.50	89.5	-37.7	1.21	42.0	1.22	IR	-483.7	535.0	IR	10.609
							OR	-603.2	728.1	OR	15.209
L 9L10	9.50	-268.7	-47.1	1.21	16.3	1.22	IR	-483.7	535.0	IR	4.561
							OR	-603.2	728.1	OR	7.096
L10L11	8.38	-268.7	-47.1	1.21	16.3	1.22	IR	-484.8	535.0	IR	4.584
							OR	-604.6	728.1	OR	7.125
L11L12	8.33	-286.5	-34.2	1.21	0.0	1.21	IR	-484.9	535.0	IR	5.798
							OR	-604.6	728.1	OR	9.299
L12L13	8.33	-286.5	-34.2	1.21	0.0	1.21	IR	-484.9	535.0	IR	5.798

							OR	-604.6	728.1	OR	9.299
L15L16	8.00	209.5	0.0	1.21	31.0	1.21	IR	-350.3	382.1	IR	5.574
							OR	-436.9	520.1	OR	10.029
L16L17	8.00	209.5	0.0	1.21	31.0	1.21	IR	-350.3	382.1	IR	5.574
							OR	-436.9	520.1	OR	10.029
L17L18	8.01	279.4	0.0	1.21	39.1	1.21	IR	-350.3	382.1	IR	2.628
							OR	-436.9	520.1	OR	6.158
L18L19	8.01	279.4	0.0	1.21	39.1	1.21	IR	-350.3	382.1	IR	2.628
							OR	-436.9	520.1	OR	6.158
L19L20	8.01	209.9	0.0	1.21	31.0	1.21	IR	-350.3	382.1	IR	5.551
							OR	-436.9	520.1	OR	9.997
L20L21	8.00	209.9	0.0	1.21	31.0	1.21	IR	-350.3	382.1	IR	5.551
							OR	-436.9	520.1	OR	9.997
L23L24	8.33	-285.5	-34.1	1.21	0.0	1.21	IR	-484.9	535.0	IR	5.845
							OR	-604.6	728.1	OR	9.357
L24L25	8.33	-285.5	-34.1	1.21	0.0	1.21	IR	-484.9	535.0	IR	5.845
							OR	-604.6	728.1	OR	9.357
L25L26	8.38	-296.5	-47.2	1.21	16.3	1.21	IR	-484.8	535.0	IR	3.988
							OR	-604.6	728.1	OR	6.524
L26L27	9.18	-296.5	-47.2	1.21	16.3	1.21	IR	-484.0	535.0	IR	3.971
							OR	-603.6	728.1	OR	6.504
L27L28	9.25	-11.5	-38.6	1.21	42.2	1.21	IR	-484.0	535.0	IR	12.246
							OR	-603.5	728.1	OR	15.345
L28L29	9.25	-11.5	-38.6	1.21	42.2	1.21	IR	-484.0	535.0	IR	12.246
							OR	-603.5	728.1	OR	15.345
L29L30	9.25	129.9	-29.9	1.21	54.3	1.21	IR	-537.4	593.3	IR	8.532
							OR	-670.2	807.5	OR	12.477
L30L31	9.25	129.9	-29.9	1.21	54.3	1.21	IR	-537.4	593.3	IR	8.532
							OR	-670.2	807.5	OR	12.477
L31L32	9.25	126.4	-30.3	1.22	54.3	1.21	IR	-537.4	593.3	IR	8.596
							OR	-670.2	807.5	OR	12.541
L32L33	9.25	126.4	-30.3	1.22	54.3	1.21	IR	-537.4	593.3	IR	8.596
							OR	-670.2	807.5	OR	12.541
L33L34	9.25	-22.1	-39.0	1.22	42.2	1.21	IR	-484.0	535.0	IR	11.829
							OR	-603.5	728.1	OR	14.891
L34L35	9.25	-22.1	-39.0	1.22	42.2	1.21	IR	-484.0	535.0	IR	11.829
							OR	-603.5	728.1	OR	14.891
L35L36	9.19	-314.3	-47.8	1.22	16.3	1.21	IR	-484.0	535.0	IR	3.550
							OR	-603.6	728.1	OR	6.052
L36L37	8.38	-314.3	-47.8	1.22	16.3	1.21	IR	-484.8	535.0	IR	3.567
							OR	-604.6	728.1	OR	6.073
L37L38	8.33	-299.4	-34.5	1.22	0.0	1.23	IR	-484.9	535.0	IR	5.375
							OR	-604.6	728.1	OR	8.847
L38L39	8.33	-299.4	-34.5	1.22	0.0	1.23	IR	-484.9	535.0	IR	5.375
							OR	-604.6	728.1	OR	8.847
L41L42	8.63	240.2	0.0	1.22	34.2	1.23	IR	-404.7	442.1	IR	5.904
							OR	-504.6	601.7	OR	10.572
L42L43	8.63	240.2	0.0	1.22	34.2	1.23	IR	-404.7	442.1	IR	5.904
							OR	-504.6	601.7	OR	10.572

L43L44	8.63	320.0	0.0	1.22	43.3	1.23	IR	-404.7	442.1	IR	2.821
							OR	-504.6	601.7	OR	6.509
L44L45	8.63	320.0	0.0	1.22	43.3	1.23	IR	-404.7	442.1	IR	2.821
							OR	-504.6	601.7	OR	6.509
L45L46	8.62	239.9	0.0	1.22	34.1	1.23	IR	-404.7	442.1	IR	5.921
							OR	-504.6	601.7	OR	10.596
L46L47	8.62	239.9	0.0	1.22	34.1	1.23	IR	-404.7	442.1	IR	5.921
							OR	-504.6	601.7	OR	10.596
U 0L 1	15.16	238.4	-7.6	1.23	29.0	1.22	IR	-452.8	509.4	IR	9.344
							OR	-564.7	693.4	OR	15.686
L 1U 2	15.05	-157.1	-26.0	1.23	8.0	1.30	IR	-362.4	416.0	IR	7.907
							OR	-451.9	566.2	OR	11.356
U 2L 3	15.05	118.8	-8.0	1.30	23.1	1.24	IR	-254.6	320.8	IR	8.751
							OR	-317.5	436.6	OR	13.771
L 3U 4	15.05	-36.7	-20.2	1.25	8.3	1.30	IR	-207.9	277.9	IR	8.494
							OR	-259.3	378.3	OR	11.042
U 4L 5	15.05	-1.6	-11.5	1.30	17.2	1.27	IR	-132.1	201.1	IR	11.326
							OR	-164.8	273.7	OR	14.160
L 5U 6	15.05	83.8	-14.2	1.28	14.6	1.28	IR	-132.1	201.1	IR	8.037
							OR	-164.8	273.7	OR	13.013
U 6L 7	15.05	-122.1	-17.6	1.27	11.1	1.30	IR	-207.9	277.9	IR	4.874
							OR	-259.3	378.3	OR	7.792
L 7U 8	15.05	204.3	-7.8	1.30	20.6	1.25	IR	-336.2	371.5	IR	8.137
							OR	-419.2	505.7	OR	14.663
U 8L 9	15.05	-242.6	-23.5	1.24	4.5	1.30	IR	-382.5	430.0	IR	5.962
							OR	-477.0	585.3	OR	9.989
L 9U10	15.05	324.7	-1.3	1.30	26.5	1.23	IR	-453.1	509.4	IR	6.979
							OR	-565.0	693.4	OR	13.931
U10L11	14.37	-346.6	-28.2	1.23	0.0	1.00	IR	-601.2	681.5	IR	9.019
							OR	-749.7	927.6	OR	14.281
L11U12	14.34	-317.3	-32.2	1.23	0.0	1.00	IR	-601.3	681.5	IR	8.807
							OR	-749.8	927.6	OR	13.414
U12L13	14.34	280.8	0.0	1.00	31.5	1.24	IR	-454.7	509.4	IR	7.247
							OR	-567.1	693.4	OR	13.078
L13U14	14.34	-212.4	-30.4	1.25	0.0	1.00	IR	-419.7	463.7	IR	6.814
							OR	-523.4	631.1	OR	10.221
U14L15	12.09	192.8	0.0	1.00	28.8	1.26	IR	-343.6	371.5	IR	6.217
							OR	-428.5	505.7	OR	10.883
L15U16	12.04	-121.6	-24.6	1.28	3.1	1.30	IR	-263.4	320.8	IR	5.760
							OR	-328.5	436.6	OR	8.404
U16L17	12.04	88.6	-6.5	1.30	20.3	1.29	IR	-178.2	227.7	IR	6.849
							OR	-222.2	309.9	OR	10.897
L17U18	12.05	-16.7	-15.8	1.30	11.2	1.30	IR	-113.7	153.4	IR	6.136
							OR	-141.8	208.7	OR	7.913
U18L19	12.05	-16.4	-15.8	1.30	11.2	1.30	IR	-113.7	153.4	IR	6.171
							OR	-141.8	208.7	OR	7.952
L19U20	12.05	88.3	-6.6	1.30	20.3	1.29	IR	-178.2	227.7	IR	6.871
							OR	-222.2	309.9	OR	10.923
U20L21	12.04	-121.3	-24.6	1.28	3.1	1.30	IR	-263.4	320.8	IR	5.780
							OR	-328.5	436.6	OR	8.427

L21U22	12.09	193.7	0.0	1.00	28.9	1.26	IR	-343.6	371.5	IR	6.154
							OR	-428.5	505.7	OR	10.796
U22L23	14.34	-211.0	-30.4	1.25	0.0	1.00	IR	-454.7	509.4	IR	8.025
							OR	-567.1	693.4	OR	11.725
L23U24	14.34	280.5	0.0	1.00	31.5	1.24	IR	-454.7	509.4	IR	7.258
							OR	-567.1	693.4	OR	13.091
U24L25	14.34	-317.0	-32.2	1.23	0.0	1.00	IR	-601.3	681.5	IR	8.816
							OR	-749.8	927.6	OR	13.423
L25U26	14.37	-296.9	-28.4	1.23	6.9	1.23	IR	-526.0	589.3	IR	8.055
							OR	-655.9	802.1	OR	12.624
U26L27	14.85	269.1	-7.5	1.30	26.6	1.23	IR	-453.5	509.4	IR	9.042
							OR	-565.6	693.4	OR	15.963
L27U28	14.89	-191.1	-23.8	1.23	7.5	1.30	IR	-382.8	430.0	IR	8.049
							OR	-477.4	585.3	OR	12.019
U28L29	14.89	153.2	-7.5	1.30	21.2	1.24	IR	-284.7	360.0	IR	9.773
							OR	-355.1	490.0	OR	15.917
L29U30	14.89	-74.4	-18.5	1.26	10.1	1.30	IR	-208.6	277.9	IR	7.259
							OR	-260.1	378.3	OR	10.047
U30L31	14.89	36.5	-13.0	1.29	15.8	1.27	IR	-117.8	174.6	IR	8.758
							OR	-146.9	237.6	OR	12.757
L31U32	14.89	42.2	-13.0	1.29	15.8	1.27	IR	-117.8	174.6	IR	8.398
							OR	-146.9	237.6	OR	12.398
U32L33	14.89	-80.1	-18.5	1.26	10.1	1.30	IR	-208.6	277.9	IR	6.952
							OR	-260.1	378.3	OR	9.741
L33U34	14.89	158.9	-7.5	1.30	21.2	1.24	IR	-284.7	360.0	IR	9.506
							OR	-355.1	490.0	OR	15.650
U34L35	14.89	-196.8	-23.8	1.23	7.5	1.30	IR	-382.8	430.0	IR	7.816
							OR	-477.4	585.3	OR	11.790
L35U36	14.85	274.8	-7.5	1.30	26.5	1.23	IR	-453.5	509.4	IR	8.859
							OR	-565.6	693.4	OR	15.806
U36L37	14.37	-302.4	-28.3	1.23	6.9	1.23	IR	-526.0	589.3	IR	7.895
							OR	-655.9	802.1	OR	12.484
L37U38	14.34	-329.3	-32.1	1.23	0.0	1.00	IR	-601.3	681.5	IR	8.471
							OR	-749.8	927.6	OR	13.097
U38L39	14.34	292.8	0.0	1.00	31.5	1.24	IR	-454.7	509.4	IR	6.885
							OR	-567.1	693.4	OR	12.732
L39U40	14.34	-222.6	-30.3	1.25	0.0	1.00	IR	-454.7	509.4	IR	7.662
							OR	-567.1	693.4	OR	11.370
U40L41	12.47	213.1	0.0	1.00	29.7	1.25	IR	-342.7	371.5	IR	5.331
							OR	-427.4	505.7	OR	9.845
L41U42	12.47	-133.9	-25.5	1.27	3.2	1.30	IR	-262.3	320.8	IR	5.025
							OR	-327.1	436.6	OR	7.562
U42L43	12.47	96.9	-7.0	1.30	21.1	1.29	IR	-176.9	227.7	IR	6.194
							OR	-220.6	309.9	OR	10.089
L43U44	12.47	-18.4	-16.5	1.30	11.8	1.30	IR	-112.1	153.4	IR	5.668
							OR	-139.8	208.7	OR	7.342
U44L45	12.47	-18.6	-16.6	1.30	11.7	1.30	IR	-112.1	153.4	IR	5.641
							OR	-139.8	208.7	OR	7.313
L45U46	12.46	97.2	-7.0	1.30	21.1	1.29	IR	-176.9	227.7	IR	6.179

							OR	-220.6	309.9	OR	10.071
U46L47	12.46	-134.1	-25.6	1.27	3.2	1.30	IR	-262.3	320.8	IR	5.017
							OR	-327.1	436.6	OR	7.553
L47U48	12.46	212.7	0.0	1.00	29.9	1.26	IR	-342.7	371.5	IR	5.312
							OR	-427.4	505.7	OR	9.799
U 1L 1	11.67	-61.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	4.760
							OR	-185.5	273.7	OR	6.769
U 3L 3	11.67	-63.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	4.650
							OR	-185.5	273.7	OR	6.660
U 5L 5	11.67	-63.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	4.650
							OR	-185.5	273.7	OR	6.660
U 7L 7	11.67	-63.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	4.650
							OR	-185.5	273.7	OR	6.660
U 9L 9	11.67	-63.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	4.650
							OR	-185.5	273.7	OR	6.660
U10L10	11.67	-0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	99.999
							OR	-185.5	273.7	OR	99.999
U11L11	11.67	-56.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	5.033
							OR	-185.5	273.7	OR	7.043
U12L12	11.67	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	99.999
							OR	-185.5	273.7	OR	99.999
U13L13	11.67	-56.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	5.033
							OR	-185.5	273.7	OR	7.043
U15L15	9.00	-53.7	-18.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	4.818
							OR	-176.9	237.6	OR	6.734
U17L17	9.00	-53.7	-18.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	4.818
							OR	-176.9	237.6	OR	6.734
U19L19	9.00	-53.7	-18.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	4.818
							OR	-176.9	237.6	OR	6.734
U21L21	9.00	-53.7	-18.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	4.818
							OR	-176.9	237.6	OR	6.734
U23L23	11.67	-56.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	5.033
							OR	-185.5	273.7	OR	7.043
U24L24	11.67	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	99.999
							OR	-185.5	273.7	OR	99.999
U25L25	11.67	-56.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	5.033
							OR	-185.5	273.7	OR	7.043
U26L26	11.67	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	99.999
							OR	-185.5	273.7	OR	99.999
U27L27	11.67	-61.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	4.760
							OR	-185.5	273.7	OR	6.769
U29L29	11.67	-61.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	4.760
							OR	-185.5	273.7	OR	6.769
U31L31	11.67	-61.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	4.760
							OR	-185.5	273.7	OR	6.769
U33L33	11.67	-61.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	4.760
							OR	-185.5	273.7	OR	6.769
U35L35	11.67	-61.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	4.760
							OR	-185.5	273.7	OR	6.769

U37L37	11.67	-56.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	5.033
							OR	-185.5	273.7	OR	7.043
U39L39	11.67	-56.7	-18.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	5.033
							OR	-185.5	273.7	OR	7.043
U41L41	9.00	-56.7	-18.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	4.654
							OR	-176.9	237.6	OR	6.570
U43L43	9.00	-56.7	-18.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	4.654
							OR	-176.9	237.6	OR	6.570
U45L45	9.00	-56.7	-18.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	4.654
							OR	-176.9	237.6	OR	6.570
U47L47	9.00	-56.7	-18.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	4.654
							OR	-176.9	237.6	OR	6.570

MEMBER L18L19 IS CRITICAL. SEE DETAILS BELOW.

DL	LL + IMPACT FORCE				ALLOWABLE FORCE			RATING	
FORCE	COMP	I.F.	TENS	I.F.		COMP	TENS	FACTOR	TONS
279.4	0.0	1.21	39.1	1.21	IR	-350.3	382.1	IR 2.628	27.14
					OR	-436.9	520.1	OR 6.158	63.61

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
U 0	213.3	24.8	1.22
L11	596.5	30.9	1.21
L25	555.9	30.6	1.21
L37	570.4	30.8	1.22
U48	180.3	24.4	1.23

PANEL POINT DEFLECTIONS

PANEL	DEAD LOAD + TEMP		LIVE LOAD + IMPACT					
POINT	VERT	HOR	VERT+	I.F.	VERT-	I.F.	HOR+	HOR-
U 0	0.00	0.61	0.00	1.22	0.00	1.21	0.05	-0.04
U 1	0.34	0.59	0.03	1.22	-0.02	1.21	0.05	-0.04
U 2	0.57	0.56	0.07	1.22	-0.03	1.21	0.05	-0.04
U 3	0.78	0.54	0.10	1.22	-0.04	1.21	0.05	-0.04
U 4	0.86	0.51	0.12	1.22	-0.05	1.21	0.05	-0.04
U 5	0.91	0.48	0.13	1.22	-0.06	1.21	0.05	-0.04
U 6	0.81	0.46	0.12	1.22	-0.07	1.21	0.05	-0.04
U 7	0.70	0.44	0.11	1.22	-0.07	1.21	0.05	-0.04
U 8	0.50	0.42	0.09	1.22	-0.06	1.21	0.05	-0.04
U 9	0.34	0.43	0.06	1.22	-0.05	1.21	0.05	-0.04
U10	0.11	0.44	0.03	1.22	-0.03	1.21	0.05	-0.04
U11	0.02	0.47	0.01	1.21	0.00	1.21	0.05	-0.04
U12	0.05	0.50	0.04	1.21	-0.02	1.21	0.05	-0.04
U13	0.19	0.51	0.08	1.21	-0.05	1.21	0.05	-0.04
U14	0.28	0.53	0.13	1.21	-0.07	1.21	0.05	-0.04
U15	0.56	0.52	0.13	1.21	-0.06	1.21	0.05	-0.04
U16	0.75	0.50	0.14	1.21	-0.05	1.21	0.05	-0.04
U17	0.94	0.47	0.15	1.21	-0.05	1.21	0.05	-0.04
U18	1.00	0.44	0.15	1.21	-0.04	1.21	0.05	-0.04
U19	1.00	0.41	0.15	1.21	-0.05	1.21	0.05	-0.04
U20	0.88	0.39	0.14	1.21	-0.06	1.21	0.05	-0.04
U21	0.74	0.37	0.13	1.21	-0.07	1.21	0.05	-0.04
U22	0.52	0.36	0.13	1.21	-0.07	1.21	0.05	-0.04
U23	0.35	0.37	0.08	1.21	-0.05	1.21	0.05	-0.04
U24	0.14	0.39	0.04	1.21	-0.02	1.21	0.05	-0.04
U25	0.02	0.42	0.01	1.21	0.00	1.21	0.05	-0.04
U26	0.03	0.45	0.03	1.21	-0.03	1.21	0.05	-0.04
U27	0.14	0.46	0.06	1.21	-0.05	1.21	0.05	-0.04
U28	0.21	0.48	0.09	1.21	-0.06	1.21	0.05	-0.04
U29	0.34	0.47	0.12	1.21	-0.07	1.21	0.05	-0.04
U30	0.38	0.47	0.13	1.21	-0.07	1.21	0.05	-0.04
U31	0.44	0.46	0.14	1.21	-0.07	1.21	0.05	-0.03

U32	0.38	0.44	0.13	1.21	-0.07	1.22	0.05	-0.03
U33	0.33	0.44	0.12	1.21	-0.07	1.22	0.05	-0.03
U34	0.20	0.43	0.09	1.21	-0.06	1.22	0.06	-0.03
U35	0.13	0.45	0.06	1.21	-0.05	1.22	0.06	-0.03
U36	0.02	0.46	0.03	1.21	-0.03	1.22	0.06	-0.02
U37	0.02	0.49	0.01	1.23	0.00	1.22	0.06	-0.02
U38	0.15	0.53	0.04	1.23	-0.03	1.22	0.06	-0.02
U39	0.38	0.54	0.09	1.23	-0.05	1.22	0.06	-0.01
U40	0.56	0.56	0.14	1.23	-0.08	1.22	0.07	-0.01
U41	0.77	0.55	0.13	1.23	-0.07	1.22	0.06	-0.01
U42	0.90	0.53	0.13	1.23	-0.06	1.22	0.06	-0.01
U43	1.01	0.50	0.14	1.23	-0.05	1.22	0.06	-0.01
U44	0.97	0.47	0.13	1.23	-0.04	1.22	0.06	-0.01
U45	0.87	0.44	0.11	1.23	-0.03	1.22	0.05	-0.01
U46	0.62	0.41	0.07	1.23	-0.02	1.22	0.05	-0.01
U47	0.35	0.39	0.04	1.23	-0.01	1.22	0.05	-0.01
U48	0.00	0.38	0.00	1.23	0.00	1.22	0.05	-0.01

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+                                          +
+     S T R I N G E R   A N A L Y S I S    +
+                                          +
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THE STRINGER LOCATED AT 8.00 FT. FROM THE CENTER LINE OF GIRDER OR TRUSS IS CRITICAL.

LIVE LOAD DISTRIBUTION FACTOR FOR MOMENT: 0.727

LIVE LOAD DISTRIBUTION FACTOR FOR SHEAR: 0.625

DEAD LOADS ACTING ON THE STRINGER

STRINGER WEIGHT	SLAB WEIGHT	INPUT DL1	TOTAL DL1	TOTAL DL2
0.036	0.792	0.976	1.804	0.000

STRINGER SECTION PROPERTIES

	DEPTH	GROSS AREA	MOMENT OF INERTIA	C BOTTOM	SECTION TOP	MODULUS BOTTOM
NON-COMPOSITE	15.85	10.59	446.30	7.92	56.32	56.32

DEFLECTIONS

SPAN 1 - LIVE LOAD IMPACT FACTOR FOR DEFLECTION: 1.30
=======

	DEAD LOAD		LIVE LOAD + IMPACT
X	DL1	DL2	SP-1
0.00	0.000	0.000	0.000
0.95	0.008	0.000	0.009
1.90	0.015	0.000	0.017
2.85	0.021	0.000	0.023
3.80	0.024	0.000	0.028
4.75	0.025	0.000	0.029
5.70	0.024	0.000	0.028
6.65	0.021	0.000	0.023
7.60	0.015	0.000	0.017
8.55	0.008	0.000	0.009
9.50	0.000	0.000	0.000

SPAN 2 - LIVE LOAD IMPACT FACTOR FOR DEFLECTION: 1.30
=======

	DEAD LOAD		LIVE LOAD + IMPACT
X	DL1	DL2	SP-1
0.00	0.000	0.000	0.000
0.95	0.008	0.000	0.009
1.90	0.015	0.000	0.017
2.85	0.021	0.000	0.023
3.80	0.024	0.000	0.028
4.75	0.025	0.000	0.029
5.70	0.024	0.000	0.028

6.65	0.021	0.000	0.023
7.60	0.015	0.000	0.017
8.55	0.008	0.000	0.009
9.50	0.000	0.000	0.000

SPAN 3 - LIVE LOAD IMPACT FACTOR FOR DEFLECTION: 1.30
=======

	DEAD LOAD		---------- LIVE LOAD + IMPACT ----------
X	DL1	DL2	SP-1
0.00	0.000	0.000	0.000
0.95	0.008	0.000	0.009
1.90	0.015	0.000	0.017
2.85	0.021	0.000	0.023
3.80	0.024	0.000	0.028
4.75	0.025	0.000	0.029
5.70	0.024	0.000	0.028
6.65	0.021	0.000	0.023
7.60	0.015	0.000	0.017
8.55	0.008	0.000	0.009
9.50	0.000	0.000	0.000

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*********************************
*  STRINGER  -  LIVE LOAD  SP-1  *
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MAXIMUM REACTIONS

SUPPORT	DL1	DL2	+(LL+I)	-(LL+I)	REACTIONS +I.F.	REACTIONS -I.F.	MOMENTS +I.F.	MOMENTS -I.F.
1	8.6	0.0	13.2	0.0	1.30			
2	17.1	0.0	11.4	0.0	1.30			
3	17.1	0.0	13.2	0.0	1.30			
4	8.6	0.0	11.4	0.0	1.30			

NOTE: ALL SUPPORT REACTIONS AND END SHEARS IN EACH SPAN DUE TO A LIVE LOAD
ARE CALCULATED BASED ON AASHTO ARTICLE 3.23.1 AS INTERPRETED PER
SOL 431-93-05 IN PENNDOT DM4 REV 12-94, PAGE C B.3-8.

UNFACTORED MOMENTS AND SHEARS

SPAN 1 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	I M	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0		8.6	0.0	13.2	0.0	1.30
	SIMULT SHEAR		0.0	0.0		SIMULT MOM		0.0	0.0	
0.95	7.3	0.0	11.4	0.0		6.9	0.0	12.0	-1.3	1.30
	SIMULT SHEAR		12.0	0.0		SIMULT MOM		11.4	11.4	
1.90	13.0	0.0	20.2	0.0		5.1	0.0	10.6	-2.7	1.30
	SIMULT SHEAR		10.6	0.0		SIMULT MOM		20.2	20.2	
2.85	17.1	0.0	26.5	0.0		3.4	0.0	9.3	-4.0	1.30
	SIMULT SHEAR		9.3	0.0		SIMULT MOM		26.5	26.5	
3.80	19.5	0.0	30.3	0.0		1.7	0.0	8.0	-5.3	1.30
	SIMULT SHEAR		8.0	0.0		SIMULT MOM		30.3	30.3	
4.75	20.4	0.0	31.6	0.0		-0.0	0.0	6.6	-6.6	1.30
	SIMULT SHEAR		-6.6	0.0		SIMULT MOM		31.6	31.6	
5.70	19.5	0.0	30.3	0.0		-1.7	0.0	5.3	-8.0	1.30
	SIMULT SHEAR		-8.0	0.0		SIMULT MOM		30.3	30.3	
6.65	17.1	0.0	26.5	0.0		-3.4	0.0	4.0	-9.3	1.30
	SIMULT SHEAR		-9.3	0.0		SIMULT MOM		26.5	26.5	
7.60	13.0	0.0	20.2	0.0		-5.1	0.0	2.7	-10.6	1.30
	SIMULT SHEAR		-10.6	0.0		SIMULT MOM		20.2	20.2	
8.55	7.3	0.0	11.4	0.0		-6.9	0.0	1.3	-12.0	1.30
	SIMULT SHEAR		-12.0	0.0		SIMULT MOM		11.4	11.4	
9.50	0.0	0.0	0.0	0.0		-8.6	0.0	0.0	-13.2	1.30
	SIMULT SHEAR		0.0	0.0		SIMULT MOM		0.0	0.0	

SPAN 2 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	I M	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.

0.00	0.0	0.0	0.0	0.0	8.6	0.0	13.2	0.0	1.30
	SIMULT SHEAR		0.0	0.0	SIMULT MOM		0.0	0.0	
0.95	7.3	0.0	11.4	0.0	6.9	0.0	12.0	-1.3	1.30
	SIMULT SHEAR		12.0	0.0	SIMULT MOM		11.4	11.4	
1.90	13.0	0.0	20.2	0.0	5.1	0.0	10.6	-2.7	1.30
	SIMULT SHEAR		10.6	0.0	SIMULT MOM		20.2	20.2	
2.85	17.1	0.0	26.5	0.0	3.4	0.0	9.3	-4.0	1.30
	SIMULT SHEAR		9.3	0.0	SIMULT MOM		26.5	26.5	
3.80	19.5	0.0	30.3	0.0	1.7	0.0	8.0	-5.3	1.30
	SIMULT SHEAR		8.0	0.0	SIMULT MOM		30.3	30.3	
4.75	20.4	0.0	31.6	0.0	0.0	0.0	6.6	-6.6	1.30
	SIMULT SHEAR		-6.6	0.0	SIMULT MOM		31.6	31.6	
5.70	19.5	0.0	30.3	0.0	-1.7	0.0	5.3	-8.0	1.30
	SIMULT SHEAR		-8.0	0.0	SIMULT MOM		30.3	30.3	
6.65	17.1	0.0	26.5	0.0	-3.4	0.0	4.0	-9.3	1.30
	SIMULT SHEAR		-9.3	0.0	SIMULT MOM		26.5	26.5	
7.60	13.0	0.0	20.2	0.0	-5.1	0.0	2.7	-10.6	1.30
	SIMULT SHEAR		-10.6	0.0	SIMULT MOM		20.2	20.2	
8.55	7.3	0.0	11.4	0.0	-6.9	0.0	1.3	-12.0	1.30
	SIMULT SHEAR		-12.0	0.0	SIMULT MOM		11.4	11.4	
9.50	0.0	0.0	0.0	0.0	-8.6	0.0	0.0	-11.4	1.30
	SIMULT SHEAR		0.0	0.0	SIMULT MOM		0.0	0.0	

SPAN 3 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	I M	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0		8.6	0.0	13.2	0.0	1.30
	SIMULT SHEAR		0.0	0.0		SIMULT MOM		0.0	0.0	
0.95	7.3	0.0	11.4	0.0		6.9	0.0	12.0	-1.3	1.30
	SIMULT SHEAR		12.0	0.0		SIMULT MOM		11.4	11.4	
1.90	13.0	0.0	20.2	0.0		5.1	0.0	10.6	-2.7	1.30
	SIMULT SHEAR		10.6	0.0		SIMULT MOM		20.2	20.2	
2.85	17.1	0.0	26.5	0.0		3.4	0.0	9.3	-4.0	1.30
	SIMULT SHEAR		9.3	0.0		SIMULT MOM		26.5	26.5	
3.80	19.5	0.0	30.3	0.0		1.7	0.0	8.0	-5.3	1.30
	SIMULT SHEAR		8.0	0.0		SIMULT MOM		30.3	30.3	
4.75	20.4	0.0	31.6	0.0		0.0	0.0	6.6	-6.6	1.30
	SIMULT SHEAR		-6.6	0.0		SIMULT MOM		31.6	31.6	
5.70	19.5	0.0	30.3	0.0		-1.7	0.0	5.3	-8.0	1.30
	SIMULT SHEAR		-8.0	0.0		SIMULT MOM		30.3	30.3	
6.65	17.1	0.0	26.5	0.0		-3.4	0.0	4.0	-9.3	1.30
	SIMULT SHEAR		-9.3	0.0		SIMULT MOM		26.5	26.5	
7.60	13.0	0.0	20.2	0.0		-5.1	0.0	2.7	-10.6	1.30
	SIMULT SHEAR		-10.6	0.0		SIMULT MOM		20.2	20.2	
8.55	7.3	0.0	11.4	0.0		-6.9	0.0	1.3	-12.0	1.30
	SIMULT SHEAR		-12.0	0.0		SIMULT MOM		11.4	11.4	
9.50	0.0	0.0	0.0	0.0		-8.6	0.0	0.0	-11.4	1.30
	SIMULT SHEAR		0.0	0.0		SIMULT MOM		0.0	0.0	

FLEXURAL STRESSES - BEAM

SPAN 1
=======

	TOP FIBER STEEL STRESS				BOTTOM FIBER STEEL STRESS			
X	DL1	DL2	+(LL+I)	-(LL+I)	DL1	DL2	+(LL+I)	-(LL+I)
0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.95	-1.561	0.000	-2.423	0.000	1.561	0.000	2.423	0.000
1.90	-2.775	0.000	-4.307	0.000	2.775	0.000	4.307	0.000
2.85	-3.643	0.000	-5.653	0.000	3.643	0.000	5.653	0.000
3.80	-4.163	0.000	-6.460	0.000	4.163	0.000	6.460	0.000
4.75	-4.336	0.000	-6.730	0.000	4.336	0.000	6.730	0.000
5.70	-4.163	0.000	-6.460	0.000	4.163	0.000	6.460	0.000
6.65	-3.643	0.000	-5.653	0.000	3.643	0.000	5.653	0.000
7.60	-2.775	0.000	-4.307	0.000	2.775	0.000	4.307	0.000
8.55	-1.561	0.000	-2.423	0.000	1.561	0.000	2.423	0.000
9.50	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SPAN 2
=======

	TOP FIBER STEEL STRESS				BOTTOM FIBER STEEL STRESS			
X	DL1	DL2	+(LL+I)	-(LL+I)	DL1	DL2	+(LL+I)	-(LL+I)
0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

0.95	-1.561	0.000	-2.423	0.000	1.561	0.000	2.423	0.000
1.90	-2.775	0.000	-4.307	0.000	2.775	0.000	4.307	0.000
2.85	-3.643	0.000	-5.653	0.000	3.643	0.000	5.653	0.000
3.80	-4.163	0.000	-6.460	0.000	4.163	0.000	6.460	0.000
4.75	-4.336	0.000	-6.730	0.000	4.336	0.000	6.730	0.000
5.70	-4.163	0.000	-6.460	0.000	4.163	0.000	6.460	0.000
6.65	-3.643	0.000	-5.653	0.000	3.643	0.000	5.653	0.000
7.60	-2.775	0.000	-4.307	0.000	2.775	0.000	4.307	0.000
8.55	-1.561	0.000	-2.423	0.000	1.561	0.000	2.423	0.000
9.50	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SPAN 3
=======

	TOP FIBER STEEL STRESS				BOTTOM FIBER STEEL STRESS			
X	DL1	DL2	+(LL+I)	-(LL+I)	DL1	DL2	+(LL+I)	-(LL+I)
0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.95	-1.561	0.000	-2.423	0.000	1.561	0.000	2.423	0.000
1.90	-2.775	0.000	-4.307	0.000	2.775	0.000	4.307	0.000
2.85	-3.643	0.000	-5.653	0.000	3.643	0.000	5.653	0.000
3.80	-4.163	0.000	-6.460	0.000	4.163	0.000	6.460	0.000
4.75	-4.336	0.000	-6.730	0.000	4.336	0.000	6.730	0.000
5.70	-4.163	0.000	-6.460	0.000	4.163	0.000	6.460	0.000
6.65	-3.643	0.000	-5.653	0.000	3.643	0.000	5.653	0.000
7.60	-2.775	0.000	-4.307	0.000	2.775	0.000	4.307	0.000
8.55	-1.561	0.000	-2.423	0.000	1.561	0.000	2.423	0.000
9.50	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SHEAR STRESSES AND ALLOWABLE STRESS RATINGS

SPAN 1
=======

	SHEAR STRESSES				ALLOW COMPR	RATING FACTORS	
X	DL1	DL2	+(LL+I)	-(LL+I)	REDUCTION	IR	OR
0.00	1.911	0.000	2.953	0.000	1.000	3.08 V	4.42 V
0.95	1.529	0.000	2.669	-0.297	1.000	3.55 V	5.03 V
1.90	1.147	0.000	2.373	-0.593	1.000	3.57 T	5.10 T
2.85	0.765	0.000	2.076	-0.890	1.000	2.57 T	3.73 T
3.80	0.382	0.000	1.780	-1.186	1.000	2.17 T	3.19 T
4.75	-0.000	0.000	1.483	-1.483	1.000	2.05 T	3.03 T
5.70	-0.382	0.000	1.186	-1.780	1.000	2.17 T	3.19 T
6.65	-0.765	0.000	0.890	-2.076	1.000	2.57 T	3.73 T
7.60	-1.147	0.000	0.593	-2.373	1.000	3.57 T	5.10 T
8.55	-1.529	0.000	0.297	-2.669	1.000	3.55 V	5.03 V
9.50	-1.911	0.000	0.000	-2.953	1.000	3.08 V	4.42 V

SPAN 2
=======

	SHEAR STRESSES				ALLOW COMPR	RATING FACTORS	
X	DL1	DL2	+(LL+I)	-(LL+I)	REDUCTION	IR	OR
0.00	1.911	0.000	2.953	0.000	1.000	3.08 V	4.42 V
0.95	1.529	0.000	2.669	-0.297	1.000	3.55 V	5.03 V
1.90	1.147	0.000	2.373	-0.593	1.000	3.57 T	5.10 T
2.85	0.765	0.000	2.076	-0.890	1.000	2.57 T	3.73 T
3.80	0.382	0.000	1.780	-1.186	1.000	2.17 T	3.19 T
4.75	0.000	0.000	1.483	-1.483	1.000	2.05 T	3.03 T
5.70	-0.382	0.000	1.186	-1.780	1.000	2.17 T	3.19 T
6.65	-0.765	0.000	0.890	-2.076	1.000	2.57 T	3.73 T
7.60	-1.147	0.000	0.593	-2.373	1.000	3.57 T	5.10 T
8.55	-1.529	0.000	0.297	-2.669	1.000	3.55 V	5.03 V
9.50	-1.911	0.000	0.000	-2.550	1.000	3.56 V	5.12 V

SPAN 3
=======

	SHEAR STRESSES				ALLOW COMPR	RATING FACTORS	
X	DL1	DL2	+(LL+I)	-(LL+I)	REDUCTION	IR	OR
0.00	1.911	0.000	2.953	0.000	1.000	3.08 V	4.42 V
0.95	1.529	0.000	2.669	-0.297	1.000	3.55 V	5.03 V
1.90	1.147	0.000	2.373	-0.593	1.000	3.57 T	5.10 T
2.85	0.765	0.000	2.076	-0.890	1.000	2.57 T	3.73 T
3.80	0.382	0.000	1.780	-1.186	1.000	2.17 T	3.19 T
4.75	0.000	0.000	1.483	-1.483	1.000	2.05 T	3.03 T
5.70	-0.382	0.000	1.186	-1.780	1.000	2.17 T	3.19 T
6.65	-0.765	0.000	0.890	-2.076	1.000	2.57 T	3.73 T

7.60	-1.147	0.000	0.593	-2.373	1.000	3.57 T	5.10 T
8.55	-1.529	0.000	0.297	-2.669	1.000	3.55 V	5.03 V
9.50	-1.911	0.000	0.000	-2.550	1.000	3.56 V	5.12 V

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

SPAN 1
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	2.60 V	4.34 V	172.2	2.60 V	4.34 V
0.95	154.9 B	123.9	85.8	2.97 V	4.94 V	172.2	2.97 V	4.94 V
1.90	154.9 B	123.9	85.8	3.15 T	5.25 T	172.2	3.29 O	5.49 O
2.85	154.9 B	123.9	85.8	2.31 T	3.85 T	172.2	2.42 O	4.03 O
3.80	154.9 B	123.9	85.8	1.97 T	3.28 T	172.2	2.07 O	3.44 O
4.75	154.9 B	123.9	85.8	1.88 T	3.13 T	172.2	1.97 O	3.28 O
5.70	154.9 B	123.9	85.8	1.97 T	3.28 T	172.2	2.07 O	3.44 O
6.65	154.9 B	123.9	85.8	2.31 T	3.85 T	172.2	2.42 O	4.03 O
7.60	154.9 B	123.9	85.8	3.15 T	5.25 T	172.2	3.29 O	5.49 O
8.55	154.9 B	123.9	85.8	2.97 V	4.94 V	172.2	2.97 V	4.94 V
9.50	154.9 B	123.9	85.8	2.60 V	4.34 V	172.2	2.60 V	4.34 V

SPAN 2
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	2.60 V	4.34 V	172.2	2.60 V	4.34 V
0.95	154.9 B	123.9	85.8	2.97 V	4.94 V	172.2	2.97 V	4.94 V
1.90	154.9 B	123.9	85.8	3.15 T	5.25 T	172.2	3.29 O	5.49 O
2.85	154.9 B	123.9	85.8	2.31 T	3.85 T	172.2	2.42 O	4.03 O
3.80	154.9 B	123.9	85.8	1.97 T	3.28 T	172.2	2.07 O	3.44 O
4.75	154.9 B	123.9	85.8	1.88 T	3.13 T	172.2	1.97 O	3.28 O
5.70	154.9 B	123.9	85.8	1.97 T	3.28 T	172.2	2.07 O	3.44 O
6.65	154.9 B	123.9	85.8	2.31 T	3.85 T	172.2	2.42 O	4.03 O
7.60	154.9 B	123.9	85.8	3.15 T	5.25 T	172.2	3.29 O	5.49 O
8.55	154.9 B	123.9	85.8	2.97 V	4.94 V	172.2	2.97 V	4.94 V
9.50	154.9 B	123.9	85.8	3.01 V	5.02 V	172.2	3.01 V	5.02 V

SPAN 3
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	2.60 V	4.34 V	172.2	2.60 V	4.34 V
0.95	154.9 B	123.9	85.8	2.97 V	4.94 V	172.2	2.97 V	4.94 V
1.90	154.9 B	123.9	85.8	3.15 T	5.25 T	172.2	3.29 O	5.49 O
2.85	154.9 B	123.9	85.8	2.31 T	3.85 T	172.2	2.42 O	4.03 O
3.80	154.9 B	123.9	85.8	1.97 T	3.28 T	172.2	2.07 O	3.44 O
4.75	154.9 B	123.9	85.8	1.88 T	3.13 T	172.2	1.97 O	3.28 O
5.70	154.9 B	123.9	85.8	1.97 T	3.28 T	172.2	2.07 O	3.44 O
6.65	154.9 B	123.9	85.8	2.31 T	3.85 T	172.2	2.42 O	4.03 O
7.60	154.9 B	123.9	85.8	3.15 T	5.25 T	172.2	3.29 O	5.49 O
8.55	154.9 B	123.9	85.8	2.97 V	4.94 V	172.2	2.97 V	4.94 V
9.50	154.9 B	123.9	85.8	3.01 V	5.02 V	172.2	3.01 V	5.02 V

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+                                          +
+    F L O O R B E A M   A N A L Y S I S   +
+                                          +
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FLOORBEAM SPAN INFORMATION
ANALYZING HALF THE FLOORBEAM

LEFT CANTILEVER: 0.00 FT, FLOORBEAM MAIN SPAN: 16.00 FT
RIGHT CANTILEVER: 0.00 FT
TOTAL FLOORBEAM SPAN (INCLUDING ANY EXISTING CANTILEVER): 16.00 FT

NUMBER OF TRAFFIC LANES: 2, WHERE LANE WIDTH IS BASED ON DESIGN LANE:
DECK WIDTH: 20.67 FT, ROADWAY WIDTH: 18.00 FT
CL OF GIRDER OR TRUSS TO CURB: -1.00 FT

MINIMAL X1 AT ROADWAY: 0.50 FT, MAXIMAL X2 AT ROADWAY: 15.50 FT

NOTE: THE WHEEL LOAD POSITIONS (X1 AND X2) MUST BE BETWEEN MINIMAL_X1_AT_ROADWAY AND MAXIMAL_X2_AT_ROADWAY

FLOORBEAM LIVE LOAD MOMENT AND SHEAR FACTORS

BASED ON DESIGN LANE
WHEEL LOAD POSITIONS

X	FACTOR	LANE 1/4/7 X1	LANE 1/4/7 X2	LANE 2/5/8 X1	LANE 2/5/8 X2	LANE 3/6/9 X1	LANE 3/6/9 X2
0.00	0.000 M	0.00	0.00				
	1.000 V	0.50	6.50	9.50	15.50		
1.60	1.140 M	1.60	7.60				
	0.713 V	1.60	7.60				
3.20	1.960 M	3.20	9.20				
	0.612 V	3.20	9.20				
4.80	2.650 M	0.50	6.50	9.50	15.50		
	0.512 V	4.80	10.80				
6.40	3.450 M	0.50	6.50	9.50	15.50		
	0.500 V	0.50	6.50	9.50	15.50		
8.00	3.500 M	0.50	6.50	9.50	15.50		
	0.313 V	8.00	14.00				

MOMENT/SHEAR FACTOR CODES: M - MOMENT, V - SHEAR

NOTE: THE EFFECT OF A SET OF WHEELS PLACED TRANSVERSELY ACROSS THE BRIDGE (ALONG THE FLOORBEAM SPAN) TO FIND THE MAXIMUM POS AND NEG MOMENTS OR SHEARS EXPRESSED IN TERMS OF THE NUMBER OF AXLES IS REFERRED TO AS MOMENT OR SHEAR FACTORS.

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<    FLOORBEAM  1    >
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FLOORBEAM SECTION PROPERTIES
(UNIFORM SECTION)

	DEPTH	GROSS AREA	MOMENT OF INERTIA	C BOTTOM	SECTION MODULUS TOP	SECTION MODULUS BOTTOM
NON-COMPOSITE	15.85	10.59	446.30	7.92	56.32	56.32

DEAD LOADS ACTING ON THE FLOORBEAM

UNIFORM LOAD FLOORBEAM WEIGHT	INPUT DL1FB	CONCENTRATED LOADS DIST	DL1	DL2
0.036	0.000	8.000	8.569	0.000

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*************************************
*  FLOORBEAM  1 -  LIVE LOAD  SP-1  *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK): 14.07

LIVE LOAD IMPACT FACTORS: POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	4.6	0.0	18.3	1.30
1.60	7.3	0.0	20.9	4.5	0.0	13.0	1.30
3.20	14.4	0.0	35.8	4.5	0.0	11.2	1.30
4.80	21.5	0.0	48.5	4.4	0.0	9.4	1.30
6.40	28.5	0.0	63.1	4.3	0.0	9.1	1.30
8.00	35.4	0.0	64.0	-4.3	0.0	5.7	1.30

NOTE: SYMBOL NEXT TO X
R: IT IS A RANGE POINT
B: IT IS BOTH A RANGE POINT AND ANALYSIS POINT

FLEXURAL STRESSES - BEAM

	TOP FIBER STEEL STRESS				BOTTOM FIBER STEEL STRESS			
X	DL1	DL2	+(LL+I)	-(LL+I)	DL1	DL2	+(LL+I)	-(LL+I)
0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.60	-1.549	0.000	-4.443	0.000	1.549	0.000	4.443	0.000
3.20	-3.079	0.000	-7.639	0.000	3.079	0.000	7.639	0.000
4.80	-4.588	0.000	-10.328	0.000	4.588	0.000	10.328	0.000
6.40	-6.079	0.000	-13.446	0.000	6.079	0.000	13.446	0.000
8.00	-7.549	0.000	-13.641	0.000	7.549	0.000	13.641	0.000

SHEAR STRESSES AND ALLOWABLE STRESS RATINGS

	SHEAR STRESSES				ALLOW COMPR	RATING FACTORS	
X	DL1	DL2	+(LL+I)	-(LL+I)	REDUCTION	IR	OR
0.00	1.020	0.000	4.080	0.000	1.000	2.45 V	3.42 V
1.60	1.007	0.000	2.907	0.000	1.000	3.44 V	4.80 V
3.20	0.994	0.000	2.499	0.000	1.000	1.97 T	2.84 T
4.80	0.981	0.000	2.091	0.000	1.000	1.31 T	1.95 T
6.40	0.968	0.000	2.040	0.000	1.000	0.90 T	1.39 T
8.00	-0.956	0.000	1.275	0.000	1.000	0.78 T	1.26 T

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

	NON-COMP OVERLOAD			NON-COMPACT		COMPACT	COMPACT	
	MOMENT	MOMENT	SHEAR	RATING FACTORS		MOMENT	RATING FACTORS	
X	STRENGTH	STRENGTH	STRENGTH	IR	OR	STRENGTH	IR	OR
0.00	154.9 B	123.9	85.8	2.02 V	3.36 V	172.2	2.02 V	3.36 V
1.60	154.9 B	123.9	85.8	2.83 V	4.72 V	172.2	2.83 V	4.72 V
3.20	154.9 B	123.9	85.8	1.75 T	2.92 T	172.2	1.83 O	3.05 O
4.80	154.9 B	123.9	85.8	1.21 T	2.01 T	172.2	1.27 O	2.11 O
6.40	154.9 B	123.9	85.8	0.86 T	1.44 T	172.2	0.91 O	1.51 O
8.00	154.9 B	123.9	85.8	0.78 T	1.31 T	172.2	0.83 O	1.38 O

```
++++++++++++++++++++++++++++++++++++++++++++
+                                          +
+        R A T I N G   S U M M A R Y       +
+                                          +
++++++++++++++++++++++++++++++++++++++++++++
```

Ratings above 1.0

MEMBER: TRUSS

	ALLOWABLE STRESS RATING			LOAD FACTOR RATING		
LOAD	FACTOR	TONS	MEMBER	FACTOR	TONS	MEMBER
SP-1 IR (CRITICAL)	2.63	27.1	L18L19	*****	*****	******
OR (CRITICAL)	6.05	62.5	L35L36	*****	*****	******

NOTE: LOAD FACTOR RATING WAS NOT PERFORMED BECAUSE ADDITIONAL TRUSS MEMBER PROPERTIES WERE NOT INPUT BY THE USER.

MEMBER: STRINGER AT 8.000

	ALLOWABLE STRESS RATING				LOAD FACTOR RATING			
LOAD	FACTOR	TONS	X	SPAN	FACTOR	TONS	X	SPAN

OR above 1.0

```
  SP-1 IR (CRITICAL)    2.05 T    21.2     4.75  3    1.97 O    20.3     4.75  3
       OR (CRITICAL)    3.03 T    31.3     4.75  3    3.28 O    33.9     4.75  3
       IR ( POS MOM)    2.05 T    21.2     4.75  3    1.97 O    20.3     4.75  3
       OR ( POS MOM)    3.03 T    31.3     4.75  3    3.28 O    33.9     4.75  3

  NOTE: THIS RATING SUMMARY OF STRINGERS DOES FOLLOW THE ALL-OR-NONE
        COMPACT REQUIREMENTS.
        THIS STRINGER DOES HAVE ALL SECTIONS QUALIFYING AS COMPACT
        SECTIONS.  THEREFORE, THE RATING PRINTED IN THE SUMMARY
        IS THAT BASED ON COMPACT SECTIONS
```

OR above 1.0

```
MEMBER: FLOORBEAM
                            ALLOWABLE STRESS RATING        LOAD FACTOR RATING
  LOAD                   FACTOR     TONS     X   FLBM  FACTOR     TONS     X   FLBM
  SP-1 IR (CRITICAL)     0.78 T     8.0     8.00  1    0.83 O     8.6     8.00  1
       OR (CRITICAL)     1.26 T    13.0     8.00  1    1.38 O    14.3     8.00  1
       IR ( POS MOM)     0.78 T     8.0     8.00  1    0.83 O     8.6     8.00  1
       OR ( POS MOM)     1.26 T    13.0     8.00  1    1.38 O    14.3     8.00  1

  NOTE: THIS RATING SUMMARY OF FLOORBEAMS DOES FOLLOW THE ALL-OR-NONE
        COMPACT REQUIREMENTS.
        THIS FLOORBEAM DOES HAVE ALL SECTIONS QUALIFYING AS COMPACT
        SECTIONS.  THEREFORE, THE RATING PRINTED IN THE SUMMARY
        IS THAT BASED ON COMPACT SECTIONS.

      RATING FACTOR CODES: FIRST CHARACTER AFTER THE RATING FACTOR
      T - TOP STEEL STRESS/STRENGTH GOVERNS
      B - BOTTOM STEEL STRESS/STRENGTH GOVERNS
      C - CONCRETE STRESS/STRENGTH GOVERNS
      R - REINFORCEMENT STRESS/STRENGTH GOVERNS
      V - SHEAR STRESS/STRENGTH GOVERNS
      blank - COMPACT MOMENT STRENGTH GOVERNS
      O - OVERLOAD PROVISIONS GOVERN
      I - MOMENT-SHEAR INTERACTION GOVERNS

      RATING FACTOR CODES FOR FLANGE/WEB BUCKLING: SECOND CHARACTER AFTER THE RATIN <<<<
G FACTOR
      blank - SECTION DOES MEET FLANGE/WEB BUCKLING CRITERIA
          AND WILL NOT BUCKLE.
      F - SECTION DOES NOT MEET FLANGE PROJECTION/THICKNESS RATIO CRITERIA
          AND WILL BUCKLE IN FLANGE.
      W - SECTION DOES NOT MEET WEB DEPTH/THICKNESS RATIO CRITERIA
          AND WILL BUCKLE IN WEB.
      Z - SECTION DOES NOT MEET BOTH FLANGE PROJECTION/THICKNESS RATIO
          CRITERIA AND WEB DEPTH/THICKNESS RATIO CRITERIA
          AND WILL BUCKLE IN FLANGE OR WEB.

      NON-COMPACT MOMENT STRENGTH CODES:
      B - SECTION IS BRACED
      U - SECTION IS UNBRACED

  NOTE: ALL RATINGS ARE BASED ON THE NUMBER OF DESIGN LANES OR THE ACTUAL
        TRAFFIC LANES AS DEFINED BY "D" OR "L" ENTERED FOR LANES IN THE
        PROJECT IDENTIFICATION.

BAR7 v7.15.0.0 PROGRAM WAS EXECUTED COMPLETELY AND SUCCESSFULLY.
```

Appendix

- Truss Section Data
- Truck Cut Sheet
- Previous Analysis
- Drawings

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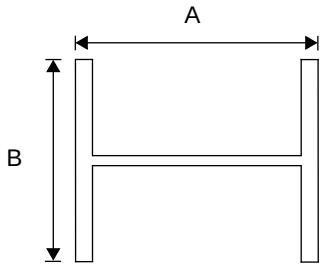
JOB	Blacks Run Bridge		
SHEET NO.	1	OF	6
CALCULATED BY	WBS	DATE	
CHECKED BY		DATE	
SCALE	NTS		

Field Measurements

(Non-Deteriorated)



C = Flange Thk.
D = Web Thk.

Span 1

L1-L3	L3-L5	U6-U7	L3-U2	L3-U3
A = 14.25"	A = 14.94"	A = 15.25"	A = 14.125"	A = 14.25"
B = 14.5"	B = 15.5"	B = 15.5"	B = 10.125"	B = 6.75"
C = .82"	C = 1.20"	C = 1.36"	C = .68"	C = .45"
D = .50"	D = .83"	D = .83"	D = .412"	D = .320"

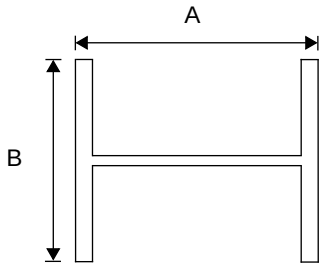
Span 2

L17-L15	U16-U17	L17-U17	L17-U16
Length = 16'?	Length = 8'?	Length = 7'-8"	Length = 9'-8"
A = 14.375"	A = 14.375"	A = 14.1875"	A = 14.4375"
B = 14.50"	B = 14.50"	B = 6.875"	B = 8.0"
C = .909"	C = .917"	C = .512"	C = .582"
D = .53"	D = .56"	D = .338"	D = .363"

(Bottom and top chords appear same for suspended span)

Field Measurements

(Non-Deteriorated to spot check truss)



C = Flange Thk.
D = Web Thk.

Span 3

L25-U25
Length = 10-10"
A = 14.25"
B = 6.875"
C = .50"
D = .360"

L25-U26
Length = 12'-9 1/4"
A = 14.625"
B = 14.750"
C = 1.0"
D = .590"

L24-U25
Length = 11'-9 3/4"
A = 14.750"
B = 14.750"
C = 1.0"
D = .696"

L26-U26
Length = 10-3 1/4"
A = 14.25"
B = 6.875"
C = .50"
D = .350"

L27-U27
Length = 10-3 1/4"
A = 14.25"
B = 6.875"
C = .50"
D = .341"

L27-U26
Length = 12'-1 1/4"
A = 14.25"
B = 14.50"
C = .875"
D = .542"

L29-U29
Length = 10'-3 1/2"
A = 14.25"
B = 6.875"
C = .50"
D = .359"

L29-U30
Length = 12'-6 3/4"
A = 14"
B = 8.25"
C = .625"
D = .41"

L29-U28
Length = 12'-5"
A = 14.125"
B = 10.25"
C = .750"
D = .490"

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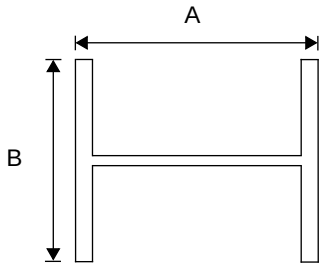
JOB	Blacks Run Bridge		
SHEET NO.	3	OF	6
CALCULATED BY	WBS	DATE	
CHECKED BY		DATE	
SCALE	NTS		

Field Measurements

(Non-Deteriorated to spot check truss)



C = Flange Thk.
D = Web Thk.

Span 3

L31-U30
Length = 12'-7 1/2"
A = 14.25"
B = 6.750"
C = .50"
D = .343"

L31-U32
Length = 12'-7 1/2"
A = 14.1875"
B = 6.750"
C = .50"
D = .345"

L33-U33
Length = 10'-3 1/4"
A = 14.25"
B = 6.875"
C = .50"
D = .388"

L33-U34
Length = 12'-5 1/4"
A = 14.125"
B = 10.25"
C = .750"
D = .520"

L33-U32
Length = 12'-5"
A = 14"
B = 8.25"
C = .750"
D = .414"

L35-U35
Length = 10'-3 1/4"
A = 14.25"
B = 6.875"
C = .50"
D = .363"

L35-U34
Length = 12'-1 3/4"
A = 14"
B = 14.625"
C = .750"
D = .454"

L35-U36
Length = 12'- 1 1/4"
A = 14.375"
B = 14.625"
C = .875"
D = .557"

L29-L31

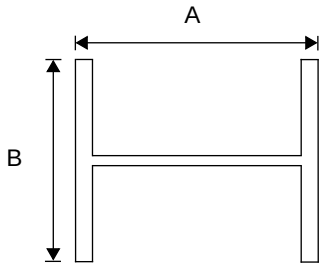
A = 15.5"
B = 15.750"
C = 1.319"
D = ..445"

(Top and bottom chords appear the same throughout)

Bottom Chord Lengths:
L25-L26 = 8'-4 1/2"
L26-L27 = 9'-2 1/2"
L27-L29 = 18'-6"
L31-L33 = 18'-6 1/4"
L35-L37 = 17'-7"

Field Measurements

(Non-Deteriorated to spot check truss)



C = Flange Thk.
D = Web Thk.

Span 4

L37-U37
Length = 10'-10"
A = 14.25"
B = 6.875"
C = .50"
D = .374"

L37-U38
Length = 11'-9"
A = 14.875"
B = 14.750"
C = 1.0625"
D = ..754"

L37-U36
Length = 11'-9 1/4"
A = 14.750"
B = 14..625"
C = 1.0"
D = .660"

L39-U39
Length = 10'-3 1/2"
A = 14.125"
B = 6.875"
C = .50"
D = .362"

L39-U40
Length = 11'-9 1/4"
A = 14.125"
B = 14.750"
C = .875"
D = .534"

L39-U38
Length = 11'-9 3/4"
A = 14.4375"
B = 14.50"
C = .875"
D = .524"

L29-U29
Length = 10'-3 1/2"
A = 14.25"
B = 6.875"
C = .50"
D = .359"

L41-U41
Length = 7'-8"
A = 14.1875"
B = 6.750"
C = .50"
D = .323"

L41-U40
Length = 9'-8 1/4"
A = 14.25"
B = 12"
C = .750"
D = .468"

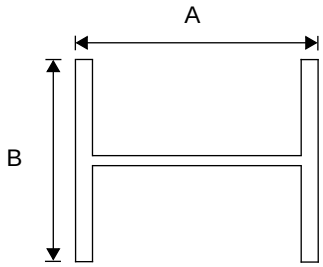
L41-U42
Length = 9'-10"
A = 14.125"
B = 10.125"
C = .750"
D = .432"

L41-U43
Length = 7'-8 1/4"
A = 14.125"
B = 6.875"
C = .50"
D = .342"

L43-U44
Length = 10'-1 1/4"
A = 14"
B = 6.875"
C = .375"
D = .372"

Field Measurements

(Non-Deteriorated to spot check truss)



C = Flange Thk.
D = Web Thk.

Span 4

L43-U42
Length = 10'-1/4"
A = 13.750"
B = 8.125"
C = .50"
D = ..301"

L46-U46
Length = 7'-8 1/4"
A = 14.25"
B = 6.875"
C = .50"
D = .374"

L46-U45
Length = 10'-1 1/4"
A = 14"
B = 6.875"
C = .4375"
D = ..341"

L46-U47
Length = 10'
A = 13.750"
B = 8.125"
C = .50"
D = .362"

L47-U47
Length = 7'-8 1/4"
A = 14.125"
B = 6.750"
C = .50"
D = .338"

L47-U46
Length = 9'-10"
A = 14"
B = 10.125"
C = .750"
D = .401"

L47-U48
Length = 9'-11 1/4"
A = 14.125"
B = 12.125"
C = .750"
D = .428"

L37-L39
Length = 17'-7"
A = 14.875"
B = 15.50"
C = 1.0625"
D = .701"

L41-L43
Length = 16'-8"
A = 14.750"
B = 15.50"
C = 1.0625"
D = .721"

L43-L45
Length = 17'-3"
A = 14.125"
B = 12.125"
C = .750"
D = .428"

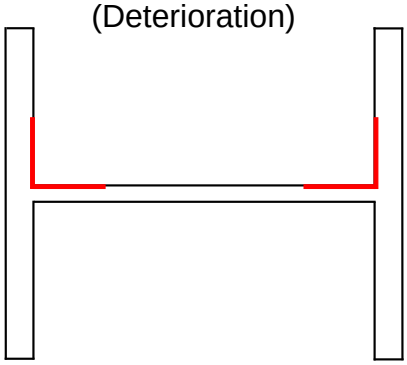
L45-L47
Length = 17'-3"
A = 14.50"
B = 14.50"
C = 1.0"
D = .615"

(Assumed top and bottom chords same)

Field Measurements

Section properties for the main load carrying members were gathered during this inspection and compared to the section properties used in the analysis. The section properties used in the analysis were determined to still be valid

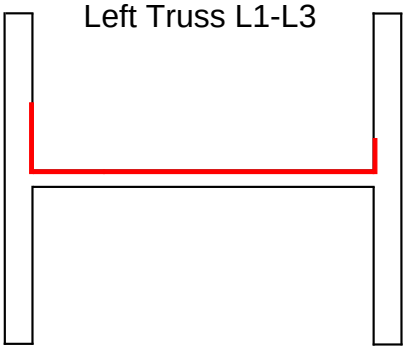
(Deterioration)



Typical bottom chord deterioration:

Laminated rust present on flanges adjacent top of web and varies for height of 1" to 3" and is scattered along the length of the chord. Laminated rust present on top of webs with similar pattern of 1" to 3" inward from flanges. The loss varies from .0625" to .125" for the most part. Three bottom chord members in Span 1 have more significant deterioration and are listed below.

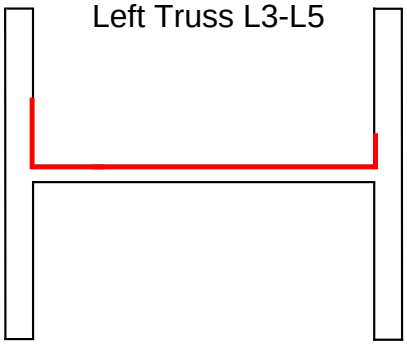
Left Truss L1-L3



L1-L3 Orig.
Length = ?
d = 14.25"
b = 14.50"
TF = .82"
TW = .50"

L1-L3 Deter.
Length = 0' to 17'
d = 14.25"
b = 14.50"
TF(L) = ..50", TF(R)=.68"
(3" High) (1"High)
TW = .50"

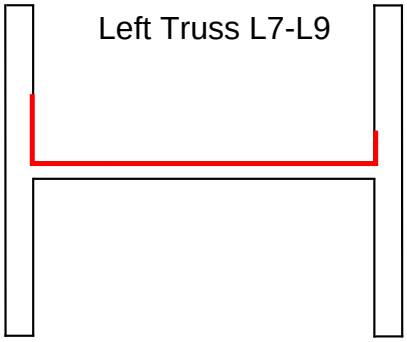
Left Truss L3-L5



L3-L5 Orig.
Length = ?
d = 14.937"
b = 15.50"
TF = 1.20"
TW = .83"

L3-L5 Deter.
Length = 0' to 12'
d = 14.25"
b = 14.50"
TF(L) = ..80", TF(R)=.90"
(3" High) (1"High)
TW = .65"

Left Truss L7-L9



L7-L9 Orig.
Length = ?
d = 14.937"
b = 15.50"
TF = 1.20"
TW = .83"

L7-L9 Deter.
Length = Full Length
d = 14.25"
b = 14.50"
TF(L) = ..80", TF(R)=.85"
(3" High) (1"High)
TW = .49"

2019 SUPER DUTY® CHASSIS CAB

XL | XLT | LARIAT

Accessible Super Duty Chassis Cab Brochure PDF

DIMENSIONS / WEIGHTS

	REGULAR CAB										
	F-350 SRW 4x2/4x4	F-350 DRW[1] 4x2/4x4	F-350 DRW[1] 4x2/4x4	F-450 DRW 4x2/4x4	F-450 DRW 4x2/4x4	F-450 DRW 4x2/4x4	F-450 DRW 4x2/4x4	F-550 DRW 4x2/4x4	F-550 DRW 4x2/4x4	F-550 DRW 4x2/4x4	F-550 DRW 4x2/4x4
Wheelbase	145.3"	145.3"	169.3"	145.3"	169.3"	193.3"	205.3"	145.3"	169.3"	193.3"	205.3"
Cab-to-axle	60"	60"	84"	60"	84"	108"	120"	60"	84"	108"	120"
EXTERIOR											
Height											
Top of cab to ground	77.9"/81.0"	78.1"/81.0"	78.0"/80.9"	81.7"/81.5"	81.5"/81.3"	81.5"/81.4"	81.3"	81.7"/81.5"	81.7"/81.5"	81.7"/81.6"	81.5"
Top of frame to ground	32.2"/34.3"	[illegible]	[illegible]	35.0"/35.1"	34.5"/34.6"	34.4"	34.4"	35.0"/35.1"	34.4"/34.5"	34.3"	34.3"
Width											
Between frame rails	34.1"	[illegible]	[illegible]	34.2"	34.2"	34.2"	34.2"	34.2"	34.2"	34.2"	34.2"
Axle clearance	8.6"/8.5"	[illegible]	[illegible]	8.2"	8.3"	8.3"	8.3"	8.2"	8.3"	8.3"	8.3"
Front track	68.3"	[illegible]	[illegible]	74.8"	74.8"	74.8"	74.8"	74.8"	74.8"	74.8"	74.8"
Rear tire outside width	79.6"	92.2"	92.2"	93.9"	93.9"	93.9"	93.9"	93.9"	93.9"	93.9"	93.9"
Overall length	230.7"	230.7"	254.8"	230.7"	254.8"	278.8"	290.7"	230.7"	254.8"	278.8"	290.7"
Weights (lbs.)											
Max. GVWR[2]	11,100/11,500	14,000	14,000	16,500	16,500	16,500	16,500	19,000	19,500	19,500	19,500
Max. payload[2]	4,870/4,860	7,940/7,550	7,330/6,930	9,850/9,540	9,790/9,450	9,610/9,300	9,550/9,230	12,310/12,000	12,750/12,410	12,570/12,260	12,510/12,190

Shortest F550 wheel base selected

	SUPERCAB						CREW CAB					
	F-350 SRW 4x2/4x4	F-350 DRW[1] 4x2/4x4	F-450 DRW 4x2/4x4	F-450 DRW 4x2/4x4	F-550 DRW 4x2/4x4	F-550 DRW 4x2/4x4	F-350 SRW 4x2/4x4	F-350 DRW[1] 4x2/4x4	F-450 DRW 4x2/4x4	F-450 DRW 4x2/4x4	F-550 DRW 4x2/4x4	F-550 DRW 4x2/4x4
Wheelbase	167.9"	167.9"	167.9"	191.9"	167.9"	191.9"	179.8"	179.8"	179.8"	203.8"	179.8"	203.8"
Cab-to-axle	60"	60"	60"	84"	60"	84"	60"	60"	60"	84"	60"	84"
EXTERIOR												
Height												
Top of cab to ground	78.3"/81.0"	78.5"/81.2"	81.8"	81.8"/81.6"	82.0"/81.8"	81.8"	78.4"/81.2"	78.6"/81.2"	81.9"/81.8"	81.7"/81.8"	81.9"/81.8"	81.9"/81.7"
Top of frame to ground	31.9"/33.8"	32.0"/33.7"	34.6"/34.3"	34.6"/34.4"	34.5"/34.3"	34.6"/34.3"	31.7"/33.5"	31.9"/33.7"	34.4"/34.3"	34.5"/34.3"	34.4"/34.3"	34.4"/34.3"
Width												
Between frame rails	34.1"	34.1"	34.2"	34.2"	34.2"	34.2"	34.1"	34.1"	34.2"	34.2"	34.2"	34.2"
Axle clearance	8.6"	7.9"/7.8"	8.3"	8.2"	8.3"	8.2"	8.6"	7.8"	8.2"	8.2"	8.2"	8.2"
Front track	68.3"	69.1"	74.8"	74.8"	74.8"	74.8"	68.3"	69.1"	74.8"	74.8"	74.8"	74.8"
Rear tire outside width	79.6"	92.2"	93.9"	93.9"	93.9"	93.9"	79.6"	92.2"	93.9"	93.9"	93.9"	93.9"
Overall length	253.3"	253.3"	253.3"	277.4"	253.3"	277.4"	265.2"	265.2"	265.2"	289.2"	265.2"	289.2"
Weights (lbs.)												
Max. GVWR[2]	11,500	14,000	16,500	16,500	19,500	19,500	11,500	14,000	16,500	16,500	19,500	19,500
Max. payload[2]	4,970/4,940	7,600/7,200	9,550/9,190	9,360/9,030	12,510/12,150	12,320/11,990	4,830/4,820	7,460/7,040	9,380/9,070	9,230/8,940	12,340/12,030	12,190/11,900

INTERIOR (front/rear)	REGULAR CAB	SUPERCAB	CREW CAB
Head room	40.8"/ –	40.8"/40.3"	40.8"/40.4"
Leg room (max.)	43.9"/ –	43.9"/33.5"	43.9"/43.6"
Hip room	62.5"/ –	62.5"/64.7"	62.5"/64.7"
Shoulder room	66.7"/ –	66.7"/65.8"	66.7"/65.9"

Payload rating represents maximum allowable weight of people, cargo and body equipment and is reduced by the weight of optional equipment.
[1]Ambulance Prep Package F-350 DRW: rear tire outside width is 95.2." [2]When properly configured.

5TH-WHEEL TOWING

Maximum Loaded Trailer Weight Ratings (lbs.)[1]

Engine	Axle Ratio	GCWR	F-350 SRW 4x2	F-350 SRW 4x4	F-350 DRW 4x2	F-350 DRW 4x4	F-450 DRW 4x2	F-450 DRW 4x4	F-550 DRW 4x2	F-550 DRW 4x4
REGULAR CAB	3.73	19,500	13,100	12,700	–	–	–	–	–	–
6.2L 2-valve Gas		20,000	–	–	13,200	12,800	–	–	–	–
V8 FFV	4.30	23,000	16,600	16,200	–	–	–	–	–	–
		23,500	–	–	16,700	16,300	–	–	–	–
6.8L 3-valve Gas V10	4.88	28,000	–	–	–	–	20,600	20,300	20,600	20,300
6.7L Diesel V8	3.73	26,500	19,200	18,700	–	–	–	–	–	–
		31,000	–	–	23,500	23,100	–	–	–	–
	4.10	32,000	–	–	24,500	24,100	23,900	23,600	23,900	23,600
	4.30	34,500	–	–	–	–	26,400	26,100	–	–
		35,000	–	–	–	–	–	–	26,900	26,600
	4.88	32,000[2]	–	–	–	–	–	–	23,900[2]	23,500[2]
		40,000[2]	–	–	–	–	–	–	31,900[2]	31,500[2]
SUPERCAB	3.73	19,500	12,800	12,400	–	–	–	–	–	–
6.2L 2-valve Gas		20,000	–	–	12,900	12,500	–	–	–	–
V8 FFV	4.30	23,000	16,300	15,900	–	–	–	–	–	–
		23,500	–	–	16,400	16,000	–	–	–	–
6.8L 3-valve Gas V10	4.88	28,000	–	–	–	–	20,300	20,000	20,300	20,000
6.7L Diesel V8	3.73	26,500	18,800	18,400	–	–	–	–	–	–
		31,000	–	–	23,100	22,700	–	–	–	–
	4.10	32,000	–	–	24,100	23,700	23,600	23,200	23,600	23,200
	4.30	34,500	–	–	–	–	26,100	25,700	–	–
		35,000	–	–	–	–	–	–	26,600	26,200
	4.88	32,000[2]	–	–	–	–	–	–	23,500[2]	23,200[2]
		40,000[2]	–	–	–	–	–	–	31,500[2]	31,200[2]
CREW CAB	3.73	19,500	12,600	12,200	–	–	–	–	–	–
6.2L 2-valve Gas		20,000	–	–	12,700	12,300	–	–	–	–
V8 FFV	4.30	23,000	16,100	15,700	–	–	–	–	–	–
		23,500	–	–	16,200	15,800	–	–	–	–
6.8L 3-valve Gas V10	4.88	28,000	–	–	–	–	20,200	19,900	20,200	19,900
6.7L Diesel V8	3.73	26,500	18,600	18,200	–	–	–	–	–	–
		31,000	–	–	23,000	22,600	–	–	–	–
	4.10	32,000	–	–	24,000	23,600	23,400	23,100	23,400	23,100
	4.30	34,500	–	–	–	–	25,900	25,600	–	–
		35,000	–	–	–	–	–	–	26,400	26,100
	4.88	32,000[2]	–	–	–	–	–	–	23,400[2]	23,100[2]
		40,000[2]	–	–	–	–	–	–	31,400[2]	31,100[2]

FRAMES

Number of Crossmembers

7 (145.3" WB); 8 (167.9" WB, 169.3" WB, 179.8" WB); 9 (191.9" WB, 193.3" WB, 203.8" WB); 10 (205.3" WB)

Section Modulus[3]

12.7 cu. in.

Frame Rail Yield Strength

50,000 psi

Max. Side Rail Section[4] (height x width x thickness)

7.50" x 2.74" x 0.28" (F-350)

7.50" x 2.74" x 0.32" (F-450/F-550 145.3" WB, 169.3" WB, 167.9" WB, 179.8" WB and 203.8" WB)

7.50" x 2.74" x 0.60" (F-450/F-550 191.9" WB, 193.3" WB and 205.3" WB; F-550 with the Payload Plus Upgrade Package)

MECHANICAL

Max. Axle rating @ ground (lbs.)		Front	Rear
F-350 SRW	4x2	5,250	7,230
	4x4	6,000	7,230
F-350 DRW	4x2	5,250	10,040
	4x4	6,000	10,040
F-450 DRW		7,000	13,660
F-550 DRW		7,000	13,660

Shock Absorbers

1.38" gas type

Gross Axle weights used

r) –

14.29"/14.29" (F-350); 15.39"/15.74" (F-450/F-550)

Lining area (sq. in.; front/rear) – 50.9/39.6 (F-350); 68.8/64.8 (F-450/F-550)

Wheels

Number of studs – 8 (F-350); 10 (F-450/F-550)

Bolt-circle diameter – 6.69" (F-350 SRW); 7.87" (F-350 DRW); 8.85" (F-450/F-550)

SRW = single rear wheel DRW = dual rear wheel

[1]F-350 DRW/F-450/F-550 weights shown are for 145.3" wheelbase Regular Cab, 167.9" wheelbase SuperCab or 179.8" wheelbase Crew Cab models. For 169.3," 191.9," 193.3," 203.8" and 205.3" wheelbase models, weights may be somewhat less (usually not more than 200 lbs., or 400 lbs. with 205.3" wheelbase). [2]Requires High-Capacity Trailer Tow Package. [3]Cross-sectional modulus calculated at back of cab. [4]Measured to inside of metal.

5th-Wheel Towing Notes: Trailer weights shown assume 400 lbs.–800 lbs. second-unit body weight. Be sure combined weight of vehicle and trailer does not exceed listed GCWR. Trailer kingpin load weight should be 15% of total loaded trailer weight. Make sure that the vehicle payload (reduced by option weight) will accommodate trailer kingpin load weight and the weight of passengers and cargo added to the towing vehicle. The addition of trailer kingpin load weight, and the weight of passengers and cargo, cannot cause vehicle weights to exceed the rear GAWR (Gross Axle Weight Rating) or GVWR (Gross Vehicle Weight Rating). These ratings can be found on the vehicle's Safety Compliance Certification Label. See your Ford Dealer for conventional trailer weights.

LOAD RATING SUMMARY

TRUSS RATING

	Vehicle Rating (Tons)			
	H 20 (20)	**HS 20 (36)**	**ML 80 (37.7)**	**TK527 (40)**
Inventory	**35**	**46**	**39**	**45**
Operating	**54**	**82**	**76**	**80**

Load Posting Review

- A load rating analysis was performed as part of this inspection utilizing the original structure plans from Harry L. Dovell & Co. dated 1943 and field inspection findings.
- PennDOT's Computer Program BAR 7, Bridge Analysis and Rating, version 7.12.0.0 was used to perform the rating analysis, utilizing Allowable Stress Method for analysis.
- According to the bridge owner only tri-axle dump trucks utilize this structure, and no vehicles with large or unusual axle configurations. Therefore, the bridge was only rated for the above listed vehicles. If the owner would like to utilize this structure for any vehicle with a different axle configuration or loading then that of the above listed vehicles, additional analysis would be required.
- Based on inspection findings a 25% section loss was applied to the bottom chord for the full length of the bridge for the rating analysis.
- The truss bottom chord controlled the ratings for all ratings except the ML80 Operating rating which was controlled by shear in the floorbeam.
- Based on the above listed rating values that were obtained from BAR 7 it has been determined that this structure does not need to be posted at this time.
- The rating calculations can be found in the appendix of this report.

RATING ANALYSIS

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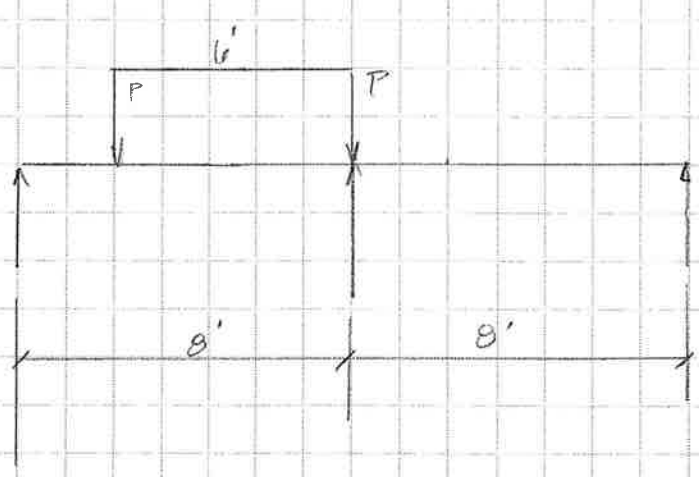
JOB: MONACA BRIDGE RATING
SHEET NO. 1 OF 97
CALCULATED BY: AMK DATE: 2.21.08
CHECKED BY: DFL DATE: 5-13-08
SCALE: 4396.001

DISTRIBUTION FACTORS – INPUT D.F. FOR STRINGER FOR REGULAR LIVE LOADS – 1 LANE ONLY.



SHEAR

DF: $1 + \frac{2'}{8'} = 1.25$ WH. = **0.625 AXLES**

DEFLECTION

INCLUDE TRUSSES

DF = 2 LANES ÷ 3 BM. = **0.67**

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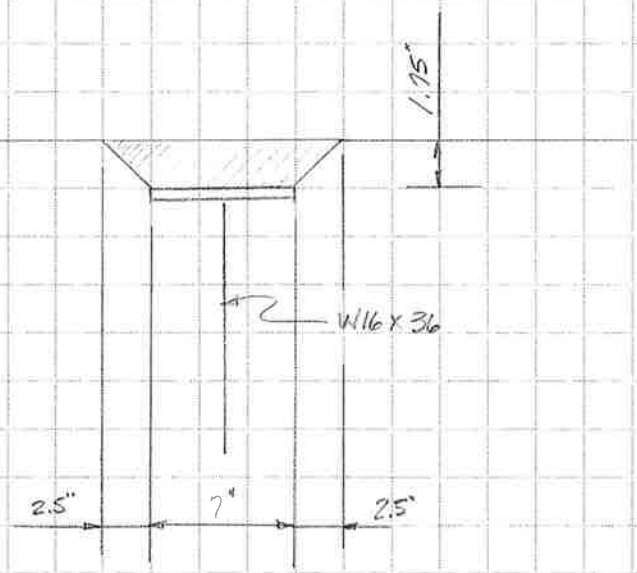
JOB: MONACA BRIDGE RATING
SHEET NO. 2 OF 97
CALCULATED BY: AMK DATE: 2·18·08
CHECKED BY: DFL DATE: 5-13-08
SCALE: 4396.001

CALCULATE STRINGER DL1



WT. = (7" + 2.5") x 1.75" ÷ 144 x 0.15 KCF = 0.017 K/L SAY 0.020 K/L

FLOORBEAM DL1

CONC. HAUNCH ON F.B. IS THE SAME AS STRINGER HAUNCH

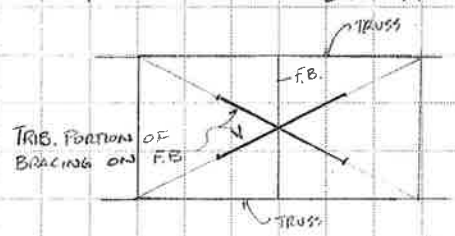
WT. = 0.020 K/L

CENTER TRUSS WT & TOP CHORD BRACING

VERT. = 31 #/L x 4.25' (L) ÷ 8.33' (SPA) = 15.8 #/L
DIAG. " = 21.4 #/L
BOT. CHORD = 2 x 16.2 #/L = 32.4 #/L

69.6 #/L x 420.83' ÷ 48 FB's = 610 #/FB. (LENGTH OF BRIDGE)

BRACING: ∠ 3x3x3/8 : 4 ANGLES x 6.2' x 7.2 #/L = 178#
CONNECTIONS: 40% x (178# + 610#) = 315#



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JOB: MONACA BRIDGE RATING
SHEET NO. 3 OF 97
CALCULATED BY: AMK DATE: 2.19.08
CHECKED BY: DFL DATE: 4-15-08
SCALE: 4396.001

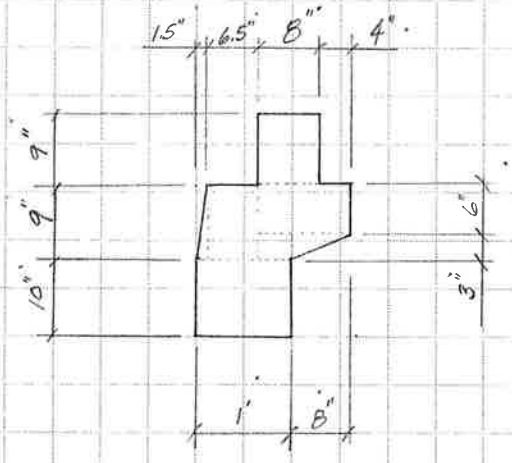
TRUSS DEAD LOADS (RIGHT SIDE TRUSS)

SLAB WT. (UPPER JOINTS)

SLAB: 18' x 0.833' x 0.15 KCF x ½ TO RT. TRUSS = 1.13 K/'

X-SLOPE: ½ x 18' x 3.5"/12 x 0.15 KCF x ½ TO RT. TRUSS = 0.20 K/'

CURBS



.83' x 1' x .15 KCF = 0.12 K/'
½ x 1.5"/12 x .75' x .15 KCF = 0.01 K/'
6.5"/12' x .75' x .15 KCF = 0.06 K/'
.75' x .67' x .15 KCF = 0.08 K/'
.5' x 1' x .15 KCF = 0.08 K/'
½ x .25" x .67' x .15 KCF = 0.01 K/'
.33' x .25' x .15 KCF = 0.01 K/'

CONC IN TOP CHORD: 1.17' x 1.5' x .15 KCF = 0.26 K/'

2.0 K/'

FIND AVG. SLAB WT. PER UPPER JT.

2.0 K/' x 420.83' ÷ 48 JOINTS = 17.5 K TO ALL UPPER JOINTS

BRIDGE LENGTH

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JOB: MONACA BRIDGE RATING
SHEET NO. 4 OF 97
CALCULATED BY: AMK DATE: 2·19·08
CHECKED BY: DFL DATE: 4-15-08
SCALE:

TRUSS DEAD LOAD (RIGHT TRUSS)

SIDEWALK - ATTACHED AT ODD NUMBERED JOINTS. & HINGES
DUE TO OVERHANG BRACKET, HALF OF SIDEWALK LOAD GOES TO TOP JOINT & HALF TO BOT. JOINT.

WT. = 3' x .5' x .15 KCF x 420.83' ÷ 29 JOINTS = 3.3 K

APPLY 3.3 K TO ODD NO. UPPER JT.'S & HINGES & END JOINTS.
APPLY 3.3 K TO ODD NO LOWER JOINTS

SIDEWALK SUPPORT STRINGER:

½ TO TOP & ½ TO BOT.

WT. = 36 #/' ÷ 1000 x 7.75' ÷ 2 = 0.14 K TO ODD NO. UPPER JOINTS & HINGES
0.14 K TO ODD NO. LOWER JOINTS

SUPPORT BRACKET DIAG. - ODD NO. LOWER JTS

WT. = [21.4 #/' x 14' ÷ 1000] x 1.4 COND. = 0.42 K TO ODD NO. LOWER JOINTS

FENCE - ODD NO LOWER JOINTS & HINGES

VERT. POST. 8" WF 24 : .024 K/' x 15.5' = 0.37 K
RAILS 7E 9.8# : 0.010 K/' x 4 RAILS x 420.83' ÷ 27 JOINTS = 0.62 K
SHIELD: .125"/12 x .490 KCF x 15.5' x 420.83' ÷ 27 JOINTS = 1.23 K

2.22 K TO ODD NO. LOWER JOINTS & HINGES

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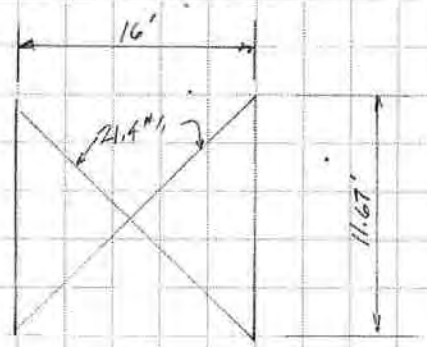
JOB: MONACA BRIDGE RATING
SHEET NO. 5 OF 97
CALCULATED BY: AMK DATE: 2·19·08
CHECKED BY: DFR DATE: 4-15-08
SCALE:

TRUSS DEAD LOAD (RIGHT TRUSS)



CROSS BRACING BTWN TRUSSES (UPPER & LOWER ODD NO. JTS.)

$L = \sqrt{16^2 + 11.67^2} = 19.8''$

WT/JT. = 0.021 K/' × 19.8' ÷ 2 = 0.21 K

CONNECTIONS SAY .10 K

.31 K TO ODD NO. LOWER & UPPER JTS.

STRINGER, CENTER TRUSS, TOP CHORD BRACING, & FLOORBEAM

STRINGER 16 WF 36 : (0.036 K/' × 420.83' ÷ 48 JTS.) ÷ 2 TRUSSES = 0.16 K

SEE PREV. CALCS (F.B DL)

CENTER TRUSS & BRACING : 1.10 K/FB ÷ 2 = 0.55 K

FLOORBEAM 16 WF 36 : 0.036 K/' × 16' ÷ 2 TRUSSES = 0.29 K

F.B HAUNCH: 0.02 K/' × 16' ÷ 2 TRUSSES = 0.16 K

STRINGER HAUNCH: (.02 K/' × 420.83' ÷ 48 JTS.) ÷ 2 TRUSSES = 0.09 K

TOTAL = 1.25 K

APPLY TO ALL UPPER JOINTS

BOTTOM CHORD BRACING (ALL ODD NO. LOWER JTS)

2 ∠'s 6×4×3/8 : 16' × 12.3 #/' × 2 ∠'s ÷ 2 SIDES ÷ 1000 = 0.20 K × 1.4 (CONN.) = 0.28

TOTAL = 0.28 K TO ODD NO. LOWER JT.'S

TRUSS DEAD LOAD CONT'D

SUMMARY OF "NON-TRUSS" JOINT DEAD LOADS

- ODD NUMBERED UPPER JOINTS:

  $DL = 17.5^k + 3.3^k + 0.14^k + .31^k + 1.25^k = 22.5^k$

- EVEN NUMBERED UPPER JOINTS:

  $DL = 17.5^k + 1.25^k = 18.8^k$

- ODD NUMBERED LOWER JOINTS:

  $DL = 3.3^k + 0.14^k + 0.42^k + 2.22^k + 0.31^k + 0.20^k = 6.7^k$

- EVEN NUMBERED LOWER JOINTS:

  $DL = 0^k$

- HINGES & END SUPPORT JOINTS:

  $DL = 17.5^k + 3.3^k + 2.22^k + 1.14^k = 24.2^k$

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JOB MONACA BRIDGE RATING
SHEET NO. 7 OF 97
CALCULATED BY AMK DATE 2.20.08
CHECKED BY DPL DATE 4-15-08
SCALE

TRUSS DEAD LOAD CONT'D

TRUSS A : JOINTS $U_0 - U_{14}$, $L_1 - L_{13}$

Avg. VERTICAL MEMBER WT. = 38 #/' × 1.40 (CONN.) = 53 #/'

Avg. TOP CHORD WT.

87 #/' × 4 MEM.	=	348
158 #/' × 2 MEM.	=	316
176 #/' × 6 MEM	=	1056
142 #/' × 2 MEM	=	284

2004 ÷ 14 MEM = 143 #/'
CONN. → × 1.40
= 200 #/'

Avg. BOT. CHORD WT. :

103 #/' × 2 MEM	=	206
158 #/' × 4 MEM	=	632
142 #/' × 6 MEM	=	852

1690 ÷ 12 MEM = 141 #/'
CONN → × 1.40
= 197 #/'

Avg. DIAG. MEM. WT.:

103 #/' × 3 MEM	=	309
84 #/' × 1 MEM	=	84
61 #/' × 1 "	=	61
53 #/' × 2	=	106
38 #/' × 2	=	76
78 #/' × 1	=	78
87 #/' × 1	=	87
136 #/' × 2	=	272
95 #/' × 1	=	95

1168 ÷ 14 = 84 #/'
CONN. → × 1.40
= 118 #/'

Avg. LENGTH OF TOP/BOT. CHORD = 128.55' ÷ 14 = 9.2'

LENGTH OF VERT. MEM. = 11.67'

Avg. LENGTH OF DIAG MEMBERS = $\sqrt{9.2^2 + 11.67^2}$ = 14.9'

CALCULATE JOINT LOADS FOR TRUSS A USING THESE LENGTHS.

TRUSS DEAD LOAD CONT'D

TRUSS B : JOINTS $U_{14} - U_{22}$, $L_{15} - L_{21}$

Avg. VERT. MEM. WT. = 34 #/' × 1.40 (CONN) = 48 #/'

Avg TOP CHORD WT. = 103 #/' × 1.40 = 144 #/'

Avg BOTTOM CHORD WT. = 103 #/' × 1.40 = 144 #/'

Avg. DIAGONAL MEM. WT.

78 × 2 = 156
61 × 2 = 122
43 × 2 = 86
30 × 2 = 60

424 ÷ 8 MEM = 53 #/'
CONN. → × 1.40
= 74 #/'

Avg. LENGTH OF TOP & BOT. CHORD = 64.15' ÷ 8 = 8.02'

LENGTH OF VERT. MEM. = 9.0'

Avg LENGTH OF DIAG. MEM = $\sqrt{8.02^2 + 9^2}$ = 12.1'

CALCULATE JOINT LOADS FOR TRUSS B USING THESE LENGTHS.

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JOB: MONACA BRIDGE RATING
SHEET NO. 9 OF 97
CALCULATED BY: AMK DATE: 2.20.08
CHECKED BY: DFL DATE: 4.15.08
SCALE:

TRUSS DEAD LOAD CONT'D

TRUSS C: JOINTS $U_{22} - U_{40}$, $L_{23} - L_{39}$

Avg. VERT MEM. WT. = 38 #/' × 1.40 (CONN) = 53 #/'

Avg TOP CHORD WT. =
87 × 4 = 348
176 × 4 = 704
142 × 4 = 568
193 × 6 = 1158
} 2778 ÷ 18 MEM = 155 #/'
CONN. × 1.40
= 217 #/'

Avg. BOTTOM CHORD WT. =
142 #/' × 12 = 1704
158 #/' × 4 = 632
} 2336 ÷ 16 MEM = 146 #/'
CONN → × 1.40
= 204 #/'

Avg. DIAG. MEM. WT. =
103 #/' × 4 = 412
136 × 2 = 272
119 × 2 = 238
103 × 2 = 206
87 × 2 = 174
68 × 2 = 136
53 × 2 = 106
34 × 2 = 68
} 1612 ÷ 18 MEM = 90 #/'
CONN. → × 1.40
= 126 #/'

Avg. LENGTH OF TOP & BOT. CHORD = 159.14' ÷ 18 MEM. = 8.84'

LENGTH OF VERT. MEM = 11.67'

Avg. LENGTH OF DIAG. = $\sqrt{8.84^2 + 11.67^2}$ = 14.6'

CALCULATE JOINT LOADS FOR TRUSS C USING THESE LENGTHS.

TRUSS DEAD LOADS CONT'D

TRUSS D : JOINTS U_{40} - U_{48} , L_{41} - L_{47}

Avg. VERT. MEM. WT. = 34 #/' × 1.40 (CONN) = 48 #/'

Avg. TOP CHORD WT. = 119 #/' × 1.40 = 167 #/'

Avg. BOT. CHORD WT. = 119 #/' × 1.40 = 167 #/'

Avg. DIAG. MEM. WT. =
78 #/' × 2 = 156
61 × 2 = 122
43 × 2 = 86
30 × 2 = 60
} 424 ÷ 8 MEM = 53 #/'
CONN. → × 1.40
= 74 #/'

Avg LENGTH OF TOP & BOT. CHORD = 69' ÷ 8 = 8.63'

LENGTH OF VERT. MEM. = 9.0'

Avg LENGTH OF DIAG. MEM. = $\sqrt{8.63'^2 + 9.0'^2}$ = 12.5'

CALCULATE JOINT LOADS FOR TRUSS D USING THESE LENGTHS.

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Engineering & Related Services

JOB: MONACA BRIDGE RATING
SHEET NO. 11 OF 97
CALCULATED BY: AMK DATE: 2.20.08
CHECKED BY: DFL DATE: 4.15.08
SCALE: 4396.001

TRUSS DEAD LOAD CONT'D

JOINT LOADS FOR BAR 7 INPUT

TRUSS A: JOINTS U_0 - U_{14}, L_1 - L_{13}

$U_0 = 24.2^k + .200^{k/'} \times 9.2' \div 2 + .118^{k/'} \times 14.9' \div 2 = 26.0^k$

SEE "NON-TRUSS" JOINT DL CALCS

$U_{1,3,5,7,9,11,13} = 22.5^k + .200^{k/'} \times 9.2' + .053^{k/'} \times 11.67'/2 = 24.6^k$

$U_{2,4,6,8} = 18.8^k + .200^{k/'} \times 9.2' + .118^{k/'} \times 14.9' \div 2 \times 2 = 22.4^k$

$L_{1,13} = 6.7^k + .053^{k/'} \times \frac{11.67'}{2} + .197^{k/'} \times 9.2' + .118^{k/'} \times \frac{14.9'}{2} \times 2 = 10.6^k$

$L_{3,5,7,9} = 6.7^k + .053^{k/'} \times \frac{11.67'}{2} + .197^{k/'} \times 9.2' \times 2 + .118^{k/'} \times \frac{14.9'}{2} \times 2 = 12.4^k$

$L_{2,4,6,8}$ – NO LOAD INPUT, NO VERT. OR DIAG. MEMBERS

$U_{14} = 24.2^k + \underbrace{.200^{k/'} \times \frac{9.2'}{2} + .118^{k/'} \times \frac{14.9'}{2}}_{\text{TRUSS A}} + \underbrace{.074^{k/'} \times \frac{12.1'}{2} + .144^{k/'} \times \frac{8'}{2}}_{\text{TRUSS B}} = 27.0^k$

$U_{10,12} = 18.8^k + .200^{k/'} \times 9.2' + .118^{k/'} \times \frac{14.9'}{2} \times 2 + .053^{k/'} \times \frac{11.67'}{2} = 22.7^k$

$L_{10,12} = 0^k + .197^{k/'} \times 9.2 + .053^{k/'} \times \frac{11.67'}{2} = 2.1^k$

$L_{11} = 6.7^k + .053^{k/'} \times \frac{11.67'}{2} + .197^{k/'} \times 9.2' + .118^{k/'} \times \frac{14.9'}{2} \times 2 = 10.6^k$

TRUSS DEAD LOAD CONT'D

JOINT LOADS FOR BAR 7 INPUT

TRUSS B : JOINTS $U_{14} - U_{22}$, $L_{15} - L_{21}$

U_{14} - SEE TRUSS A CALCULATION

$U_{15,17,19,21} = 22.5^k + .048\,k/' \times \frac{9.0'}{2} + .144\,k/' \times \frac{8.0'}{2} \times 2 = 23.9^k$

$U_{16,18,20} = 18.8^k + .144\,k/' \times \frac{8.0'}{2} \times 2 + .074\,k/' \times \frac{12.1'}{2} \times 2 = 20.8^k$

$U_{22} = 24.2^k + \underbrace{.144\,k/' \times \frac{8.0'}{2} + .074\,k/' \times \frac{12.1'}{2}}_{\text{TRUSS B}} + \underbrace{.217\,k/' \times \frac{8.8'}{2} + .126\,k/' \times \frac{14.6'}{2}}_{\text{TRUSS C}} = 27.1^k$

$L_{15,21} = 6.7^k + .048\,k/' \times \frac{9'}{2} + .144\,k/' \times 8' + .074\,k/' \times \frac{12.1'}{2} \times 2 = 9.0^k$

$L_{17,19} = 6.7^k + .048\,k/' \times \frac{9'}{2} + .144\,k/' \times 8' \times 2 + .074\,k/' \times \frac{12.1'}{2} \times 2 = 10.1^k$

$L_{16,18,20}$ = NO LOAD INPUT, NO VERT. OR DIAG. MEM. PRESENT

TRUSS DEAD LOAD CONT'D

JOINT LOADS FOR BAR 7 INPUT

TRUSS C: JOINTS $U_{22} - U_{40}$, $L_{23} - L_{39}$

U_{22} - SEE TRUSS B CALCULATION.

$U_{23,25,27,29,31,33,35,37,39} = 22.5^k + .053^k/' \times \frac{11.67'}{2} + .217^k/' \times \frac{8.8'}{2} \times 2 = 24.7^k$

$U_{24,26} = 18.8^k + .217^k/' \times \frac{8.8'}{2} \times 2 + .053^k/' \times \frac{11.67'}{2} + .126^k/' \times \frac{14.6'}{2} \times 2 = 22.9^k$

$U_{28,30,32,34,36,38} = 18.8^k + .217^k/' \times \frac{8.8'}{2} \times 2 + .126^k/' \times \frac{14.6'}{2} \times 2 = 22.5^k$

$U_{40} = 24.2^k + \underbrace{.217^k/' \times \frac{8.8'}{2} + .126^k/' \times \frac{14.6'}{2}}_{\text{TRUSS C}} + \underbrace{.167^k/' \times \frac{8.6^k}{2} + .074^k/' \times \frac{12.5'}{2}}_{\text{TRUSS D}} = 27.3^k$

$L_{23,39} = 6.7^k + .053^k/' \times \frac{11.67'}{2} + .204^k/' \times \frac{8.8'}{2} + .126^k/' \times \frac{14.6'}{2} \times 2 = 9.7^k$

$L_{29,31,33,35,37} = 6.7^k + .053^k/' \times \frac{11.67'}{2} + .204^k/' \times 8.8' \times 2 + .126^k/' \times \frac{14.6'}{2} \times 2 = 12.4^k$

$L_{24,26} = 0^k + .053^k/' \times \frac{11.67'}{2} + .204^k/' \times \frac{8.8'}{2} \times 2 = 2.1^k$

$L_{28,30,32,34,36,38}$ = NO LOAD INPUT, NO VERT. OR DIAG. MEM.

$L_{25} = 6.7^k + .053^k/' \times \frac{11.67'}{2} + .204^k/' \times \frac{8.8'}{2} \times 2 + .126^k/' \times \frac{14.6'}{2} \times 2 = 10.6^k$

$L_{27} = 6.7^k + .053^k/' \times \frac{11.67'}{2} + .204^k/' \times \left(\frac{8.8'}{2} + 8.8'\right) + .126^k/' \times \frac{14.6'}{2} \times 2 = 11.5^k$

TRUSS DEAD LOAD CONT'D

JOINT LOADS FOR BAR 7 INPUT

TRUSS D: JOINTS U_{40} - U_{48}, L_{41} – L_{47}

U_{40} - SEE TRUSS C CALCULATIONS

$U_{41,43,45,47} = 22.5 + .048^{k}/_{l} \times \frac{9'}{2} + .167^{k}/_{l} \times \frac{8.6'}{2} \times 2 = 24.2^{k}$

$U_{42,44,46} = 18.8^{k} + .167^{k}/_{l} \times \frac{8.6'}{2} \times 2 + .074^{k}/_{l} \times \frac{12.5'}{2} \times 2 = 21.2^{k}$

$U_{48} = 24.2^{k} + .167^{k}/_{l} \times \frac{8.6'}{2} + .074^{k}/_{l} \times \frac{12.5'}{2} = 25.4^{k}$

$L_{41,47} = 6.7^{k} + .048^{k}/_{l} \times \frac{9'}{2} + .167^{k}/_{l} \times 8.6' + .074^{k}/_{l} \times \frac{12.5'}{2} \times 2 = 9.3^{k}$

$L_{43,45} = 6.7^{k} + .048^{k}/_{l} \times \frac{9'}{2} + .167^{k}/_{l} \times 8.6' \times 2 + .074^{k}/_{l} \times \frac{12.5'}{2} \times 2 = 10.7^{k}$

$L_{42,44,46}$ = NO LOAD INPUT, NO VERT. OR DIAG. MEMBERS.

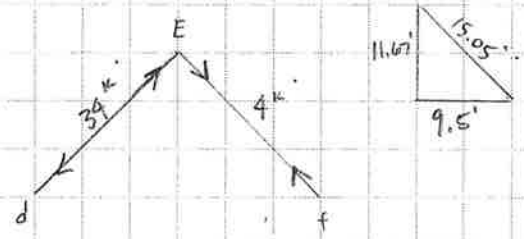
HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

JOB: MONACA BRIDGE RATING
SHEET NO. 15 OF 97
CALCULATED BY: AMK DATE: 5/1/08
CHECKED BY: DFL DATE: 5-13-08
SCALE:

DETERMINATION OF JOINT LOADS FROM DESIGN DWG LOADS

TRUSS A

EVEN NO. UPPER JTS.:



@ JOINT E: $34^k \times \frac{11.67'}{15.05'} = 26^k \uparrow$

$4^k \times \frac{11.67'}{15.05'} = 3.1^k \downarrow$

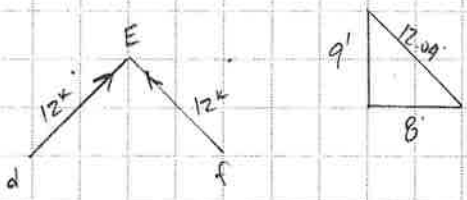
$26^k - 3.1^k \quad 23^k \downarrow$ — NET FORCE DOWN

ODD UPPER JOINTS: USE FORCES FROM VERT. MEMBERS

- FROM JOINT ANALYSIS, NO LOAD APPLIED TO LOWER JOINTS

TRUSS B

EVEN NO. UPPER JOINTS



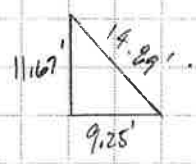
@ JT. E: $12^k \times 9' \div 12.09' = 9^k \uparrow$

$12^k \times 9' \div 12.09' = 9^k \uparrow$

$9^k + 9^k = 18^k \downarrow$ — NET FORCE DOWN AT JOINT

* IT IS EVIDENT FROM PLAN LOADS THAT NO DEAD LOADS WERE APPLIED TO LOWER JOINTS. ∴ FOR ANALYIS THE SAME WILL BE DONE

TRUSS C



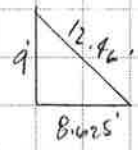
@ Jt. M

$137^k \times 11.67' \div 14.89' = 107^k \downarrow$

$166^k \times 11.67' \div 14.89' = 130^k \uparrow$

$130^k - 107^k = 23^k$ — NET FORCE DOWN @ JOINT

TRUSS D



@ Jt. E

$14^k \times \frac{9'}{12.46'} = 10.1^k \uparrow$

$14' \times \frac{9'}{12.46'} = 10.1^k \uparrow$

$10.1^k + 10.1^k = 20^k$ — NET FORCE DOWN ON Jt.

THE LOADS CALCULATED CONFIRM THAT THESE LOADS ARE REASONABLE, THEREFORE, IN AN EFFORT TO MATCH THE DL FORCES SHOWN ON THE PLANS APPLY THE FOLLOWING LOADS TO UPPER JTS.

TRUSS A : EVEN JTS. - 23^k
TRUSS B : " " - 18^k
TRUSS C : " " - 23^k
TRUSS D : " " - 20^k

TO ODD JOINTS APPLY LOADS MATCHING LOADS SHOWN IN VERTICAL MEMBERS ON THE DRAWINGS.

	GROSS AREA COMP IN²	NET AREA TENS. IN²	I IN⁴	F_y KSI	L FT	E_{cc} IN.	FL. WIDTH IN.	C IN.	CAT. —	F_u KSI	GROSS A. TENS. IN²
W14x87	25.52	20.06	349.7	33		—	—	—	—	—	23.89
W14x158	46.47	36.97	745.0								43.94
W14x176	51.73	41.2	837.9								48.96
W14x142	41.85	33.35	660.1								39.63
W14x103	30.26	23.76	419.7								28.30
W14x84	24.71	19.4	225.5								23.11
W14x61	17.94	15.37	107.3								17.82
W14x53	15.59	13.4	57.5								15.44
W14x38	11.17	9.17	24.6								11.17
W14x78	22.94	17.2	206.9								20.64
W14x136	39.98	31.86	567.7								37.86
W14x95	27.94	21.57	383.7								25.76
W14x43	12.65	10.53	45.1								12.65
W14x30	8.81	7.2	17.5								8.52
W14x34	10.00	8.2	21.3								9.70
W14x119	34.99	27.49	491.8								32.74
W14x193	56.73	45.2	930.1								53.71
W14x68	20	17.14	121.2	33		—	—	—	—	—	20

TRUSS MEMBER PROPERTIES

FROM DWGS.

TRUSS C: TOP & BOT. CHORD L = 8.0'
VERT. MEM L = 11.67'
DIAG. L = 14.6'

TRUSS D: TOP & BOT. CHORD: L = 8.6'
VERT. MEM. L = 9.0'
DIAG. L = 12.5'

TRUSS A: TOP & BOT. CHORD L = 9.2'
VERT. MEM L = 11.67'
DIAG. L = 14.9'

TRUSS B: TOP & BOT CHORD L = 8.0'
VERT. MEM. L = 9.0'
DIAG. L = 12.1'

HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

JOB: MONACA BRIDGE RATING
SHEET NO. 17 OF 97
CALCULATED BY: AMK DATE: 2.20.08
CHECKED BY: DFL DATE: 5-13-08
SCALE: 4396.001

PRODUCT 204-1 (Single Sheets) 205-1 (Padded)

TABLE 6.6.2.1-1 INVENTORY RATING ALLOWABLE STRESSES (psi)

		DATE BUILT-STEEL UNKNOWN								
		Prior to 1905	1905 to 1936	1936 to 1963	After 1963	Carbon Steel	Silicon Steel Over 2" to 4" incl	Nickel Steel	1-1/8" and Under	Over 1-1/8" to 2" incl
AASHTO Designation [1]						M 94(1961)	M 95(1961)	M 96(1961)		
ASTM Designation [1]						A 7(1967)	A 94(1966)	A 8(1961)	A 94	A 94
Minimum Tensile Strength	F_u	52,000	60,000			60,000	70,000	90,000	75,000	72,000
Minimum Yield Point	F_y	26,000	30,000	33,000	36,000	33,000	45,000	55,000	50,000	47,000
Axial tension in members with no holes for high strength bolts or rivets. Use net section when member has any open holes larger than 1-1/4" diam. such as perforations	$0.55F_y$ $0.46F_y$	14,000	16,000	18,000	20,000	18,000 NOT APPLICABLE	24,000	30,000	27,000	25,000
Axial tension in members with holes for high strength bolts or rivets and tension in extreme fiber of rolled shapes, girders, and built-up sections subject to bending • When the area of holes deducted for high strength bolts or rivets is more than 15 percent of the gross area, that area in excess of 15 percent shall be deducted from the gross area in determining stress on the gross section. In determining gross section, any open holes larger than 1-1 / 4" diam. such as perforations shall be deducted.	use whichever is smaller Gross* Section $0.55F_y$	14,000	16,000	18,000	20,000	18,000	24,000	30,000	27,000	25,000
	Net Section $0.50F_u$	26,000	30,000	30,000	30,000	30,000	35,000	45,000	37,500	36,000
	Net Section $0.46F_u$					NOT APPLICABLE				
Axial tension in members without holes. Axial compression, gross section: stiffeners of plate girders. Compression in splice material, gross section	$0.55F_y$	14,000	16,000	18,000	20,000	18,000	24,000	30,000	27,000	25,000
Compression in extreme fibers of rolled shapes, girders and built-up sections, subject to bending, gross section, when compression flange is. (A) Supported laterally its full length by embedment in concrete (B) Partially supported or unsupported[2]	$0.55F_y$	14,000	16,000	18,000	20,000	18,000	24,000	30,000	27,000	25,000

$$F_b = \frac{91 \times 10^6 C_b}{(F.S.)\, S_{xc}} \left(\frac{l_{yc}}{l}\right) \sqrt{0.772 \frac{J}{l_{yc}} + 9.87 \left(\frac{d}{l}\right)^2} \leq 0.55F_y$$

$C_b = 1.75 + 1.05\,(M_1 / M_2) + 0.3\,(M_1 / M_2)^2 \leq 2.3$ where M_1 is the smaller and M_2 is the larger end moment in the unbraced segment of the beams; M_1 / M_2 is positive when the moments cause reverse curvature and negative when bent in single curvature.

$C_b = 1.0$ for unbraced cantilevers and for members where the moment within a significant portion of the unbraced segment is greater than or equal to the larger of the segment end moments.

F.S. = Factor of Safety at Inventory Level = 1.82

18/97

HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

JOB Monaca Bridge Rating
SHEET NO. _____ OF _____
CALCULATED BY AMC DATE 5-20-08
CHECKED BY DFC DATE 5-20-08
DESCRIPTION _____

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Do Not Use This Run For Ratings.

See Next Run w/ Reduced Bot. Chord For Ratings.

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                BRIDGE ANALYSIS AND RATING (BAR7)                330443

PROGRAM P4353000                                          05/20/2008 11:47
VERSION 7.12.0.0          LAST UPDATED 01/12/2007       DOCUMENTATION 01/2007

INPUT: RATING-1.DAT


STRUCTURE ID -                  -

 BRG SLC       LIVE OUT-  IMP GAGE PASS FAT- CONC      RE-      S OVER END
TYPE LEV LANES LOAD PUT   FACT DIST DIST IGUE DECK SPEC DIST DIR FACTOR PAN HYB
 TFS      D     H   2    0.00             N                       0.00


              BRIDGE CROSS SECTION AND LOADING

       OVERHANG     CL OF
DECK      OR      GIRDER OR   ROADWAY  DISTRIBUTION FACTORS
WIDTH  SPACING TRUSS TO CURB   WIDTH   SHEAR MOMENT DEFLECT
20.67    0.00      -1.00       18.00   0.625  0.727  0.670

   SLAB                DEAD LOADS
THICKNESS  HAUNCH    DL1     DL2     F'C     N  SYMMETRY
  10.00      0.00   0.000   0.000   0.000   0.

LIVE LOAD  NO. OF   END          HINGE   TEMP    END
LOCATION   PANELS  COND.  CORS    AT    CHANGE   BRG.
    U        48       R          L37     0.      U

STRINGER   FLOORBEAM    UNIT WEIGHT
  DL1        DL1       DECK CONCRETE
 0.020      0.130          150.


                     SPAN LENGTHS (CANTILEVER)

SPAN #       1       2       3       4
LENGTH    103.55  114.15  109.13   94.00

HINGE  #     1       2       3
DISTANCE   128.6   192.7   351.8


              TRAFFIC LANE LOCATIONS

LANE #    1       2       3       4       5       6
DIST
WIDTH
% LL


              STRINGER SPAN LENGTHS (SIMPLE)

SPAN #       1       2       3
LENGTH      9.50    9.50    9.50
```

19/67

STRINGER LOCATIONS

STRINGER # 1
DISTANCE 8.00

TRUSS GEOMETRY

PANEL NO.	PANEL WIDTH		VERTICAL POST H1	H2	H3	PANEL TYPE
1	9.67	Y	11.67	0.00	-11.67	3
2	9.50	N	11.67	0.00	-11.67	5
3	9.50	Y	11.67	0.00	-11.67	6
4	9.50	N	11.67	0.00	-11.67	5
5	9.50	Y	11.67	0.00	-11.67	6
6	9.50	N	11.67	0.00	-11.67	5
7	9.50	Y	11.67	0.00	-11.67	6
8	9.50	N	11.67	0.00	-11.67	5
9	9.50	Y	11.67	0.00	-11.67	6
10	9.50	Y	11.67	0.00	-11.67	5
11	8.38	Y	11.67	0.00	-11.67	6
12	8.33	Y	11.67	0.00	-11.67	5
13	8.33	Y	11.67	0.00	-11.67	6
14	8.33		0.00	0.00	0.00	4
15	8.07	Y	9.00	0.00	-9.00	3
16	8.00	N	9.00	0.00	-9.00	5
17	8.00	Y	9.00	0.00	-9.00	6
18	8.01	N	9.00	0.00	-9.00	5
19	8.01	Y	9.00	0.00	-9.00	6
20	8.01	N	9.00	0.00	-9.00	5
21	8.00	Y	9.00	0.00	-9.00	6
22	8.07		0.00	0.00	0.00	4
23	8.33	Y	11.67	0.00	-11.67	3
24	8.33	Y	11.67	0.00	-11.67	5
25	8.33	Y	11.67	0.00	-11.67	6
26	8.38	Y	11.67	0.00	-11.67	5
27	9.18	Y	11.67	0.00	-11.67	6
28	9.25	N	11.67	0.00	-11.67	5
29	9.25	Y	11.67	0.00	-11.67	6
30	9.25	N	11.67	0.00	-11.67	5
31	9.25	Y	11.67	0.00	-11.67	6
32	9.25	N	11.67	0.00	-11.67	5
33	9.25	Y	11.67	0.00	-11.67	6
34	9.25	N	11.67	0.00	-11.67	5
35	9.25	Y	11.67	0.00	-11.67	6
36	9.19	N	11.67	0.00	-11.67	5
37	8.38	Y	11.67	0.00	-11.67	6
38	8.33	N	11.67	0.00	-11.67	5
39	8.33	Y	11.67	0.00	-11.67	6
40	8.33		0.00	0.00	0.00	4
41	8.63	Y	9.00	0.00	-9.00	3
42	8.63	N	9.00	0.00	-9.00	5
43	8.63	Y	9.00	0.00	-9.00	6
44	8.63	N	9.00	0.00	-9.00	5
45	8.63	Y	9.00	0.00	-9.00	6
46	8.62	N	9.00	0.00	-9.00	5
47	8.62	Y	9.00	0.00	-9.00	6
48	8.62		0.00	0.00	0.00	4

TRUSS DEAD LOADS

LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD
U 0	23.00	U 1	55.00	U 2	23.00	U 3	57.00
U 4	23.00	U 5	57.00	U 6	23.00	U 7	57.00
U 8	23.00	U 9	57.00	U 10	23.00	U 11	50.00
U 12	23.00	U 13	50.00	U 14	20.50	U 15	47.00
U 16	18.00	U 17	47.00	U 18	18.00	U 19	47.00
U 20	18.00	U 21	47.00	U 22	20.50	U 23	50.00
U 24	23.00	U 25	50.00	U 26	23.00	U 27	55.00
U 28	23.00	U 29	55.00	U 30	23.00	U 31	55.00
U 32	23.00	U 33	55.00	U 34	23.00	U 35	55.00
U 36	23.00	U 37	50.00	U 38	23.00	U 39	50.00
U 40	21.50	U 41	50.00	U 42	20.00	U 43	50.00
U 44	20.00	U 45	50.00	U 46	20.00	U 47	50.00
U 48	20.00	0	0.00	0	0.00	0	0.00

TRUSS MEMBER PROPERTIES

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	L	ECC	FLANGE WIDTH	C	CAT	FU	GROSS AREA TENS
U 0U 1	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U 1U 2	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U 2U 3	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00		0.0	43.94
U 3U 4	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00		0.0	43.94
U 4U 5	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U 5U 6	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U 6U 7	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U 7U 8	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U 8U 9	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U 9U10	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U10U11	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U11U12	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U12U13	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U13U14	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U14U15	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U15U16	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U16U17	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U17U18	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U18U19	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U19U20	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U20U21	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U21U22	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U22U23	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U23U24	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U24U25	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U25U26	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U26U27	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U27U28	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U28U29	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U29U30	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U30U31	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U31U32	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U32U33	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U33U34	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U34U35	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U35U36	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U36U37	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U37U38	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U39U39	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U39U40	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U40U41	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00		0.0	32.74
U41U42	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00		0.0	32.74
U42U43	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00		0.0	32.74
U43U44	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00		0.0	32.74

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U44U45	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
U45U46	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
U46U47	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
U47U48	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
U 1L 1	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U 3L 3	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U 5L 5	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U 7L 7	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U 9L 9	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U10L10	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U11L11	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U12L12	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U13L13	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U15L15	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U17L17	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U19L19	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U21L21	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U23L23	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U24L24	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U25L25	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U26L26	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U27L27	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U29L29	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U31L31	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U33L33	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U35L35	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U37L37	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U39L39	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U41L41	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U43L43	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U45L45	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U47L47	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U 0L 1	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L 1U 2	24.71	19.40	225.5	33.0	0.00	0.00	0.00	0.00	0.0	23.11
U 2L 3	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00	0.0	17.82
L 3U 4	15.59	13.40	57.5	33.0	0.00	0.00	0.00	0.00	0.0	15.44
U 4L 5	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
L 5U 6	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U 6L 7	15.59	13.40	57.5	33.0	0.00	0.00	0.00	0.00	0.0	15.44
L 7U 8	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00	0.0	20.64
U 8L 9	25.52	20.06	349.7	33.0	0.00	0.00	0.00	0.00	0.0	23.89
L 9U10	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
U10L11	39.98	31.86	567.7	33.0	0.00	0.00	0.00	0.00	0.0	37.86
L11U12	39.98	31.86	567.7	33.0	0.00	0.00	0.00	0.00	0.0	37.86
U12L13	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L13U14	27.94	21.57	383.7	33.0	0.00	0.00	0.00	0.00	0.0	25.76
U14L15	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00	0.0	20.64
L15U16	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00	0.0	17.82
U16L17	12.65	10.53	45.1	33.0	0.00	0.00	0.00	0.00	0.0	12.65
L17U18	8.81	7.20	17.5	33.0	0.00	0.00	0.00	0.00	0.0	8.52
U18L19	8.81	7.20	17.5	33.0	0.00	0.00	0.00	0.00	0.0	8.52
L19U20	12.65	10.53	45.1	33.0	0.00	0.00	0.00	0.00	0.0	12.65
U20L21	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00	0.0	17.82
L21U22	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00	0.0	20.64
U22L23	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L23U24	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
U24L25	39.98	31.86	567.7	33.0	0.00	0.00	0.00	0.00	0.0	37.86
L25U26	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
U26L27	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L27U28	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00	0.0	23.89
U28L29	20.00	17.14	121.2	33.0	0.00	0.00	0.00	0.00	0.0	20.00
L29U30	15.59	13.40	57.5	33.0	0.00	0.00	0.00	0.00	0.0	15.44
U30L31	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
L31U32	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U32L33	15.59	13.40	57.5	33.0	0.00	0.00	0.00	0.00	0.0	15.44
L33U34	20.00	17.14	121.2	33.0	0.00	0.00	0.00	0.00	0.0	20.00
U34L35	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00	0.0	23.89
L35U36	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
U36L37	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
L37U38	39.98	31.86	567.7	33.0	0.00	0.00	0.00	0.00	0.0	37.86
U38L39	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L39U40	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
U40L41	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00	0.0	20.64
L41U42	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00	0.0	17.82
U42L43	12.65	10.53	45.1	33.0	0.00	0.00	0.00	0.00	0.0	12.65
L43U44	8.81	7.20	17.5	33.0	0.00	0.00	0.00	0.00	0.0	8.52
U44L45	8.81	7.20	17.5	33.0	0.00	0.00	0.00	0.00	0.0	8.52
L45U46	12.65	10.53	45.1	33.0	0.00	0.00	0.00	0.00	0.0	12.65
U46L47	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00	0.0	17.82
L47U48	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00	0.0	20.64
L 1L 2	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L 2L 3	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L 3L 4	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00	0.0	43.94
L 4L 5	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00	0.0	43.94
L 5L 6	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00	0.0	43.94
L 6L 7	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00	0.0	43.94
L 7L 8	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L 8L 9	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L 9L10	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L10L11	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L11L12	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L12L13	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L15L16	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L16L17	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L17L18	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L18L19	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L19L20	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L20L21	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L23L24	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L24L25	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L25L26	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L26L27	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L27L28	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L28L29	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L29L30	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00	0.0	43.94
L30L31	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00	0.0	43.94
L31L32	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00	0.0	43.94
L32L33	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00	0.0	43.94
L33L34	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L34L35	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L35L36	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L36L37	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L37L38	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L38L39	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	39.63
L41L42	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
L42L43	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
L43L44	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
L44L45	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
L45L46	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
L46L47	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74

STEEL MEMBER PROPERTIES

GF	P S N	RANGE	TYPE	WF BM OF I OR VRT LEG	WF BM AREA OR HRZ LEG	FLANGE OR ANGLE THICK	FLANGE WIDTH	VAR	WF BM OR WEB PLATE DEPTH	WEB THICK

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F 1    0.00 W   446.30   10.59  0.4280  6.942      15.85  0.2990
                TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
                0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
      RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
F 1    8.00 W   446.30   10.59  0.4280  6.942      15.85  0.2990
                TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
                0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
      RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
F 2    0.00 W   446.30   10.59  0.4280  6.942      15.85  0.2990
                TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
                0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
      RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
F 2    8.00 W   446.30   10.59  0.4280  6.942      15.85  0.2990
                TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
                0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
      RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
F 3    0.00 W   446.30   10.59  0.4280  6.942      15.85  0.2990
                TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
                0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
      RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
F 3    8.00 W   446.30   10.59  0.4280  6.942      15.85  0.2990
                TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
                0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
      RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
S      0.00 W   446.30   10.59  0.4280  6.942      15.85  0.2990
                TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
                0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
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LATERAL BRACE POINTS AND STIFFENER SPACINGS

B OR S G OR F CODE	SPAN	C O D E	NO. OF SPCS	SPACING	C O D E	NO. OF SPCS	SPACING	C O D E	NO. OF SPCS	SPACING	C O D E	NO. OF SPCS	SPACING
BF	1	C	1	16.00	B	2	8.00		0	0.00		0	0.00
			0	0.00		0	0.00		0	0.00		0	0.00
BF	2	C	1	16.00	B	2	8.00		0	0.00		0	0.00
			0	0.00		0	0.00		0	0.00		0	0.00
BF	3	C	1	16.00	B	2	8.00		0	0.00		0	0.00
			0	0.00		0	0.00		0	0.00		0	0.00

DEFAULT VALUES

SLC LEVEL	LANES	GAGE DISTANCE	PASSING DISTANCE	CORS	END BRG.	UNIT WEIGHT DECK
I	---	6.0	3.0	S	---	---

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++++++++++++++++++++++++++++++++++++++++++++
+                                          +
+        T R U S S   A N A L Y S I S       +
+                                          +
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LIVE LOAD DISTRIBUTION FACTORS

BASED ON DESIGN LANES

TRUSS FORCE	TRUSS DEFLECTION
1.000(2)	1.000(2)

NOTE: IF A SECTION DOES NOT MEET FLANGE OR WEB BUCKLING CRITERIA OF CURRENT AASHTO SPECIFICATIONS FOR LOAD FACTOR METHOD, THE RATING FACTORS ARE REPRINTED AS 888.88. THIS INDICATES THAT THERE IS A POTENTIAL FATIGUE PROBLEM.

NOTE: THE ALLOWABLE STRESS IN AN ECCENTRICALLY LOADED COMPRESSION MEMBER IS COMPUTED BY THE SECANT FORMULA. SEE ARTICLE 5.4.2 OF THE 1978 AASHTO MANUAL FOR MAINTENANCE INSPECTION OF BRIDGES.

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*  TRUSS  -  LIVE LOAD  H20   *
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MEMBER FORCES AND RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS	RATING FACTORS	
U 0U 1	-132.0	-46.8L	1.22	11.3L	1.21	IR	-391.5	430.0	IR	5.542
						OR	-488.2	585.3	OR	7.608
U 1U 2	-132.0	-46.8L	1.22	11.3L	1.21	IR	-391.7	430.0	IR	5.547
						OR	-488.5	585.3	OR	7.614
U 2U 3	-283.2	-110.7L	1.22	33.5L	1.21	IR	-713.8	790.9	IR	3.889
						OR	-890.2	1076.5	OR	5.482
U 3U 4	-283.2	-110.7L	1.22	33.5L	1.21	IR	-713.8	790.9	IR	3.889
						OR	-890.2	1076.5	OR	5.482
U 4U 5	-304.2	-137.4L	1.22	55.7L	1.21	IR	-794.8	881.3	IR	3.571
						OR	-991.1	1199.5	OR	5.000
U 5U 6	-304.2	-137.4L	1.22	55.7L	1.21	IR	-794.8	881.3	IR	3.571
						OR	-991.1	1199.5	OR	5.000
U 6U 7	-194.8	-126.8L	1.22	78.0L	1.21	IR	-794.8	881.3	IR	4.731
						OR	-991.1	1199.5	OR	6.279
U 7U 8	-194.8	-126.8L	1.22	78.0L	1.21	IR	-794.8	881.3	IR	4.731
						OR	-991.1	1199.5	OR	6.279
U 8U 9	44.7	-79.0L	1.22	100.2L	1.21	IR	-642.7	713.3	IR	6.674
						OR	-801.5	970.9	OR	9.245
U 9U10	44.7	-79.0L	1.22	100.2L	1.21	IR	-642.7	713.3	IR	6.674
						OR	-801.5	970.9	OR	9.245
U10U11	391.6	0.0	1.22	121.1L	1.21	IR	-797.1	881.3	IR	4.043
						OR	-994.0	1199.5	OR	6.671
U11U12	391.6	0.0	1.21	121.1L	1.21	IR	-797.2	881.3	IR	4.043
						OR	-994.1	1199.5	OR	6.671
U12U13	101.7	0.0	1.21	35.8L	1.21	IR	-393.2	430.0	IR	9.166
						OR	-490.3	585.3	OR	13.501
U13U14	101.7	0.0	1.21	35.8L	1.21	IR	-393.2	430.0	IR	9.166
						OR	-490.3	585.3	OR	13.501
U14U15	-107.8	-36.3L	1.21	0.0	1.21	IR	-465.9	509.4	IR	9.870

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						OR	-581.0	693.4	OR	13.042
U15U16	-107.8	-36.3L	1.21	0.0	1.21	IR	-466.0	509.4	IR	9.872
						OR	-581.1	693.4	OR	13.045
U16U17	-223.5	-77.7L	1.21	0.0	1.21	IR	-466.0	509.4	IR	3.120
						OR	-581.1	693.4	OR	4.601
U17U18	-223.5	-77.7L	1.21	0.0	1.21	IR	-465.9	509.4	IR	3.120
						OR	-581.1	693.4	OR	4.601
U18U19	-223.7	-77.8L	1.21	0.0	1.21	IR	-465.9	509.4	IR	3.114
						OR	-581.1	693.4	OR	4.594
U19U20	-223.7	-77.8L	1.21	0.0	1.21	IR	-465.9	509.4	IR	3.114
						OR	-581.1	693.4	OR	4.594
U20U21	-108.3	-36.5L	1.21	0.0	1.21	IR	-466.0	509.4	IR	9.810
						OR	-581.1	693.4	OR	12.967
U21U22	-108.3	-36.5L	1.21	0.0	1.21	IR	-465.9	509.4	IR	9.807
						OR	-581.0	693.4	OR	12.964
U22U23	101.0	0.0	1.21	35.6L	1.21	IR	-393.2	430.0	IR	9.234
						OR	-490.3	585.3	OR	13.592
U23U24	101.0	0.0	1.21	35.6L	1.21	IR	-393.2	430.0	IR	9.234
						OR	-490.3	585.3	OR	13.592
U24U25	390.7	0.0	1.21	120.7L	1.21	IR	-797.2	881.3	IR	4.065
						OR	-994.1	1199.5	OR	6.702
U25U26	390.7	0.0	1.21	120.7L	1.21	IR	-797.1	881.3	IR	4.065
						OR	-994.0	1199.5	OR	6.702
U26U27	101.4	-81.1L	1.21	121.3L	1.21	IR	-643.3	713.3	IR	5.044
						OR	-802.2	970.9	OR	7.168
U27U28	101.4	-81.1L	1.21	121.3L	1.21	IR	-643.2	713.3	IR	5.044
						OR	-802.1	970.9	OR	7.168
U28U29	-80.5	-132.9L	1.21	122.0L	1.21	IR	-872.3	966.8	IR	5.959
						OR	-1087.8	1315.9	OR	7.581
U29U30	-80.5	-132.9L	1.21	122.0L	1.21	IR	-872.3	966.8	IR	5.959
						OR	-1087.8	1315.9	OR	7.581
U30U31	-138.8	-150.1L	1.21	122.6L	1.21	IR	-872.3	966.8	IR	4.885
						OR	-1087.8	1315.9	OR	6.321
U31U32	-138.8	-150.1L	1.21	123.6L	1.22	IR	-872.3	966.8	IR	4.885
						OR	-1087.8	1315.9	OR	6.321
U32U33	-73.4	-132.9L	1.21	124.3L	1.22	IR	-872.3	966.8	IR	6.012
						OR	-1087.8	1315.9	OR	7.633
U33U34	-73.4	-132.9L	1.21	124.3L	1.22	IR	-872.3	966.8	IR	6.012
						OR	-1087.8	1315.9	OR	7.633
U34U35	115.6	-81.1L	1.21	124.9L	1.22	IR	-643.2	713.3	IR	4.785
						OR	-802.1	970.9	OR	6.847
U35U36	115.6	-81.1L	1.21	124.9L	1.22	IR	-643.3	713.3	IR	4.785
						OR	-802.2	970.9	OR	6.847
U36U37	411.8	0.0	1.21	125.6L	1.22	IR	-797.1	881.3	IR	3.739
						OR	-994.0	1199.5	OR	6.274
U37U38	411.8	0.0	1.23	125.6L	1.22	IR	-797.2	881.3	IR	3.739
						OR	-994.1	1199.5	OR	6.274
U39U39	107.8	0.0	1.23	37.1L	1.22	IR	-393.2	430.0	IR	8.673
						OR	-490.3	585.3	OR	12.854
U39U40	107.8	0.0	1.23	37.1L	1.22	IR	-393.2	430.0	IR	8.673
						OR	-490.3	585.3	OR	12.854
U40U41	-124.9	-41.4L	1.23	0.0	1.22	IR	-537.9	589.3	IR	9.975
						OR	-670.8	802.1	OR	13.185
U41U42	-124.9	-41.4L	1.23	0.0	1.22	IR	-537.9	589.3	IR	9.975
						OR	-670.8	802.1	OR	13.185
U42U43	-259.0	-88.6L	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.150
						OR	-670.8	802.1	OR	4.650
U43U44	-259.0	-88.6L	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.150
						OR	-670.8	802.1	OR	4.650
U44U45	-258.8	-88.5L	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.154
						OR	-670.8	802.1	OR	4.656
U45U46	-258.8	-88.5L	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.154
						OR	-670.8	802.1	OR	4.656
U46U47	-124.6	-41.3L	1.23	0.0	1.22	IR	-537.9	589.3	IR	10.014
						OR	-670.8	802.1	OR	13.234
U47U48	-124.6	-41.3L	1.23	0.0	1.22	IR	-537.9	589.3	IR	10.014
						OR	-670.8	802.1	OR	13.234
L 1L 2	217.0	-22.4L	1.21	83.4L	1.22	IR	-463.9	509.4	IR	3.505
						OR	-578.5	693.4	OR	5.710
L 2L 3	217.0	-22.4L	1.21	83.4L	1.22	IR	-463.9	509.4	IR	3.505
						OR	-578.5	693.4	OR	5.710
L 3L 4	303.0	-44.6L	1.21	128.7L	1.22	IR	-713.8	790.9	IR	3.791
						OR	-890.2	1076.5	OR	6.010
L 4L 5	303.0	-44.6L	1.21	128.7L	1.22	IR	-713.8	790.9	IR	3.791
						OR	-890.2	1076.5	OR	6.010
L 5L 6	258.9	-66.9L	1.21	136.7L	1.22	IR	-713.8	790.9	IR	3.891
						OR	-890.2	1076.5	OR	5.979
L 6L 7	258.9	-66.9L	1.21	136.7L	1.22	IR	-713.8	790.9	IR	3.891
						OR	-890.2	1076.5	OR	5.979
L 7L 8	84.4	-89.1L	1.21	107.6L	1.22	IR	-642.7	713.3	IR	5.847
						OR	-801.5	970.9	OR	8.242
L 8L 9	84.4	-89.1L	1.21	107.6L	1.22	IR	-642.7	713.3	IR	5.847
						OR	-801.5	970.9	OR	8.242
L 9L10	-220.3	-111.3L	1.21	41.1L	1.22	IR	-642.7	713.3	IR	3.796
						OR	-801.5	970.9	OR	5.223

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L10L11	-220.3	-111.3L	1.21	41.1L	1.22	IR	-644.7	713.3	IR	3.813
						OR	-803.9	970.9	OR	5.244
L11L12	-238.5	-76.1L	1.21	0.0	1.21	IR	-644.7	713.3	IR	5.335
						OR	-804.0	970.9	OR	7.427
L12L13	-238.5	-76.1L	1.21	0.0	1.21	IR	-644.7	713.3	IR	5.335
						OR	-804.0	970.9	OR	7.427
L15L16	173.7	0.0	1.21	62.2L	1.21	IR	-466.0	509.4	IR	5.401
						OR	-581.1	693.4	OR	8.361
L16L17	173.7	0.0	1.21	62.2L	1.21	IR	-466.0	509.4	IR	5.401
						OR	-581.1	693.4	OR	8.361
L17L18	231.6	0.0	1.21	82.9L	1.21	IR	-465.9	509.4	IR	3.350
						OR	-581.1	693.4	OR	5.568
L18L19	231.6	0.0	1.21	82.9L	1.21	IR	-465.9	509.4	IR	3.350
						OR	-581.1	693.4	OR	5.568
L19L20	174.0	0.0	1.21	62.3L	1.21	IR	-465.9	509.4	IR	5.386
						OR	-581.1	693.4	OR	8.340
L20L21	174.0	0.0	1.21	62.3L	1.21	IR	-466.0	509.4	IR	5.386
						OR	-581.1	693.4	OR	8.340
L23L24	-237.7	-75.8L	1.21	0.0	1.21	IR	-644.7	713.3	IR	5.367
						OR	-804.0	970.9	OR	7.467
L24L25	-237.7	-75.8L	1.21	0.0	1.21	IR	-644.7	713.3	IR	5.367
						OR	-804.0	970.9	OR	7.467
L25L26	-244.0	-121.0L	1.21	42.6L	1.21	IR	-644.7	713.3	IR	3.312
						OR	-803.9	970.9	OR	4.628
L26L27	-244.0	-121.0L	1.21	42.6L	1.21	IR	-643.3	713.3	IR	3.301
						OR	-802.2	970.9	OR	4.614
L27L28	-1.3	-121.6L	1.21	111.3L	1.21	IR	-643.2	713.3	IR	5.277
						OR	-802.1	970.9	OR	6.583
L28L29	-1.3	-121.6L	1.21	111.3L	1.21	IR	-643.2	713.3	IR	5.277
						OR	-802.1	970.9	OR	6.583
L29L30	118.8	-122.3L	1.21	145.8L	1.21	IR	-714.3	790.9	IR	4.609
						OR	-890.8	1076.5	OR	6.568
L30L31	118.8	-122.3L	1.21	145.8L	1.21	IR	-714.3	790.9	IR	4.609
						OR	-890.8	1076.5	OR	6.568
L31L32	115.2	-123.9L	1.22	145.8L	1.21	IR	-714.3	790.9	IR	4.633
						OR	-890.8	1076.5	OR	6.592
L32L33	115.2	-123.9L	1.22	145.8L	1.21	IR	-714.3	790.9	IR	4.633
						OR	-890.8	1076.5	OR	6.592
L33L34	-12.0	-124.6L	1.22	111.3L	1.21	IR	-643.2	713.3	IR	5.066
						OR	-802.1	970.9	OR	6.342
L34L35	-12.0	-124.6L	1.22	111.3L	1.21	IR	-643.2	713.3	IR	5.066
						OR	-802.1	970.9	OR	6.342
L35L36	-261.9	-125.3L	1.22	42.6L	1.21	IR	-643.3	713.3	IR	3.045
						OR	-802.2	970.9	OR	4.314
L36L37	-261.9	-125.3L	1.22	42.6L	1.21	IR	-644.7	713.3	IR	3.056
						OR	-803.9	970.9	OR	4.328
L37L38	-251.6	-79.0L	1.22	0.0	1.23	IR	-644.7	713.3	IR	4.975
						OR	-804.0	970.9	OR	6.990
L38L39	-251.6	-79.0L	1.22	0.0	1.23	IR	-644.7	713.3	IR	4.975
						OR	-804.0	970.9	OR	6.990
L41L42	201.5	0.0	1.22	70.9L	1.23	IR	-537.9	589.3	IR	5.471
						OR	-670.8	802.1	OR	8.473
L42L43	201.5	0.0	1.22	70.9L	1.23	IR	-537.9	589.3	IR	5.471
						OR	-670.8	802.1	OR	8.473
L43L44	268.5	0.0	1.22	94.4L	1.23	IR	-537.9	589.3	IR	3.398
						OR	-670.8	802.1	OR	5.651
L44L45	268.5	0.0	1.22	94.4L	1.23	IR	-537.9	589.3	IR	3.398
						OR	-670.8	802.1	OR	5.651
L45L46	201.3	0.0	1.22	70.8L	1.23	IR	-537.9	589.3	IR	5.483
						OR	-670.8	802.1	OR	8.490
L46L47	201.3	0.0	1.22	70.8L	1.23	IR	-537.9	589.3	IR	5.483
						OR	-670.8	802.1	OR	8.490
U 0L 1	207.0	-21.1L	1.23	84.9L	1.22	IR	-452.8	509.4	IR	3.564
						OR	-564.7	693.4	OR	5.732
L 1U 2	-134.6	-72.0L	1.23	22.6L	1.30	IR	-362.4	416.0	IR	3.164
						OR	-451.9	566.2	OR	4.408
U 2L 3	104.9	-24.2L	1.30	60.6L	1.24	IR	-254.6	320.8	IR	3.561
						OR	-317.5	436.6	OR	5.472
L 3U 4	-31.4	-50.1L	1.25	28.3L	1.30	IR	-207.9	277.9	IR	3.526
						OR	-259.3	378.3	OR	4.552
U 4L 5	1.7	-35.9L	1.30	40.3L	1.27	IR	-132.1	201.1	IR	3.727
						OR	-164.8	273.7	OR	4.636
L 5U 6	71.8	-31.4L	1.28	44.0L	1.28	IR	-132.1	201.1	IR	2.941
						OR	-164.8	273.7	OR	4.593
U 6L 7	-101.4	-52.9L	1.27	23.3L	1.30	IR	-207.9	277.9	IR	2.015
						OR	-259.3	378.3	OR	2.987
L 7U 8	174.9	-15.9	1.30	62.6L	1.25	IR	-336.2	371.5	IR	3.142
						OR	-419.2	505.7	OR	5.286
U 8L 9	-204.6	-73.1L	1.24	9.8	1.30	IR	-381.9	430.0	IR	2.425
						OR	-476.3	585.3	OR	3.715
L 9U10	278.1	-3.9L	1.30	84.9L	1.23	IR	-453.1	509.4	IR	2.725
						OR	-565.0	693.4	OR	4.891
U10L11	-293.8	-93.0L	1.23	0.0	1.00	IR	-601.2	681.5	IR	3.305
						OR	-749.7	927.6	OR	4.902
L11U12	-263.7	-90.7L	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.721
						OR	-749.8	927.6	OR	5.358

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U12L13	235.4	0.0	1.00	83.3L	1.24	IR	-454.7	509.4	IR	3.289
						OR	-567.1	693.4	OR	5.498
L13U14	-175.0	-76.0L	1.25	0.0	1.00	IR	-419.7	463.7	IR	3.220
						OR	-523.4	631.1	OR	4.585
U14L15	161.4	0.0	1.00	68.6L	1.26	IR	-343.6	371.5	IR	3.061
						OR	-428.5	505.7	OR	5.016
L15U16	-99.1	-55.9L	1.28	7.0	1.30	IR	-263.4	320.8	IR	2.939
						OR	-328.5	436.6	OR	4.103
U16L17	75.1	-14.3	1.30	44.0L	1.29	IR	-178.2	227.7	IR	3.470
						OR	-222.2	309.9	OR	5.340
L17U18	-12.2	-32.9L	1.30	23.0	1.30	IR	-113.7	153.4	IR	3.090
						OR	-141.8	208.7	OR	3.945
U18L19	-11.9	-32.8L	1.30	23.1	1.30	IR	-113.7	153.4	IR	3.106
						OR	-141.8	208.7	OR	3.963
L19U20	74.8	-14.4	1.30	43.9L	1.29	IR	-178.2	227.7	IR	3.480
						OR	-222.2	309.9	OR	5.352
U20L21	-98.9	-55.8L	1.28	7.0	1.30	IR	-263.4	320.8	IR	2.948
						OR	-328.5	436.6	OR	4.114
L21U22	162.2	0.0	1.00	69.0L	1.26	IR	-343.6	371.5	IR	3.035
						OR	-428.5	505.7	OR	4.980
U22L23	-173.9	-75.8L	1.25	0.0	1.00	IR	-454.7	509.4	IR	3.707
						OR	-567.1	693.4	OR	5.189
L23U24	235.2	0.0	1.00	83.3L	1.24	IR	-454.7	509.4	IR	3.294
						OR	-567.1	693.4	OR	5.504
U24L25	-263.4	-90.7L	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.725
						OR	-749.8	927.6	OR	5.363
L25U26	-251.5	-95.3L	1.23	19.4L	1.23	IR	-526.0	589.3	IR	2.880
						OR	-655.9	802.1	OR	4.243
U26L27	230.6	-21.6L	1.30	86.6L	1.23	IR	-453.5	509.4	IR	3.218
						OR	-565.6	693.4	OR	5.342
L27U28	-161.1	-75.3L	1.23	22.9L	1.30	IR	-382.8	430.0	IR	2.943
						OR	-477.4	585.3	OR	4.199
U28L29	131.8	-25.8L	1.30	65.2L	1.24	IR	-284.7	360.0	IR	3.503
						OR	-355.1	490.0	OR	5.498
L29U30	-61.6	-55.8L	1.26	32.6L	1.30	IR	-208.6	277.9	IR	2.636
						OR	-260.1	378.3	OR	3.559
U30L31	32.2	-39.8L	1.29	47.1L	1.27	IR	-117.8	174.6	IR	3.020
						OR	-146.9	237.6	OR	4.357
L31U32	37.9	-39.3L	1.29	47.7L	1.27	IR	-117.8	174.6	IR	2.865
						OR	-146.9	237.6	OR	4.186
U32L33	-67.3	-56.3L	1.26	32.0L	1.30	IR	-208.6	277.9	IR	2.508
						OR	-260.1	378.3	OR	3.423
L33U34	137.5	-25.3L	1.30	65.7L	1.24	IR	-284.7	360.0	IR	3.387
						OR	-355.1	490.0	OR	5.365
U34L35	-166.8	-75.8L	1.23	22.4L	1.30	IR	-382.8	430.0	IR	2.849
						OR	-477.4	585.3	OR	4.097
L35U36	236.4	-21.0L	1.30	86.8L	1.23	IR	-453.5	509.4	IR	3.144
						OR	-565.6	693.4	OR	5.262
U36L37	-257.0	-95.5L	1.23	19.0L	1.23	IR	-526.0	589.3	IR	2.818
						OR	-655.9	802.1	OR	4.179
L37U38	-275.7	-92.7L	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.513
						OR	-749.8	927.6	OR	5.116
U38L39	247.5	0.0	1.00	85.2L	1.24	IR	-454.7	509.4	IR	3.073
						OR	-567.1	693.4	OR	5.231
L39U40	-185.6	-77.5L	1.25	0.0	1.00	IR	-454.7	509.4	IR	3.471
						OR	-567.1	693.4	OR	4.919
U40L41	180.5	0.0	1.00	72.9L	1.25	IR	-342.7	371.5	IR	2.622
						OR	-427.4	505.7	OR	4.464
L41U42	-110.7	-59.3L	1.27	7.2	1.30	IR	-262.3	320.8	IR	2.555
						OR	-327.1	436.6	OR	3.647
U42L43	83.0	-15.1	1.30	46.5L	1.29	IR	-176.9	227.7	IR	3.110
						OR	-220.6	309.9	OR	4.878
L43U44	-13.7	-34.7L	1.30	24.1	1.30	IR	-112.1	153.4	IR	2.830
						OR	-139.8	208.7	OR	3.627
U44L45	-14.0	-34.8L	1.30	24.1	1.30	IR	-112.1	153.4	IR	2.818
						OR	-139.8	208.7	OR	3.613
L45U46	83.2	-15.1	1.30	46.6L	1.29	IR	-176.9	227.7	IR	3.103
						OR	-220.6	309.9	OR	4.869
U46L47	-110.9	-59.4L	1.27	7.2	1.30	IR	-262.3	320.8	IR	2.551
						OR	-327.1	436.6	OR	3.643
L47U48	180.1	0.0	1.00	73.3L	1.26	IR	-342.7	371.5	IR	2.611
						OR	-427.4	505.7	OR	4.442
U 1L 1	-55.0	-41.8L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.245
						OR	-185.5	273.7	OR	3.124
U 3L 3	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 5L 5	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 7L 7	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 9L 9	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U10L10	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U11L11	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258

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U12L12	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U13L13	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U15L15	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U17L17	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U19L19	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U21L21	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U23L23	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U24L24	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U25L25	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U26L26	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U27L27	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U29L29	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U31L31	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U33L33	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U35L35	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U37L37	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U39L39	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U41L41	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U43L43	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U45L45	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U47L47	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050

MEMBER U 6L 7 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS		RATING FACTOR	TONS
-101.4	-52.9L	1.27	23.3L	1.30	IR	-207.9	277.9	IR	2.015	40.29
					OR	-259.3	378.3	OR	2.987	59.73

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I		I.F.
U 0	182.4	72.1	L	1.22
L11	503.2	132.1	L	1.21
L25	468.7	133.1	L	1.21
L37	483.2	136.5	L	1.22
U48	150.1	59.1	L	1.23

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* TRUSS - LIVE LOAD HS20 *
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MEMBER FORCES AND RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS		RATING FACTORS
U 0U 1	-132.0	-59.4	1.22	15.0	1.21	IR	-391.5	430.0	IR	4.371
						OR	-488.2	585.3	OR	6.000
U 1U 2	-132.0	-59.4	1.22	15.0	1.21	IR	-391.7	430.0	IR	4.374
						OR	-488.5	585.3	OR	6.004
U 2U 3	-283.2	-136.5	1.22	44.3	1.21	IR	-713.8	790.9	IR	3.156
						OR	-890.2	1076.5	OR	4.448
U 3U 4	-283.2	-136.5	1.22	44.3	1.21	IR	-713.8	790.9	IR	3.156
						OR	-890.2	1076.5	OR	4.448
U 4U 5	-304.2	-165.6	1.22	73.7	1.21	IR	-794.8	881.3	IR	2.963
						OR	-991.1	1199.5	OR	4.149
U 5U 6	-304.2	-165.6	1.22	73.7	1.21	IR	-794.8	881.3	IR	2.963
						OR	-991.1	1199.5	OR	4.149
U 6U 7	-194.8	-154.4	1.22	103.1	1.21	IR	-794.8	881.3	IR	3.887
						OR	-991.1	1199.5	OR	5.159
U 7U 8	-194.8	-154.4	1.22	103.1	1.21	IR	-794.8	881.3	IR	3.887
						OR	-991.1	1199.5	OR	5.159
U 8U 9	44.7	-99.1	1.22	132.5	1.21	IR	-642.7	713.3	IR	5.045
						OR	-801.5	970.9	OR	6.989
U 9U10	44.7	-99.1	1.22	132.5	1.21	IR	-642.7	713.3	IR	5.045
						OR	-801.5	970.9	OR	6.989
U10U11	391.6	0.0	1.22	160.2	1.21	IR	-797.1	881.3	IR	3.057
						OR	-994.0	1199.5	OR	5.044
U11U12	391.6	0.0	1.21	160.2	1.21	IR	-797.2	881.3	IR	3.057
						OR	-994.1	1199.5	OR	5.044
U12U13	101.7	0.0	1.21	53.5	1.21	IR	-393.2	430.0	IR	6.135

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						OR	-490.3	585.3	OR	9.037
U13U14	101.7	0.0	1.21	53.5	1.21	IR	-393.2	430.0	IR	6.135
						OR	-490.3	585.3	OR	9.037
U14U15	-107.8	-56.5	1.21	0.0	1.21	IR	-465.9	509.4	IR	6.336
						OR	-581.0	693.4	OR	8.373
U15U16	-107.8	-56.5	1.21	0.0	1.21	IR	-466.0	509.4	IR	6.338
						OR	-581.1	693.4	OR	8.375
U16U17	-223.5	-113.3	1.21	0.0	1.21	IR	-466.0	509.4	IR	2.140
						OR	-581.1	693.4	OR	3.156
U17U18	-223.5	-113.3	1.21	0.0	1.21	IR	-465.9	509.4	IR	2.140
						OR	-581.1	693.4	OR	3.156
U18U19	-223.7	-113.4	1.21	0.0	1.21	IR	-465.9	509.4	IR	2.136
						OR	-581.1	693.4	OR	3.151
U19U20	-223.7	-113.4	1.21	0.0	1.21	IR	-465.9	509.4	IR	2.136
						OR	-581.1	693.4	OR	3.151
U20U21	-108.3	-56.8	1.21	0.0	1.21	IR	-466.0	509.4	IR	6.297
						OR	-581.1	693.4	OR	8.323
U21U22	-108.3	-56.8	1.21	0.0	1.21	IR	-465.9	509.4	IR	6.295
						OR	-581.0	693.4	OR	8.321
U22U23	101.0	0.0	1.21	53.2	1.21	IR	-393.2	430.0	IR	6.181
						OR	-490.3	585.3	OR	9.099
U23U24	101.0	0.0	1.21	53.2	1.21	IR	-393.2	430.0	IR	6.181
						OR	-490.3	585.3	OR	9.099
U24U25	390.7	0.0	1.21	159.6	1.21	IR	-797.2	881.3	IR	3.074
						OR	-994.1	1199.5	OR	5.068
U25U26	390.7	0.0	1.21	159.6	1.21	IR	-797.1	881.3	IR	3.074
						OR	-994.0	1199.5	OR	5.068
U26U27	101.4	-99.1	1.21	133.9	1.21	IR	-643.3	713.3	IR	4.569
						OR	-802.2	970.9	OR	6.492
U27U28	101.4	-99.1	1.21	133.9	1.21	IR	-643.2	713.3	IR	4.569
						OR	-802.1	970.9	OR	6.492
U28U29	-80.5	-157.7	1.21	122.0L	1.21	IR	-872.3	966.8	IR	5.021
						OR	-1087.8	1315.9	OR	6.388
U29U30	-80.5	-157.7	1.21	122.0L	1.21	IR	-872.3	966.8	IR	5.021
						OR	-1087.8	1315.9	OR	6.388
U30U31	-138.8	-175.2	1.21	122.6L	1.21	IR	-872.3	966.8	IR	4.188
						OR	-1087.8	1315.9	OR	5.418
U31U32	-138.8	-175.2	1.21	123.6L	1.22	IR	-872.3	966.8	IR	4.188
						OR	-1087.8	1315.9	OR	5.418
U32U33	-73.4	-157.7	1.21	124.3L	1.22	IR	-872.3	966.8	IR	5.066
						OR	-1087.8	1315.9	OR	6.432
U33U34	-73.4	-157.7	1.21	124.3L	1.22	IR	-872.3	966.8	IR	5.066
						OR	-1087.8	1315.9	OR	6.432
U34U35	115.6	-99.1	1.21	136.4	1.22	IR	-643.2	713.3	IR	4.382
						OR	-802.1	970.9	OR	6.271
U35U36	115.6	-99.1	1.21	136.4	1.22	IR	-643.3	713.3	IR	4.382
						OR	-802.2	970.9	OR	6.271
U36U37	411.8	0.0	1.21	162.6	1.22	IR	-797.1	881.3	IR	2.888
						OR	-994.0	1199.5	OR	4.845
U37U38	411.8	0.0	1.23	162.6	1.22	IR	-797.2	881.3	IR	2.888
						OR	-994.1	1199.5	OR	4.845
U39U39	107.8	0.0	1.23	54.1	1.22	IR	-393.2	430.0	IR	5.955
						OR	-490.3	585.3	OR	8.825
U39U40	107.8	0.0	1.23	54.1	1.22	IR	-393.2	430.0	IR	5.955
						OR	-490.3	585.3	OR	8.825
U40U41	-124.9	-62.9	1.23	0.0	1.22	IR	-537.9	589.3	IR	6.571
						OR	-670.8	802.1	OR	8.685
U41U42	-124.9	-62.9	1.23	0.0	1.22	IR	-537.9	589.3	IR	6.571
						OR	-670.8	802.1	OR	8.685
U42U43	-259.0	-126.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	2.204
						OR	-670.8	802.1	OR	3.254
U43U44	-259.0	-126.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	2.204
						OR	-670.8	802.1	OR	3.254
U44U45	-258.8	-126.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	2.207
						OR	-670.8	802.1	OR	3.258
U45U46	-258.8	-126.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	2.207
						OR	-670.8	802.1	OR	3.258
U46U47	-124.6	-62.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	6.595
						OR	-670.8	802.1	OR	8.716
U47U48	-124.6	-62.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	6.595
						OR	-670.8	802.1	OR	8.716
L 1L 2	217.0	-29.7	1.21	104.5	1.22	IR	-463.9	509.4	IR	2.799
						OR	-578.5	693.4	OR	4.560
L 2L 3	217.0	-29.7	1.21	104.5	1.22	IR	-463.9	509.4	IR	2.799
						OR	-578.5	693.4	OR	4.560
L 3L 4	303.0	-59.0	1.21	156.6	1.22	IR	-713.8	790.9	IR	3.116
						OR	-890.2	1076.5	OR	4.940
L 4L 5	303.0	-59.0	1.21	156.6	1.22	IR	-713.8	790.9	IR	3.116
						OR	-890.2	1076.5	OR	4.940
L 5L 6	258.9	-88.4	1.21	165.1	1.22	IR	-713.8	790.9	IR	3.222
						OR	-890.2	1076.5	OR	4.952
L 6L 7	258.9	-88.4	1.21	165.1	1.22	IR	-713.8	790.9	IR	3.222
						OR	-890.2	1076.5	OR	4.952
L 7L 8	84.4	-117.8	1.21	132.9	1.22	IR	-642.7	713.3	IR	4.733
						OR	-801.5	970.9	OR	6.671

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L 8L 9	84.4	-117.8	1.21	132.9	1.22	IR	-642.7	713.3	IR	4.733
						OR	-801.5	970.9	OR	6.671
L 9L10	-220.3	-147.2	1.21	52.2	1.22	IR	-642.7	713.3	IR	2.870
						OR	-801.5	970.9	OR	3.948
L10L11	-220.3	-147.2	1.21	52.2	1.22	IR	-644.7	713.3	IR	2.883
						OR	-803.9	970.9	OR	3.965
L11L12	-238.5	-106.8	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.802
						OR	-804.0	970.9	OR	5.293
L12L13	-238.5	-106.8	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.802
						OR	-804.0	970.9	OR	5.293
L15L16	173.7	0.0	1.21	93.6	1.21	IR	-466.0	509.4	IR	3.586
						OR	-581.1	693.4	OR	5.550
L16L17	173.7	0.0	1.21	93.6	1.21	IR	-466.0	509.4	IR	3.586
						OR	-581.1	693.4	OR	5.550
L17L18	231.6	0.0	1.21	117.4	1.21	IR	-465.9	509.4	IR	2.366
						OR	-581.1	693.4	OR	3.933
L18L19	231.6	0.0	1.21	117.4	1.21	IR	-465.9	509.4	IR	2.366
						OR	-581.1	693.4	OR	3.933
L19L20	174.0	0.0	1.21	93.8	1.21	IR	-465.9	509.4	IR	3.576
						OR	-581.1	693.4	OR	5.537
L20L21	174.0	0.0	1.21	93.8	1.21	IR	-466.0	509.4	IR	3.576
						OR	-581.1	693.4	OR	5.537
L23L24	-237.7	-106.4	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.825
						OR	-804.0	970.9	OR	5.322
L24L25	-237.7	-106.4	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.825
						OR	-804.0	970.9	OR	5.322
L25L26	-244.0	-147.4	1.21	52.6	1.21	IR	-644.7	713.3	IR	2.719
						OR	-803.9	970.9	OR	3.800
L26L27	-244.0	-147.4	1.21	52.6	1.21	IR	-643.3	713.3	IR	2.710
						OR	-802.2	970.9	OR	3.788
L27L28	-1.3	-121.6L	1.21	134.3	1.21	IR	-643.2	713.3	IR	5.277
						OR	-802.1	970.9	OR	6.583
L28L29	-1.3	-121.6L	1.21	134.3	1.21	IR	-643.2	713.3	IR	5.277
						OR	-802.1	970.9	OR	6.583
L29L30	118.8	-122.3L	1.21	172.2	1.21	IR	-714.3	790.9	IR	3.902
						OR	-890.8	1076.5	OR	5.561
L30L31	118.8	-122.3L	1.21	172.2	1.21	IR	-714.3	790.9	IR	3.902
						OR	-890.8	1076.5	OR	5.561
L31L32	115.2	-123.9L	1.22	172.2	1.21	IR	-714.3	790.9	IR	3.923
						OR	-890.8	1076.5	OR	5.581
L32L33	115.2	-123.9L	1.22	172.2	1.21	IR	-714.3	790.9	IR	3.923
						OR	-890.8	1076.5	OR	5.581
L33L34	-12.0	-124.6L	1.22	134.3	1.21	IR	-643.2	713.3	IR	5.066
						OR	-802.1	970.9	OR	6.342
L34L35	-12.0	-124.6L	1.22	134.3	1.21	IR	-643.2	713.3	IR	5.066
						OR	-802.1	970.9	OR	6.342
L35L36	-261.9	-150.1	1.22	52.6	1.21	IR	-643.3	713.3	IR	2.541
						OR	-802.2	970.9	OR	3.600
L36L37	-261.9	-150.1	1.22	52.6	1.21	IR	-644.7	713.3	IR	2.550
						OR	-803.9	970.9	OR	3.611
L37L38	-251.6	-108.3	1.22	0.0	1.23	IR	-644.7	713.3	IR	3.629
						OR	-804.0	970.9	OR	5.099
L38L39	-251.6	-108.3	1.22	0.0	1.23	IR	-644.7	713.3	IR	3.629
						OR	-804.0	970.9	OR	5.099
L41L42	201.5	0.0	1.22	104.3	1.23	IR	-537.9	589.3	IR	3.717
						OR	-670.8	802.1	OR	5.756
L42L43	201.5	0.0	1.22	104.3	1.23	IR	-537.9	589.3	IR	3.717
						OR	-670.8	802.1	OR	5.756
L43L44	268.5	0.0	1.22	131.4	1.23	IR	-537.9	589.3	IR	2.442
						OR	-670.8	802.1	OR	4.062
L44L45	268.5	0.0	1.22	131.4	1.23	IR	-537.9	589.3	IR	2.442
						OR	-670.8	802.1	OR	4.062
L45L46	201.3	0.0	1.22	104.2	1.23	IR	-537.9	589.3	IR	3.724
						OR	-670.8	802.1	OR	5.767
L46L47	201.3	0.0	1.22	104.2	1.23	IR	-537.9	589.3	IR	3.724
						OR	-670.8	802.1	OR	5.767
U 0L 1	207.0	-23.8	1.23	93.0	1.22	IR	-452.8	509.4	IR	3.250
						OR	-564.7	693.4	OR	5.227
L 1U 2	-134.6	-82.7	1.23	24.9	1.30	IR	-362.4	416.0	IR	2.754
						OR	-451.9	566.2	OR	3.836
U 2L 3	104.9	-24.9	1.30	72.9	1.24	IR	-254.6	320.8	IR	2.960
						OR	-317.5	436.6	OR	4.548
L 3U 4	-31.4	-63.0	1.25	28.3L	1.30	IR	-207.9	277.9	IR	2.801
						OR	-259.3	378.3	OR	3.616
U 4L 5	1.7	-35.9L	1.30	52.9	1.27	IR	-132.1	201.1	IR	3.727
						OR	-164.8	273.7	OR	4.636
L 5U 6	71.8	-42.6	1.28	44.1	1.28	IR	-132.1	201.1	IR	2.935
						OR	-164.8	273.7	OR	4.583
U 6L 7	-101.4	-54.3	1.27	32.1	1.30	IR	-207.9	277.9	IR	1.961
						OR	-259.3	378.3	OR	2.907
L 7U 8	174.9	-21.0	1.30	64.4	1.25	IR	-336.2	371.5	IR	3.055
						OR	-419.2	505.7	OR	5.139
U 8L 9	-204.6	-74.3	1.24	10.0	1.30	IR	-381.9	430.0	IR	2.388
						OR	-476.3	585.3	OR	3.658
L 9U10	278.1	-3.9L	1.30	84.9L	1.23	IR	-453.1	509.4	IR	2.725
						OR	-565.0	693.4	OR	4.891

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U10L11	-293.8	-93.0L	1.23	0.0	1.00	IR	-601.2	681.5	IR	3.305
						OR	-749.7	927.6	OR	4.902
L11U12	-263.7	-107.0	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.156
						OR	-749.8	927.6	OR	4.545
U12L13	235.4	0.0	1.00	101.9	1.24	IR	-454.7	509.4	IR	2.688
						OR	-567.1	693.4	OR	4.493
L13U14	-175.0	-95.1	1.25	0.0	1.00	IR	-419.7	463.7	IR	2.573
						OR	-523.4	631.1	OR	3.663
U14L15	161.4	0.0	1.00	88.5	1.26	IR	-343.6	371.5	IR	2.373
						OR	-428.5	505.7	OR	3.889
L15U16	-99.1	-74.4	1.28	7.0	1.30	IR	-263.4	320.8	IR	2.208
						OR	-328.5	436.6	OR	3.082
U16L17	75.1	-15.7	1.30	59.8	1.29	IR	-178.2	227.7	IR	2.554
						OR	-222.2	309.9	OR	3.931
L17U18	-12.2	-44.5	1.30	29.6	1.30	IR	-113.7	153.4	IR	2.284
						OR	-141.8	208.7	OR	2.916
U18L19	-11.9	-44.4	1.30	29.7	1.30	IR	-113.7	153.4	IR	2.296
						OR	-141.8	208.7	OR	2.929
L19U20	74.8	-15.7	1.30	59.7	1.29	IR	-178.2	227.7	IR	2.562
						OR	-222.2	309.9	OR	3.940
U20L21	-98.9	-74.3	1.28	7.0	1.30	IR	-263.4	320.8	IR	2.214
						OR	-328.5	436.6	OR	3.090
L21U22	162.2	0.0	1.00	89.0	1.26	IR	-343.6	371.5	IR	2.353
						OR	-428.5	505.7	OR	3.860
U22L23	-173.9	-94.8	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.963
						OR	-567.1	693.4	OR	4.148
L23U24	235.2	0.0	1.00	101.9	1.24	IR	-454.7	509.4	IR	2.692
						OR	-567.1	693.4	OR	4.497
U24L25	-263.4	-107.0	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.159
						OR	-749.8	927.6	OR	4.547
L25U26	-251.5	-95.3L	1.23	21.5	1.23	IR	-526.0	589.3	IR	2.880
						OR	-655.9	802.1	OR	4.243
U26L27	230.6	-23.6	1.30	86.6L	1.23	IR	-453.5	509.4	IR	3.218
						OR	-565.6	693.4	OR	5.342
L27U28	-161.1	-75.8	1.23	23.6	1.30	IR	-382.8	430.0	IR	2.925
						OR	-477.4	585.3	OR	4.173
U28L29	131.8	-25.8L	1.30	66.8	1.24	IR	-284.7	360.0	IR	3.419
						OR	-355.1	490.0	OR	5.366
L29U30	-61.6	-57.6	1.26	32.6L	1.30	IR	-208.6	277.9	IR	2.550
						OR	-260.1	378.3	OR	3.444
U30L31	32.2	-39.8L	1.29	48.4	1.27	IR	-117.8	174.6	IR	2.942
						OR	-146.9	237.6	OR	4.244
L31U32	37.9	-39.3L	1.29	48.4	1.27	IR	-117.8	174.6	IR	2.824
						OR	-146.9	237.6	OR	4.127
U32L33	-67.3	-57.6	1.26	32.0L	1.30	IR	-208.6	277.9	IR	2.452
						OR	-260.1	378.3	OR	3.346
L33U34	137.5	-25.3L	1.30	66.7	1.24	IR	-284.7	360.0	IR	3.334
						OR	-355.1	490.0	OR	5.281
U34L35	-166.8	-75.8L	1.23	23.4	1.30	IR	-382.8	430.0	IR	2.849
						OR	-477.4	585.3	OR	4.097
L35U36	236.4	-23.3	1.30	86.8L	1.23	IR	-453.5	509.4	IR	3.144
						OR	-565.6	693.4	OR	5.262
U36L37	-257.0	-95.5L	1.23	21.4	1.23	IR	-526.0	589.3	IR	2.818
						OR	-655.9	802.1	OR	4.179
L37U38	-275.7	-106.7	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.052
						OR	-749.8	927.6	OR	4.445
U38L39	247.5	0.0	1.00	102.0	1.24	IR	-454.7	509.4	IR	2.569
						OR	-567.1	693.4	OR	4.372
L39U40	-185.6	-95.1	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.829
						OR	-567.1	693.4	OR	4.010
U40L41	180.5	0.0	1.00	92.2	1.25	IR	-342.7	371.5	IR	2.072
						OR	-427.4	505.7	OR	3.527
L41U42	-110.7	-77.9	1.27	7.2	1.30	IR	-262.3	320.8	IR	1.945
						OR	-327.1	436.6	OR	2.776
U42L43	83.0	-17.2	1.30	62.8	1.29	IR	-176.9	227.7	IR	2.303
						OR	-220.6	309.9	OR	3.611
L43U44	-13.7	-47.3	1.30	31.6	1.30	IR	-112.1	153.4	IR	2.081
						OR	-139.8	208.7	OR	2.667
U44L45	-14.0	-47.4	1.30	31.5	1.30	IR	-112.1	153.4	IR	2.072
						OR	-139.8	208.7	OR	2.657
L45U46	83.2	-17.1	1.30	62.9	1.29	IR	-176.9	227.7	IR	2.298
						OR	-220.6	309.9	OR	3.605
U46L47	-110.9	-78.0	1.27	7.2	1.30	IR	-262.3	320.8	IR	1.942
						OR	-327.1	436.6	OR	2.774
L47U48	180.1	0.0	1.00	92.8	1.26	IR	-342.7	371.5	IR	2.063
						OR	-427.4	505.7	OR	3.509
U 1L 1	-55.0	-41.8L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.245
						OR	-185.5	273.7	OR	3.124
U 3L 3	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 5L 5	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 7L 7	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 9L 9	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200

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						OR	-185.5	273.7	OR	3.082
U10L10	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U11L11	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U12L12	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U13L13	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U15L15	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U17L17	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U19L19	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U21L21	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U23L23	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U24L24	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U25L25	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U26L26	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U27L27	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U29L29	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U31L31	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U33L33	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U35L35	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U37L37	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U39L39	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U41L41	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U43L43	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U45L45	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U47L47	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050

MEMBER U46L47 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.	ALLOWABLE FORCE	COMP	TENS	RATING FACTOR	TONS
-110.9	-78.0	1.27	7.2	1.30	IR	-262.3	320.8	IR 1.942	69.92
					OR	-327.1	436.6	OR 2.774	99.85

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
U 0	182.4	79.8	1.22
L11	503.2	132.1 L	1.21
L25	468.7	133.1 L	1.21
L37	483.2	136.5 L	1.22
U48	150.1	76.5	1.23

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* TRUSS - LIVE LOAD TK527 *
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MEMBER FORCES AND RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.	ALLOWABLE FORCE	COMP	TENS	RATING FACTORS	
U 0U 1	-132.0	-67.4	1.22	17.0	1.21	IR	-391.5	430.0	IR	3.849
						OR	-488.2	585.3	OR	5.284
U 1U 2	-132.0	-67.4	1.22	17.0	1.21	IR	-391.7	430.0	IR	3.853
						OR	-488.5	585.3	OR	5.288
U 2U 3	-283.2	-155.5	1.22	50.5	1.21	IR	-713.8	790.9	IR	2.769
						OR	-890.2	1076.5	OR	3.903
U 3U 4	-283.2	-155.5	1.22	50.5	1.21	IR	-713.8	790.9	IR	2.769
						OR	-890.2	1076.5	OR	3.903
U 4U 5	-304.2	-189.0	1.22	84.0	1.21	IR	-794.8	881.3	IR	2.596
						OR	-991.1	1199.5	OR	3.635
U 5U 6	-304.2	-189.0	1.22	84.0	1.21	IR	-794.8	881.3	IR	2.596
						OR	-991.1	1199.5	OR	3.635
U 6U 7	-194.8	-177.3	1.22	117.5	1.21	IR	-794.8	881.3	IR	3.383
						OR	-991.1	1199.5	OR	4.490
U 7U 8	-194.8	-177.3	1.22	117.5	1.21	IR	-794.8	881.3	IR	3.383
						OR	-991.1	1199.5	OR	4.490
U 8U 9	44.7	-112.4	1.22	151.0	1.21	IR	-642.7	713.3	IR	4.429
						OR	-801.5	970.9	OR	6.135
U 9U10	44.7	-112.4	1.22	151.0	1.21	IR	-642.7	713.3	IR	4.429
						OR	-801.5	970.9	OR	6.135
U10U11	391.6	0.0	1.22	182.5	1.21	IR	-797.1	881.3	IR	2.683

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						OR	-994.0	1199.5	OR	4.427
U11U12	391.6	0.0	1.21	182.5	1.21	IR	-797.2	881.3	IR	2.683
						OR	-994.1	1199.5	OR	4.427
U12U13	101.7	0.0	1.21	60.5	1.21	IR	-393.2	430.0	IR	5.423
						OR	-490.3	585.3	OR	7.989
U13U14	101.7	0.0	1.21	60.5	1.21	IR	-393.2	430.0	IR	5.423
						OR	-490.3	585.3	OR	7.989
U14U15	-107.8	-63.8	1.21	0.0	1.21	IR	-465.9	509.4	IR	5.616
						OR	-581.0	693.4	OR	7.422
U15U16	-107.8	-63.8	1.21	0.0	1.21	IR	-466.0	509.4	IR	5.618
						OR	-581.1	693.4	OR	7.423
U16U17	-223.5	-130.3	1.21	0.0	1.21	IR	-466.0	509.4	IR	1.861
						OR	-581.1	693.4	OR	2.744
U17U18	-223.5	-130.3	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.861
						OR	-581.1	693.4	OR	2.744
U18U19	-223.7	-130.4	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.858
						OR	-581.1	693.4	OR	2.741
U19U20	-223.7	-130.4	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.858
						OR	-581.1	693.4	OR	2.741
U20U21	-108.3	-64.1	1.21	0.0	1.21	IR	-466.0	509.4	IR	5.581
						OR	-581.1	693.4	OR	7.378
U21U22	-108.3	-64.1	1.21	0.0	1.21	IR	-465.9	509.4	IR	5.580
						OR	-581.0	693.4	OR	7.376
U22U23	101.0	0.0	1.21	60.2	1.21	IR	-393.2	430.0	IR	5.467
						OR	-490.3	585.3	OR	8.048
U23U24	101.0	0.0	1.21	60.2	1.21	IR	-393.2	430.0	IR	5.467
						OR	-490.3	585.3	OR	8.048
U24U25	390.7	0.0	1.21	181.9	1.21	IR	-797.2	881.3	IR	2.697
						OR	-994.1	1199.5	OR	4.447
U25U26	390.7	0.0	1.21	181.9	1.21	IR	-797.1	881.3	IR	2.697
						OR	-994.0	1199.5	OR	4.447
U26U27	101.4	-112.5	1.21	152.6	1.21	IR	-643.3	713.3	IR	4.009
						OR	-802.2	970.9	OR	5.697
U27U28	101.4	-112.5	1.21	152.6	1.21	IR	-643.2	713.3	IR	4.009
						OR	-802.1	970.9	OR	5.697
U28U29	-80.5	-181.3	1.21	121.8	1.21	IR	-872.3	966.8	IR	4.367
						OR	-1087.8	1315.9	OR	5.555
U29U30	-80.5	-181.3	1.21	121.8	1.21	IR	-872.3	966.8	IR	4.367
						OR	-1087.8	1315.9	OR	5.555
U30U31	-138.8	-199.5	1.21	91.7	1.21	IR	-872.3	966.8	IR	3.677
						OR	-1087.8	1315.9	OR	4.757
U31U32	-138.8	-199.5	1.21	92.4	1.22	IR	-872.3	966.8	IR	3.677
						OR	-1087.8	1315.9	OR	4.757
U32U33	-73.4	-181.4	1.21	123.7	1.22	IR	-872.3	966.8	IR	4.405
						OR	-1087.8	1315.9	OR	5.593
U33U34	-73.4	-181.4	1.21	123.7	1.22	IR	-872.3	966.8	IR	4.405
						OR	-1087.8	1315.9	OR	5.593
U34U35	115.6	-112.5	1.21	155.0	1.22	IR	-643.2	713.3	IR	3.856
						OR	-802.1	970.9	OR	5.518
U35U36	115.6	-112.5	1.21	155.0	1.22	IR	-643.3	713.3	IR	3.856
						OR	-802.2	970.9	OR	5.518
U36U37	411.8	0.0	1.21	184.7	1.22	IR	-797.1	881.3	IR	2.541
						OR	-994.0	1199.5	OR	4.264
U37U38	411.8	0.0	1.23	184.7	1.22	IR	-797.2	881.3	IR	2.541
						OR	-994.1	1199.5	OR	4.264
U39U39	107.8	0.0	1.23	61.2	1.22	IR	-393.2	430.0	IR	5.262
						OR	-490.3	585.3	OR	7.798
U39U40	107.8	0.0	1.23	61.2	1.22	IR	-393.2	430.0	IR	5.262
						OR	-490.3	585.3	OR	7.798
U40U41	-124.9	-71.0	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.817
						OR	-670.8	802.1	OR	7.689
U41U42	-124.9	-71.0	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.817
						OR	-670.8	802.1	OR	7.689
U42U43	-259.0	-145.4	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.918
						OR	-670.8	802.1	OR	2.832
U43U44	-259.0	-145.4	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.918
						OR	-670.8	802.1	OR	2.832
U44U45	-258.8	-145.3	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.920
						OR	-670.8	802.1	OR	2.834
U45U46	-258.8	-145.3	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.920
						OR	-670.8	802.1	OR	2.835
U46U47	-124.6	-70.8	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.839
						OR	-670.8	802.1	OR	7.716
U47U48	-124.6	-70.8	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.839
						OR	-670.8	802.1	OR	7.716
L 1L 2	217.0	-33.8	1.21	118.5	1.22	IR	-463.9	509.4	IR	2.468
						OR	-578.5	693.4	OR	4.020
L 2L 3	217.0	-33.8	1.21	118.5	1.22	IR	-463.9	509.4	IR	2.468
						OR	-578.5	693.4	OR	4.020
L 3L 4	303.0	-67.3	1.21	179.8	1.22	IR	-713.8	790.9	IR	2.714
						OR	-890.2	1076.5	OR	4.303
L 4L 5	303.0	-67.3	1.21	179.8	1.22	IR	-713.8	790.9	IR	2.714
						OR	-890.2	1076.5	OR	4.303
L 5L 6	258.9	-100.7	1.21	188.6	1.22	IR	-713.8	790.9	IR	2.821
						OR	-890.2	1076.5	OR	4.335

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L 6L 7	258.9	-100.7	1.21	188.6	1.22	IR	-713.8	790.9	IR	2.821
						OR	-890.2	1076.5	OR	4.335
L 7L 8	84.4	-134.2	1.21	151.1	1.22	IR	-642.7	713.3	IR	4.163
						OR	-801.5	970.9	OR	5.869
L 8L 9	84.4	-134.2	1.21	151.1	1.22	IR	-642.7	713.3	IR	4.163
						OR	-801.5	970.9	OR	5.869
L 9L10	-220.3	-167.7	1.21	59.3	1.22	IR	-642.7	713.3	IR	2.519
						OR	-801.5	970.9	OR	3.466
L10L11	-220.3	-167.7	1.21	59.3	1.22	IR	-644.7	713.3	IR	2.530
						OR	-803.9	970.9	OR	3.480
L11L12	-238.5	-120.8	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.362
						OR	-804.0	970.9	OR	4.681
L12L13	-238.5	-120.8	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.362
						OR	-804.0	970.9	OR	4.681
L15L16	173.7	0.0	1.21	105.3	1.21	IR	-466.0	509.4	IR	3.188
						OR	-581.1	693.4	OR	4.935
L16L17	173.7	0.0	1.21	105.3	1.21	IR	-466.0	509.4	IR	3.188
						OR	-581.1	693.4	OR	4.935
L17L18	231.6	0.0	1.21	133.1	1.21	IR	-465.9	509.4	IR	2.086
						OR	-581.1	693.4	OR	3.468
L18L19	231.6	0.0	1.21	133.1	1.21	IR	-465.9	509.4	IR	2.086
						OR	-581.1	693.4	OR	3.468
L19L20	174.0	0.0	1.21	105.5	1.21	IR	-465.9	509.4	IR	3.179
						OR	-581.1	693.4	OR	4.922
L20L21	174.0	0.0	1.21	105.5	1.21	IR	-466.0	509.4	IR	3.179
						OR	-581.1	693.4	OR	4.922
L23L24	-237.7	-120.3	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.384
						OR	-804.0	970.9	OR	4.708
L24L25	-237.7	-120.3	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.384
						OR	-804.0	970.9	OR	4.708
L25L26	-244.0	-167.9	1.21	59.7	1.21	IR	-644.7	713.3	IR	2.386
						OR	-803.9	970.9	OR	3.335
L26L27	-244.0	-167.9	1.21	59.7	1.21	IR	-643.3	713.3	IR	2.378
						OR	-802.2	970.9	OR	3.324
L27L28	-1.3	-137.2	1.21	152.2	1.21	IR	-643.2	713.3	IR	4.678
						OR	-802.1	970.9	OR	5.836
L28L29	-1.3	-137.2	1.21	152.2	1.21	IR	-643.2	713.3	IR	4.678
						OR	-802.1	970.9	OR	5.836
L29L30	118.8	-106.4	1.21	197.1	1.21	IR	-714.3	790.9	IR	3.410
						OR	-890.8	1076.5	OR	4.858
L30L31	118.8	-106.4	1.21	197.1	1.21	IR	-714.3	790.9	IR	3.410
						OR	-890.8	1076.5	OR	4.858
L31L32	115.2	-108.0	1.22	197.1	1.21	IR	-714.3	790.9	IR	3.427
						OR	-890.8	1076.5	OR	4.876
L32L33	115.2	-108.0	1.22	197.1	1.21	IR	-714.3	790.9	IR	3.427
						OR	-890.8	1076.5	OR	4.876
L33L34	-12.0	-139.3	1.22	152.3	1.21	IR	-643.2	713.3	IR	4.530
						OR	-802.1	970.9	OR	5.670
L34L35	-12.0	-139.3	1.22	152.3	1.21	IR	-643.2	713.3	IR	4.530
						OR	-802.1	970.9	OR	5.670
L35L36	-261.9	-170.6	1.22	59.7	1.21	IR	-643.3	713.3	IR	2.236
						OR	-802.2	970.9	OR	3.168
L36L37	-261.9	-170.6	1.22	59.7	1.21	IR	-644.7	713.3	IR	2.244
						OR	-803.9	970.9	OR	3.178
L37L38	-251.6	-122.6	1.22	0.0	1.23	IR	-644.7	713.3	IR	3.207
						OR	-804.0	970.9	OR	4.506
L38L39	-251.6	-122.6	1.22	0.0	1.23	IR	-644.7	713.3	IR	3.207
						OR	-804.0	970.9	OR	4.506
L41L42	201.5	0.0	1.22	117.5	1.23	IR	-537.9	589.3	IR	3.299
						OR	-670.8	802.1	OR	5.109
L42L43	201.5	0.0	1.22	117.5	1.23	IR	-537.9	589.3	IR	3.299
						OR	-670.8	802.1	OR	5.109
L43L44	268.5	0.0	1.22	149.1	1.23	IR	-537.9	589.3	IR	2.151
						OR	-670.8	802.1	OR	3.579
L44L45	268.5	0.0	1.22	149.1	1.23	IR	-537.9	589.3	IR	2.151
						OR	-670.8	802.1	OR	3.579
L45L46	201.3	0.0	1.22	117.4	1.23	IR	-537.9	589.3	IR	3.306
						OR	-670.8	802.1	OR	5.119
L46L47	201.3	0.0	1.22	117.4	1.23	IR	-537.9	589.3	IR	3.306
						OR	-670.8	802.1	OR	5.119
U 0L 1	207.0	-27.1	1.23	105.6	1.22	IR	-452.8	509.4	IR	2.863
						OR	-564.7	693.4	OR	4.604
L 1U 2	-134.6	-93.8	1.23	28.4	1.30	IR	-362.4	416.0	IR	2.428
						OR	-451.9	566.2	OR	3.382
U 2L 3	104.9	-28.4	1.30	82.6	1.24	IR	-254.6	320.8	IR	2.613
						OR	-317.5	436.6	OR	4.015
L 3U 4	-31.4	-71.2	1.25	28.4	1.30	IR	-207.9	277.9	IR	2.477
						OR	-259.3	378.3	OR	3.198
U 4L 5	1.7	-37.6	1.30	59.7	1.27	IR	-132.1	201.1	IR	3.339
						OR	-164.8	273.7	OR	4.434
L 5U 6	71.8	-47.9	1.28	49.5	1.28	IR	-132.1	201.1	IR	2.610
						OR	-164.8	273.7	OR	4.076
U 6L 7	-101.4	-61.3	1.27	35.9	1.30	IR	-207.9	277.9	IR	1.738
						OR	-259.3	378.3	OR	2.576
L 7U 8	174.9	-23.2	1.30	72.8	1.25	IR	-336.2	371.5	IR	2.701
						OR	-419.2	505.7	OR	4.543

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U 8L 9	-204.6	-84.1	1.24	10.5	1.30	IR	-381.9	430.0	IR	2.108
						OR	-476.3	585.3	OR	3.229
L 9U10	278.1	0.0	1.30	95.8	1.23	IR	-453.1	509.4	IR	2.416
						OR	-565.0	693.4	OR	4.336
U10L11	-293.8	-102.9	1.23	0.0	1.00	IR	-601.2	681.5	IR	2.987
						OR	-749.7	927.6	OR	4.430
L11U12	-263.7	-120.9	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.794
						OR	-749.8	927.6	OR	4.023
U12L13	235.4	0.0	1.00	116.3	1.24	IR	-454.7	509.4	IR	2.356
						OR	-567.1	693.4	OR	3.937
L13U14	-175.0	-107.6	1.25	0.0	1.00	IR	-419.7	463.7	IR	2.274
						OR	-523.4	631.1	OR	3.238
U14L15	161.4	0.0	1.00	99.9	1.26	IR	-343.6	371.5	IR	2.104
						OR	-428.5	505.7	OR	3.447
L15U16	-99.1	-83.7	1.28	6.8	1.30	IR	-263.4	320.8	IR	1.963
						OR	-328.5	436.6	OR	2.740
U16L17	75.1	-18.4	1.30	66.9	1.29	IR	-178.2	227.7	IR	2.282
						OR	-222.2	309.9	OR	3.511
L17U18	-12.2	-49.8	1.30	33.6	1.30	IR	-113.7	153.4	IR	2.038
						OR	-141.8	208.7	OR	2.602
U18L19	-11.9	-49.7	1.30	33.7	1.30	IR	-113.7	153.4	IR	2.049
						OR	-141.8	208.7	OR	2.614
L19U20	74.8	-18.5	1.30	66.8	1.29	IR	-178.2	227.7	IR	2.288
						OR	-222.2	309.9	OR	3.519
U20L21	-98.9	-83.6	1.28	6.8	1.30	IR	-263.4	320.8	IR	1.969
						OR	-328.5	436.6	OR	2.747
L21U22	162.2	0.0	1.00	100.4	1.26	IR	-343.6	371.5	IR	2.086
						OR	-428.5	505.7	OR	3.422
U22L23	-173.9	-107.2	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.621
						OR	-567.1	693.4	OR	3.669
L23U24	235.2	0.0	1.00	116.3	1.24	IR	-454.7	509.4	IR	2.358
						OR	-567.1	693.4	OR	3.940
U24L25	-263.4	-120.8	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.796
						OR	-749.8	927.6	OR	4.025
L25U26	-251.5	-104.1	1.23	24.5	1.23	IR	-526.0	589.3	IR	2.638
						OR	-655.9	802.1	OR	3.887
U26L27	230.6	-26.8	1.30	96.7	1.23	IR	-453.5	509.4	IR	2.884
						OR	-565.6	693.4	OR	4.787
L27U28	-161.1	-85.9	1.23	26.8	1.30	IR	-382.8	430.0	IR	2.579
						OR	-477.4	585.3	OR	3.680
U28L29	131.8	-26.8	1.30	75.6	1.24	IR	-284.7	360.0	IR	3.019
						OR	-355.1	490.0	OR	4.739
L29U30	-61.6	-65.2	1.26	32.6	1.30	IR	-208.6	277.9	IR	2.256
						OR	-260.1	378.3	OR	3.047
U30L31	32.2	-43.8	1.29	54.6	1.27	IR	-117.8	174.6	IR	2.609
						OR	-146.9	237.6	OR	3.764
L31U32	37.9	-43.8	1.29	54.6	1.27	IR	-117.8	174.6	IR	2.505
						OR	-146.9	237.6	OR	3.660
U32L33	-67.3	-65.2	1.26	32.7	1.30	IR	-208.6	277.9	IR	2.169
						OR	-260.1	378.3	OR	2.960
L33U34	137.5	-26.6	1.30	75.6	1.24	IR	-284.7	360.0	IR	2.944
						OR	-355.1	490.0	OR	4.664
U34L35	-166.8	-85.9	1.23	26.6	1.30	IR	-382.8	430.0	IR	2.515
						OR	-477.4	585.3	OR	3.616
L35U36	236.4	-26.6	1.30	96.3	1.23	IR	-453.5	509.4	IR	2.835
						OR	-565.6	693.4	OR	4.746
U36L37	-257.0	-103.6	1.23	24.4	1.23	IR	-526.0	589.3	IR	2.596
						OR	-655.9	802.1	OR	3.850
L37U38	-275.7	-120.6	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.699
						OR	-749.8	927.6	OR	3.931
U38L39	247.5	0.0	1.00	116.4	1.24	IR	-454.7	509.4	IR	2.250
						OR	-567.1	693.4	OR	3.830
L39U40	-185.6	-107.7	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.500
						OR	-567.1	693.4	OR	3.543
U40L41	180.5	0.0	1.00	104.1	1.25	IR	-342.7	371.5	IR	1.834
						OR	-427.4	505.7	OR	3.123
L41U42	-110.7	-87.8	1.27	7.3	1.30	IR	-262.3	320.8	IR	1.727
						OR	-327.1	436.6	OR	2.465
U42L43	83.0	-19.8	1.30	70.5	1.29	IR	-176.9	227.7	IR	2.053
						OR	-220.6	309.9	OR	3.219
L43U44	-13.7	-52.7	1.30	35.9	1.30	IR	-112.1	153.4	IR	1.868
						OR	-139.8	208.7	OR	2.394
U44L45	-14.0	-52.8	1.30	35.8	1.30	IR	-112.1	153.4	IR	1.860
						OR	-139.8	208.7	OR	2.384
L45U46	83.2	-19.8	1.30	70.6	1.29	IR	-176.9	227.7	IR	2.048
						OR	-220.6	309.9	OR	3.214
U46L47	-110.9	-87.8	1.27	7.2	1.30	IR	-262.3	320.8	IR	1.724
						OR	-327.1	436.6	OR	2.462
L47U48	180.1	0.0	1.00	104.8	1.26	IR	-342.7	371.5	IR	1.826
						OR	-427.4	505.7	OR	3.107
U 1L 1	-55.0	-50.4	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.860
						OR	-185.5	273.7	OR	2.589
U 3L 3	-57.0	-50.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.829
						OR	-185.5	273.7	OR	2.561
U 5L 5	-57.0	-50.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.829

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						OR	-185.5	273.7	OR	2.561
U 7L 7	-57.0	-50.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.829
						OR	-185.5	273.7	OR	2.561
U 9L 9	-57.0	-50.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.829
						OR	-185.5	273.7	OR	2.561
U10L10	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U11L11	-50.0	-46.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.111
						OR	-185.5	273.7	OR	2.897
U12L12	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U13L13	-50.0	-46.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.115
						OR	-185.5	273.7	OR	2.902
U15L15	-47.0	-45.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.077
						OR	-176.9	237.6	OR	2.844
U17L17	-47.0	-45.5	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.082
						OR	-176.9	237.6	OR	2.852
U19L19	-47.0	-45.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.082
						OR	-176.9	237.6	OR	2.851
U21L21	-47.0	-45.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.077
						OR	-176.9	237.6	OR	2.844
U23L23	-50.0	-46.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.115
						OR	-185.5	273.7	OR	2.902
U24L24	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U25L25	-50.0	-46.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.111
						OR	-185.5	273.7	OR	2.897
U26L26	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U27L27	-55.0	-49.4	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.897
						OR	-185.5	273.7	OR	2.641
U29L29	-55.0	-49.5	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.894
						OR	-185.5	273.7	OR	2.636
U31L31	-55.0	-49.5	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.894
						OR	-185.5	273.7	OR	2.636
U33L33	-55.0	-49.5	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.894
						OR	-185.5	273.7	OR	2.636
U35L35	-55.0	-49.4	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.897
						OR	-185.5	273.7	OR	2.641
U37L37	-50.0	-46.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.111
						OR	-185.5	273.7	OR	2.897
U39L39	-50.0	-46.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.115
						OR	-185.5	273.7	OR	2.902
U41L41	-50.0	-47.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.926
						OR	-176.9	237.6	OR	2.661
U43L43	-50.0	-47.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.926
						OR	-176.9	237.6	OR	2.661
U45L45	-50.0	-47.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.927
						OR	-176.9	237.6	OR	2.662
U47L47	-50.0	-47.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.928
						OR	-176.9	237.6	OR	2.663

MEMBER U46L47 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS		RATING FACTOR	TONS
-110.9	-87.8	1.27	7.2	1.30	IR	-262.3	320.8	IR	1.724	68.97
					OR	-327.1	436.6	OR	2.462	98.49

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
U 0	182.4	90.7	1.22
L11	503.2	115.5	1.21
L25	468.7	114.4	1.21
L37	483.2	115.3	1.22
U48	150.1	86.6	1.23

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*  TRUSS  -  LIVE LOAD  ML80  *
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MEMBER FORCES AND RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS		RATING FACTORS
U 0U 1	-132.0	-64.3	1.22	16.5	1.21	IR	-391.5	430.0	IR	4.036
						OR	-488.2	585.3	OR	5.540
U 1U 2	-132.0	-64.3	1.22	16.5	1.21	IR	-391.7	430.0	IR	4.039
						OR	-488.5	585.3	OR	5.544
U 2U 3	-283.2	-149.3	1.22	48.9	1.21	IR	-713.8	790.9	IR	2.885
						OR	-890.2	1076.5	OR	4.066
U 3U 4	-283.2	-149.3	1.22	48.9	1.21	IR	-713.8	790.9	IR	2.885
						OR	-890.2	1076.5	OR	4.066
U 4U 5	-304.2	-185.0	1.22	81.3	1.21	IR	-794.8	881.3	IR	2.652
						OR	-991.1	1199.5	OR	3.714
U 5U 6	-304.2	-185.0	1.22	81.3	1.21	IR	-794.8	881.3	IR	2.652
						OR	-991.1	1199.5	OR	3.714
U 6U 7	-194.8	-171.4	1.22	113.8	1.21	IR	-794.8	881.3	IR	3.499
						OR	-991.1	1199.5	OR	4.644
U 7U 8	-194.8	-171.4	1.22	113.8	1.21	IR	-794.8	881.3	IR	3.499
						OR	-991.1	1199.5	OR	4.644
U 8U 9	44.7	-107.7	1.22	146.2	1.21	IR	-642.7	713.3	IR	4.574

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						OR	-801.5	970.9	OR	6.336
U 9U10	44.7	-107.7	1.22	146.2	1.21	IR	-642.7	713.3	IR	4.574
						OR	-801.5	970.9	OR	6.336
U10U11	391.6	0.0	1.22	176.7	1.21	IR	-797.1	881.3	IR	2.771
						OR	-994.0	1199.5	OR	4.572
U11U12	391.6	0.0	1.21	176.7	1.21	IR	-797.2	881.3	IR	2.771
						OR	-994.1	1199.5	OR	4.572
U12U13	101.7	0.0	1.21	59.0	1.21	IR	-393.2	430.0	IR	5.566
						OR	-490.3	585.3	OR	8.198
U13U14	101.7	0.0	1.21	59.0	1.21	IR	-393.2	430.0	IR	5.566
						OR	-490.3	585.3	OR	8.198
U14U15	-107.8	-62.8	1.21	0.0	1.21	IR	-465.9	509.4	IR	5.703
						OR	-581.0	693.4	OR	7.536
U15U16	-107.8	-62.8	1.21	0.0	1.21	IR	-466.0	509.4	IR	5.704
						OR	-581.1	693.4	OR	7.538
U16U17	-223.5	-131.6	1.21	0.0	1.21	IR	-466.0	509.4	IR	1.843
						OR	-581.1	693.4	OR	2.718
U17U18	-223.5	-131.6	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.843
						OR	-581.1	693.4	OR	2.718
U18U19	-223.7	-131.7	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.839
						OR	-581.1	693.4	OR	2.714
U19U20	-223.7	-131.7	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.839
						OR	-581.1	693.4	OR	2.714
U20U21	-108.3	-63.1	1.21	0.0	1.21	IR	-466.0	509.4	IR	5.667
						OR	-581.1	693.4	OR	7.491
U21U22	-108.3	-63.1	1.21	0.0	1.21	IR	-465.9	509.4	IR	5.666
						OR	-581.0	693.4	OR	7.489
U22U23	101.0	0.0	1.21	58.6	1.21	IR	-393.2	430.0	IR	5.609
						OR	-490.3	585.3	OR	8.257
U23U24	101.0	0.0	1.21	58.6	1.21	IR	-393.2	430.0	IR	5.609
						OR	-490.3	585.3	OR	8.257
U24U25	390.7	0.0	1.21	176.2	1.21	IR	-797.2	881.3	IR	2.785
						OR	-994.1	1199.5	OR	4.591
U25U26	390.7	0.0	1.21	176.2	1.21	IR	-797.1	881.3	IR	2.785
						OR	-994.0	1199.5	OR	4.591
U26U27	101.4	-107.4	1.21	147.8	1.21	IR	-643.3	713.3	IR	4.139
						OR	-802.2	970.9	OR	5.882
U27U28	101.4	-107.4	1.21	147.8	1.21	IR	-643.2	713.3	IR	4.139
						OR	-802.1	970.9	OR	5.882
U28U29	-80.5	-174.4	1.21	118.0	1.21	IR	-872.3	966.8	IR	4.541
						OR	-1087.8	1315.9	OR	5.777
U29U30	-80.5	-174.4	1.21	118.0	1.21	IR	-872.3	966.8	IR	4.541
						OR	-1087.8	1315.9	OR	5.777
U30U31	-138.8	-195.6	1.21	88.5	1.21	IR	-872.3	966.8	IR	3.750
						OR	-1087.8	1315.9	OR	4.851
U31U32	-138.8	-195.6	1.21	89.2	1.22	IR	-872.3	966.8	IR	3.750
						OR	-1087.8	1315.9	OR	4.851
U32U33	-73.4	-174.4	1.21	119.4	1.22	IR	-872.3	966.8	IR	4.581
						OR	-1087.8	1315.9	OR	5.817
U33U34	-73.4	-174.4	1.21	119.4	1.22	IR	-872.3	966.8	IR	4.581
						OR	-1087.8	1315.9	OR	5.817
U34U35	115.6	-107.4	1.21	149.7	1.22	IR	-643.2	713.3	IR	3.993
						OR	-802.1	970.9	OR	5.714
U35U36	115.6	-107.4	1.21	149.7	1.22	IR	-643.3	713.3	IR	3.993
						OR	-802.2	970.9	OR	5.714
U36U37	411.8	0.0	1.21	178.4	1.22	IR	-797.1	881.3	IR	2.631
						OR	-994.0	1199.5	OR	4.415
U37U38	411.8	0.0	1.23	178.4	1.22	IR	-797.2	881.3	IR	2.631
						OR	-994.1	1199.5	OR	4.415
U39U39	107.8	0.0	1.23	59.4	1.22	IR	-393.2	430.0	IR	5.426
						OR	-490.3	585.3	OR	8.042
U39U40	107.8	0.0	1.23	59.4	1.22	IR	-393.2	430.0	IR	5.426
						OR	-490.3	585.3	OR	8.042
U40U41	-124.9	-69.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.942
						OR	-670.8	802.1	OR	7.854
U41U42	-124.9	-69.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.942
						OR	-670.8	802.1	OR	7.854
U42U43	-259.0	-145.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.915
						OR	-670.8	802.1	OR	2.827
U43U44	-259.0	-145.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.915
						OR	-670.8	802.1	OR	2.827
U44U45	-258.8	-145.6	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.917
						OR	-670.8	802.1	OR	2.830
U45U46	-258.8	-145.6	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.917
						OR	-670.8	802.1	OR	2.830
U46U47	-124.6	-69.3	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.965
						OR	-670.8	802.1	OR	7.882
U47U48	-124.6	-69.3	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.965
						OR	-670.8	802.1	OR	7.882
L 1L 2	217.0	-32.7	1.21	113.6	1.22	IR	-463.9	509.4	IR	2.574
						OR	-578.5	693.4	OR	4.193
L 2L 3	217.0	-32.7	1.21	113.6	1.22	IR	-463.9	509.4	IR	2.574
						OR	-578.5	693.4	OR	4.193
L 3L 4	303.0	-65.1	1.21	174.0	1.22	IR	-713.8	790.9	IR	2.804
						OR	-890.2	1076.5	OR	4.445

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L 4L 5	303.0	-65.1	1.21	174.0	1.22	IR	-713.8	790.9	IR	2.804
						OR	-890.2	1076.5	OR	4.445
L 5L 6	258.9	-97.6	1.21	184.3	1.22	IR	-713.8	790.9	IR	2.887
						OR	-890.2	1076.5	OR	4.437
L 6L 7	258.9	-97.6	1.21	184.3	1.22	IR	-713.8	790.9	IR	2.887
						OR	-890.2	1076.5	OR	4.437
L 7L 8	84.4	-130.0	1.21	145.1	1.22	IR	-642.7	713.3	IR	4.333
						OR	-801.5	970.9	OR	6.108
L 8L 9	84.4	-130.0	1.21	145.1	1.22	IR	-642.7	713.3	IR	4.333
						OR	-801.5	970.9	OR	6.108
L 9L10	-220.3	-162.4	1.21	56.5	1.22	IR	-642.7	713.3	IR	2.601
						OR	-801.5	970.9	OR	3.579
L10L11	-220.3	-162.4	1.21	56.5	1.22	IR	-644.7	713.3	IR	2.613
						OR	-803.9	970.9	OR	3.594
L11L12	-238.5	-117.8	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.450
						OR	-804.0	970.9	OR	4.803
L12L13	-238.5	-117.8	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.450
						OR	-804.0	970.9	OR	4.803
L15L16	173.7	0.0	1.21	105.2	1.21	IR	-466.0	509.4	IR	3.190
						OR	-581.1	693.4	OR	4.938
L16L17	173.7	0.0	1.21	105.2	1.21	IR	-466.0	509.4	IR	3.190
						OR	-581.1	693.4	OR	4.938
L17L18	231.6	0.0	1.21	138.6	1.21	IR	-465.9	509.4	IR	2.005
						OR	-581.1	693.4	OR	3.332
L18L19	231.6	0.0	1.21	138.6	1.21	IR	-465.9	509.4	IR	2.005
						OR	-581.1	693.4	OR	3.332
L19L20	174.0	0.0	1.21	105.4	1.21	IR	-465.9	509.4	IR	3.181
						OR	-581.1	693.4	OR	4.926
L20L21	174.0	0.0	1.21	105.4	1.21	IR	-466.0	509.4	IR	3.181
						OR	-581.1	693.4	OR	4.926
L23L24	-237.7	-117.3	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.472
						OR	-804.0	970.9	OR	4.830
L24L25	-237.7	-117.3	1.21	0.0	1.21	IR	-644.7	713.3	IR	3.472
						OR	-804.0	970.9	OR	4.830
L25L26	-244.0	-162.6	1.21	56.8	1.21	IR	-644.7	713.3	IR	2.463
						OR	-803.9	970.9	OR	3.443
L26L27	-244.0	-162.6	1.21	56.8	1.21	IR	-643.3	713.3	IR	2.455
						OR	-802.2	970.9	OR	3.432
L27L28	-1.3	-132.9	1.21	146.1	1.21	IR	-643.2	713.3	IR	4.830
						OR	-802.1	970.9	OR	6.025
L28L29	-1.3	-132.9	1.21	146.1	1.21	IR	-643.2	713.3	IR	4.830
						OR	-802.1	970.9	OR	6.025
L29L30	118.8	-103.0	1.21	191.1	1.21	IR	-714.3	790.9	IR	3.517
						OR	-890.8	1076.5	OR	5.011
L30L31	118.8	-103.0	1.21	191.1	1.21	IR	-714.3	790.9	IR	3.517
						OR	-890.8	1076.5	OR	5.011
L31L32	115.2	-104.3	1.22	191.2	1.21	IR	-714.3	790.9	IR	3.535
						OR	-890.8	1076.5	OR	5.029
L32L33	115.2	-104.3	1.22	191.2	1.21	IR	-714.3	790.9	IR	3.535
						OR	-890.8	1076.5	OR	5.029
L33L34	-12.0	-134.6	1.22	146.2	1.21	IR	-643.2	713.3	IR	4.690
						OR	-802.1	970.9	OR	5.871
L34L35	-12.0	-134.6	1.22	146.2	1.21	IR	-643.2	713.3	IR	4.690
						OR	-802.1	970.9	OR	5.871
L35L36	-261.9	-164.7	1.22	56.8	1.21	IR	-643.3	713.3	IR	2.316
						OR	-802.2	970.9	OR	3.280
L36L37	-261.9	-164.7	1.22	56.8	1.21	IR	-644.7	713.3	IR	2.324
						OR	-803.9	970.9	OR	3.291
L37L38	-251.6	-118.9	1.22	0.0	1.23	IR	-644.7	713.3	IR	3.307
						OR	-804.0	970.9	OR	4.646
L38L39	-251.6	-118.9	1.22	0.0	1.23	IR	-644.7	713.3	IR	3.307
						OR	-804.0	970.9	OR	4.646
L41L42	201.5	0.0	1.22	116.6	1.23	IR	-537.9	589.3	IR	3.326
						OR	-670.8	802.1	OR	5.151
L42L43	201.5	0.0	1.22	116.6	1.23	IR	-537.9	589.3	IR	3.326
						OR	-670.8	802.1	OR	5.151
L43L44	268.5	0.0	1.22	153.5	1.23	IR	-537.9	589.3	IR	2.090
						OR	-670.8	802.1	OR	3.477
L44L45	268.5	0.0	1.22	153.5	1.23	IR	-537.9	589.3	IR	2.090
						OR	-670.8	802.1	OR	3.477
L45L46	201.3	0.0	1.22	116.4	1.23	IR	-537.9	589.3	IR	3.333
						OR	-670.8	802.1	OR	5.161
L46L47	201.3	0.0	1.22	116.4	1.23	IR	-537.9	589.3	IR	3.333
						OR	-670.8	802.1	OR	5.161
U 0L 1	207.0	-26.3	1.23	100.8	1.22	IR	-452.8	509.4	IR	3.001
						OR	-564.7	693.4	OR	4.827
L 1U 2	-134.6	-90.0	1.23	27.5	1.30	IR	-362.4	416.0	IR	2.532
						OR	-451.9	566.2	OR	3.528
U 2L 3	104.9	-27.5	1.30	79.7	1.24	IR	-254.6	320.8	IR	2.708
						OR	-317.5	436.6	OR	4.161
L 3U 4	-31.4	-69.3	1.25	27.5	1.30	IR	-207.9	277.9	IR	2.545
						OR	-259.3	378.3	OR	3.286
U 4L 5	1.7	-38.6	1.30	58.8	1.27	IR	-132.1	201.1	IR	3.389
						OR	-164.8	273.7	OR	4.311
L 5U 6	71.8	-48.1	1.28	49.6	1.28	IR	-132.1	201.1	IR	2.610
						OR	-164.8	273.7	OR	4.075

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U 6L 7	-101.4	-60.3	1.27	37.1	1.30	IR	-207.9	277.9	IR	1.767
						OR	-259.3	378.3	OR	2.620
L 7U 8	174.9	-25.5	1.30	70.8	1.25	IR	-336.2	371.5	IR	2.778
						OR	-419.2	505.7	OR	4.674
U 8L 9	-204.6	-81.1	1.24	13.9	1.30	IR	-381.9	430.0	IR	2.186
						OR	-476.3	585.3	OR	3.350
L 9U10	278.1	-2.3	1.30	91.7	1.23	IR	-453.1	509.4	IR	2.522
						OR	-565.0	693.4	OR	4.527
U10L11	-293.8	-98.1	1.23	0.0	1.00	IR	-601.2	681.5	IR	3.133
						OR	-749.7	927.6	OR	4.647
L11U12	-263.7	-114.0	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.963
						OR	-749.8	927.6	OR	4.266
U12L13	235.4	0.0	1.00	112.1	1.24	IR	-454.7	509.4	IR	2.443
						OR	-567.1	693.4	OR	4.084
L13U14	-175.0	-104.8	1.25	0.0	1.00	IR	-419.7	463.7	IR	2.334
						OR	-523.4	631.1	OR	3.323
U14L15	161.4	0.0	1.00	98.3	1.26	IR	-343.6	371.5	IR	2.136
						OR	-428.5	505.7	OR	3.500
L15U16	-99.1	-83.7	1.28	6.8	1.30	IR	-263.4	320.8	IR	1.964
						OR	-328.5	436.6	OR	2.742
U16L17	75.1	-20.1	1.30	68.3	1.29	IR	-178.2	227.7	IR	2.234
						OR	-222.2	309.9	OR	3.437
L17U18	-12.2	-52.3	1.30	35.8	1.30	IR	-113.7	153.4	IR	1.940
						OR	-141.8	208.7	OR	2.477
U18L19	-11.9	-52.2	1.30	35.9	1.30	IR	-113.7	153.4	IR	1.950
						OR	-141.8	208.7	OR	2.488
L19U20	74.8	-20.2	1.30	68.3	1.29	IR	-178.2	227.7	IR	2.240
						OR	-222.2	309.9	OR	3.445
U20L21	-98.9	-83.6	1.28	6.8	1.30	IR	-263.4	320.8	IR	1.970
						OR	-328.5	436.6	OR	2.749
L21U22	162.2	0.0	1.00	98.9	1.26	IR	-343.6	371.5	IR	2.117
						OR	-428.5	505.7	OR	3.474
U22L23	-173.9	-104.4	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.689
						OR	-567.1	693.4	OR	3.765
L23U24	235.2	0.0	1.00	112.1	1.24	IR	-454.7	509.4	IR	2.446
						OR	-567.1	693.4	OR	4.087
U24L25	-263.4	-114.0	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.965
						OR	-749.8	927.6	OR	4.269
L25U26	-251.5	-99.0	1.23	23.6	1.23	IR	-526.0	589.3	IR	2.774
						OR	-655.9	802.1	OR	4.087
U26L27	230.6	-25.9	1.30	92.3	1.23	IR	-453.5	509.4	IR	3.020
						OR	-565.6	693.4	OR	5.013
L27U28	-161.1	-82.5	1.23	25.9	1.30	IR	-382.8	430.0	IR	2.687
						OR	-477.4	585.3	OR	3.834
U28L29	131.8	-25.9	1.30	73.1	1.24	IR	-284.7	360.0	IR	3.124
						OR	-355.1	490.0	OR	4.904
L29U30	-61.6	-63.5	1.26	33.9	1.30	IR	-208.6	277.9	IR	2.314
						OR	-260.1	378.3	OR	3.125
U30L31	32.2	-44.0	1.29	53.9	1.27	IR	-117.8	174.6	IR	2.643
						OR	-146.9	237.6	OR	3.813
L31U32	37.9	-44.0	1.29	53.9	1.27	IR	-117.8	174.6	IR	2.537
						OR	-146.9	237.6	OR	3.708
U32L33	-67.3	-63.5	1.26	33.9	1.30	IR	-208.6	277.9	IR	2.224
						OR	-260.1	378.3	OR	3.036
L33U34	137.5	-25.8	1.30	73.0	1.24	IR	-284.7	360.0	IR	3.046
						OR	-355.1	490.0	OR	4.826
U34L35	-166.8	-82.4	1.23	25.8	1.30	IR	-382.8	430.0	IR	2.620
						OR	-477.4	585.3	OR	3.767
L35U36	236.4	-25.7	1.30	91.9	1.23	IR	-453.5	509.4	IR	2.969
						OR	-565.6	693.4	OR	4.970
U36L37	-257.0	-98.5	1.23	23.6	1.23	IR	-526.0	589.3	IR	2.730
						OR	-655.9	802.1	OR	4.049
L37U38	-275.7	-113.5	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.868
						OR	-749.8	927.6	OR	4.177
U38L39	247.5	0.0	1.00	111.8	1.24	IR	-454.7	509.4	IR	2.343
						OR	-567.1	693.4	OR	3.988
L39U40	-185.6	-104.4	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.578
						OR	-567.1	693.4	OR	3.654
U40L41	180.5	0.0	1.00	102.0	1.25	IR	-342.7	371.5	IR	1.874
						OR	-427.4	505.7	OR	3.190
L41U42	-110.7	-87.1	1.27	7.5	1.30	IR	-262.3	320.8	IR	1.741
						OR	-327.1	436.6	OR	2.485
U42L43	83.0	-21.4	1.30	71.3	1.29	IR	-176.9	227.7	IR	2.029
						OR	-220.6	309.9	OR	3.182
L43U44	-13.7	-55.0	1.30	38.2	1.30	IR	-112.1	153.4	IR	1.786
						OR	-139.8	208.7	OR	2.289
U44L45	-14.0	-55.1	1.30	38.1	1.30	IR	-112.1	153.4	IR	1.779
						OR	-139.8	208.7	OR	2.281
L45U46	83.2	-21.3	1.30	71.4	1.29	IR	-176.9	227.7	IR	2.025
						OR	-220.6	309.9	OR	3.177
U46L47	-110.9	-87.1	1.27	7.4	1.30	IR	-262.3	320.8	IR	1.738
						OR	-327.1	436.6	OR	2.482
L47U48	180.1	0.0	1.00	102.6	1.26	IR	-342.7	371.5	IR	1.866
						OR	-427.4	505.7	OR	3.173
U 1L 1	-55.0	-58.0	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.617

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						OR	-185.5	273.7	OR	2.251
U 3L 3	-57.0	-57.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.588
						OR	-185.5	273.7	OR	2.224
U 5L 5	-57.0	-57.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.588
						OR	-185.5	273.7	OR	2.224
U 7L 7	-57.0	-57.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.588
						OR	-185.5	273.7	OR	2.224
U 9L 9	-57.0	-57.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.588
						OR	-185.5	273.7	OR	2.224
U10L10	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U11L11	-50.0	-54.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.806
						OR	-185.5	273.7	OR	2.478
U12L12	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U13L13	-50.0	-54.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.808
						OR	-185.5	273.7	OR	2.481
U15L15	-47.0	-53.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.767
						OR	-176.9	237.6	OR	2.420
U17L17	-47.0	-53.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.770
						OR	-176.9	237.6	OR	2.424
U19L19	-47.0	-53.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.770
						OR	-176.9	237.6	OR	2.423
U21L21	-47.0	-53.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.767
						OR	-176.9	237.6	OR	2.420
U23L23	-50.0	-54.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.808
						OR	-185.5	273.7	OR	2.481
U24L24	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U25L25	-50.0	-54.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.806
						OR	-185.5	273.7	OR	2.478
U26L26	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U27L27	-55.0	-57.1	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.642
						OR	-185.5	273.7	OR	2.286
U29L29	-55.0	-57.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.640
						OR	-185.5	273.7	OR	2.283
U31L31	-55.0	-57.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.640
						OR	-185.5	273.7	OR	2.283
U33L33	-55.0	-57.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.640
						OR	-185.5	273.7	OR	2.283
U35L35	-55.0	-57.1	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.642
						OR	-185.5	273.7	OR	2.286
U37L37	-50.0	-54.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.806
						OR	-185.5	273.7	OR	2.478
U39L39	-50.0	-54.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.808
						OR	-185.5	273.7	OR	2.481
U41L41	-50.0	-55.5	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.654
						OR	-176.9	237.6	OR	2.286
U43L43	-50.0	-55.5	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.654
						OR	-176.9	237.6	OR	2.286
U45L45	-50.0	-55.5	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.655
						OR	-176.9	237.6	OR	2.286
U47L47	-50.0	-55.5	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.655
						OR	-176.9	237.6	OR	2.287

MEMBER U 9L 9 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.	ALLOWABLE FORCE	COMP	TENS		RATING FACTOR	TONS
-57.0	-57.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.588	58.19
					OR	-185.5	273.7	OR	2.224	81.49

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
U 0	182.4	86.2	1.22
L11	503.2	108.6	1.21
L25	468.7	107.4	1.21
L37	483.2	108.3	1.22
U48	150.1	83.9	1.23

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*  TRUSS  -  LIVE LOAD  P-82  *
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MEMBER FORCES AND RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.	ALLOWABLE FORCE	COMP	TENS	RATING FACTORS	
U 0U 1	-132.0	-140.8	1.22	33.5	1.21	IR	-391.5	430.0	IR	1.843
						OR	-488.2	585.3	OR	2.530
U 1U 2	-132.0	-140.8	1.22	33.5	1.21	IR	-391.7	430.0	IR	1.844
						OR	-488.5	585.3	OR	2.532
U 2U 3	-283.2	-318.8	1.22	99.4	1.21	IR	-713.8	790.9	IR	1.351
						OR	-890.2	1076.5	OR	1.904
U 3U 4	-283.2	-318.8	1.22	99.4	1.21	IR	-713.8	790.9	IR	1.351
						OR	-890.2	1076.5	OR	1.904
U 4U 5	-304.2	-371.5	1.22	165.3	1.21	IR	-794.8	881.3	IR	1.321
						OR	-991.1	1199.5	OR	1.849
U 5U 6	-304.2	-371.5	1.22	165.3	1.21	IR	-794.8	881.3	IR	1.321
						OR	-991.1	1199.5	OR	1.849
U 6U 7	-194.8	-357.4	1.22	231.2	1.21	IR	-794.8	881.3	IR	1.678

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						OR	-991.1	1199.5	OR	2.228
U 7U 8	-194.8	-357.4	1.22	231.2	1.21	IR	-794.8	881.3	IR	1.678
						OR	-991.1	1199.5	OR	2.228
U 8U 9	44.7	-233.6	1.22	297.1	1.21	IR	-642.7	713.3	IR	2.251
						OR	-801.5	970.9	OR	3.118
U 9U10	44.7	-233.6	1.22	297.1	1.21	IR	-642.7	713.3	IR	2.251
						OR	-801.5	970.9	OR	3.118
U10U11	391.6	0.0	1.22	359.1	1.21	IR	-797.1	881.3	IR	1.364
						OR	-994.0	1199.5	OR	2.250
U11U12	391.6	0.0	1.21	359.1	1.21	IR	-797.2	881.3	IR	1.364
						OR	-994.1	1199.5	OR	2.250
U12U13	101.7	0.0	1.21	113.7	1.21	IR	-393.2	430.0	IR	2.887
						OR	-490.3	585.3	OR	4.252
U13U14	101.7	0.0	1.21	113.7	1.21	IR	-393.2	430.0	IR	2.887
						OR	-490.3	585.3	OR	4.252
U14U15	-107.8	-113.0	1.21	0.0	1.21	IR	-465.9	509.4	IR	3.170
						OR	-581.0	693.4	OR	4.188
U15U16	-107.8	-113.0	1.21	0.0	1.21	IR	-466.0	509.4	IR	3.170
						OR	-581.1	693.4	OR	4.189
U16U17	-223.5	-218.2	1.21	0.0	1.21	IR	-466.0	509.4	IR	1.111
						OR	-581.1	693.4	OR	1.639
U17U18	-223.5	-218.2	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.111
						OR	-581.1	693.4	OR	1.639
U18U19	-223.7	-218.3	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.110
						OR	-581.1	693.4	OR	1.637
U19U20	-223.7	-218.3	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.110
						OR	-581.1	693.4	OR	1.637
U20U21	-108.3	-113.5	1.21	0.0	1.21	IR	-466.0	509.4	IR	3.151
						OR	-581.1	693.4	OR	4.165
U21U22	-108.3	-113.5	1.21	0.0	1.21	IR	-465.9	509.4	IR	3.150
						OR	-581.0	693.4	OR	4.164
U22U23	101.0	0.0	1.21	112.9	1.21	IR	-393.2	430.0	IR	2.913
						OR	-490.3	585.3	OR	4.288
U23U24	101.0	0.0	1.21	112.9	1.21	IR	-393.2	430.0	IR	2.913
						OR	-490.3	585.3	OR	4.288
U24U25	390.7	0.0	1.21	357.8	1.21	IR	-797.2	881.3	IR	1.371
						OR	-994.1	1199.5	OR	2.260
U25U26	390.7	0.0	1.21	357.8	1.21	IR	-797.1	881.3	IR	1.371
						OR	-994.0	1199.5	OR	2.260
U26U27	101.4	-236.1	1.21	300.3	1.21	IR	-643.3	713.3	IR	2.038
						OR	-802.2	970.9	OR	2.896
U27U28	101.4	-236.1	1.21	300.3	1.21	IR	-643.2	713.3	IR	2.038
						OR	-802.1	970.9	OR	2.896
U28U29	-80.5	-372.6	1.21	239.6	1.21	IR	-872.3	966.8	IR	2.125
						OR	-1087.8	1315.9	OR	2.703
U29U30	-80.5	-372.6	1.21	239.6	1.21	IR	-872.3	966.8	IR	2.125
						OR	-1087.8	1315.9	OR	2.703
U30U31	-138.8	-393.6	1.21	183.6	1.21	IR	-872.3	966.8	IR	1.864
						OR	-1087.8	1315.9	OR	2.411
U31U32	-138.8	-393.6	1.21	185.0	1.22	IR	-872.3	966.8	IR	1.864
						OR	-1087.8	1315.9	OR	2.411
U32U33	-73.4	-372.7	1.21	247.7	1.22	IR	-872.3	966.8	IR	2.144
						OR	-1087.8	1315.9	OR	2.722
U33U34	-73.4	-372.7	1.21	247.7	1.22	IR	-872.3	966.8	IR	2.144
						OR	-1087.8	1315.9	OR	2.722
U34U35	115.6	-236.2	1.21	310.5	1.22	IR	-643.2	713.3	IR	1.925
						OR	-802.1	970.9	OR	2.755
U35U36	115.6	-236.2	1.21	310.5	1.22	IR	-643.3	713.3	IR	1.925
						OR	-802.2	970.9	OR	2.755
U36U37	411.8	0.0	1.21	370.1	1.22	IR	-797.1	881.3	IR	1.269
						OR	-994.0	1199.5	OR	2.129
U37U38	411.8	0.0	1.23	370.1	1.22	IR	-797.2	881.3	IR	1.269
						OR	-994.1	1199.5	OR	2.129
U39U39	107.8	0.0	1.23	117.9	1.22	IR	-393.2	430.0	IR	2.732
						OR	-490.3	585.3	OR	4.049
U39U40	107.8	0.0	1.23	117.9	1.22	IR	-393.2	430.0	IR	2.732
						OR	-490.3	585.3	OR	4.049
U40U41	-124.9	-130.1	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.176
						OR	-670.8	802.1	OR	4.198
U41U42	-124.9	-130.1	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.176
						OR	-670.8	802.1	OR	4.198
U42U43	-259.0	-251.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.109
						OR	-670.8	802.1	OR	1.637
U43U44	-259.0	-251.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.109
						OR	-670.8	802.1	OR	1.637
U44U45	-258.8	-251.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.110
						OR	-670.8	802.1	OR	1.638
U45U46	-258.8	-251.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.110
						OR	-670.8	802.1	OR	1.638
U46U47	-124.6	-129.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.187
						OR	-670.8	802.1	OR	4.211
U47U48	-124.6	-129.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.187
						OR	-670.8	802.1	OR	4.211
L 1L 2	217.0	-66.5	1.21	246.2	1.22	IR	-463.9	509.4	IR	1.188
						OR	-578.5	693.4	OR	1.935

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L 2L 3	217.0	-66.5	1.21	246.2	1.22	IR	-463.9	509.4	IR	1.188
						OR	-578.5	693.4	OR	1.935
L 3L 4	303.0	-132.4	1.21	361.0	1.22	IR	-713.8	790.9	IR	1.351
						OR	-890.2	1076.5	OR	2.143
L 4L 5	303.0	-132.4	1.21	361.0	1.22	IR	-713.8	790.9	IR	1.351
						OR	-890.2	1076.5	OR	2.143
L 5L 6	258.9	-198.3	1.21	371.9	1.22	IR	-713.8	790.9	IR	1.431
						OR	-890.2	1076.5	OR	2.199
L 6L 7	258.9	-198.3	1.21	371.9	1.22	IR	-713.8	790.9	IR	1.431
						OR	-890.2	1076.5	OR	2.199
L 7L 8	84.4	-264.1	1.21	310.2	1.22	IR	-642.7	713.3	IR	2.028
						OR	-801.5	970.9	OR	2.858
L 8L 9	84.4	-264.1	1.21	310.2	1.22	IR	-642.7	713.3	IR	2.028
						OR	-801.5	970.9	OR	2.858
L 9L10	-220.3	-330.0	1.21	124.3	1.22	IR	-642.7	713.3	IR	1.280
						OR	-801.5	970.9	OR	1.761
L10L11	-220.3	-330.0	1.21	124.3	1.22	IR	-644.7	713.3	IR	1.286
						OR	-803.9	970.9	OR	1.768
L11L12	-238.5	-234.7	1.21	0.0	1.21	IR	-644.7	713.3	IR	1.731
						OR	-804.0	970.9	OR	2.410
L12L13	-238.5	-234.7	1.21	0.0	1.21	IR	-644.7	713.3	IR	1.731
						OR	-804.0	970.9	OR	2.410
L15L16	173.7	0.0	1.21	185.4	1.21	IR	-466.0	509.4	IR	1.811
						OR	-581.1	693.4	OR	2.804
L16L17	173.7	0.0	1.21	185.4	1.21	IR	-466.0	509.4	IR	1.811
						OR	-581.1	693.4	OR	2.804
L17L18	231.6	0.0	1.21	211.1	1.21	IR	-465.9	509.4	IR	1.316
						OR	-581.1	693.4	OR	2.187
L18L19	231.6	0.0	1.21	211.1	1.21	IR	-465.9	509.4	IR	1.316
						OR	-581.1	693.4	OR	2.187
L19L20	174.0	0.0	1.21	185.7	1.21	IR	-465.9	509.4	IR	1.807
						OR	-581.1	693.4	OR	2.797
L20L21	174.0	0.0	1.21	185.7	1.21	IR	-466.0	509.4	IR	1.807
						OR	-581.1	693.4	OR	2.797
L23L24	-237.7	-233.6	1.21	0.0	1.21	IR	-644.7	713.3	IR	1.743
						OR	-804.0	970.9	OR	2.424
L24L25	-237.7	-233.6	1.21	0.0	1.21	IR	-644.7	713.3	IR	1.743
						OR	-804.0	970.9	OR	2.424
L25L26	-244.0	-330.4	1.21	126.5	1.21	IR	-644.7	713.3	IR	1.213
						OR	-803.9	970.9	OR	1.695
L26L27	-244.0	-330.4	1.21	126.5	1.21	IR	-643.3	713.3	IR	1.209
						OR	-802.2	970.9	OR	1.690
L27L28	-1.3	-269.9	1.21	318.2	1.21	IR	-643.2	713.3	IR	2.246
						OR	-802.1	970.9	OR	2.967
L28L29	-1.3	-269.9	1.21	318.2	1.21	IR	-643.2	713.3	IR	2.246
						OR	-802.1	970.9	OR	2.967
L29L30	118.8	-209.3	1.21	396.9	1.21	IR	-714.3	790.9	IR	1.693
						OR	-890.8	1076.5	OR	2.413
L30L31	118.8	-209.3	1.21	396.9	1.21	IR	-714.3	790.9	IR	1.693
						OR	-890.8	1076.5	OR	2.413
L31L32	115.2	-216.4	1.22	397.0	1.21	IR	-714.3	790.9	IR	1.702
						OR	-890.8	1076.5	OR	2.422
L32L33	115.2	-216.4	1.22	397.0	1.21	IR	-714.3	790.9	IR	1.702
						OR	-890.8	1076.5	OR	2.422
L33L34	-12.0	-279.1	1.22	318.3	1.21	IR	-643.2	713.3	IR	2.261
						OR	-802.1	970.9	OR	2.831
L34L35	-12.0	-279.1	1.22	318.3	1.21	IR	-643.2	713.3	IR	2.261
						OR	-802.1	970.9	OR	2.831
L35L36	-261.9	-341.6	1.22	126.5	1.21	IR	-643.3	713.3	IR	1.116
						OR	-802.2	970.9	OR	1.582
L36L37	-261.9	-341.6	1.22	126.5	1.21	IR	-644.7	713.3	IR	1.120
						OR	-803.9	970.9	OR	1.587
L37L38	-251.6	-242.7	1.22	0.0	1.23	IR	-644.7	713.3	IR	1.620
						OR	-804.0	970.9	OR	2.276
L38L39	-251.6	-242.7	1.22	0.0	1.23	IR	-644.7	713.3	IR	1.620
						OR	-804.0	970.9	OR	2.276
L41L42	201.5	0.0	1.22	212.8	1.23	IR	-537.9	589.3	IR	1.822
						OR	-670.8	802.1	OR	2.822
L42L43	201.5	0.0	1.22	212.8	1.23	IR	-537.9	589.3	IR	1.822
						OR	-670.8	802.1	OR	2.822
L43L44	268.5	0.0	1.22	246.2	1.23	IR	-537.9	589.3	IR	1.303
						OR	-670.8	802.1	OR	2.167
L44L45	268.5	0.0	1.22	246.2	1.23	IR	-537.9	589.3	IR	1.303
						OR	-670.8	802.1	OR	2.167
L45L46	201.3	0.0	1.22	212.5	1.23	IR	-537.9	589.3	IR	1.826
						OR	-670.8	802.1	OR	2.827
L46L47	201.3	0.0	1.22	212.5	1.23	IR	-537.9	589.3	IR	1.826
						OR	-670.8	802.1	OR	2.827
U 0L 1	207.0	-53.4	1.23	220.7	1.22	IR	-452.8	509.4	IR	1.370
						OR	-564.7	693.4	OR	2.204
L 1U 2	-134.6	-191.4	1.23	55.9	1.30	IR	-362.4	416.0	IR	1.190
						OR	-451.9	566.2	OR	1.658
U 2L 3	104.9	-55.9	1.30	163.2	1.24	IR	-254.6	320.8	IR	1.322
						OR	-317.5	436.6	OR	2.032
L 3U 4	-31.4	-134.7	1.25	55.9	1.30	IR	-207.9	277.9	IR	1.311
						OR	-259.3	378.3	OR	1.692

U 4L 5	1.7	-57.2	1.30	105.6	1.27	IR	-132.1	201.1	IR	1.888
						OR	-164.8	273.7	OR	2.575
L 5U 6	71.8	-75.9	1.28	81.7	1.28	IR	-132.1	201.1	IR	1.582
						OR	-164.8	273.7	OR	2.470
U 6L 7	-101.4	-109.6	1.27	45.5	1.30	IR	-207.9	277.9	IR	0.972
						OR	-259.3	378.3	OR	1.441
L 7U 8	174.9	-15.0	1.30	138.6	1.25	IR	-336.2	371.5	IR	1.419
						OR	-419.2	505.7	OR	2.387
U 8L 9	-204.6	-167.1	1.24	0.0	1.30	IR	-381.9	430.0	IR	1.062
						OR	-476.3	585.3	OR	1.626
L 9U10	278.1	0.0	1.30	196.0	1.23	IR	-453.1	509.4	IR	1.180
						OR	-565.0	693.4	OR	2.118
U10L11	-293.8	-215.6	1.23	0.0	1.00	IR	-601.2	681.5	IR	1.426
						OR	-749.7	927.6	OR	2.115
L11U12	-263.7	-251.0	1.23	0.0	1.00	IR	-601.3	681.5	IR	1.345
						OR	-749.8	927.6	OR	1.937
U12L13	235.4	0.0	1.00	231.5	1.24	IR	-454.7	509.4	IR	1.183
						OR	-567.1	693.4	OR	1.978
L13U14	-175.0	-202.1	1.25	0.0	1.00	IR	-419.7	463.7	IR	1.211
						OR	-523.4	631.1	OR	1.724
U14L15	161.4	0.0	1.00	177.0	1.26	IR	-343.6	371.5	IR	1.187
						OR	-428.5	505.7	OR	1.945
L15U16	-99.1	-138.7	1.28	8.9	1.30	IR	-263.4	320.8	IR	1.184
						OR	-328.5	436.6	OR	1.654
U16L17	75.1	-29.4	1.30	102.4	1.29	IR	-178.2	227.7	IR	1.491
						OR	-222.2	309.9	OR	2.294
L17U18	-12.2	-76.5	1.30	52.8	1.30	IR	-113.7	153.4	IR	1.328
						OR	-141.8	208.7	OR	1.695
U18L19	-11.9	-76.3	1.30	53.0	1.30	IR	-113.7	153.4	IR	1.335
						OR	-141.8	208.7	OR	1.703
L19U20	74.8	-29.5	1.30	102.2	1.29	IR	-178.2	227.7	IR	1.495
						OR	-222.2	309.9	OR	2.299
U20L21	-98.9	-138.5	1.28	8.9	1.30	IR	-263.4	320.8	IR	1.188
						OR	-328.5	436.6	OR	1.658
L21U22	162.2	0.0	1.00	177.8	1.26	IR	-343.6	371.5	IR	1.177
						OR	-428.5	505.7	OR	1.932
U22L23	-173.9	-201.1	1.25	0.0	1.00	IR	-454.7	509.4	IR	1.397
						OR	-567.1	693.4	OR	1.955
L23U24	235.2	0.0	1.00	231.4	1.24	IR	-454.7	509.4	IR	1.185
						OR	-567.1	693.4	OR	1.980
U24L25	-263.4	-250.9	1.23	0.0	1.00	IR	-601.3	681.5	IR	1.347
						OR	-749.8	927.6	OR	1.939
L25U26	-251.5	-220.4	1.23	49.0	1.23	IR	-526.0	589.3	IR	1.245
						OR	-655.9	802.1	OR	1.835
U26L27	230.6	-53.6	1.30	200.9	1.23	IR	-453.5	509.4	IR	1.388
						OR	-565.6	693.4	OR	2.304
L27U28	-161.1	-174.2	1.23	53.8	1.30	IR	-382.8	430.0	IR	1.272
						OR	-477.4	585.3	OR	1.815
U28L29	131.8	-53.8	1.30	148.3	1.24	IR	-284.7	360.0	IR	1.539
						OR	-355.1	490.0	OR	2.416
L29U30	-61.6	-122.1	1.26	53.8	1.30	IR	-208.6	277.9	IR	1.205
						OR	-260.1	378.3	OR	1.627
U30L31	32.2	-68.1	1.29	95.4	1.27	IR	-117.8	174.6	IR	1.493
						OR	-146.9	237.6	OR	2.154
L31U32	37.9	-68.2	1.29	95.4	1.27	IR	-117.8	174.6	IR	1.433
						OR	-146.9	237.6	OR	2.094
U32L33	-67.3	-122.0	1.26	52.4	1.30	IR	-208.6	277.9	IR	1.158
						OR	-260.1	378.3	OR	1.580
L33U34	137.5	-52.4	1.30	148.3	1.24	IR	-284.7	360.0	IR	1.501
						OR	-355.1	490.0	OR	2.378
U34L35	-166.8	-174.1	1.23	52.4	1.30	IR	-382.8	430.0	IR	1.241
						OR	-477.4	585.3	OR	1.784
L35U36	236.4	-52.3	1.30	200.1	1.23	IR	-453.5	509.4	IR	1.364
						OR	-565.6	693.4	OR	2.284
U36L37	-257.0	-219.5	1.23	48.0	1.23	IR	-526.0	589.3	IR	1.226
						OR	-655.9	802.1	OR	1.818
L37U38	-275.7	-253.9	1.23	0.0	1.00	IR	-601.3	681.5	IR	1.282
						OR	-749.8	927.6	OR	1.867
U38L39	247.5	0.0	1.00	236.0	1.24	IR	-454.7	509.4	IR	1.110
						OR	-567.1	693.4	OR	1.890
L39U40	-185.6	-207.4	1.25	0.0	1.00	IR	-454.7	509.4	IR	1.298
						OR	-567.1	693.4	OR	1.840
U40L41	180.5	0.0	1.00	190.8	1.25	IR	-342.7	371.5	IR	1.001
						OR	-427.4	505.7	OR	1.705
L41U42	-110.7	-150.4	1.27	9.8	1.30	IR	-262.3	320.8	IR	1.008
						OR	-327.1	436.6	OR	1.439
U42L43	83.0	-31.8	1.30	110.7	1.29	IR	-176.9	227.7	IR	1.307
						OR	-220.6	309.9	OR	2.050
L43U44	-13.7	-80.3	1.30	56.1	1.30	IR	-112.1	153.4	IR	1.225
						OR	-139.8	208.7	OR	1.570
U44L45	-14.0	-80.4	1.30	56.0	1.30	IR	-112.1	153.4	IR	1.220
						OR	-139.8	208.7	OR	1.564
L45U46	83.2	-31.7	1.30	110.8	1.29	IR	-176.9	227.7	IR	1.304
						OR	-220.6	309.9	OR	2.046
U46L47	-110.9	-150.5	1.27	9.8	1.30	IR	-262.3	320.8	IR	1.006

						OR	-327.1	436.6	OR	1.437
L47U48	180.1	0.0	1.00	192.0	1.26	IR	-342.7	371.5	IR	0.997
						OR	-427.4	505.7	OR	1.696
U 1L 1	-55.0	-82.1	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.143
						OR	-185.5	273.7	OR	1.591
U 3L 3	-57.0	-81.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.129
						OR	-185.5	273.7	OR	1.581
U 5L 5	-57.0	-81.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.129
						OR	-185.5	273.7	OR	1.581
U 7L 7	-57.0	-81.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.129
						OR	-185.5	273.7	OR	1.581
U 9L 9	-57.0	-81.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.129
						OR	-185.5	273.7	OR	1.581
U10L10	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U11L11	-50.0	-73.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.348
						OR	-185.5	273.7	OR	1.849
U12L12	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U13L13	-50.0	-73.0	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.353
						OR	-185.5	273.7	OR	1.857
U15L15	-47.0	-70.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.342
						OR	-176.9	237.6	OR	1.838
U17L17	-47.0	-70.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.350
						OR	-176.9	237.6	OR	1.848
U19L19	-47.0	-70.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.349
						OR	-176.9	237.6	OR	1.848
U21L21	-47.0	-70.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.342
						OR	-176.9	237.6	OR	1.838
U23L23	-50.0	-73.0	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.353
						OR	-185.5	273.7	OR	1.857
U24L24	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U25L25	-50.0	-73.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.348
						OR	-185.5	273.7	OR	1.849
U26L26	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U27L27	-55.0	-79.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.178
						OR	-185.5	273.7	OR	1.640
U29L29	-55.0	-79.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.177
						OR	-185.5	273.7	OR	1.638
U31L31	-55.0	-79.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.177
						OR	-185.5	273.7	OR	1.638
U33L33	-55.0	-79.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.177
						OR	-185.5	273.7	OR	1.638
U35L35	-55.0	-79.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.178
						OR	-185.5	273.7	OR	1.640
U37L37	-50.0	-73.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.348
						OR	-185.5	273.7	OR	1.849
U39L39	-50.0	-73.0	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.353
						OR	-185.5	273.7	OR	1.857
U41L41	-50.0	-75.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.219
						OR	-176.9	237.6	OR	1.684
U43L43	-50.0	-75.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.219
						OR	-176.9	237.6	OR	1.684
U45L45	-50.0	-75.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.220
						OR	-176.9	237.6	OR	1.685
U47L47	-50.0	-75.2	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.220
						OR	-176.9	237.6	OR	1.686

MEMBER U 6L 7 IS CRITICAL. SEE DETAILS BELOW.

DL	LL + IMPACT FORCE					ALLOWABLE FORCE			RATING	
FORCE	COMP	I.F.	TENS	I.F.		COMP	TENS		FACTOR	TONS
-101.4	-109.6	1.27	45.5	1.30	IR	-207.9	277.9	IR	0.972	99.13
					OR	-259.3	378.3	OR	1.441	146.95

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
U 0	182.4	193.2	1.22
L11	503.2	259.9	1.21
L25	468.7	258.4	1.21
L37	483.2	260.9	1.22
U48	150.1	166.7	1.23

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+                                           +
+     S T R I N G E R   A N A L Y S I S     +
+                                           +
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THE STRINGER LOCATED AT 8.00 FT. FROM THE CENTER LINE OF GIRDER OR TRUSS IS CRITICAL.

DEAD LOADS ACTING ON STRINGER

STRINGER WEIGHT	SLAB WEIGHT	INPUT DL1	TOTAL DL1	TOTAL DL2
0.036	0.792	0.020	0.848	0.000

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*  STRINGER  -  LIVE LOAD  H20    *
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MAXIMUM REACTIONS

REACTIONS MOMENTS

SUPPORT	DL1	DL2	+(LL+I)	-(LL+I)	+I.F.	-I.F.	+I.F.	-I.F.
1	4.0	0.0	29.0	0.0	1.30			
2	8.1	0.0	26.9 L	0.0	1.30			
3	8.1	0.0	26.9 L	0.0	1.30			
4	4.0	0.0	29.0	0.0	1.30			

NOTE: ALL SUPPORT REACTIONS AND END SHEARS IN EACH SPAN DUE TO A LIVE LOAD ARE CALCULATED BASED ON AASHTO ARTICLE 3.23.1 AS INTERPRETED IN SOL 431-93-05.

UNFACTORED MOMENTS AND SHEARS

SPAN 1 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
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X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 2 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 3 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

SPAN 1
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V

SPAN 2
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O

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2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V

SPAN 3
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	OR
0.00	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V

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**********************************
*  STRINGER  -  LIVE LOAD  HS20  *
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MAXIMUM REACTIONS

SUPPORT	DL1	DL2	+(LL+I)	-(LL+I)	REACTIONS +I.F.	REACTIONS -I.F.	MOMENTS +I.F.	MOMENTS -I.F.
1	4.0	0.0	30.0	0.0	1.30			
2	8.1	0.0	26.9 L	0.0	1.30			
3	8.1	0.0	30.0	0.0	1.30			
4	4.0	0.0	26.0	0.0	1.30			

NOTE: ALL SUPPORT REACTIONS AND END SHEARS IN EACH SPAN DUE TO A LIVE LOAD ARE CALCULATED BASED ON AASHTO ARTICLE 3.23.1 AS INTERPRETED IN SOL 431-93-05.

UNFACTORED MOMENTS AND SHEARS

SPAN 1 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	30.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-30.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 2 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	30.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.7	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 3 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	30.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-26.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

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NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

SPAN 1
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.24 V	2.07 V	172.2	1.24 V	2.07 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.24 V	2.07 V	172.2	1.24 V	2.07 V

SPAN 2
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.24 V	2.07 V	172.2	1.24 V	2.07 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.25 V	2.09 V	172.2	1.25 V	2.09 V

SPAN 3
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.24 V	2.07 V	172.2	1.24 V	2.07 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.43 V	2.38 V	172.2	1.43 V	2.38 V

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**********************************
*  STRINGER  -  LIVE LOAD TK527  *
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MAXIMUM REACTIONS

SUPPORT	DL1	DL2	+(LL+I)	-(LL+I)	REACTIONS +I.F.	REACTIONS -I.F.	MOMENTS +I.F.	MOMENTS -I.F.
1	4.0	0.0	29.2	0.0	1.30			
2	8.1	0.0	33.7	0.0	1.30			
3	8.1	0.0	33.7	0.0	1.30			
4	4.0	0.0	29.2	0.0	1.30			

NOTE: ALL SUPPORT REACTIONS AND END SHEARS IN EACH SPAN DUE TO A LIVE LOAD ARE CALCULATED BASED ON AASHTO ARTICLE 3.23.1 AS INTERPRETED IN SOL 431-93-05.

UNFACTORED MOMENTS AND SHEARS

SPAN 1 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.2	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.3	-1.9	1.30
	SIMULT	SHEAR	27.3	0.0	SIMULT	MOM	25.9	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	
3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	56.5	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	-10.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30
	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	1.9	-27.3	1.30
	SIMULT	SHEAR	-27.3	0.0	SIMULT	MOM	16.6	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.2	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 2 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.2	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.3	-1.9	1.30
	SIMULT	SHEAR	27.3	0.0	SIMULT	MOM	25.9	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	
3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	56.5	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	-10.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30

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	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	1.9	-27.3	1.30
	SIMULT	SHEAR	-27.3	0.0	SIMULT	MOM	16.6	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.2	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 3 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.2	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.3	-1.9	1.30
	SIMULT	SHEAR	27.3	0.0	SIMULT	MOM	25.9	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	
3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	56.5	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	-10.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30
	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	1.9	-27.3	1.30
	SIMULT	SHEAR	-27.3	0.0	SIMULT	MOM	16.6	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.2	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

SPAN 1
=======

X	NON-COMP OVERLOAD MOMENT STRENGTH		MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR		OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR		OR	
0.00	154.9	B	123.9	85.8	1.27	V	2.12	V	172.2	1.27	V	2.12 V
0.95	154.9	B	123.9	85.8	1.38	V	2.30	V	172.2	1.38	V	2.30 V
1.90	154.9	B	123.9	85.8	1.55	T	2.59	T	172.2	1.62	O	2.70 O
2.85	154.9	B	123.9	85.8	1.23	T	2.05	T	172.2	1.28	O	2.13 O
3.80	154.9	B	123.9	85.8	1.14	T	1.91	T	172.2	1.19	O	1.99 O
4.75	154.9	B	123.9	85.8	1.16	T	1.94	T	172.2	1.21	O	2.02 O
5.70	154.9	B	123.9	85.8	1.14	T	1.91	T	172.2	1.19	O	1.99 O
6.65	154.9	B	123.9	85.8	1.23	T	2.05	T	172.2	1.28	O	2.13 O
7.60	154.9	B	123.9	85.8	1.55	T	2.59	T	172.2	1.62	O	2.70 O
8.55	154.9	B	123.9	85.8	1.38	V	2.30	V	172.2	1.38	V	2.30 V
9.50	154.9	B	123.9	85.8	1.27	V	2.12	V	172.2	1.27	V	2.12 V

SPAN 2
=======

X	NON-COMP OVERLOAD MOMENT STRENGTH		MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR		OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR		OR	
0.00	154.9	B	123.9	85.8	1.27	V	2.12	V	172.2	1.27	V	2.12 V
0.95	154.9	B	123.9	85.8	1.38	V	2.30	V	172.2	1.38	V	2.30 V
1.90	154.9	B	123.9	85.8	1.55	T	2.59	T	172.2	1.62	O	2.70 O
2.85	154.9	B	123.9	85.8	1.23	T	2.05	T	172.2	1.28	O	2.13 O
3.80	154.9	B	123.9	85.8	1.14	T	1.91	T	172.2	1.19	O	1.99 O
4.75	154.9	B	123.9	85.8	1.16	T	1.94	T	172.2	1.21	O	2.02 O
5.70	154.9	B	123.9	85.8	1.14	T	1.91	T	172.2	1.19	O	1.99 O
6.65	154.9	B	123.9	85.8	1.23	T	2.05	T	172.2	1.28	O	2.13 O
7.60	154.9	B	123.9	85.8	1.55	T	2.59	T	172.2	1.62	O	2.70 O
8.55	154.9	B	123.9	85.8	1.38	V	2.30	V	172.2	1.38	V	2.30 V
9.50	154.9	B	123.9	85.8	1.27	V	2.12	V	172.2	1.27	V	2.12 V

SPAN 3
=======

X	NON-COMP OVERLOAD MOMENT STRENGTH		MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR		OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR		OR	
0.00	154.9	B	123.9	85.8	1.27	V	2.12	V	172.2	1.27	V	2.12 V
0.95	154.9	B	123.9	85.8	1.38	V	2.30	V	172.2	1.38	V	2.30 V
1.90	154.9	B	123.9	85.8	1.55	T	2.59	T	172.2	1.62	O	2.70 O
2.85	154.9	B	123.9	85.8	1.23	T	2.05	T	172.2	1.28	O	2.13 O
3.80	154.9	B	123.9	85.8	1.14	T	1.91	T	172.2	1.19	O	1.99 O
4.75	154.9	B	123.9	85.8	1.16	T	1.94	T	172.2	1.21	O	2.02 O
5.70	154.9	B	123.9	85.8	1.14	T	1.91	T	172.2	1.19	O	1.99 O
6.65	154.9	B	123.9	85.8	1.23	T	2.05	T	172.2	1.28	O	2.13 O
7.60	154.9	B	123.9	85.8	1.55	T	2.59	T	172.2	1.62	O	2.70 O
8.55	154.9	B	123.9	85.8	1.38	V	2.30	V	172.2	1.38	V	2.30 V
9.50	154.9	B	123.9	85.8	1.27	V	2.12	V	172.2	1.27	V	2.12 V

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* STRINGER - LIVE LOAD ML80 *
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MAXIMUM REACTIONS

SUPPORT	DL1	DL2	+(LL+I)	-(LL+I)	REACTIONS +I.F.	REACTIONS -I.F.	MOMENTS +I.F.	MOMENTS -I.F.
1	4.0	0.0	31.1	0.0	1.30			
2	8.1	0.0	39.3	0.0	1.30			
3	8.1	0.0	39.3	0.0	1.30			
4	4.0	0.0	31.1	0.0	1.30			

NOTE: ALL SUPPORT REACTIONS AND END SHEARS IN EACH SPAN DUE TO A LIVE LOAD ARE CALCULATED BASED ON AASHTO ARTICLE 3.23.1 AS INTERPRETED IN SOL 431-93-05.

UNFACTORED MOMENTS AND SHEARS

SPAN 1 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	31.1	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	26.6	0.0	3.2	0.0	28.0	-1.9	1.30
	SIMULT	SHEAR	28.0	0.0	SIMULT	MOM	26.6	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	

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3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	60.8	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	9.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30
	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	26.6	0.0	-3.2	0.0	1.9	-28.0	1.30
	SIMULT	SHEAR	-28.0	0.0	SIMULT	MOM	16.6	26.6	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-31.1	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 2 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	31.1	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	26.6	0.0	3.2	0.0	28.0	-1.9	1.30
	SIMULT	SHEAR	28.0	0.0	SIMULT	MOM	26.6	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	
3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	60.8	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	9.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30
	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	26.6	0.0	-3.2	0.0	1.9	-28.0	1.30
	SIMULT	SHEAR	-28.0	0.0	SIMULT	MOM	16.6	26.6	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-31.1	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 3 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	31.1	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	26.6	0.0	3.2	0.0	28.0	-1.9	1.30
	SIMULT	SHEAR	28.0	0.0	SIMULT	MOM	26.6	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	
3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	60.8	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	9.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30
	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	26.6	0.0	-3.2	0.0	1.9	-28.0	1.30
	SIMULT	SHEAR	-28.0	0.0	SIMULT	MOM	16.6	26.6	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-31.1	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

SPAN 1
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V
0.95	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
1.90	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
2.85	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
3.80	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
4.75	154.9 B	123.9	85.8	1.08 T	1.80 T	172.2	1.13 O	1.88 O
5.70	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
6.65	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
7.60	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
8.55	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
9.50	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V

SPAN 2
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V
0.95	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
1.90	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
2.85	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
3.80	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
4.75	154.9 B	123.9	85.8	1.08 T	1.80 T	172.2	1.13 O	1.88 O
5.70	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
6.65	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
7.60	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
8.55	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
9.50	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V

SPAN 3
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V
0.95	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
1.90	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
2.85	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
3.80	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
4.75	154.9 B	123.9	85.8	1.08 T	1.80 T	172.2	1.13 O	1.88 O
5.70	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
6.65	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
7.60	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
8.55	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
9.50	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V

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*  STRINGER  -  LIVE LOAD  P-82   *
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MAXIMUM REACTIONS

SUPPORT	DL1	DL2	+(LL+I)	-(LL+I)	REACTIONS +I.F.	REACTIONS -I.F.	MOMENTS +I.F.	MOMENTS -I.F.
1	4.0	0.0	40.7	0.0	1.30			
2	8.1	0.0	55.5	0.0	1.30			
3	8.1	0.0	55.5	0.0	1.30			
4	4.0	0.0	40.7	0.0	1.30			

NOTE: ALL SUPPORT REACTIONS AND END SHEARS IN EACH SPAN DUE TO A LIVE LOAD ARE CALCULATED BASED ON AASHTO ARTICLE 3.23.1 AS INTERPRETED IN SOL 431-93-05.

UNFACTORED MOMENTS AND SHEARS

SPAN 1 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	40.7	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	34.8	0.0	3.2	0.0	36.7	-2.6	1.30
	SIMULT	SHEAR	36.7	0.0	SIMULT	MOM	34.8	21.8	
1.90	6.1	0.0	57.2	0.0	2.4	0.0	30.1	-5.1	1.30
	SIMULT	SHEAR	30.1	0.0	SIMULT	MOM	57.2	38.8	
2.85	8.0	0.0	71.2	0.0	1.6	0.0	25.0	-7.7	1.30
	SIMULT	SHEAR	25.0	0.0	SIMULT	MOM	71.2	50.9	
3.80	9.2	0.0	75.5	0.0	0.8	0.0	19.9	-10.2	1.30
	SIMULT	SHEAR	19.9	0.0	SIMULT	MOM	75.5	58.2	
4.75	9.6	0.0	79.7	0.0	0.0	0.0	14.8	-14.8	1.30
	SIMULT	SHEAR	12.8	0.0	SIMULT	MOM	70.2	70.2	
5.70	9.2	0.0	75.5	0.0	-0.8	0.0	10.2	-19.9	1.30
	SIMULT	SHEAR	-19.9	0.0	SIMULT	MOM	58.2	75.5	
6.65	8.0	0.0	71.2	0.0	-1.6	0.0	7.7	-25.0	1.30
	SIMULT	SHEAR	-25.0	0.0	SIMULT	MOM	50.9	71.2	
7.60	6.1	0.0	57.2	0.0	-2.4	0.0	5.1	-30.1	1.30
	SIMULT	SHEAR	-30.1	0.0	SIMULT	MOM	38.8	57.2	
8.55	3.4	0.0	34.8	0.0	-3.2	0.0	2.6	-36.7	1.30
	SIMULT	SHEAR	-36.7	0.0	SIMULT	MOM	21.8	34.8	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-40.7	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 2 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	40.7	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	34.8	0.0	3.2	0.0	36.7	-2.6	1.30
	SIMULT	SHEAR	36.7	0.0	SIMULT	MOM	34.8	21.8	
1.90	6.1	0.0	57.2	0.0	2.4	0.0	30.1	-5.1	1.30
	SIMULT	SHEAR	30.1	0.0	SIMULT	MOM	57.2	38.8	
2.85	8.0	0.0	71.2	0.0	1.6	0.0	25.0	-7.7	1.30
	SIMULT	SHEAR	25.0	0.0	SIMULT	MOM	71.2	50.9	
3.80	9.2	0.0	75.5	0.0	0.8	0.0	19.9	-10.2	1.30
	SIMULT	SHEAR	19.9	0.0	SIMULT	MOM	75.5	58.2	
4.75	9.6	0.0	79.7	0.0	0.0	0.0	14.8	-14.8	1.30
	SIMULT	SHEAR	12.8	0.0	SIMULT	MOM	70.2	70.2	
5.70	9.2	0.0	75.5	0.0	-0.8	0.0	10.2	-19.9	1.30
	SIMULT	SHEAR	-19.9	0.0	SIMULT	MOM	58.2	75.5	
6.65	8.0	0.0	71.2	0.0	-1.6	0.0	7.7	-25.0	1.30
	SIMULT	SHEAR	-25.0	0.0	SIMULT	MOM	50.9	71.2	
7.60	6.1	0.0	57.2	0.0	-2.4	0.0	5.1	-30.1	1.30
	SIMULT	SHEAR	-30.1	0.0	SIMULT	MOM	38.8	57.2	
8.55	3.4	0.0	34.8	0.0	-3.2	0.0	2.6	-36.7	1.30
	SIMULT	SHEAR	-36.7	0.0	SIMULT	MOM	21.8	34.8	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-40.7	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 3 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	40.7	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	34.8	0.0	3.2	0.0	36.7	-2.6	1.30
	SIMULT	SHEAR	36.7	0.0	SIMULT	MOM	34.8	21.8	
1.90	6.1	0.0	57.2	0.0	2.4	0.0	30.1	-5.1	1.30
	SIMULT	SHEAR	30.1	0.0	SIMULT	MOM	57.2	38.8	
2.85	8.0	0.0	71.2	0.0	1.6	0.0	25.0	-7.7	1.30
	SIMULT	SHEAR	25.0	0.0	SIMULT	MOM	71.2	50.9	
3.80	9.2	0.0	75.5	0.0	0.8	0.0	19.9	-10.2	1.30
	SIMULT	SHEAR	19.9	0.0	SIMULT	MOM	75.5	58.2	
4.75	9.6	0.0	79.7	0.0	0.0	0.0	14.8	-14.8	1.30
	SIMULT	SHEAR	12.8	0.0	SIMULT	MOM	70.2	70.2	
5.70	9.2	0.0	75.5	0.0	-0.8	0.0	10.2	-19.9	1.30
	SIMULT	SHEAR	-19.9	0.0	SIMULT	MOM	58.2	75.5	
6.65	8.0	0.0	71.2	0.0	-1.6	0.0	7.7	-25.0	1.30
	SIMULT	SHEAR	-25.0	0.0	SIMULT	MOM	50.9	71.2	
7.60	6.1	0.0	57.2	0.0	-2.4	0.0	5.1	-30.1	1.30
	SIMULT	SHEAR	-30.1	0.0	SIMULT	MOM	38.8	57.2	
8.55	3.4	0.0	34.8	0.0	-3.2	0.0	2.6	-36.7	1.30
	SIMULT	SHEAR	-36.7	0.0	SIMULT	MOM	21.8	34.8	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-40.7	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

SPAN 1
=======

X	NON-COMP OVERLOAD MOMENT STRENGTH	MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	OR
0.00	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V
0.95	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
1.90	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
2.85	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
3.80	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
4.75	154.9 B	123.9	85.8	0.82 T	1.37 T	172.2	0.86 O	1.43 O
5.70	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
6.65	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
7.60	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
8.55	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
9.50	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V

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SPAN 2
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V
0.95	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
1.90	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
2.85	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
3.80	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
4.75	154.9 B	123.9	85.8	0.82 T	1.37 T	172.2	0.86 O	1.43 O
5.70	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
6.65	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
7.60	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
8.55	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
9.50	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V

SPAN 3
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V
0.95	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
1.90	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
2.85	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
3.80	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
4.75	154.9 B	123.9	85.8	0.82 T	1.37 T	172.2	0.86 O	1.43 O
5.70	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
6.65	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
7.60	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
8.55	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
9.50	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V

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+                                          +
+    F L O O R B E A M   A N A L Y S I S   +
+                                          +
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FLOORBEAM SPAN: 16.00 CANTILEVER: 0.00

FLOORBEAM LIVE LOAD MOMENT AND SHEAR FACTORS

X	FACTOR	WHEEL LOAD POSITIONS LANE 1/4/7		LANE 2/5/8		LANE 3/6
0.00	0.000 M	0.00	0.00			
	1.000 V	0.50	6.50	9.50	15.50	
1.60	1.140 M	1.60	7.60			
	0.713 V	1.60	7.60			
3.20	1.960 M	3.20	9.20			
	0.612 V	3.20	9.20			
4.80	2.650 M	0.50	6.50	9.50	15.50	
	0.512 V	4.80	10.80			
6.40	3.450 M	0.50	6.50	9.50	15.50	
	0.500 V	0.50	6.50	9.50	15.50	
8.00	3.500 M	0.50	6.50	9.50	15.50	
	0.313 V	8.00	14.00			

FACTOR CODES: M - MOMENT, V - SHEAR

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<    FLOORBEAM  1    >
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DEAD LOADS ACTING ON FLOORBEAM

UNIFORM LOAD FLOORBEAM WEIGHT	INPUT DL1	CONCENTRATED LOADS DIST	DL1	DL2
0.036	0.130	8.000	4.028	0.000

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************************************
*  FLOORBEAM  -  LIVE LOAD  H20    *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 32.00
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	3.3	0.0	41.6	1.30
1.60	5.1	0.0	47.4	3.1	0.0	29.6	1.30
3.20	9.8	0.0	81.5	2.8	0.0	25.5	1.30
4.80	14.1	0.0	110.2	2.5	0.0	21.3	1.30
6.40	18.0	0.0	143.5	2.3	0.0	20.8	1.30
8.00	21.4	0.0	145.6	-2.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.90 V	1.51 V	172.2	0.90 V	1.51 V
1.60	154.9 B	123.9	85.8	1.27 V	2.12 V	172.2	1.27 V	2.12 V
3.20	154.9 B	123.9	85.8	0.80 T	1.34 T	172.2	0.84 O	1.40 O
4.80	154.9 B	123.9	85.8	0.57 T	0.95 T	172.2	0.60 O	1.00 O
6.40	154.9 B	123.9	85.8	0.42 T	0.70 T	172.2	0.44 O	0.74 O
8.00	154.9 B	123.9	85.8	0.40 T	0.67 T	172.2	0.42 O	0.70 O

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*  FLOORBEAM  -  LIVE LOAD  HS20   *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 32.00
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	3.3	0.0	41.6	1.30
1.60	5.1	0.0	47.4	3.1	0.0	29.6	1.30

3.20	9.8	0.0	81.5	2.8	0.0	25.5	1.30
4.80	14.1	0.0	110.2	2.5	0.0	21.3	1.30
6.40	18.0	0.0	143.5	2.3	0.0	20.8	1.30
8.00	21.4	0.0	145.6	-2.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.90 V	1.51 V	172.2	0.90 V	1.51 V
1.60	154.9 B	123.9	85.8	1.27 V	2.12 V	172.2	1.27 V	2.12 V
3.20	154.9 B	123.9	85.8	0.80 T	1.34 T	172.2	0.84 O	1.40 O
4.80	154.9 B	123.9	85.8	0.57 T	0.95 T	172.2	0.60 O	1.00 O
6.40	154.9 B	123.9	85.8	0.42 T	0.70 T	172.2	0.44 O	0.74 O
8.00	154.9 B	123.9	85.8	0.40 T	0.67 T	172.2	0.42 O	0.70 O

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*  FLOORBEAM  -  LIVE LOAD TK527  *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 33.83
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	3.3	0.0	44.0	1.30
1.60	5.1	0.0	50.1	3.1	0.0	31.3	1.30
3.20	9.8	0.0	86.2	2.8	0.0	26.9	1.30
4.80	14.1	0.0	116.5	2.5	0.0	22.5	1.30
6.40	18.0	0.0	151.7	2.3	0.0	22.0	1.30
8.00	21.4	0.0	153.9	-2.0	0.0	13.7	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.85 V	1.42 V	172.2	0.85 V	1.42 V
1.60	154.9 B	123.9	85.8	1.21 V	2.01 V	172.2	1.21 V	2.01 V
3.20	154.9 B	123.9	85.8	0.76 T	1.27 T	172.2	0.79 O	1.32 O
4.80	154.9 B	123.9	85.8	0.54 T	0.90 T	172.2	0.57 O	0.94 O
6.40	154.9 B	123.9	85.8	0.40 T	0.67 T	172.2	0.42 O	0.70 O
8.00	154.9 B	123.9	85.8	0.38 T	0.63 T	172.2	0.40 O	0.67 O

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*  FLOORBEAM  -  LIVE LOAD  ML80  *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 35.78
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	3.3	0.0	46.5	1.30
1.60	5.1	0.0	53.0	3.1	0.0	33.1	1.30
3.20	9.8	0.0	91.2	2.8	0.0	28.5	1.30
4.80	14.1	0.0	123.3	2.5	0.0	23.8	1.30
6.40	18.0	0.0	160.5	2.3	0.0	23.3	1.30
8.00	21.4	0.0	162.8	-2.0	0.0	14.5	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.81 V	1.35 V	172.2	0.81 V	1.35 V
1.60	154.9 B	123.9	85.8	1.14 V	1.90 V	172.2	1.14 V	1.90 V
3.20	154.9 B	123.9	85.8	0.72 T	1.20 T	172.2	0.75 O	1.25 O
4.80	154.9 B	123.9	85.8	0.51 T	0.85 T	172.2	0.53 O	0.89 O
6.40	154.9 B	123.9	85.8	0.38 T	0.63 T	172.2	0.40 O	0.66 O
8.00	154.9 B	123.9	85.8	0.36 T	0.60 T	172.2	0.38 O	0.63 O

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*  FLOORBEAM  -  LIVE LOAD  P-82  *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 46.89
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	3.3	0.0	61.0	1.30
1.60	5.1	0.0	69.5	3.1	0.0	43.4	1.30
3.20	9.8	0.0	119.5	2.8	0.0	37.3	1.30
4.80	14.1	0.0	161.6	2.5	0.0	31.2	1.30
6.40	18.0	0.0	210.3	2.3	0.0	30.5	1.30
8.00	21.4	0.0	213.4	-2.0	0.0	19.1	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.62 V	1.03 V	172.2	0.62 V	1.03 V

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1.60	154.9 B	123.9	85.8	0.87 V	1.45 V	172.2	0.87 V	1.45 V
3.20	154.9 B	123.9	85.8	0.55 T	0.91 T	172.2	0.57 O	0.95 O
4.80	154.9 B	123.9	85.8	0.39 T	0.65 T	172.2	0.41 O	0.68 O
6.40	154.9 B	123.9	85.8	0.29 T	0.48 T	172.2	0.30 O	0.50 O
8.00	154.9 B	123.9	85.8	0.27 T	0.46 T	172.2	0.29 O	0.48 O

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<    FLOORBEAM  2    >
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DEAD LOADS ACTING ON FLOORBEAM

UNIFORM LOAD FLOORBEAM WEIGHT	INPUT DL1	CONCENTRATED LOADS DIST	DL1	DL2
0.036	0.130	8.000	8.055	0.000

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*  FLOORBEAM  -  LIVE LOAD  H20    *
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LIVE LOAD REACTION FROM DECK (ONE LANE) : 32.08
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	41.7	1.30
1.60	8.4	0.0	47.5	5.1	0.0	29.7	1.30
3.20	16.3	0.0	81.7	4.8	0.0	25.5	1.30
4.80	23.8	0.0	110.5	4.6	0.0	21.4	1.30
6.40	30.9	0.0	143.9	4.3	0.0	20.9	1.30
8.00	37.5	0.0	146.0	-4.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.87 V	1.45 V	172.2	0.87 V	1.45 V
1.60	154.9 B	123.9	85.8	1.23 V	2.05 V	172.2	1.23 V	2.05 V
3.20	154.9 B	123.9	85.8	0.75 T	1.26 T	172.2	0.79 O	1.32 O
4.80	154.9 B	123.9	85.8	0.52 T	0.86 T	172.2	0.54 O	0.91 O
6.40	154.9 B	123.9	85.8	0.37 T	0.61 T	172.2	0.39 O	0.65 O
8.00	154.9 B	123.9	85.8	0.34 T	0.56 T	172.2	0.35 O	0.59 O

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*  FLOORBEAM  -  LIVE LOAD  HS20   *
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LIVE LOAD REACTION FROM DECK (ONE LANE) : 32.08
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	41.7	1.30
1.60	8.4	0.0	47.5	5.1	0.0	29.7	1.30
3.20	16.3	0.0	81.7	4.8	0.0	25.5	1.30
4.80	23.8	0.0	110.5	4.6	0.0	21.4	1.30
6.40	30.9	0.0	143.9	4.3	0.0	20.9	1.30
8.00	37.5	0.0	146.0	-4.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.87 V	1.45 V	172.2	0.87 V	1.45 V
1.60	154.9 B	123.9	85.8	1.23 V	2.05 V	172.2	1.23 V	2.05 V
3.20	154.9 B	123.9	85.8	0.75 T	1.26 T	172.2	0.79 O	1.32 O
4.80	154.9 B	123.9	85.8	0.52 T	0.86 T	172.2	0.54 O	0.91 O
6.40	154.9 B	123.9	85.8	0.37 T	0.61 T	172.2	0.39 O	0.65 O
8.00	154.9 B	123.9	85.8	0.34 T	0.56 T	172.2	0.35 O	0.59 O

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	41.7	1.30
1.60	8.4	0.0	47.5	5.1	0.0	29.7	1.30
3.20	16.3	0.0	81.7	4.8	0.0	25.5	1.30
4.80	23.8	0.0	110.5	4.6	0.0	21.4	1.30
6.40	30.9	0.0	143.9	4.3	0.0	20.9	1.30
8.00	37.5	0.0	146.0	-4.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.87 V	1.45 V	172.2	0.87 V	1.45 V
1.60	154.9 B	123.9	85.8	1.23 V	2.05 V	172.2	1.23 V	2.05 V
3.20	154.9 B	123.9	85.8	0.75 T	1.26 T	172.2	0.79 O	1.32 O
4.80	154.9 B	123.9	85.8	0.52 T	0.86 T	172.2	0.54 O	0.91 O
6.40	154.9 B	123.9	85.8	0.37 T	0.61 T	172.2	0.39 O	0.65 O
8.00	154.9 B	123.9	85.8	0.34 T	0.56 T	172.2	0.35 O	0.59 O

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*  FLOORBEAM  -  LIVE LOAD TK527   *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 38.60
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	50.2	1.30
1.60	8.4	0.0	57.2	5.1	0.0	35.8	1.30
3.20	16.3	0.0	98.3	4.8	0.0	30.7	1.30
4.80	23.8	0.0	133.0	4.6	0.0	25.7	1.30
6.40	30.9	0.0	173.1	4.3	0.0	25.1	1.30
8.00	37.5	0.0	175.6	-4.0	0.0	15.7	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.73 V	1.21 V	172.2	0.73 V	1.21 V
1.60	154.9 B	123.9	85.8	1.02 V	1.70 V	172.2	1.02 V	1.70 V
3.20	154.9 B	123.9	85.8	0.63 T	1.05 T	172.2	0.66 O	1.09 O
4.80	154.9 B	123.9	85.8	0.43 T	0.72 T	172.2	0.45 O	0.75 O
6.40	154.9 B	123.9	85.8	0.31 T	0.51 T	172.2	0.32 O	0.54 O

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8.00	154.9 B	123.9	85.8	0.28 T	0.46 T	172.2	0.30 O	0.49 O

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*  FLOORBEAM  -  LIVE LOAD  ML80   *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 44.45
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	57.8	1.30
1.60	8.4	0.0	65.9	5.1	0.0	41.2	1.30
3.20	16.3	0.0	113.3	4.8	0.0	35.4	1.30
4.80	23.8	0.0	153.1	4.6	0.0	29.6	1.30
6.40	30.9	0.0	199.4	4.3	0.0	28.9	1.30
8.00	37.5	0.0	202.3	-4.0	0.0	18.1	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.63 V	1.05 V	172.2	0.63 V	1.05 V
1.60	154.9 B	123.9	85.8	0.89 V	1.48 V	172.2	0.89 V	1.48 V
3.20	154.9 B	123.9	85.8	0.54 T	0.91 T	172.2	0.57 O	0.95 O
4.80	154.9 B	123.9	85.8	0.37 T	0.62 T	172.2	0.39 O	0.65 O
6.40	154.9 B	123.9	85.8	0.27 T	0.44 T	172.2	0.28 O	0.47 O
8.00	154.9 B	123.9	85.8	0.24 T	0.40 T	172.2	0.26 O	0.43 O

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*  FLOORBEAM  -  LIVE LOAD  P-82   *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 62.53
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	81.3	1.30
1.60	8.4	0.0	92.7	5.1	0.0	57.9	1.30
3.20	16.3	0.0	159.3	4.8	0.0	49.8	1.30
4.80	23.8	0.0	215.4	4.6	0.0	41.7	1.30
6.40	30.9	0.0	280.4	4.3	0.0	40.6	1.30
8.00	37.5	0.0	284.5	-4.0	0.0	25.4	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.45 V	0.75 V	172.2	0.45 V	0.75 V
1.60	154.9 B	123.9	85.8	0.63 V	1.05 V	172.2	0.63 V	1.05 V
3.20	154.9 B	123.9	85.8	0.39 T	0.65 T	172.2	0.41 O	0.68 O
4.80	154.9 B	123.9	85.8	0.27 T	0.44 T	172.2	0.28 O	0.46 O
6.40	154.9 B	123.9	85.8	0.19 T	0.31 T	172.2	0.20 O	0.33 O
8.00	154.9 B	123.9	85.8	0.17 T	0.29 T	172.2	0.18 O	0.30 O

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<    FLOORBEAM  3    >
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DEAD LOADS ACTING ON FLOORBEAM

UNIFORM LOAD FLOORBEAM WEIGHT	INPUT DL1	CONCENTRATED LOADS DIST	DL1	DL2
0.036	0.130	8.000	8.055	0.000

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*  FLOORBEAM  -  LIVE LOAD  H20    *
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LIVE LOAD REACTION FROM DECK (ONE LANE) : 32.08
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	41.7	1.30
1.60	8.4	0.0	47.5	5.1	0.0	29.7	1.30
3.20	16.3	0.0	81.7	4.8	0.0	25.5	1.30
4.80	23.8	0.0	110.5	4.6	0.0	21.4	1.30
6.40	30.9	0.0	143.9	4.3	0.0	20.9	1.30
8.00	37.5	0.0	146.0	-4.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.87 V	1.45 V	172.2	0.87 V	1.45 V
1.60	154.9 B	123.9	85.8	1.23 V	2.05 V	172.2	1.23 V	2.05 V
3.20	154.9 B	123.9	85.8	0.75 T	1.26 T	172.2	0.79 O	1.32 O
4.80	154.9 B	123.9	85.8	0.52 T	0.86 T	172.2	0.54 O	0.91 O
6.40	154.9 B	123.9	85.8	0.37 T	0.61 T	172.2	0.39 O	0.65 O
8.00	154.9 B	123.9	85.8	0.34 T	0.56 T	172.2	0.35 O	0.59 O

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52/97

* FLOORBEAM - LIVE LOAD HS20 *

LIVE LOAD REACTION FROM DECK (ONE LANE) : 32.08
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	41.7	1.30
1.60	8.4	0.0	47.5	5.1	0.0	29.7	1.30
3.20	16.3	0.0	81.7	4.8	0.0	25.5	1.30
4.80	23.8	0.0	110.5	4.6	0.0	21.4	1.30
6.40	30.9	0.0	143.9	4.3	0.0	20.9	1.30
8.00	37.5	0.0	146.0	-4.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.87 V	1.45 V	172.2	0.87 V	1.45 V
1.60	154.9 B	123.9	85.8	1.23 V	2.05 V	172.2	1.23 V	2.05 V
3.20	154.9 B	123.9	85.8	0.75 T	1.26 T	172.2	0.79 O	1.32 O
4.80	154.9 B	123.9	85.8	0.52 T	0.86 T	172.2	0.54 O	0.91 O
6.40	154.9 B	123.9	85.8	0.37 T	0.61 T	172.2	0.39 O	0.65 O
8.00	154.9 B	123.9	85.8	0.34 T	0.56 T	172.2	0.35 O	0.59 O

* FLOORBEAM - LIVE LOAD TK527 *

LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 38.60
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	50.2	1.30
1.60	8.4	0.0	57.2	5.1	0.0	35.8	1.30
3.20	16.3	0.0	98.3	4.8	0.0	30.7	1.30
4.80	23.8	0.0	133.0	4.6	0.0	25.7	1.30
6.40	30.9	0.0	173.1	4.3	0.0	25.1	1.30
8.00	37.5	0.0	175.6	-4.0	0.0	15.7	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.73 V	1.21 V	172.2	0.73 V	1.21 V
1.60	154.9 B	123.9	85.8	1.02 V	1.70 V	172.2	1.02 V	1.70 V
3.20	154.9 B	123.9	85.8	0.63 T	1.05 T	172.2	0.66 O	1.09 O
4.80	154.9 B	123.9	85.8	0.43 T	0.72 T	172.2	0.45 O	0.75 O
6.40	154.9 B	123.9	85.8	0.31 T	0.51 T	172.2	0.32 O	0.54 O
8.00	154.9 B	123.9	85.8	0.28 T	0.46 T	172.2	0.30 O	0.49 O

* FLOORBEAM - LIVE LOAD ML80 *

LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 44.45
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	57.8	1.30
1.60	8.4	0.0	65.9	5.1	0.0	41.2	1.30
3.20	16.3	0.0	113.3	4.8	0.0	35.4	1.30
4.80	23.8	0.0	153.1	4.6	0.0	29.6	1.30
6.40	30.9	0.0	199.4	4.3	0.0	28.9	1.30
8.00	37.5	0.0	202.3	-4.0	0.0	18.1	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.63 V	1.05 V	172.2	0.63 V	1.05 V
1.60	154.9 B	123.9	85.8	0.89 V	1.48 V	172.2	0.89 V	1.48 V
3.20	154.9 B	123.9	85.8	0.54 T	0.91 T	172.2	0.57 O	0.95 O
4.80	154.9 B	123.9	85.8	0.37 T	0.62 T	172.2	0.39 O	0.65 O
6.40	154.9 B	123.9	85.8	0.27 T	0.44 T	172.2	0.28 O	0.47 O
8.00	154.9 B	123.9	85.8	0.24 T	0.40 T	172.2	0.26 O	0.43 O

* FLOORBEAM - LIVE LOAD P-82 *

LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 62.53
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	81.3	1.30
1.60	8.4	0.0	92.7	5.1	0.0	57.9	1.30
3.20	16.3	0.0	159.3	4.8	0.0	49.8	1.30
4.80	23.8	0.0	215.4	4.6	0.0	41.7	1.30
6.40	30.9	0.0	280.4	4.3	0.0	40.6	1.30
8.00	37.5	0.0	284.5	-4.0	0.0	25.4	1.30

53/97

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.45 V	0.75 V	172.2	0.45 V	0.75 V
1.60	154.9 B	123.9	85.8	0.63 V	1.05 V	172.2	0.63 V	1.05 V
3.20	154.9 B	123.9	85.8	0.39 T	0.65 T	172.2	0.41 O	0.68 O
4.80	154.9 B	123.9	85.8	0.27 T	0.44 T	172.2	0.28 O	0.46 O
6.40	154.9 B	123.9	85.8	0.19 T	0.31 T	172.2	0.20 O	0.33 O
8.00	154.9 B	123.9	85.8	0.17 T	0.29 T	172.2	0.18 O	0.30 O

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+                                          +
+        R A T I N G   S U M M A R Y       +
+                                          +
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MEMBER: TRUSS

LOAD		ALLOWABLE STRESS RATING FACTOR	TONS	MEMBER
H20	IR (CRITICAL)	2.01	40.3	U 6L 7
	OR (CRITICAL)	2.99	59.7	U 6L 7
HS20	IR (CRITICAL)	1.94	69.9	U46L47
	OR (CRITICAL)	2.66	95.6	U44L45
TK527	IR (CRITICAL)	1.72	69.0	U46L47
	OR (CRITICAL)	2.38	95.4	U44L45
ML80	IR (CRITICAL)	1.59	58.2	U 9L 9
	OR (CRITICAL)	2.22	81.5	U 9L 9
P-82	IR (CRITICAL)	0.97	99.1	U 6L 7
	OR (CRITICAL)	1.44	146.6	U46L47

SEE NEXT RUN FOR RATINGS

MEMBER: STRINGER AT 8.00

LOAD		LOAD FACTOR RATING FACTOR	TONS	X	SPAN
H20	IR (CRITICAL)	0.96 O	19.1	4.75	3
	OR (CRITICAL)	1.59 O	31.8	4.75	3
	IR (POS MOM)	0.96 O	19.1	4.75	3
	OR (POS MOM)	1.59 O	31.8	4.75	3
HS20	IR (CRITICAL)	0.96 O	34.4	4.75	3
	OR (CRITICAL)	1.59 O	57.3	4.75	3
	IR (POS MOM)	0.96 O	34.4	4.75	3
	OR (POS MOM)	1.59 O	57.3	4.75	3
TK527	IR (CRITICAL)	1.19 O	47.8	5.70	3
	OR (CRITICAL)	1.99 O	79.6	5.70	3
	IR (POS MOM)	1.19 O	47.8	5.70	3
	OR (POS MOM)	1.99 O	79.6	5.70	3
ML80	IR (CRITICAL)	1.13 O	41.3	4.75	3
	OR (CRITICAL)	1.88 O	68.9	4.75	3
	IR (POS MOM)	1.13 O	41.3	4.75	3
	OR (POS MOM)	1.88 O	68.9	4.75	3
P-82	IR (CRITICAL)	0.86 O	87.7	4.75	3
	OR (CRITICAL)	1.43 O	146.2	4.75	3
	IR (POS MOM)	0.86 O	87.7	4.75	3
	OR (POS MOM)	1.43 O	146.2	4.75	3

SEE HAND CALCS FOR FLOORBEAM RATINGS.

MEMBER: FLOORBEAM

LOAD		LOAD FACTOR RATING FACTOR	TONS	X	FLBM
H20	IR (CRITICAL)	0.35 O	7.1	8.00	3
	OR (CRITICAL)	0.59 O	11.8	8.00	3
	IR (POS MOM)	0.35 O	7.1	8.00	3
	OR (POS MOM)	0.59 O	11.8	8.00	3
HS20	IR (CRITICAL)	0.35 O	12.8	8.00	3
	OR (CRITICAL)	0.59 O	21.3	8.00	3
	IR (POS MOM)	0.35 O	12.8	8.00	3
	OR (POS MOM)	0.59 O	21.3	8.00	3
TK527	IR (CRITICAL)	0.30 O	11.8	8.00	3
	OR (CRITICAL)	0.49 O	19.7	8.00	3
	IR (POS MOM)	0.30 O	11.8	8.00	3
	OR (POS MOM)	0.49 O	19.7	8.00	3
ML80	IR (CRITICAL)	0.26 O	9.4	8.00	3
	OR (CRITICAL)	0.43 O	15.6	8.00	3
	IR (POS MOM)	0.26 O	9.4	8.00	3
	OR (POS MOM)	0.43 O	15.6	8.00	3
P-82	IR (CRITICAL)	0.18 O	18.6	8.00	3
	OR (CRITICAL)	0.30 O	31.0	8.00	3
	IR (POS MOM)	0.18 O	18.6	8.00	3
	OR (POS MOM)	0.30 O	31.0	8.00	3

RATING FACTOR CODES:
- T - TOP STEEL STRESS/STRENGTH GOVERNS
- B - BOTTOM STEEL STRESS/STRENGTH GOVERNS
- C - CONCRETE STRESS/STRENGTH GOVERNS
- R - REINFORCEMENT STRESS/STRENGTH GOVERNS
- V - SHEAR STRESS/STRENGTH GOVERNS
- blank - COMPACT MOMENT STRENGTH GOVERNS
- O - OVERLOAD PROVISIONS GOVERN
- I - MOMENT-SHEAR INTERACTION GOVERNS
- F - SECTION DOES NOT MEET FLANGE PROJECTION/THICKNESS RATIO CRITERIA
- W - SECTION DOES NOT MEET WEB DEPTH/THICKNESS RATIO CRITERIA

NON-COMPACT MOMENT STRENGTH CODES:
- B - SECTION IS BRACED
- U - SECTION IS UNBRACED

NOTE: ALL RATINGS ARE BASED ON THE NUMBER OF DESIGN LANES OR THE ACTUAL TRAFFIC LANES AS DEFINED BY "D" OR "L" ENTERED FOR LANES IN THE PROJECT IDENTIFICATION.

54/97

HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

JOB MONACA BRIDGE RATING
SHEET NO. OF
CALCULATED BY AMK DATE
CHECKED BY DFL DATE 5-20-08
DESCRIPTION

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USE THIS RUN FOR TRUSS RATINGS

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                BRIDGE ANALYSIS AND RATING (BAR7)              330443

PROGRAM P4353000                                          05/20/2008 11:48
VERSION 7.12.0.0          LAST UPDATED 01/12/2007       DOCUMENTATION 01/2007

INPUT: RATING~2.DAT

STRUCTURE ID -                    -

 BRG SLC        LIVE OUT-  IMP GAGE PASS FAT- CONC      RE-      S OVER END
TYPE LEV LANES LOAD PUT  FACT DIST DIST IGUE DECK SPEC DIST DIR FACTOR PAN HYB
 TFS       D     H    2   0.00             N                      0.00

                BRIDGE CROSS SECTION AND LOADING

        OVERHANG     CL OF
DECK      OR       GIRDER OR   ROADWAY  DISTRIBUTION FACTORS
WIDTH  SPACING TRUSS TO CURB   WIDTH   SHEAR MOMENT DEFLECT
20.67    0.00       -1.00       18.00   0.625  0.727  0.670

   SLAB                DEAD LOADS
THICKNESS  HAUNCH    DL1     DL2     F'C     N  SYMMETRY
  10.00      0.00   0.000   0.000   0.000   0.

LIVE LOAD  NO. OF   END          HINGE   TEMP    END
LOCATION   PANELS  COND.  CORS    AT    CHANGE   BRG.
   U        48       R           L37     0.      U

STRINGER   FLOORBEAM   UNIT WEIGHT
  DL1        DL1      DECK CONCRETE
 0.020      0.130          150.

                SPAN LENGTHS (CANTILEVER)

SPAN #       1       2       3       4
LENGTH     103.55  114.15  109.13   94.00

HINGE #      1       2       3
DISTANCE   128.6   192.7   351.8

                TRAFFIC LANE LOCATIONS

LANE #     1       2       3       4       5       6
DIST
WIDTH
% LL

                STRINGER SPAN LENGTHS (SIMPLE)

SPAN #       1       2       3
LENGTH      9.50    9.50    9.50
```

Special LL ran

DL increased to account for Pedestrian LL

55/97

STRINGER LOCATIONS

STRINGER # 1
DISTANCE 8.00

TRUSS GEOMETRY

PANEL NO.	PANEL WIDTH		VERTICAL POST H1	H2	H3	PANEL TYPE
1	9.67	Y	11.67	0.00	-11.67	3
2	9.50	N	11.67	0.00	-11.67	5
3	9.50	Y	11.67	0.00	-11.67	6
4	9.50	N	11.67	0.00	-11.67	5
5	9.50	Y	11.67	0.00	-11.67	6
6	9.50	N	11.67	0.00	-11.67	5
7	9.50	Y	11.67	0.00	-11.67	6
8	9.50	N	11.67	0.00	-11.67	5
9	9.50	Y	11.67	0.00	-11.67	6
10	9.50	Y	11.67	0.00	-11.67	5
11	8.38	Y	11.67	0.00	-11.67	6
12	8.33	Y	11.67	0.00	-11.67	5
13	8.33	Y	11.67	0.00	-11.67	6
14	8.33		0.00	0.00	0.00	4
15	8.07	Y	9.00	0.00	-9.00	3
16	8.00	N	9.00	0.00	-9.00	5
17	8.00	Y	9.00	0.00	-9.00	6
18	8.01	N	9.00	0.00	-9.00	5
19	8.01	Y	9.00	0.00	-9.00	6
20	8.01	N	9.00	0.00	-9.00	5
21	8.00	Y	9.00	0.00	-9.00	6
22	8.07		0.00	0.00	0.00	4
23	8.33	Y	11.67	0.00	-11.67	3
24	8.33	Y	11.67	0.00	-11.67	5
25	8.33	Y	11.67	0.00	-11.67	6
26	8.38	Y	11.67	0.00	-11.67	5
27	9.18	Y	11.67	0.00	-11.67	6
28	9.25	N	11.67	0.00	-11.67	5
29	9.25	Y	11.67	0.00	-11.67	6
30	9.25	N	11.67	0.00	-11.67	5
31	9.25	Y	11.67	0.00	-11.67	6
32	9.25	N	11.67	0.00	-11.67	5
33	9.25	Y	11.67	0.00	-11.67	6
34	9.25	N	11.67	0.00	-11.67	5
35	9.25	Y	11.67	0.00	-11.67	6
36	9.19	N	11.67	0.00	-11.67	5
37	8.38	Y	11.67	0.00	-11.67	6
38	8.33	N	11.67	0.00	-11.67	5
39	8.33	Y	11.67	0.00	-11.67	6
40	8.33		0.00	0.00	0.00	4
41	8.63	Y	9.00	0.00	-9.00	3
42	8.63	N	9.00	0.00	-9.00	5
43	8.63	Y	9.00	0.00	-9.00	6
44	8.63	N	9.00	0.00	-9.00	5
45	8.63	Y	9.00	0.00	-9.00	6
46	8.62	N	9.00	0.00	-9.00	5
47	8.62	Y	9.00	0.00	-9.00	6
48	8.62		0.00	0.00	0.00	4

TRUSS DEAD LOADS

LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD	LOCAT	LOAD
U 0	23.00	U 1	55.00	U 2	23.00	U 3	57.00
U 4	23.00	U 5	57.00	U 6	23.00	U 7	57.00
U 8	23.00	U 9	57.00	U 10	23.00	U 11	50.00
U 12	23.00	U 13	50.00	U 14	20.50	U 15	47.00
U 16	18.00	U 17	47.00	U 18	18.00	U 19	47.00
U 20	18.00	U 21	47.00	U 22	20.50	U 23	50.00
U 24	23.00	U 25	50.00	U 26	23.00	U 27	55.00
U 28	23.00	U 29	55.00	U 30	23.00	U 31	55.00
U 32	23.00	U 33	55.00	U 34	23.00	U 35	55.00
U 36	23.00	U 37	50.00	U 38	23.00	U 39	50.00
U 40	21.50	U 41	50.00	U 42	20.00	U 43	50.00
U 44	20.00	U 45	50.00	U 46	20.00	U 47	50.00
U 48	20.00	0	0.00	0	0.00	0	0.00

These values increased by 6.71K to account for Ped LL

TRUSS MEMBER PROPERTIES

MEMBER ID	GROSS AREA COMPR	NET AREA TENS	MOMENT OF INERTIA	FY	L	ECC	FLANGE WIDTH	C	CAT	FU	GROSS AREA TENS
U 0U 1	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U 1U 2	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U 2U 3	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00		0.0	43.94
U 3U 4	46.47	36.97	745.0	33.0	0.00	0.00	0.00	0.00		0.0	43.94
U 4U 5	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U 5U 6	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U 6U 7	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U 7U 8	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U 8U 9	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U 9U10	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U10U11	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U11U12	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U12U13	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U13U14	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U14U15	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U15U16	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U16U17	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U17U18	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U18U19	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U19U20	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U20U21	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U21U22	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00		0.0	28.30
U22U23	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U23U24	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U24U25	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U25U26	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U26U27	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U27U28	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U28U29	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U29U30	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U30U31	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U31U32	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U32U33	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U33U34	56.73	45.20	930.1	33.0	0.00	0.00	0.00	0.00		0.0	53.71
U34U35	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U35U36	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00		0.0	39.63
U36U37	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U37U38	51.73	41.20	837.9	33.0	0.00	0.00	0.00	0.00		0.0	48.96
U39U39	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U39U40	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00		0.0	23.89
U40U41	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00		0.0	32.74
U41U42	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00		0.0	32.74
U42U43	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00		0.0	32.74
U43U44	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00		0.0	32.74

Invalid input: U38U39 input

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U44U45	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
U45U46	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
U46U47	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
U47U48	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
U 1L 1	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U 3L 3	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U 5L 5	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U 7L 7	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U 9L 9	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U10L10	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U11L11	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U12L12	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U13L13	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U15L15	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U17L17	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U19L19	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U21L21	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U23L23	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U24L24	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U25L25	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U26L26	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U27L27	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U29L29	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U31L31	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U33L33	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U35L35	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U37L37	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U39L39	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U41L41	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U43L43	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U45L45	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U47L47	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
U 0L 1	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L 1U 2	24.71	19.40	225.5	33.0	0.00	0.00	0.00	0.00	0.0	23.11
U 2L 3	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00	0.0	17.82
L 3U 4	15.59	13.40	57.5	33.0	0.00	0.00	0.00	0.00	0.0	15.44
U 4L 5	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
L 5U 6	11.17	9.17	24.6	33.0	0.00	0.00	0.00	0.00	0.0	11.17
U 6L 7	15.59	13.40	57.5	33.0	0.00	0.00	0.00	0.00	0.0	15.44
L 7U 8	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00	0.0	20.64
U 8L 9	25.52	20.06	349.7	33.0	0.00	0.00	0.00	0.00	0.0	23.89
L 9U10	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
U10L11	39.98	31.86	567.7	33.0	0.00	0.00	0.00	0.00	0.0	37.86
L11U12	39.98	31.86	567.7	33.0	0.00	0.00	0.00	0.00	0.0	37.86
U12L13	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L13U14	27.94	21.57	383.7	33.0	0.00	0.00	0.00	0.00	0.0	25.76
U14L15	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00	0.0	20.64
L15U16	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00	0.0	17.82
U16L17	12.65	10.53	45.1	33.0	0.00	0.00	0.00	0.00	0.0	12.65
L17U18	8.81	7.20	17.5	33.0	0.00	0.00	0.00	0.00	0.0	8.52
U18L19	8.81	7.20	17.5	33.0	0.00	0.00	0.00	0.00	0.0	8.52
L19U20	12.65	10.53	45.1	33.0	0.00	0.00	0.00	0.00	0.0	12.65
U20L21	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00	0.0	17.82
L21U22	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00	0.0	20.64
U22L23	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L23U24	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
U24L25	39.98	31.86	567.7	33.0	0.00	0.00	0.00	0.00	0.0	37.86
L25U26	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
U26L27	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L27U28	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00	0.0	23.89
U28L29	20.00	17.14	121.2	33.0	0.00	0.00	0.00	0.00	0.0	20.00
L29U30	15.59	13.40	57.5	33.0	0.00	0.00	0.00	0.00	0.0	15.44
U30L31	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70
L31U32	10.00	8.20	21.3	33.0	0.00	0.00	0.00	0.00	0.0	9.70

Invalid input: Values reduced by 25% 31.39 / 25.01 input

Invalid input: Should be 25.56 per steel member prop table

U32L33	15.59	13.40	57.5	33.0	0.00	0.00	0.00	0.00	0.0	15.44
L33U34	20.00	17.14	121.2	33.0	0.00	0.00	0.00	0.00	0.0	20.00
U34L35	25.56	20.06	349.7	33.0	0.00	0.00	0.00	0.00	0.0	23.89
L35U36	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
U36L37	34.99	27.49	491.8	33.0	0.00	0.00	0.00	0.00	0.0	32.74
L37U38	39.98	31.86	567.7	33.0	0.00	0.00	0.00	0.00	0.0	37.86
U38L39	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
L39U40	30.26	23.76	419.7	33.0	0.00	0.00	0.00	0.00	0.0	28.30
U40L41	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00	0.0	20.64
L41U42	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00	0.0	17.82
U42L43	12.65	10.53	45.1	33.0	0.00	0.00	0.00	0.00	0.0	12.65
L43U44	8.81	7.20	17.5	33.0	0.00	0.00	0.00	0.00	0.0	8.52
U44L45	8.81	7.20	17.5	33.0	0.00	0.00	0.00	0.00	0.0	8.52
L45U46	12.65	10.53	45.1	33.0	0.00	0.00	0.00	0.00	0.0	12.65
U46L47	17.94	15.37	107.3	33.0	0.00	0.00	0.00	0.00	0.0	17.82
L47U48	22.94	17.20	206.9	33.0	0.00	0.00	0.00	0.00	0.0	20.64
L 1L 2	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00	0.0	21.23
L 2L 3	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00	0.0	21.23
L 3L 4	34.85	27.73	745.0	33.0	0.00	0.00	0.00	0.00	0.0	32.96
L 4L 5	34.85	27.73	745.0	33.0	0.00	0.00	0.00	0.00	0.0	32.96
L 5L 6	34.85	27.73	745.0	33.0	0.00	0.00	0.00	0.00	0.0	32.96
L 6L 7	34.85	27.73	745.0	33.0	0.00	0.00	0.00	0.00	0.0	32.96
L 7L 8	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L 8L 9	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L 9L10	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L10L11	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L11L12	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L12L13	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L15L16	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00	0.0	21.23
L16L17	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00	0.0	21.23
L17L18	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00	0.0	21.23
L18L19	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00	0.0	21.23
L19L20	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00	0.0	21.23
L20L21	22.69	17.82	419.7	33.0	0.00	0.00	0.00	0.00	0.0	21.23
L23L24	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L24L25	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L25L26	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L26L27	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L27L28	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L28L29	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L29L30	34.85	27.73	745.0	33.0	0.00	0.00	0.00	0.00	0.0	32.96
L30L31	34.85	27.73	745.0	33.0	0.00	0.00	0.00	0.00	0.0	32.96
L31L32	34.85	27.73	745.0	33.0	0.00	0.00	0.00	0.00	0.0	32.96
L32L33	34.85	27.73	745.0	33.0	0.00	0.00	0.00	0.00	0.0	32.96
L33L34	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L34L35	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L35L36	41.85	33.35	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L36L37	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L37L38	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L38L39	31.39	25.01	660.1	33.0	0.00	0.00	0.00	0.00	0.0	29.72
L41L42	26.24	20.62	491.8	33.0	0.00	0.00	0.00	0.00	0.0	24.56
L42L43	26.24	20.62	491.8	33.0	0.00	0.00	0.00	0.00	0.0	24.56
L43L44	26.24	20.62	491.8	33.0	0.00	0.00	0.00	0.00	0.0	24.56
L44L45	26.24	20.62	491.8	33.0	0.00	0.00	0.00	0.00	0.0	24.56
L45L46	26.24	20.62	491.8	33.0	0.00	0.00	0.00	0.00	0.0	24.56
L46L47	26.24	20.62	491.8	33.0	0.00	0.00	0.00	0.00	0.0	24.56

STEEL MEMBER PROPERTIES

G F S	P A N	RANGE	S T Y P E	WF BM OF I OR VRT LEG	WF BM AREA OR HRZ LEG	FLANGE OR ANGLE THICK	FLANGE WIDTH	V A R	WF BM OR WEB PLATE DEPTH	WEB THICK

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F 1   0.00 W   446.30   10.59  0.4280  6.942       15.85  0.2990
               TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
               0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
     RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
F 1   8.00 W   446.30   10.59  0.4280  6.942       15.85  0.2990
               TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
               0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
     RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
F 2   0.00 W   446.30   10.59  0.4280  6.942       15.85  0.2990
               TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
               0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
     RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
F 2   8.00 W   446.30   10.59  0.4280  6.942       15.85  0.2990
               TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
               0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
     RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
F 3   0.00 W   446.30   10.59  0.4280  6.942       15.85  0.2990
               TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
               0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
     RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
F 3   8.00 W   446.30   10.59  0.4280  6.942       15.85  0.2990
               TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
               0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
     RANGE     M OF I    AREA   THICK   WIDTH  V   DEPTH   THICK
S     0.00 W   446.30   10.59  0.4280  6.942       15.85  0.2990
               TPW   TPT    BPW   BPT   COMP  FY  FY TOP FY BOT CG TOP CG BOT
               0.00 0.0000  0.00 0.0000   N  33.0   0.0    0.0   0.000  0.000
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LATERAL BRACE POINTS AND STIFFENER SPACINGS

B OR S G OR F CODE	SPAN	C O D E	NO. OF SPCS	SPACING	C O D E	NO. OF SPCS	SPACING	C O D E	NO. OF SPCS	SPACING	C O D E	NO. OF SPCS	SPACING
BF	1	C	1	16.00	B	2	8.00		0	0.00		0	0.00
			0	0.00		0	0.00		0	0.00		0	0.00
BF	2	C	1	16.00	B	2	8.00		0	0.00		0	0.00
			0	0.00		0	0.00		0	0.00		0	0.00
BF	3	C	1	16.00	B	2	8.00		0	0.00		0	0.00
			0	0.00		0	0.00		0	0.00		0	0.00

DEFAULT VALUES

SLC LEVEL	LANES	GAGE DISTANCE	PASSING DISTANCE	CORS	END BRG.	UNIT WEIGHT DECK
I	---	6.0	3.0	S	---	---

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++++++++++++++++++++++++++++++++++++++++++++
+                                          +
+        T R U S S   A N A L Y S I S       +
+                                          +
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LIVE LOAD DISTRIBUTION FACTORS

BASED ON DESIGN LANES

TRUSS FORCE	TRUSS DEFLECTION
1.000(2)	1.000(2)

NOTE: IF A SECTION DOES NOT MEET FLANGE OR WEB BUCKLING CRITERIA OF CURRENT AASHTO SPECIFICATIONS FOR LOAD FACTOR METHOD, THE RATING FACTORS ARE REPRINTED AS 888.88. THIS INDICATES THAT THERE IS A POTENTIAL FATIGUE PROBLEM.

NOTE: THE ALLOWABLE STRESS IN AN ECCENTRICALLY LOADED COMPRESSION MEMBER IS COMPUTED BY THE SECANT FORMULA. SEE ARTICLE 5.4.2 OF THE 1978 AASHTO MANUAL FOR MAINTENANCE INSPECTION OF BRIDGES.

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*  TRUSS  -  LIVE LOAD  H20   *
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MEMBER FORCES AND RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS	RATING FACTORS	
U 0U 1	-132.0	-46.8L	1.22	11.3L	1.21	IR	-391.5	430.0	IR	5.542
						OR	-488.2	585.3	OR	7.608
U 1U 2	-132.0	-46.8L	1.22	11.3L	1.21	IR	-391.7	430.0	IR	5.547
						OR	-488.5	585.3	OR	7.614
U 2U 3	-283.2	-110.7L	1.22	33.5L	1.21	IR	-713.8	790.9	IR	3.889
						OR	-890.2	1076.5	OR	5.482
U 3U 4	-283.2	-110.7L	1.22	33.5L	1.21	IR	-713.8	790.9	IR	3.889
						OR	-890.2	1076.5	OR	5.482
U 4U 5	-304.2	-137.4L	1.22	55.7L	1.21	IR	-794.8	881.3	IR	3.571
						OR	-991.1	1199.5	OR	5.000
U 5U 6	-304.2	-137.4L	1.22	55.7L	1.21	IR	-794.8	881.3	IR	3.571
						OR	-991.1	1199.5	OR	5.000
U 6U 7	-194.8	-126.8L	1.22	78.0L	1.21	IR	-794.8	881.3	IR	4.731
						OR	-991.1	1199.5	OR	6.279
U 7U 8	-194.8	-126.8L	1.22	78.0L	1.21	IR	-794.8	881.3	IR	4.731
						OR	-991.1	1199.5	OR	6.279
U 8U 9	44.7	-79.0L	1.22	100.2L	1.21	IR	-642.7	713.3	IR	6.674
						OR	-801.5	970.9	OR	9.245
U 9U10	44.7	-79.0L	1.22	100.2L	1.21	IR	-642.7	713.3	IR	6.674
						OR	-801.5	970.9	OR	9.245
U10U11	391.6	0.0	1.22	121.1L	1.21	IR	-797.1	881.3	IR	4.043
						OR	-994.0	1199.5	OR	6.671
U11U12	391.6	0.0	1.21	121.1L	1.21	IR	-797.2	881.3	IR	4.043
						OR	-994.1	1199.5	OR	6.671
U12U13	101.7	0.0	1.21	35.8L	1.21	IR	-393.2	430.0	IR	9.166
						OR	-490.3	585.3	OR	13.501
U13U14	101.7	0.0	1.21	35.8L	1.21	IR	-393.2	430.0	IR	9.166
						OR	-490.3	585.3	OR	13.501
U14U15	-107.8	-36.3L	1.21	0.0	1.21	IR	-465.9	509.4	IR	9.870

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						OR	-581.0	693.4	OR	13.042
U15U16	-107.8	-36.3L	1.21	0.0	1.21	IR	-466.0	509.4	IR	9.872
						OR	-581.1	693.4	OR	13.045
U16U17	-223.5	-77.7L	1.21	0.0	1.21	IR	-466.0	509.4	IR	3.120
						OR	-581.1	693.4	OR	4.601
U17U18	-223.5	-77.7L	1.21	0.0	1.21	IR	-465.9	509.4	IR	3.120
						OR	-581.1	693.4	OR	4.601
U18U19	-223.7	-77.8L	1.21	0.0	1.21	IR	-465.9	509.4	IR	3.114
						OR	-581.1	693.4	OR	4.594
U19U20	-223.7	-77.8L	1.21	0.0	1.21	IR	-465.9	509.4	IR	3.114
						OR	-581.1	693.4	OR	4.594
U20U21	-108.3	-36.5L	1.21	0.0	1.21	IR	-466.0	509.4	IR	9.810
						OR	-581.1	693.4	OR	12.967
U21U22	-108.3	-36.5L	1.21	0.0	1.21	IR	-465.9	509.4	IR	9.807
						OR	-581.0	693.4	OR	12.964
U22U23	101.0	0.0	1.21	35.6L	1.21	IR	-393.2	430.0	IR	9.234
						OR	-490.3	585.3	OR	13.592
U23U24	101.0	0.0	1.21	35.6L	1.21	IR	-393.2	430.0	IR	9.234
						OR	-490.3	585.3	OR	13.592
U24U25	390.7	0.0	1.21	120.7L	1.21	IR	-797.2	881.3	IR	4.065
						OR	-994.1	1199.5	OR	6.702
U25U26	390.7	0.0	1.21	120.7L	1.21	IR	-797.1	881.3	IR	4.065
						OR	-994.0	1199.5	OR	6.702
U26U27	101.4	-81.1L	1.21	121.3L	1.21	IR	-643.3	713.3	IR	5.044
						OR	-802.2	970.9	OR	7.168
U27U28	101.4	-81.1L	1.21	121.3L	1.21	IR	-643.2	713.3	IR	5.044
						OR	-802.1	970.9	OR	7.168
U28U29	-80.5	-132.9L	1.21	122.0L	1.21	IR	-872.3	966.8	IR	5.959
						OR	-1087.8	1315.9	OR	7.581
U29U30	-80.5	-132.9L	1.21	122.0L	1.21	IR	-872.3	966.8	IR	5.959
						OR	-1087.8	1315.9	OR	7.581
U30U31	-138.8	-150.1L	1.21	122.6L	1.21	IR	-872.3	966.8	IR	4.885
						OR	-1087.8	1315.9	OR	6.321
U31U32	-138.8	-150.1L	1.21	123.6L	1.22	IR	-872.3	966.8	IR	4.885
						OR	-1087.8	1315.9	OR	6.321
U32U33	-73.4	-132.9L	1.21	124.3L	1.22	IR	-872.3	966.8	IR	6.012
						OR	-1087.8	1315.9	OR	7.633
U33U34	-73.4	-132.9L	1.21	124.3L	1.22	IR	-872.3	966.8	IR	6.012
						OR	-1087.8	1315.9	OR	7.633
U34U35	115.6	-81.1L	1.21	124.9L	1.22	IR	-643.2	713.3	IR	4.785
						OR	-802.1	970.9	OR	6.847
U35U36	115.6	-81.1L	1.21	124.9L	1.22	IR	-643.3	713.3	IR	4.785
						OR	-802.2	970.9	OR	6.847
U36U37	411.8	0.0	1.21	125.6L	1.22	IR	-797.1	881.3	IR	3.739
						OR	-994.0	1199.5	OR	6.274
U37U38	411.8	0.0	1.23	125.6L	1.22	IR	-797.2	881.3	IR	3.739
						OR	-994.1	1199.5	OR	6.274
U39U39	107.8	0.0	1.23	37.1L	1.22	IR	-393.2	430.0	IR	8.673
						OR	-490.3	585.3	OR	12.854
U39U40	107.8	0.0	1.23	37.1L	1.22	IR	-393.2	430.0	IR	8.673
						OR	-490.3	585.3	OR	12.854
U40U41	-124.9	-41.4L	1.23	0.0	1.22	IR	-537.9	589.3	IR	9.975
						OR	-670.8	802.1	OR	13.185
U41U42	-124.9	-41.4L	1.23	0.0	1.22	IR	-537.9	589.3	IR	9.975
						OR	-670.8	802.1	OR	13.185
U42U43	-259.0	-88.6L	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.150
						OR	-670.8	802.1	OR	4.650
U43U44	-259.0	-88.6L	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.150
						OR	-670.8	802.1	OR	4.650
U44U45	-258.8	-88.5L	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.154
						OR	-670.8	802.1	OR	4.656
U45U46	-258.8	-88.5L	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.154
						OR	-670.8	802.1	OR	4.656
U46U47	-124.6	-41.3L	1.23	0.0	1.22	IR	-537.9	589.3	IR	10.014
						OR	-670.8	802.1	OR	13.234
U47U48	-124.6	-41.3L	1.23	0.0	1.22	IR	-537.9	589.3	IR	10.014
						OR	-670.8	802.1	OR	13.234
L 1L 2	217.0	-22.4L	1.21	83.4L	1.22	IR	-349.2	382.1	IR	1.980
						OR	-435.4	520.1	OR	3.634
L 2L 3	217.0	-22.4L	1.21	83.4L	1.22	IR	-349.2	382.1	IR	1.980
						OR	-435.4	520.1	OR	3.634
L 3L 4	303.0	-44.6L	1.21	128.7L	1.22	IR	-537.1	593.3	IR	2.255
						OR	-669.8	807.5	OR	3.920
L 4L 5	303.0	-44.6L	1.21	128.7L	1.22	IR	-537.1	593.3	IR	2.255
						OR	-669.8	807.5	OR	3.920
L 5L 6	258.9	-66.9L	1.21	136.7L	1.22	IR	-537.1	593.3	IR	2.446
						OR	-669.8	807.5	OR	4.012
L 6L 7	258.9	-66.9L	1.21	136.7L	1.22	IR	-537.1	593.3	IR	2.446
						OR	-669.8	807.5	OR	4.012
L 7L 8	84.4	-89.1L	1.21	107.6L	1.22	IR	-483.7	535.0	IR	4.189
						OR	-603.2	728.1	OR	5.985
L 8L 9	84.4	-89.1L	1.21	107.6L	1.22	IR	-483.7	535.0	IR	4.189
						OR	-603.2	728.1	OR	5.985
L 9L10	-220.3	-111.3L	1.21	41.1L	1.22	IR	-483.7	535.0	IR	2.367
						OR	-603.2	728.1	OR	3.441

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L10L11	-220.3	-111.3L	1.21	41.1L	1.22	IR	-484.8	535.0	IR	2.377
						OR	-604.6	728.1	OR	3.453
L11L12	-238.5	-76.1L	1.21	0.0	1.21	IR	-484.9	535.0	IR	3.236
						OR	-604.6	728.1	OR	4.809
L12L13	-238.5	-76.1L	1.21	0.0	1.21	IR	-484.9	535.0	IR	3.236
						OR	-604.6	728.1	OR	4.809
L15L16	173.7	0.0	1.21	62.2L	1.21	IR	-350.3	382.1	IR	3.354
						OR	-436.9	520.1	OR	5.574
L16L17	173.7	0.0	1.21	62.2L	1.21	IR	-350.3	382.1	IR	3.354
						OR	-436.9	520.1	OR	5.574
L17L18	231.6	0.0	1.21	82.9L	1.21	IR	-350.3	382.1	IR	1.815
						OR	-436.9	520.1	OR	3.479
L18L19	231.6	0.0	1.21	82.9L	1.21	IR	-350.3	382.1	IR	1.815
						OR	-436.9	520.1	OR	3.479
L19L20	174.0	0.0	1.21	62.3L	1.21	IR	-350.3	382.1	IR	3.343
						OR	-436.9	520.1	OR	5.558
L20L21	174.0	0.0	1.21	62.3L	1.21	IR	-350.3	382.1	IR	3.343
						OR	-436.9	520.1	OR	5.558
L23L24	-237.7	-75.8L	1.21	0.0	1.21	IR	-484.9	535.0	IR	3.259
						OR	-604.6	728.1	OR	4.838
L24L25	-237.7	-75.8L	1.21	0.0	1.21	IR	-484.9	535.0	IR	3.259
						OR	-604.6	728.1	OR	4.838
L25L26	-244.0	-121.0L	1.21	42.6L	1.21	IR	-484.8	535.0	IR	1.990
						OR	-604.6	728.1	OR	2.981
L26L27	-244.0	-121.0L	1.21	42.6L	1.21	IR	-484.0	535.0	IR	1.984
						OR	-603.6	728.1	OR	2.973
L27L28	-1.3	-121.6L	1.21	111.3L	1.21	IR	-484.0	535.0	IR	3.968
						OR	-603.5	728.1	OR	4.951
L28L29	-1.3	-121.6L	1.21	111.3L	1.21	IR	-484.0	535.0	IR	3.968
						OR	-603.5	728.1	OR	4.951
L29L30	118.8	-122.3L	1.21	145.8L	1.21	IR	-537.4	593.3	IR	3.254
						OR	-670.2	807.5	OR	4.723
L30L31	118.8	-122.3L	1.21	145.8L	1.21	IR	-537.4	593.3	IR	3.254
						OR	-670.2	807.5	OR	4.723
L31L32	115.2	-123.9L	1.22	145.8L	1.21	IR	-537.4	593.3	IR	3.278
						OR	-670.2	807.5	OR	4.747
L32L33	115.2	-123.9L	1.22	145.8L	1.21	IR	-537.4	593.3	IR	3.278
						OR	-670.2	807.5	OR	4.747
L33L34	-12.0	-124.6L	1.22	111.3L	1.21	IR	-484.0	535.0	IR	3.788
						OR	-603.5	728.1	OR	4.748
L34L35	-12.0	-124.6L	1.22	111.3L	1.21	IR	-484.0	535.0	IR	3.788
						OR	-603.5	728.1	OR	4.748
L35L36	-261.9	-125.3L	1.22	42.6L	1.21	IR	-643.3	535.0	IR	3.045
						OR	-802.2	728.1	OR	4.314
L36L37	-261.9	-125.3L	1.22	42.6L	1.21	IR	-484.8	535.0	IR	1.780
						OR	-604.6	728.1	OR	2.736
L37L38	-251.6	-79.0L	1.22	0.0	1.23	IR	-484.9	535.0	IR	2.952
						OR	-604.6	728.1	OR	4.467
L38L39	-251.6	-79.0L	1.22	0.0	1.23	IR	-484.9	535.0	IR	2.952
						OR	-604.6	728.1	OR	4.467
L41L42	201.5	0.0	1.22	70.9L	1.23	IR	-404.7	442.1	IR	3.393
						OR	-504.6	601.7	OR	5.646
L42L43	201.5	0.0	1.22	70.9L	1.23	IR	-404.7	442.1	IR	3.393
						OR	-504.6	601.7	OR	5.646
L43L44	268.5	0.0	1.22	94.4L	1.23	IR	-404.7	442.1	IR	1.838
						OR	-504.6	601.7	OR	3.529
L44L45	268.5	0.0	1.22	94.4L	1.23	IR	-404.7	442.1	IR	1.838
						OR	-504.6	601.7	OR	3.529
L45L46	201.3	0.0	1.22	70.8L	1.23	IR	-404.7	442.1	IR	3.402
						OR	-504.6	601.7	OR	5.658
L46L47	201.3	0.0	1.22	70.8L	1.23	IR	-404.7	442.1	IR	3.402
						OR	-504.6	601.7	OR	5.658
U 0L 1	207.0	-21.1L	1.23	84.9L	1.22	IR	-452.8	509.4	IR	3.564
						OR	-564.7	693.4	OR	5.732
L 1U 2	-134.6	-72.0L	1.23	22.6L	1.30	IR	-362.4	416.0	IR	3.164
						OR	-451.9	566.2	OR	4.408
U 2L 3	104.9	-24.2L	1.30	60.6L	1.24	IR	-254.6	320.8	IR	3.561
						OR	-317.5	436.6	OR	5.472
L 3U 4	-31.4	-50.1L	1.25	28.3L	1.30	IR	-207.9	277.9	IR	3.526
						OR	-259.3	378.3	OR	4.552
U 4L 5	1.7	-35.9L	1.30	40.3L	1.27	IR	-132.1	201.1	IR	3.727
						OR	-164.8	273.7	OR	4.636
L 5U 6	71.8	-31.4L	1.28	44.0L	1.28	IR	-132.1	201.1	IR	2.941
						OR	-164.8	273.7	OR	4.593
U 6L 7	-101.4	-52.9L	1.27	23.3L	1.30	IR	-207.9	277.9	IR	2.015
						OR	-259.3	378.3	OR	2.987
L 7U 8	174.9	-15.9	1.30	62.6L	1.25	IR	-336.2	371.5	IR	3.142
						OR	-419.2	505.7	OR	5.286
U 8L 9	-204.6	-73.1L	1.24	9.8	1.30	IR	-381.9	430.0	IR	2.425
						OR	-476.3	585.3	OR	3.715
L 9U10	278.1	-3.9L	1.30	84.9L	1.23	IR	-453.1	509.4	IR	2.725
						OR	-565.0	693.4	OR	4.891
U10L11	-293.8	-93.0L	1.23	0.0	1.00	IR	-601.2	681.5	IR	3.305
						OR	-749.7	927.6	OR	4.902
L11U12	-263.7	-90.7L	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.721
						OR	-749.8	927.6	OR	5.358

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U12L13	235.4	0.0	1.00	83.3L	1.24	IR	-454.7	509.4	IR	3.289
						OR	-567.1	693.4	OR	5.498
L13U14	-175.0	-76.0L	1.25	0.0	1.00	IR	-419.7	463.7	IR	3.220
						OR	-523.4	631.1	OR	4.585
U14L15	161.4	0.0	1.00	68.6L	1.26	IR	-343.6	371.5	IR	3.061
						OR	-428.5	505.7	OR	5.016
L15U16	-99.1	-55.9L	1.28	7.0	1.30	IR	-263.4	320.8	IR	2.939
						OR	-328.5	436.6	OR	4.103
U16L17	75.1	-14.3	1.30	44.0L	1.29	IR	-178.2	227.7	IR	3.470
						OR	-222.2	309.9	OR	5.340
L17U18	-12.2	-32.9L	1.30	23.0	1.30	IR	-113.7	153.4	IR	3.090
						OR	-141.8	208.7	OR	3.945
U18L19	-11.9	-32.8L	1.30	23.1	1.30	IR	-113.7	153.4	IR	3.106
						OR	-141.8	208.7	OR	3.963
L19U20	74.8	-14.4	1.30	43.9L	1.29	IR	-178.2	227.7	IR	3.480
						OR	-222.2	309.9	OR	5.352
U20L21	-98.9	-55.8L	1.28	7.0	1.30	IR	-263.4	320.8	IR	2.948
						OR	-328.5	436.6	OR	4.114
L21U22	162.2	0.0	1.00	69.0L	1.26	IR	-343.6	371.5	IR	3.035
						OR	-428.5	505.7	OR	4.980
U22L23	-173.9	-75.8L	1.25	0.0	1.00	IR	-454.7	509.4	IR	3.707
						OR	-567.1	693.4	OR	5.189
L23U24	235.2	0.0	1.00	83.3L	1.24	IR	-454.7	509.4	IR	3.294
						OR	-567.1	693.4	OR	5.504
U24L25	-263.4	-90.7L	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.725
						OR	-749.8	927.6	OR	5.363
L25U26	-251.5	-95.3L	1.23	19.4L	1.23	IR	-526.0	589.3	IR	2.880
						OR	-655.9	802.1	OR	4.243
U26L27	230.6	-21.6L	1.30	86.6L	1.23	IR	-453.5	509.4	IR	3.218
						OR	-565.6	693.4	OR	5.342
L27U28	-161.1	-75.3L	1.23	22.9L	1.30	IR	-382.8	430.0	IR	2.943
						OR	-477.4	585.3	OR	4.199
U28L29	131.8	-25.8L	1.30	65.2L	1.24	IR	-284.7	360.0	IR	3.503
						OR	-355.1	490.0	OR	5.498
L29U30	-61.6	-55.8L	1.26	32.6L	1.30	IR	-208.6	277.9	IR	2.636
						OR	-260.1	378.3	OR	3.559
U30L31	32.2	-39.8L	1.29	47.1L	1.27	IR	-117.8	174.6	IR	3.020
						OR	-146.9	237.6	OR	4.357
L31U32	37.9	-39.3L	1.29	47.7L	1.27	IR	-117.8	174.6	IR	2.865
						OR	-146.9	237.6	OR	4.186
U32L33	-67.3	-56.3L	1.26	32.0L	1.30	IR	-208.6	277.9	IR	2.508
						OR	-260.1	378.3	OR	3.423

L33U34	137.5	-25.3L	1.30	65.7L	1.24	IR	-284.7	360.0	IR	3.387
						OR	-355.1	490.0	OR	5.365
U34L35	-166.8	-75.8L	1.23	22.4L	1.30	IR	-382.8	430.0	IR	2.849
						OR	-477.4	585.3	OR	4.097
L35U36	236.4	-21.0L	1.30	86.8L	1.23	IR	-453.5	509.4	IR	3.144
						OR	-565.6	693.4	OR	5.262
U36L37	-257.0	-95.5L	1.23	19.0L	1.23	IR	-526.0	589.3	IR	2.818
						OR	-655.9	802.1	OR	4.179
L37U38	-275.7	-92.7L	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.513
						OR	-749.8	927.6	OR	5.116
U38L39	247.5	0.0	1.00	85.2L	1.24	IR	-454.7	509.4	IR	3.073
						OR	-567.1	693.4	OR	5.231
L39U40	-185.6	-77.5L	1.25	0.0	1.00	IR	-454.7	509.4	IR	3.471
						OR	-567.1	693.4	OR	4.919
U40L41	180.5	0.0	1.00	72.9L	1.25	IR	-342.7	371.5	IR	2.622
						OR	-427.4	505.7	OR	4.464
L41U42	-110.7	-59.3L	1.27	7.2	1.30	IR	-262.3	320.8	IR	2.555
						OR	-327.1	436.6	OR	3.647
U42L43	83.0	-15.1	1.30	46.5L	1.29	IR	-176.9	227.7	IR	3.110
						OR	-220.6	309.9	OR	4.878
L43U44	-13.7	-34.7L	1.30	24.1	1.30	IR	-112.1	153.4	IR	2.830
						OR	-139.8	208.7	OR	3.627
U44L45	-14.0	-34.8L	1.30	24.1	1.30	IR	-112.1	153.4	IR	2.818
						OR	-139.8	208.7	OR	3.613
L45U46	83.2	-15.1	1.30	46.6L	1.29	IR	-176.9	227.7	IR	3.103
						OR	-220.6	309.9	OR	4.869
U46L47	-110.9	-59.4L	1.27	7.2	1.30	IR	-262.3	320.8	IR	2.551
						OR	-327.1	436.6	OR	3.643
L47U48	180.1	0.0	1.00	73.3L	1.26	IR	-342.7	371.5	IR	2.611
						OR	-427.4	505.7	OR	4.442
U 1L 1	-55.0	-41.8L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.245
						OR	-185.5	273.7	OR	3.124
U 3L 3	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 5L 5	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 7L 7	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 9L 9	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U10L10	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U11L11	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258

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U12L12	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U13L13	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U15L15	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U17L17	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U19L19	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U21L21	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U23L23	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U24L24	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U25L25	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U26L26	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U27L27	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U29L29	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U31L31	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U33L33	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U35L35	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U37L37	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U39L39	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U41L41	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U43L43	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U45L45	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U47L47	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050

MEMBER L36L37 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS		RATING FACTOR	TONS
-261.9	-125.3L	1.22	42.6L	1.21	IR	-484.8	535.0	IR	1.780	35.59
					OR	-604.6	728.1	OR	2.736	54.72

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I		I.F.
U 0	182.4	72.1	L	1.22
L11	503.2	132.1	L	1.21
L25	468.7	133.1	L	1.21
L37	483.2	136.5	L	1.22
U48	150.1	59.1	L	1.23

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* TRUSS - LIVE LOAD HS20 *
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MEMBER FORCES AND RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS		RATING FACTORS
U 0U 1	-132.0	-59.4	1.22	15.0	1.21	IR	-391.5	430.0	IR	4.371
						OR	-488.2	585.3	OR	6.000
U 1U 2	-132.0	-59.4	1.22	15.0	1.21	IR	-391.7	430.0	IR	4.374
						OR	-488.5	585.3	OR	6.004
U 2U 3	-283.2	-136.5	1.22	44.3	1.21	IR	-713.8	790.9	IR	3.156
						OR	-890.2	1076.5	OR	4.448
U 3U 4	-283.2	-136.5	1.22	44.3	1.21	IR	-713.8	790.9	IR	3.156
						OR	-890.2	1076.5	OR	4.448
U 4U 5	-304.2	-165.6	1.22	73.7	1.21	IR	-794.8	881.3	IR	2.963
						OR	-991.1	1199.5	OR	4.149
U 5U 6	-304.2	-165.6	1.22	73.7	1.21	IR	-794.8	881.3	IR	2.963
						OR	-991.1	1199.5	OR	4.149
U 6U 7	-194.8	-154.4	1.22	103.1	1.21	IR	-794.8	881.3	IR	3.887
						OR	-991.1	1199.5	OR	5.159
U 7U 8	-194.8	-154.4	1.22	103.1	1.21	IR	-794.8	881.3	IR	3.887
						OR	-991.1	1199.5	OR	5.159
U 8U 9	44.7	-99.1	1.22	132.5	1.21	IR	-642.7	713.3	IR	5.045
						OR	-801.5	970.9	OR	6.989
U 9U10	44.7	-99.1	1.22	132.5	1.21	IR	-642.7	713.3	IR	5.045
						OR	-801.5	970.9	OR	6.989
U10U11	391.6	0.0	1.22	160.2	1.21	IR	-797.1	881.3	IR	3.057
						OR	-994.0	1199.5	OR	5.044
U11U12	391.6	0.0	1.21	160.2	1.21	IR	-797.2	881.3	IR	3.057
						OR	-994.1	1199.5	OR	5.044
U12U13	101.7	0.0	1.21	53.5	1.21	IR	-393.2	430.0	IR	6.135

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						OR	-490.3	585.3	OR	9.037
U13U14	101.7	0.0	1.21	53.5	1.21	IR	-393.2	430.0	IR	6.135
						OR	-490.3	585.3	OR	9.037
U14U15	-107.8	-56.5	1.21	0.0	1.21	IR	-465.9	509.4	IR	6.336
						OR	-581.0	693.4	OR	8.373
U15U16	-107.8	-56.5	1.21	0.0	1.21	IR	-466.0	509.4	IR	6.338
						OR	-581.1	693.4	OR	8.375
U16U17	-223.5	-113.3	1.21	0.0	1.21	IR	-466.0	509.4	IR	2.140
						OR	-581.1	693.4	OR	3.156
U17U18	-223.5	-113.3	1.21	0.0	1.21	IR	-465.9	509.4	IR	2.140
						OR	-581.1	693.4	OR	3.156
U18U19	-223.7	-113.4	1.21	0.0	1.21	IR	-465.9	509.4	IR	2.136
						OR	-581.1	693.4	OR	3.151
U19U20	-223.7	-113.4	1.21	0.0	1.21	IR	-465.9	509.4	IR	2.136
						OR	-581.1	693.4	OR	3.151
U20U21	-108.3	-56.8	1.21	0.0	1.21	IR	-466.0	509.4	IR	6.297
						OR	-581.1	693.4	OR	8.323
U21U22	-108.3	-56.8	1.21	0.0	1.21	IR	-465.9	509.4	IR	6.295
						OR	-581.0	693.4	OR	8.321
U22U23	101.0	0.0	1.21	53.2	1.21	IR	-393.2	430.0	IR	6.181
						OR	-490.3	585.3	OR	9.099
U23U24	101.0	0.0	1.21	53.2	1.21	IR	-393.2	430.0	IR	6.181
						OR	-490.3	585.3	OR	9.099
U24U25	390.7	0.0	1.21	159.6	1.21	IR	-797.2	881.3	IR	3.074
						OR	-994.1	1199.5	OR	5.068
U25U26	390.7	0.0	1.21	159.6	1.21	IR	-797.1	881.3	IR	3.074
						OR	-994.0	1199.5	OR	5.068
U26U27	101.4	-99.1	1.21	133.9	1.21	IR	-643.3	713.3	IR	4.569
						OR	-802.2	970.9	OR	6.492
U27U28	101.4	-99.1	1.21	133.9	1.21	IR	-643.2	713.3	IR	4.569
						OR	-802.1	970.9	OR	6.492
U28U29	-80.5	-157.7	1.21	122.0L	1.21	IR	-872.3	966.8	IR	5.021
						OR	-1087.8	1315.9	OR	6.388
U29U30	-80.5	-157.7	1.21	122.0L	1.21	IR	-872.3	966.8	IR	5.021
						OR	-1087.8	1315.9	OR	6.388
U30U31	-138.8	-175.2	1.21	122.6L	1.21	IR	-872.3	966.8	IR	4.188
						OR	-1087.8	1315.9	OR	5.418
U31U32	-138.8	-175.2	1.21	123.6L	1.22	IR	-872.3	966.8	IR	4.188
						OR	-1087.8	1315.9	OR	5.418
U32U33	-73.4	-157.7	1.21	124.3L	1.22	IR	-872.3	966.8	IR	5.066
						OR	-1087.8	1315.9	OR	6.432
U33U34	-73.4	-157.7	1.21	124.3L	1.22	IR	-872.3	966.8	IR	5.066
						OR	-1087.8	1315.9	OR	6.432
U34U35	115.6	-99.1	1.21	136.4	1.22	IR	-643.2	713.3	IR	4.382
						OR	-802.1	970.9	OR	6.271
U35U36	115.6	-99.1	1.21	136.4	1.22	IR	-643.3	713.3	IR	4.382
						OR	-802.2	970.9	OR	6.271
U36U37	411.8	0.0	1.21	162.6	1.22	IR	-797.1	881.3	IR	2.888
						OR	-994.0	1199.5	OR	4.845
U37U38	411.8	0.0	1.23	162.6	1.22	IR	-797.2	881.3	IR	2.888
						OR	-994.1	1199.5	OR	4.845
U39U39	107.8	0.0	1.23	54.1	1.22	IR	-393.2	430.0	IR	5.955
						OR	-490.3	585.3	OR	8.825
U39U40	107.8	0.0	1.23	54.1	1.22	IR	-393.2	430.0	IR	5.955
						OR	-490.3	585.3	OR	8.825
U40U41	-124.9	-62.9	1.23	0.0	1.22	IR	-537.9	589.3	IR	6.571
						OR	-670.8	802.1	OR	8.685
U41U42	-124.9	-62.9	1.23	0.0	1.22	IR	-537.9	589.3	IR	6.571
						OR	-670.8	802.1	OR	8.685
U42U43	-259.0	-126.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	2.204
						OR	-670.8	802.1	OR	3.254
U43U44	-259.0	-126.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	2.204
						OR	-670.8	802.1	OR	3.254
U44U45	-258.8	-126.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	2.207
						OR	-670.8	802.1	OR	3.258
U45U46	-258.8	-126.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	2.207
						OR	-670.8	802.1	OR	3.258
U46U47	-124.6	-62.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	6.595
						OR	-670.8	802.1	OR	8.716
U47U48	-124.6	-62.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	6.595
						OR	-670.8	802.1	OR	8.716
L 1L 2	217.0	-29.7	1.21	104.5	1.22	IR	-349.2	382.1	IR	1.581
						OR	-435.4	520.1	OR	2.902
L 2L 3	217.0	-29.7	1.21	104.5	1.22	IR	-349.2	382.1	IR	1.581
						OR	-435.4	520.1	OR	2.902
L 3L 4	303.0	-59.0	1.21	156.6	1.22	IR	-537.1	593.3	IR	1.853
						OR	-669.8	807.5	OR	3.222
L 4L 5	303.0	-59.0	1.21	156.6	1.22	IR	-537.1	593.3	IR	1.853
						OR	-669.8	807.5	OR	3.222
L 5L 6	258.9	-88.4	1.21	165.1	1.22	IR	-537.1	593.3	IR	2.025
						OR	-669.8	807.5	OR	3.323
L 6L 7	258.9	-88.4	1.21	165.1	1.22	IR	-537.1	593.3	IR	2.025
						OR	-669.8	807.5	OR	3.323
L 7L 8	84.4	-117.8	1.21	132.9	1.22	IR	-483.7	535.0	IR	3.390
						OR	-603.2	728.1	OR	4.844

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L 8L 9	84.4	-117.8	1.21	132.9	1.22	IR	-483.7	535.0	IR	3.390
						OR	-603.2	728.1	OR	4.844
L 9L10	-220.3	-147.2	1.21	52.2	1.22	IR	-483.7	535.0	IR	1.790
						OR	-603.2	728.1	OR	2.601
L10L11	-220.3	-147.2	1.21	52.2	1.22	IR	-484.8	535.0	IR	1.797
						OR	-604.6	728.1	OR	2.610
L11L12	-238.5	-106.8	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.306
						OR	-604.6	728.1	OR	3.427
L12L13	-238.5	-106.8	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.306
						OR	-604.6	728.1	OR	3.427
L15L16	173.7	0.0	1.21	93.6	1.21	IR	-350.3	382.1	IR	2.227
						OR	-436.9	520.1	OR	3.700
L16L17	173.7	0.0	1.21	93.6	1.21	IR	-350.3	382.1	IR	2.227
						OR	-436.9	520.1	OR	3.700
L17L18	231.6	0.0	1.21	117.4	1.21	IR	-350.3	382.1	IR	1.282
						OR	-436.9	520.1	OR	2.457
L18L19	231.6	0.0	1.21	117.4	1.21	IR	-350.3	382.1	IR	1.282
						OR	-436.9	520.1	OR	2.457
L19L20	174.0	0.0	1.21	93.8	1.21	IR	-350.3	382.1	IR	2.219
						OR	-436.9	520.1	OR	3.690
L20L21	174.0	0.0	1.21	93.8	1.21	IR	-350.3	382.1	IR	2.219
						OR	-436.9	520.1	OR	3.690
L23L24	-237.7	-106.4	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.323
						OR	-604.6	728.1	OR	3.449
L24L25	-237.7	-106.4	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.323
						OR	-604.6	728.1	OR	3.449
L25L26	-244.0	-147.4	1.21	52.6	1.21	IR	-484.8	535.0	IR	1.634
						OR	-604.6	728.1	OR	2.447
L26L27	-244.0	-147.4	1.21	52.6	1.21	IR	-484.0	535.0	IR	1.629
						OR	-603.6	728.1	OR	2.441
L27L28	-1.3	-121.6L	1.21	134.3	1.21	IR	-484.0	535.0	IR	3.968
						OR	-603.5	728.1	OR	4.951
L28L29	-1.3	-121.6L	1.21	134.3	1.21	IR	-484.0	535.0	IR	3.968
						OR	-603.5	728.1	OR	4.951
L29L30	118.8	-122.3L	1.21	172.2	1.21	IR	-537.4	593.3	IR	2.755
						OR	-670.2	807.5	OR	3.999
L30L31	118.8	-122.3L	1.21	172.2	1.21	IR	-537.4	593.3	IR	2.755
						OR	-670.2	807.5	OR	3.999
L31L32	115.2	-123.9L	1.22	172.2	1.21	IR	-537.4	593.3	IR	2.775
						OR	-670.2	807.5	OR	4.019
L32L33	115.2	-123.9L	1.22	172.2	1.21	IR	-537.4	593.3	IR	2.775
						OR	-670.2	807.5	OR	4.019
L33L34	-12.0	-124.6L	1.22	134.3	1.21	IR	-484.0	535.0	IR	3.788
						OR	-603.5	728.1	OR	4.748
L34L35	-12.0	-124.6L	1.22	134.3	1.21	IR	-484.0	535.0	IR	3.788
						OR	-603.5	728.1	OR	4.748
L35L36	-261.9	-150.1	1.22	52.6	1.21	IR	-643.3	535.0	IR	2.541
						OR	-802.2	728.1	OR	3.600
L36L37	-261.9	-150.1	1.22	52.6	1.21	IR	-484.8	535.0	IR	1.485
						OR	-604.6	728.1	OR	2.283
L37L38	-251.6	-108.3	1.22	0.0	1.23	IR	-484.9	535.0	IR	2.153
						OR	-604.6	728.1	OR	3.259
L38L39	-251.6	-108.3	1.22	0.0	1.23	IR	-484.9	535.0	IR	2.153
						OR	-604.6	728.1	OR	3.259
L41L42	201.5	0.0	1.22	104.3	1.23	IR	-404.7	442.1	IR	2.305
						OR	-504.6	601.7	OR	3.835
L42L43	201.5	0.0	1.22	104.3	1.23	IR	-404.7	442.1	IR	2.305
						OR	-504.6	601.7	OR	3.835
L43L44	268.5	0.0	1.22	131.4	1.23	IR	-404.7	442.1	IR	1.321
						OR	-504.6	601.7	OR	2.536
L44L45	268.5	0.0	1.22	131.4	1.23	IR	-404.7	442.1	IR	1.321
						OR	-504.6	601.7	OR	2.536
L45L46	201.3	0.0	1.22	104.2	1.23	IR	-404.7	442.1	IR	2.311
						OR	-504.6	601.7	OR	3.843
L46L47	201.3	0.0	1.22	104.2	1.23	IR	-404.7	442.1	IR	2.311
						OR	-504.6	601.7	OR	3.843
U 0L 1	207.0	-23.8	1.23	93.0	1.22	IR	-452.8	509.4	IR	3.250
						OR	-564.7	693.4	OR	5.227
L 1U 2	-134.6	-82.7	1.23	24.9	1.30	IR	-362.4	416.0	IR	2.754
						OR	-451.9	566.2	OR	3.836
U 2L 3	104.9	-24.9	1.30	72.9	1.24	IR	-254.6	320.8	IR	2.960
						OR	-317.5	436.6	OR	4.548
L 3U 4	-31.4	-63.0	1.25	28.3L	1.30	IR	-207.9	277.9	IR	2.801
						OR	-259.3	378.3	OR	3.616
U 4L 5	1.7	-35.9L	1.30	52.9	1.27	IR	-132.1	201.1	IR	3.727
						OR	-164.8	273.7	OR	4.636
L 5U 6	71.8	-42.6	1.28	44.1	1.28	IR	-132.1	201.1	IR	2.935
						OR	-164.8	273.7	OR	4.583
U 6L 7	-101.4	-54.3	1.27	32.1	1.30	IR	-207.9	277.9	IR	1.961
						OR	-259.3	378.3	OR	2.907
L 7U 8	174.9	-21.0	1.30	64.4	1.25	IR	-336.2	371.5	IR	3.055
						OR	-419.2	505.7	OR	5.139
U 8L 9	-204.6	-74.3	1.24	10.0	1.30	IR	-381.9	430.0	IR	2.388
						OR	-476.3	585.3	OR	3.658
L 9U10	278.1	-3.9L	1.30	84.9L	1.23	IR	-453.1	509.4	IR	2.725
						OR	-565.0	693.4	OR	4.891

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U10L11	-293.8	-93.0L	1.23	0.0	1.00	IR	-601.2	681.5	IR	3.305
						OR	-749.7	927.6	OR	4.902
L11U12	-263.7	-107.0	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.156
						OR	-749.8	927.6	OR	4.545
U12L13	235.4	0.0	1.00	101.9	1.24	IR	-454.7	509.4	IR	2.688
						OR	-567.1	693.4	OR	4.493
L13U14	-175.0	-95.1	1.25	0.0	1.00	IR	-419.7	463.7	IR	2.573
						OR	-523.4	631.1	OR	3.663
U14L15	161.4	0.0	1.00	88.5	1.26	IR	-343.6	371.5	IR	2.373
						OR	-428.5	505.7	OR	3.889
L15U16	-99.1	-74.4	1.28	7.0	1.30	IR	-263.4	320.8	IR	2.208
						OR	-328.5	436.6	OR	3.082
U16L17	75.1	-15.7	1.30	59.8	1.29	IR	-178.2	227.7	IR	2.554
						OR	-222.2	309.9	OR	3.931
L17U18	-12.2	-44.5	1.30	29.6	1.30	IR	-113.7	153.4	IR	2.284
						OR	-141.8	208.7	OR	2.916
U18L19	-11.9	-44.4	1.30	29.7	1.30	IR	-113.7	153.4	IR	2.296
						OR	-141.8	208.7	OR	2.929
L19U20	74.8	-15.7	1.30	59.7	1.29	IR	-178.2	227.7	IR	2.562
						OR	-222.2	309.9	OR	3.940
U20L21	-98.9	-74.3	1.28	7.0	1.30	IR	-263.4	320.8	IR	2.214
						OR	-328.5	436.6	OR	3.090
L21U22	162.2	0.0	1.00	89.0	1.26	IR	-343.6	371.5	IR	2.353
						OR	-428.5	505.7	OR	3.860
U22L23	-173.9	-94.8	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.963
						OR	-567.1	693.4	OR	4.148
L23U24	235.2	0.0	1.00	101.9	1.24	IR	-454.7	509.4	IR	2.692
						OR	-567.1	693.4	OR	4.497
U24L25	-263.4	-107.0	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.159
						OR	-749.8	927.6	OR	4.547
L25U26	-251.5	-95.3L	1.23	21.5	1.23	IR	-526.0	589.3	IR	2.880
						OR	-655.9	802.1	OR	4.243
U26L27	230.6	-23.6	1.30	86.6L	1.23	IR	-453.5	509.4	IR	3.218
						OR	-565.6	693.4	OR	5.342
L27U28	-161.1	-75.8	1.23	23.6	1.30	IR	-382.8	430.0	IR	2.925
						OR	-477.4	585.3	OR	4.173
U28L29	131.8	-25.8L	1.30	66.8	1.24	IR	-284.7	360.0	IR	3.419
						OR	-355.1	490.0	OR	5.366
L29U30	-61.6	-57.6	1.26	32.6L	1.30	IR	-208.6	277.9	IR	2.550
						OR	-260.1	378.3	OR	3.444
U30L31	32.2	-39.8L	1.29	48.4	1.27	IR	-117.8	174.6	IR	2.942
						OR	-146.9	237.6	OR	4.244
L31U32	37.9	-39.3L	1.29	48.4	1.27	IR	-117.8	174.6	IR	2.824
						OR	-146.9	237.6	OR	4.127
U32L33	-67.3	-57.6	1.26	32.0L	1.30	IR	-208.6	277.9	IR	2.452
						OR	-260.1	378.3	OR	3.346
L33U34	137.5	-25.3L	1.30	66.7	1.24	IR	-284.7	360.0	IR	3.334
						OR	-355.1	490.0	OR	5.281
U34L35	-166.8	-75.8L	1.23	23.4	1.30	IR	-382.8	430.0	IR	2.849
						OR	-477.4	585.3	OR	4.097
L35U36	236.4	-23.3	1.30	86.8L	1.23	IR	-453.5	509.4	IR	3.144
						OR	-565.6	693.4	OR	5.262
U36L37	-257.0	-95.5L	1.23	21.4	1.23	IR	-526.0	589.3	IR	2.818
						OR	-655.9	802.1	OR	4.179
L37U38	-275.7	-106.7	1.23	0.0	1.00	IR	-601.3	681.5	IR	3.052
						OR	-749.8	927.6	OR	4.445
U38L39	247.5	0.0	1.00	102.0	1.24	IR	-454.7	509.4	IR	2.569
						OR	-567.1	693.4	OR	4.372
L39U40	-185.6	-95.1	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.829
						OR	-567.1	693.4	OR	4.010
U40L41	180.5	0.0	1.00	92.2	1.25	IR	-342.7	371.5	IR	2.072
						OR	-427.4	505.7	OR	3.527
L41U42	-110.7	-77.9	1.27	7.2	1.30	IR	-262.3	320.8	IR	1.945
						OR	-327.1	436.6	OR	2.776
U42L43	83.0	-17.2	1.30	62.8	1.29	IR	-176.9	227.7	IR	2.303
						OR	-220.6	309.9	OR	3.611
L43U44	-13.7	-47.3	1.30	31.6	1.30	IR	-112.1	153.4	IR	2.081
						OR	-139.8	208.7	OR	2.667
U44L45	-14.0	-47.4	1.30	31.5	1.30	IR	-112.1	153.4	IR	2.072
						OR	-139.8	208.7	OR	2.657
L45U46	83.2	-17.1	1.30	62.9	1.29	IR	-176.9	227.7	IR	2.298
						OR	-220.6	309.9	OR	3.605
U46L47	-110.9	-78.0	1.27	7.2	1.30	IR	-262.3	320.8	IR	1.942
						OR	-327.1	436.6	OR	2.774
L47U48	180.1	0.0	1.00	92.8	1.26	IR	-342.7	371.5	IR	2.063
						OR	-427.4	505.7	OR	3.509
U 1L 1	-55.0	-41.8L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.245
						OR	-185.5	273.7	OR	3.124
U 3L 3	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 5L 5	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 7L 7	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200
						OR	-185.5	273.7	OR	3.082
U 9L 9	-57.0	-41.7L	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.200

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						OR	-185.5	273.7	OR	3.082
U10L10	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U11L11	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U12L12	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U13L13	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U15L15	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U17L17	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U19L19	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U21L21	-47.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.280
						OR	-176.9	237.6	OR	3.122
U23L23	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U24L24	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U25L25	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U26L26	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U27L27	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U29L29	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U31L31	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U33L33	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U35L35	-55.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.254
						OR	-185.5	273.7	OR	3.138
U37L37	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U39L39	-50.0	-41.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.374
						OR	-185.5	273.7	OR	3.258
U41L41	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U43L43	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U45L45	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050
U47L47	-50.0	-41.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.208
						OR	-176.9	237.6	OR	3.050

MEMBER L18L19 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS		RATING FACTOR	TONS
231.6	0.0	1.21	117.4	1.21	IR	-350.3	382.1	IR	1.282	46.15
					OR	-436.9	520.1	OR	2.457	88.46

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
U 0	182.4	79.8	1.22
L11	503.2	132.1 L	1.21
L25	468.7	133.1 L	1.21
L37	483.2	136.5 L	1.22
U48	150.1	76.5	1.23

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* TRUSS - LIVE LOAD TK527 *
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MEMBER FORCES AND RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS		RATING FACTORS
U 0U 1	-132.0	-67.4	1.22	17.0	1.21	IR	-391.5	430.0	IR	3.849
						OR	-488.2	585.3	OR	5.284
U 1U 2	-132.0	-67.4	1.22	17.0	1.21	IR	-391.7	430.0	IR	3.853
						OR	-488.5	585.3	OR	5.288
U 2U 3	-283.2	-155.5	1.22	50.5	1.21	IR	-713.8	790.9	IR	2.769
						OR	-890.2	1076.5	OR	3.903
U 3U 4	-283.2	-155.5	1.22	50.5	1.21	IR	-713.8	790.9	IR	2.769
						OR	-890.2	1076.5	OR	3.903
U 4U 5	-304.2	-189.0	1.22	84.0	1.21	IR	-794.8	881.3	IR	2.596
						OR	-991.1	1199.5	OR	3.635
U 5U 6	-304.2	-189.0	1.22	84.0	1.21	IR	-794.8	881.3	IR	2.596
						OR	-991.1	1199.5	OR	3.635
U 6U 7	-194.8	-177.3	1.22	117.5	1.21	IR	-794.8	881.3	IR	3.383
						OR	-991.1	1199.5	OR	4.490
U 7U 8	-194.8	-177.3	1.22	117.5	1.21	IR	-794.8	881.3	IR	3.383
						OR	-991.1	1199.5	OR	4.490
U 8U 9	44.7	-112.4	1.22	151.0	1.21	IR	-642.7	713.3	IR	4.429
						OR	-801.5	970.9	OR	6.135
U 9U10	44.7	-112.4	1.22	151.0	1.21	IR	-642.7	713.3	IR	4.429
						OR	-801.5	970.9	OR	6.135
U10U11	391.6	0.0	1.22	182.5	1.21	IR	-797.1	881.3	IR	2.683

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						OR	-994.0	1199.5	OR	4.427
U11U12	391.6	0.0	1.21	182.5	1.21	IR	-797.2	881.3	IR	2.683
						OR	-994.1	1199.5	OR	4.427
U12U13	101.7	0.0	1.21	60.5	1.21	IR	-393.2	430.0	IR	5.423
						OR	-490.3	585.3	OR	7.989
U13U14	101.7	0.0	1.21	60.5	1.21	IR	-393.2	430.0	IR	5.423
						OR	-490.3	585.3	OR	7.989
U14U15	-107.8	-63.8	1.21	0.0	1.21	IR	-465.9	509.4	IR	5.616
						OR	-581.0	693.4	OR	7.422
U15U16	-107.8	-63.8	1.21	0.0	1.21	IR	-466.0	509.4	IR	5.618
						OR	-581.1	693.4	OR	7.423
U16U17	-223.5	-130.3	1.21	0.0	1.21	IR	-466.0	509.4	IR	1.861
						OR	-581.1	693.4	OR	2.744
U17U18	-223.5	-130.3	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.861
						OR	-581.1	693.4	OR	2.744
U18U19	-223.7	-130.4	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.858
						OR	-581.1	693.4	OR	2.741
U19U20	-223.7	-130.4	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.858
						OR	-581.1	693.4	OR	2.741
U20U21	-108.3	-64.1	1.21	0.0	1.21	IR	-466.0	509.4	IR	5.581
						OR	-581.1	693.4	OR	7.378
U21U22	-108.3	-64.1	1.21	0.0	1.21	IR	-465.9	509.4	IR	5.580
						OR	-581.0	693.4	OR	7.376
U22U23	101.0	0.0	1.21	60.2	1.21	IR	-393.2	430.0	IR	5.467
						OR	-490.3	585.3	OR	8.048
U23U24	101.0	0.0	1.21	60.2	1.21	IR	-393.2	430.0	IR	5.467
						OR	-490.3	585.3	OR	8.048
U24U25	390.7	0.0	1.21	181.9	1.21	IR	-797.2	881.3	IR	2.697
						OR	-994.1	1199.5	OR	4.447
U25U26	390.7	0.0	1.21	181.9	1.21	IR	-797.1	881.3	IR	2.697
						OR	-994.0	1199.5	OR	4.447
U26U27	101.4	-112.5	1.21	152.6	1.21	IR	-643.3	713.3	IR	4.009
						OR	-802.2	970.9	OR	5.697
U27U28	101.4	-112.5	1.21	152.6	1.21	IR	-643.2	713.3	IR	4.009
						OR	-802.1	970.9	OR	5.697
U28U29	-80.5	-181.3	1.21	121.8	1.21	IR	-872.3	966.8	IR	4.367
						OR	-1087.8	1315.9	OR	5.555
U29U30	-80.5	-181.3	1.21	121.8	1.21	IR	-872.3	966.8	IR	4.367
						OR	-1087.8	1315.9	OR	5.555
U30U31	-138.8	-199.5	1.21	91.7	1.21	IR	-872.3	966.8	IR	3.677
						OR	-1087.8	1315.9	OR	4.757
U31U32	-138.8	-199.5	1.21	92.4	1.22	IR	-872.3	966.8	IR	3.677
						OR	-1087.8	1315.9	OR	4.757
U32U33	-73.4	-181.4	1.21	123.7	1.22	IR	-872.3	966.8	IR	4.405
						OR	-1087.8	1315.9	OR	5.593
U33U34	-73.4	-181.4	1.21	123.7	1.22	IR	-872.3	966.8	IR	4.405
						OR	-1087.8	1315.9	OR	5.593
U34U35	115.6	-112.5	1.21	155.0	1.22	IR	-643.2	713.3	IR	3.856
						OR	-802.1	970.9	OR	5.518
U35U36	115.6	-112.5	1.21	155.0	1.22	IR	-643.3	713.3	IR	3.856
						OR	-802.2	970.9	OR	5.518
U36U37	411.8	0.0	1.21	184.7	1.22	IR	-797.1	881.3	IR	2.541
						OR	-994.0	1199.5	OR	4.264
U37U38	411.8	0.0	1.23	184.7	1.22	IR	-797.2	881.3	IR	2.541
						OR	-994.1	1199.5	OR	4.264
U39U39	107.8	0.0	1.23	61.2	1.22	IR	-393.2	430.0	IR	5.262
						OR	-490.3	585.3	OR	7.798
U39U40	107.8	0.0	1.23	61.2	1.22	IR	-393.2	430.0	IR	5.262
						OR	-490.3	585.3	OR	7.798
U40U41	-124.9	-71.0	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.817
						OR	-670.8	802.1	OR	7.689
U41U42	-124.9	-71.0	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.817
						OR	-670.8	802.1	OR	7.689
U42U43	-259.0	-145.4	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.918
						OR	-670.8	802.1	OR	2.832
U43U44	-259.0	-145.4	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.918
						OR	-670.8	802.1	OR	2.832
U44U45	-258.8	-145.3	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.920
						OR	-670.8	802.1	OR	2.834
U45U46	-258.8	-145.3	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.920
						OR	-670.8	802.1	OR	2.835
U46U47	-124.6	-70.8	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.839
						OR	-670.8	802.1	OR	7.716
U47U48	-124.6	-70.8	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.839
						OR	-670.8	802.1	OR	7.716
L 1L 2	217.0	-33.8	1.21	118.5	1.22	IR	-349.2	382.1	IR	1.394
						OR	-435.4	520.1	OR	2.558
L 2L 3	217.0	-33.8	1.21	118.5	1.22	IR	-349.2	382.1	IR	1.394
						OR	-435.4	520.1	OR	2.558
L 3L 4	303.0	-67.3	1.21	179.8	1.22	IR	-537.1	593.3	IR	1.615
						OR	-669.8	807.5	OR	2.806
L 4L 5	303.0	-67.3	1.21	179.8	1.22	IR	-537.1	593.3	IR	1.615
						OR	-669.8	807.5	OR	2.806
L 5L 6	258.9	-100.7	1.21	188.6	1.22	IR	-537.1	593.3	IR	1.773
						OR	-669.8	807.5	OR	2.909

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L 6L 7	258.9	-100.7	1.21	188.6	1.22	IR	-537.1	593.3	IR	1.773
						OR	-669.8	807.5	OR	2.909
L 7L 8	84.4	-134.2	1.21	151.1	1.22	IR	-483.7	535.0	IR	2.983
						OR	-603.2	728.1	OR	4.261
L 8L 9	84.4	-134.2	1.21	151.1	1.22	IR	-483.7	535.0	IR	2.983
						OR	-603.2	728.1	OR	4.261
L 9L10	-220.3	-167.7	1.21	59.3	1.22	IR	-483.7	535.0	IR	1.571
						OR	-603.2	728.1	OR	2.283
L10L11	-220.3	-167.7	1.21	59.3	1.22	IR	-484.8	535.0	IR	1.577
						OR	-604.6	728.1	OR	2.291
L11L12	-238.5	-120.8	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.039
						OR	-604.6	728.1	OR	3.030
L12L13	-238.5	-120.8	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.039
						OR	-604.6	728.1	OR	3.030
L15L16	173.7	0.0	1.21	105.3	1.21	IR	-350.3	382.1	IR	1.980
						OR	-436.9	520.1	OR	3.290
L16L17	173.7	0.0	1.21	105.3	1.21	IR	-350.3	382.1	IR	1.980
						OR	-436.9	520.1	OR	3.290
L17L18	231.6	0.0	1.21	133.1	1.21	IR	-350.3	382.1	IR	1.130
						OR	-436.9	520.1	OR	2.167
L18L19	231.6	0.0	1.21	133.1	1.21	IR	-350.3	382.1	IR	1.130
						OR	-436.9	520.1	OR	2.167
L19L20	174.0	0.0	1.21	105.5	1.21	IR	-350.3	382.1	IR	1.973
						OR	-436.9	520.1	OR	3.280
L20L21	174.0	0.0	1.21	105.5	1.21	IR	-350.3	382.1	IR	1.973
						OR	-436.9	520.1	OR	3.280
L23L24	-237.7	-120.3	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.055
						OR	-604.6	728.1	OR	3.050
L24L25	-237.7	-120.3	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.055
						OR	-604.6	728.1	OR	3.050
L25L26	-244.0	-167.9	1.21	59.7	1.21	IR	-484.8	535.0	IR	1.434
						OR	-604.6	728.1	OR	2.147
L26L27	-244.0	-167.9	1.21	59.7	1.21	IR	-484.0	535.0	IR	1.429
						OR	-603.6	728.1	OR	2.142
L27L28	-1.3	-137.2	1.21	152.2	1.21	IR	-484.0	535.0	IR	3.518
						OR	-603.5	728.1	OR	4.389
L28L29	-1.3	-137.2	1.21	152.2	1.21	IR	-484.0	535.0	IR	3.518
						OR	-603.5	728.1	OR	4.389
L29L30	118.8	-106.4	1.21	197.1	1.21	IR	-537.4	593.3	IR	2.407
						OR	-670.2	807.5	OR	3.494
L30L31	118.8	-106.4	1.21	197.1	1.21	IR	-537.4	593.3	IR	2.407
						OR	-670.2	807.5	OR	3.494
L31L32	115.2	-108.0	1.22	197.1	1.21	IR	-537.4	593.3	IR	2.425
						OR	-670.2	807.5	OR	3.512
L32L33	115.2	-108.0	1.22	197.1	1.21	IR	-537.4	593.3	IR	2.425
						OR	-670.2	807.5	OR	3.512
L33L34	-12.0	-139.3	1.22	152.3	1.21	IR	-484.0	535.0	IR	3.387
						OR	-603.5	728.1	OR	4.245
L34L35	-12.0	-139.3	1.22	152.3	1.21	IR	-484.0	535.0	IR	3.387
						OR	-603.5	728.1	OR	4.245
L35L36	-261.9	-170.6	1.22	59.7	1.21	IR	-643.3	535.0	IR	2.236
						OR	-802.2	728.1	OR	3.168
L36L37	-261.9	-170.6	1.22	59.7	1.21	IR	-484.8	535.0	IR	1.307
						OR	-604.6	728.1	OR	2.009
L37L38	-251.6	-122.6	1.22	0.0	1.23	IR	-484.9	535.0	IR	1.903
						OR	-604.6	728.1	OR	2.880
L38L39	-251.6	-122.6	1.22	0.0	1.23	IR	-484.9	535.0	IR	1.903
						OR	-604.6	728.1	OR	2.880
L41L42	201.5	0.0	1.22	117.5	1.23	IR	-404.7	442.1	IR	2.046
						OR	-504.6	601.7	OR	3.404
L42L43	201.5	0.0	1.22	117.5	1.23	IR	-404.7	442.1	IR	2.046
						OR	-504.6	601.7	OR	3.404
L43L44	268.5	0.0	1.22	149.1	1.23	IR	-404.7	442.1	IR	1.164
						OR	-504.6	601.7	OR	2.235
L44L45	268.5	0.0	1.22	149.1	1.23	IR	-404.7	442.1	IR	1.164
						OR	-504.6	601.7	OR	2.235
L45L46	201.3	0.0	1.22	117.4	1.23	IR	-404.7	442.1	IR	2.051
						OR	-504.6	601.7	OR	3.412
L46L47	201.3	0.0	1.22	117.4	1.23	IR	-404.7	442.1	IR	2.051
						OR	-504.6	601.7	OR	3.412
U 0L 1	207.0	-27.1	1.23	105.6	1.22	IR	-452.8	509.4	IR	2.863
						OR	-564.7	693.4	OR	4.604
L 1U 2	-134.6	-93.8	1.23	28.4	1.30	IR	-362.4	416.0	IR	2.428
						OR	-451.9	566.2	OR	3.382
U 2L 3	104.9	-28.4	1.30	82.6	1.24	IR	-254.6	320.8	IR	2.613
						OR	-317.5	436.6	OR	4.015
L 3U 4	-31.4	-71.2	1.25	28.4	1.30	IR	-207.9	277.9	IR	2.477
						OR	-259.3	378.3	OR	3.198
U 4L 5	1.7	-37.6	1.30	59.7	1.27	IR	-132.1	201.1	IR	3.339
						OR	-164.8	273.7	OR	4.434
L 5U 6	71.8	-47.9	1.28	49.5	1.28	IR	-132.1	201.1	IR	2.610
						OR	-164.8	273.7	OR	4.076
U 6L 7	-101.4	-61.3	1.27	35.9	1.30	IR	-207.9	277.9	IR	1.738
						OR	-259.3	378.3	OR	2.576
L 7U 8	174.9	-23.2	1.30	72.8	1.25	IR	-336.2	371.5	IR	2.701
						OR	-419.2	505.7	OR	4.543

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U 8L 9	-204.6	-84.1	1.24	10.5	1.30	IR	-381.9	430.0	IR	2.108
						OR	-476.3	585.3	OR	3.229
L 9U10	278.1	0.0	1.30	95.8	1.23	IR	-453.1	509.4	IR	2.416
						OR	-565.0	693.4	OR	4.336
U10L11	-293.8	-102.9	1.23	0.0	1.00	IR	-601.2	681.5	IR	2.987
						OR	-749.7	927.6	OR	4.430
L11U12	-263.7	-120.9	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.794
						OR	-749.8	927.6	OR	4.023
U12L13	235.4	0.0	1.00	116.3	1.24	IR	-454.7	509.4	IR	2.356
						OR	-567.1	693.4	OR	3.937
L13U14	-175.0	-107.6	1.25	0.0	1.00	IR	-419.7	463.7	IR	2.274
						OR	-523.4	631.1	OR	3.238
U14L15	161.4	0.0	1.00	99.9	1.26	IR	-343.6	371.5	IR	2.104
						OR	-428.5	505.7	OR	3.447
L15U16	-99.1	-83.7	1.28	6.8	1.30	IR	-263.4	320.8	IR	1.963
						OR	-328.5	436.6	OR	2.740
U16L17	75.1	-18.4	1.30	66.9	1.29	IR	-178.2	227.7	IR	2.282
						OR	-222.2	309.9	OR	3.511
L17U18	-12.2	-49.8	1.30	33.6	1.30	IR	-113.7	153.4	IR	2.038
						OR	-141.8	208.7	OR	2.602
U18L19	-11.9	-49.7	1.30	33.7	1.30	IR	-113.7	153.4	IR	2.049
						OR	-141.8	208.7	OR	2.614
L19U20	74.8	-18.5	1.30	66.8	1.29	IR	-178.2	227.7	IR	2.288
						OR	-222.2	309.9	OR	3.519
U20L21	-98.9	-83.6	1.28	6.8	1.30	IR	-263.4	320.8	IR	1.969
						OR	-328.5	436.6	OR	2.747
L21U22	162.2	0.0	1.00	100.4	1.26	IR	-343.6	371.5	IR	2.086
						OR	-428.5	505.7	OR	3.422
U22L23	-173.9	-107.2	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.621
						OR	-567.1	693.4	OR	3.669
L23U24	235.2	0.0	1.00	116.3	1.24	IR	-454.7	509.4	IR	2.358
						OR	-567.1	693.4	OR	3.940
U24L25	-263.4	-120.8	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.796
						OR	-749.8	927.6	OR	4.025
L25U26	-251.5	-104.1	1.23	24.5	1.23	IR	-526.0	589.3	IR	2.638
						OR	-655.9	802.1	OR	3.887
U26L27	230.6	-26.8	1.30	96.7	1.23	IR	-453.5	509.4	IR	2.884
						OR	-565.6	693.4	OR	4.787
L27U28	-161.1	-85.9	1.23	26.8	1.30	IR	-382.8	430.0	IR	2.579
						OR	-477.4	585.3	OR	3.680
U28L29	131.8	-26.8	1.30	75.6	1.24	IR	-284.7	360.0	IR	3.019
						OR	-355.1	490.0	OR	4.739
L29U30	-61.6	-65.2	1.26	32.6	1.30	IR	-208.6	277.9	IR	2.256
						OR	-260.1	378.3	OR	3.047
U30L31	32.2	-43.8	1.29	54.6	1.27	IR	-117.8	174.6	IR	2.609
						OR	-146.9	237.6	OR	3.764
L31U32	37.9	-43.8	1.29	54.6	1.27	IR	-117.8	174.6	IR	2.505
						OR	-146.9	237.6	OR	3.660
U32L33	-67.3	-65.2	1.26	32.7	1.30	IR	-208.6	277.9	IR	2.169
						OR	-260.1	378.3	OR	2.960
L33U34	137.5	-26.6	1.30	75.6	1.24	IR	-284.7	360.0	IR	2.944
						OR	-355.1	490.0	OR	4.664
U34L35	-166.8	-85.9	1.23	26.6	1.30	IR	-382.8	430.0	IR	2.515
						OR	-477.4	585.3	OR	3.616
L35U36	236.4	-26.6	1.30	96.3	1.23	IR	-453.5	509.4	IR	2.835
						OR	-565.6	693.4	OR	4.746
U36L37	-257.0	-103.6	1.23	24.4	1.23	IR	-526.0	589.3	IR	2.596
						OR	-655.9	802.1	OR	3.850
L37U38	-275.7	-120.6	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.699
						OR	-749.8	927.6	OR	3.931
U38L39	247.5	0.0	1.00	116.4	1.24	IR	-454.7	509.4	IR	2.250
						OR	-567.1	693.4	OR	3.830
L39U40	-185.6	-107.7	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.500
						OR	-567.1	693.4	OR	3.543
U40L41	180.5	0.0	1.00	104.1	1.25	IR	-342.7	371.5	IR	1.834
						OR	-427.4	505.7	OR	3.123
L41U42	-110.7	-87.8	1.27	7.3	1.30	IR	-262.3	320.8	IR	1.727
						OR	-327.1	436.6	OR	2.465
U42L43	83.0	-19.8	1.30	70.5	1.29	IR	-176.9	227.7	IR	2.053
						OR	-220.6	309.9	OR	3.219
L43U44	-13.7	-52.7	1.30	35.9	1.30	IR	-112.1	153.4	IR	1.868
						OR	-139.8	208.7	OR	2.394
U44L45	-14.0	-52.8	1.30	35.8	1.30	IR	-112.1	153.4	IR	1.860
						OR	-139.8	208.7	OR	2.384
L45U46	83.2	-19.8	1.30	70.6	1.29	IR	-176.9	227.7	IR	2.048
						OR	-220.6	309.9	OR	3.214
U46L47	-110.9	-87.8	1.27	7.2	1.30	IR	-262.3	320.8	IR	1.724
						OR	-327.1	436.6	OR	2.462
L47U48	180.1	0.0	1.00	104.8	1.26	IR	-342.7	371.5	IR	1.826
						OR	-427.4	505.7	OR	3.107
U 1L 1	-55.0	-50.4	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.860
						OR	-185.5	273.7	OR	2.589
U 3L 3	-57.0	-50.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.829
						OR	-185.5	273.7	OR	2.561
U 5L 5	-57.0	-50.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.829

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						OR	-185.5	273.7	OR	2.561
U 7L 7	-57.0	-50.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.829
						OR	-185.5	273.7	OR	2.561
U 9L 9	-57.0	-50.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.829
						OR	-185.5	273.7	OR	2.561
U10L10	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U11L11	-50.0	-46.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.111
						OR	-185.5	273.7	OR	2.897
U12L12	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U13L13	-50.0	-46.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.115
						OR	-185.5	273.7	OR	2.902
U15L15	-47.0	-45.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.077
						OR	-176.9	237.6	OR	2.844
U17L17	-47.0	-45.5	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.082
						OR	-176.9	237.6	OR	2.852
U19L19	-47.0	-45.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.082
						OR	-176.9	237.6	OR	2.851
U21L21	-47.0	-45.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	2.077
						OR	-176.9	237.6	OR	2.844
U23L23	-50.0	-46.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.115
						OR	-185.5	273.7	OR	2.902
U24L24	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U25L25	-50.0	-46.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.111
						OR	-185.5	273.7	OR	2.897
U26L26	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U27L27	-55.0	-49.4	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.897
						OR	-185.5	273.7	OR	2.641
U29L29	-55.0	-49.5	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.894
						OR	-185.5	273.7	OR	2.636
U31L31	-55.0	-49.5	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.894
						OR	-185.5	273.7	OR	2.636
U33L33	-55.0	-49.5	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.894
						OR	-185.5	273.7	OR	2.636
U35L35	-55.0	-49.4	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.897
						OR	-185.5	273.7	OR	2.641
U37L37	-50.0	-46.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.111
						OR	-185.5	273.7	OR	2.897
U39L39	-50.0	-46.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	2.115
						OR	-185.5	273.7	OR	2.902
U41L41	-50.0	-47.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.926
						OR	-176.9	237.6	OR	2.661
U43L43	-50.0	-47.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.926
						OR	-176.9	237.6	OR	2.661
U45L45	-50.0	-47.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.927
						OR	-176.9	237.6	OR	2.662
U47L47	-50.0	-47.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.928
						OR	-176.9	237.6	OR	2.663

MEMBER L18L19 IS CRITICAL. SEE DETAILS BELOW.

DL	LL + IMPACT FORCE				ALLOWABLE FORCE			RATING	
FORCE	COMP	I.F.	TENS	I.F.		COMP	TENS	FACTOR	TONS
231.6	0.0	1.21	133.1	1.21	IR	-350.3	382.1	IR 1.130	45.22
					OR	-436.9	520.1	OR 2.167	86.67

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
U 0	182.4	90.7	1.22
L11	503.2	115.5	1.21
L25	468.7	114.4	1.21
L37	483.2	115.3	1.22
U48	150.1	86.6	1.23

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*  TRUSS  -  LIVE LOAD  ML80  *
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MEMBER FORCES AND RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS	RATING FACTORS	
U 0U 1	-132.0	-64.3	1.22	16.5	1.21	IR	-391.5	430.0	IR	4.036
						OR	-488.2	585.3	OR	5.540
U 1U 2	-132.0	-64.3	1.22	16.5	1.21	IR	-391.7	430.0	IR	4.039
						OR	-488.5	585.3	OR	5.544
U 2U 3	-283.2	-149.3	1.22	48.9	1.21	IR	-713.8	790.9	IR	2.885
						OR	-890.2	1076.5	OR	4.066
U 3U 4	-283.2	-149.3	1.22	48.9	1.21	IR	-713.8	790.9	IR	2.885
						OR	-890.2	1076.5	OR	4.066
U 4U 5	-304.2	-185.0	1.22	81.3	1.21	IR	-794.8	881.3	IR	2.652
						OR	-991.1	1199.5	OR	3.714
U 5U 6	-304.2	-185.0	1.22	81.3	1.21	IR	-794.8	881.3	IR	2.652
						OR	-991.1	1199.5	OR	3.714
U 6U 7	-194.8	-171.4	1.22	113.8	1.21	IR	-794.8	881.3	IR	3.499
						OR	-991.1	1199.5	OR	4.644
U 7U 8	-194.8	-171.4	1.22	113.8	1.21	IR	-794.8	881.3	IR	3.499
						OR	-991.1	1199.5	OR	4.644
U 8U 9	44.7	-107.7	1.22	146.2	1.21	IR	-642.7	713.3	IR	4.574

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						OR	-801.5	970.9	OR	6.336
U 9U10	44.7	-107.7	1.22	146.2	1.21	IR	-642.7	713.3	IR	4.574
						OR	-801.5	970.9	OR	6.336
U10U11	391.6	0.0	1.22	176.7	1.21	IR	-797.1	881.3	IR	2.771
						OR	-994.0	1199.5	OR	4.572
U11U12	391.6	0.0	1.21	176.7	1.21	IR	-797.2	881.3	IR	2.771
						OR	-994.1	1199.5	OR	4.572
U12U13	101.7	0.0	1.21	59.0	1.21	IR	-393.2	430.0	IR	5.566
						OR	-490.3	585.3	OR	8.198
U13U14	101.7	0.0	1.21	59.0	1.21	IR	-393.2	430.0	IR	5.566
						OR	-490.3	585.3	OR	8.198
U14U15	-107.8	-62.8	1.21	0.0	1.21	IR	-465.9	509.4	IR	5.703
						OR	-581.0	693.4	OR	7.536
U15U16	-107.8	-62.8	1.21	0.0	1.21	IR	-466.0	509.4	IR	5.704
						OR	-581.1	693.4	OR	7.538
U16U17	-223.5	-131.6	1.21	0.0	1.21	IR	-466.0	509.4	IR	1.843
						OR	-581.1	693.4	OR	2.718
U17U18	-223.5	-131.6	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.843
						OR	-581.1	693.4	OR	2.718
U18U19	-223.7	-131.7	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.839
						OR	-581.1	693.4	OR	2.714
U19U20	-223.7	-131.7	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.839
						OR	-581.1	693.4	OR	2.714
U20U21	-108.3	-63.1	1.21	0.0	1.21	IR	-466.0	509.4	IR	5.667
						OR	-581.1	693.4	OR	7.491
U21U22	-108.3	-63.1	1.21	0.0	1.21	IR	-465.9	509.4	IR	5.666
						OR	-581.0	693.4	OR	7.489
U22U23	101.0	0.0	1.21	58.6	1.21	IR	-393.2	430.0	IR	5.609
						OR	-490.3	585.3	OR	8.257
U23U24	101.0	0.0	1.21	58.6	1.21	IR	-393.2	430.0	IR	5.609
						OR	-490.3	585.3	OR	8.257
U24U25	390.7	0.0	1.21	176.2	1.21	IR	-797.2	881.3	IR	2.785
						OR	-994.1	1199.5	OR	4.591
U25U26	390.7	0.0	1.21	176.2	1.21	IR	-797.1	881.3	IR	2.785
						OR	-994.0	1199.5	OR	4.591
U26U27	101.4	-107.4	1.21	147.8	1.21	IR	-643.3	713.3	IR	4.139
						OR	-802.2	970.9	OR	5.882
U27U28	101.4	-107.4	1.21	147.8	1.21	IR	-643.2	713.3	IR	4.139
						OR	-802.1	970.9	OR	5.882
U28U29	-80.5	-174.4	1.21	118.0	1.21	IR	-872.3	966.8	IR	4.541
						OR	-1087.8	1315.9	OR	5.777
U29U30	-80.5	-174.4	1.21	118.0	1.21	IR	-872.3	966.8	IR	4.541
						OR	-1087.8	1315.9	OR	5.777
U30U31	-138.8	-195.6	1.21	88.5	1.21	IR	-872.3	966.8	IR	3.750
						OR	-1087.8	1315.9	OR	4.851
U31U32	-138.8	-195.6	1.21	89.2	1.22	IR	-872.3	966.8	IR	3.750
						OR	-1087.8	1315.9	OR	4.851
U32U33	-73.4	-174.4	1.21	119.4	1.22	IR	-872.3	966.8	IR	4.581
						OR	-1087.8	1315.9	OR	5.817
U33U34	-73.4	-174.4	1.21	119.4	1.22	IR	-872.3	966.8	IR	4.581
						OR	-1087.8	1315.9	OR	5.817
U34U35	115.6	-107.4	1.21	149.7	1.22	IR	-643.2	713.3	IR	3.993
						OR	-802.1	970.9	OR	5.714
U35U36	115.6	-107.4	1.21	149.7	1.22	IR	-643.3	713.3	IR	3.993
						OR	-802.2	970.9	OR	5.714
U36U37	411.8	0.0	1.21	178.4	1.22	IR	-797.1	881.3	IR	2.631
						OR	-994.0	1199.5	OR	4.415
U37U38	411.8	0.0	1.23	178.4	1.22	IR	-797.2	881.3	IR	2.631
						OR	-994.1	1199.5	OR	4.415
U39U39	107.8	0.0	1.23	59.4	1.22	IR	-393.2	430.0	IR	5.426
						OR	-490.3	585.3	OR	8.042
U39U40	107.8	0.0	1.23	59.4	1.22	IR	-393.2	430.0	IR	5.426
						OR	-490.3	585.3	OR	8.042
U40U41	-124.9	-69.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.942
						OR	-670.8	802.1	OR	7.854
U41U42	-124.9	-69.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.942
						OR	-670.8	802.1	OR	7.854
U42U43	-259.0	-145.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.915
						OR	-670.8	802.1	OR	2.827
U43U44	-259.0	-145.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.915
						OR	-670.8	802.1	OR	2.827
U44U45	-258.8	-145.6	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.917
						OR	-670.8	802.1	OR	2.830
U45U46	-258.8	-145.6	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.917
						OR	-670.8	802.1	OR	2.830
U46U47	-124.6	-69.3	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.965
						OR	-670.8	802.1	OR	7.882
U47U48	-124.6	-69.3	1.23	0.0	1.22	IR	-537.9	589.3	IR	5.965
						OR	-670.8	802.1	OR	7.882
L 1L 2	217.0	-32.7	1.21	113.6	1.22	IR	-349.2	382.1	IR	1.454
						OR	-435.4	520.1	OR	2.669
L 2L 3	217.0	-32.7	1.21	113.6	1.22	IR	-349.2	382.1	IR	1.454
						OR	-435.4	520.1	OR	2.669
L 3L 4	303.0	-65.1	1.21	174.0	1.22	IR	-537.1	593.3	IR	1.668
						OR	-669.8	807.5	OR	2.899

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L 4L 5	303.0	-65.1	1.21	174.0	1.22	IR	-537.1	593.3	IR	1.668
						OR	-669.8	807.5	OR	2.899
L 5L 6	258.9	-97.6	1.21	184.3	1.22	IR	-537.1	593.3	IR	1.815
						OR	-669.8	807.5	OR	2.977
L 6L 7	258.9	-97.6	1.21	184.3	1.22	IR	-537.1	593.3	IR	1.815
						OR	-669.8	807.5	OR	2.977
L 7L 8	84.4	-130.0	1.21	145.1	1.22	IR	-483.7	535.0	IR	3.104
						OR	-603.2	728.1	OR	4.435
L 8L 9	84.4	-130.0	1.21	145.1	1.22	IR	-483.7	535.0	IR	3.104
						OR	-603.2	728.1	OR	4.435
L 9L10	-220.3	-162.4	1.21	56.5	1.22	IR	-483.7	535.0	IR	1.622
						OR	-603.2	728.1	OR	2.358
L10L11	-220.3	-162.4	1.21	56.5	1.22	IR	-484.8	535.0	IR	1.629
						OR	-604.6	728.1	OR	2.366
L11L12	-238.5	-117.8	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.092
						OR	-604.6	728.1	OR	3.110
L12L13	-238.5	-117.8	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.092
						OR	-604.6	728.1	OR	3.110
L15L16	173.7	0.0	1.21	105.2	1.21	IR	-350.3	382.1	IR	1.981
						OR	-436.9	520.1	OR	3.292
L16L17	173.7	0.0	1.21	105.2	1.21	IR	-350.3	382.1	IR	1.981
						OR	-436.9	520.1	OR	3.292
L17L18	231.6	0.0	1.21	138.6	1.21	IR	-350.3	382.1	IR	1.086
						OR	-436.9	520.1	OR	2.082
L18L19	231.6	0.0	1.21	138.6	1.21	IR	-350.3	382.1	IR	1.086
						OR	-436.9	520.1	OR	2.082
L19L20	174.0	0.0	1.21	105.4	1.21	IR	-350.3	382.1	IR	1.974
						OR	-436.9	520.1	OR	3.283
L20L21	174.0	0.0	1.21	105.4	1.21	IR	-350.3	382.1	IR	1.974
						OR	-436.9	520.1	OR	3.283
L23L24	-237.7	-117.3	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.108
						OR	-604.6	728.1	OR	3.130
L24L25	-237.7	-117.3	1.21	0.0	1.21	IR	-484.9	535.0	IR	2.108
						OR	-604.6	728.1	OR	3.130
L25L26	-244.0	-162.6	1.21	56.8	1.21	IR	-484.8	535.0	IR	1.480
						OR	-604.6	728.1	OR	2.217
L26L27	-244.0	-162.6	1.21	56.8	1.21	IR	-484.0	535.0	IR	1.476
						OR	-603.6	728.1	OR	2.211
L27L28	-1.3	-132.9	1.21	146.1	1.21	IR	-484.0	535.0	IR	3.632
						OR	-603.5	728.1	OR	4.531
L28L29	-1.3	-132.9	1.21	146.1	1.21	IR	-484.0	535.0	IR	3.632
						OR	-603.5	728.1	OR	4.531
L29L30	118.8	-103.0	1.21	191.1	1.21	IR	-537.4	593.3	IR	2.483
						OR	-670.2	807.5	OR	3.603
L30L31	118.8	-103.0	1.21	191.1	1.21	IR	-537.4	593.3	IR	2.483
						OR	-670.2	807.5	OR	3.603
L31L32	115.2	-104.3	1.22	191.2	1.21	IR	-537.4	593.3	IR	2.501
						OR	-670.2	807.5	OR	3.622
L32L33	115.2	-104.3	1.22	191.2	1.21	IR	-537.4	593.3	IR	2.501
						OR	-670.2	807.5	OR	3.622
L33L34	-12.0	-134.6	1.22	146.2	1.21	IR	-484.0	535.0	IR	3.507
						OR	-603.5	728.1	OR	4.396
L34L35	-12.0	-134.6	1.22	146.2	1.21	IR	-484.0	535.0	IR	3.507
						OR	-603.5	728.1	OR	4.396
L35L36	-261.9	-164.7	1.22	56.8	1.21	IR	-643.3	535.0	IR	2.316
						OR	-802.2	728.1	OR	3.280
L36L37	-261.9	-164.7	1.22	56.8	1.21	IR	-484.8	535.0	IR	1.353
						OR	-604.6	728.1	OR	2.081
L37L38	-251.6	-118.9	1.22	0.0	1.23	IR	-484.9	535.0	IR	1.962
						OR	-604.6	728.1	OR	2.969
L38L39	-251.6	-118.9	1.22	0.0	1.23	IR	-484.9	535.0	IR	1.962
						OR	-604.6	728.1	OR	2.969
L41L42	201.5	0.0	1.22	116.6	1.23	IR	-404.7	442.1	IR	2.063
						OR	-504.6	601.7	OR	3.432
L42L43	201.5	0.0	1.22	116.6	1.23	IR	-404.7	442.1	IR	2.063
						OR	-504.6	601.7	OR	3.432
L43L44	268.5	0.0	1.22	153.5	1.23	IR	-404.7	442.1	IR	1.131
						OR	-504.6	601.7	OR	2.171
L44L45	268.5	0.0	1.22	153.5	1.23	IR	-404.7	442.1	IR	1.131
						OR	-504.6	601.7	OR	2.171
L45L46	201.3	0.0	1.22	116.4	1.23	IR	-404.7	442.1	IR	2.068
						OR	-504.6	601.7	OR	3.439
L46L47	201.3	0.0	1.22	116.4	1.23	IR	-404.7	442.1	IR	2.068
						OR	-504.6	601.7	OR	3.439
U 0L 1	207.0	-26.3	1.23	100.8	1.22	IR	-452.8	509.4	IR	3.001
						OR	-564.7	693.4	OR	4.827
L 1U 2	-134.6	-90.0	1.23	27.5	1.30	IR	-362.4	416.0	IR	2.532
						OR	-451.9	566.2	OR	3.528
U 2L 3	104.9	-27.5	1.30	79.7	1.24	IR	-254.6	320.8	IR	2.708
						OR	-317.5	436.6	OR	4.161
L 3U 4	-31.4	-69.3	1.25	27.5	1.30	IR	-207.9	277.9	IR	2.545
						OR	-259.3	378.3	OR	3.286
U 4L 5	1.7	-38.6	1.30	58.8	1.27	IR	-132.1	201.1	IR	3.389
						OR	-164.8	273.7	OR	4.311
L 5U 6	71.8	-48.1	1.28	49.6	1.28	IR	-132.1	201.1	IR	2.610
						OR	-164.8	273.7	OR	4.075

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U 6L 7	-101.4	-60.3	1.27	37.1	1.30	IR	-207.9	277.9	IR	1.767
						OR	-259.3	378.3	OR	2.620
L 7U 8	174.9	-25.5	1.30	70.8	1.25	IR	-336.2	371.5	IR	2.778
						OR	-419.2	505.7	OR	4.674
U 8L 9	-204.6	-81.1	1.24	13.9	1.30	IR	-381.9	430.0	IR	2.186
						OR	-476.3	585.3	OR	3.350
L 9U10	278.1	-2.3	1.30	91.7	1.23	IR	-453.1	509.4	IR	2.522
						OR	-565.0	693.4	OR	4.527
U10L11	-293.8	-98.1	1.23	0.0	1.00	IR	-601.2	681.5	IR	3.133
						OR	-749.7	927.6	OR	4.647
L11U12	-263.7	-114.0	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.963
						OR	-749.8	927.6	OR	4.266
U12L13	235.4	0.0	1.00	112.1	1.24	IR	-454.7	509.4	IR	2.443
						OR	-567.1	693.4	OR	4.084
L13U14	-175.0	-104.8	1.25	0.0	1.00	IR	-419.7	463.7	IR	2.334
						OR	-523.4	631.1	OR	3.323
U14L15	161.4	0.0	1.00	98.3	1.26	IR	-343.6	371.5	IR	2.136
						OR	-428.5	505.7	OR	3.500
L15U16	-99.1	-83.7	1.28	6.8	1.30	IR	-263.4	320.8	IR	1.964
						OR	-328.5	436.6	OR	2.742
U16L17	75.1	-20.1	1.30	68.3	1.29	IR	-178.2	227.7	IR	2.234
						OR	-222.2	309.9	OR	3.437
L17U18	-12.2	-52.3	1.30	35.8	1.30	IR	-113.7	153.4	IR	1.940
						OR	-141.8	208.7	OR	2.477
U18L19	-11.9	-52.2	1.30	35.9	1.30	IR	-113.7	153.4	IR	1.950
						OR	-141.8	208.7	OR	2.488
L19U20	74.8	-20.2	1.30	68.3	1.29	IR	-178.2	227.7	IR	2.240
						OR	-222.2	309.9	OR	3.445
U20L21	-98.9	-83.6	1.28	6.8	1.30	IR	-263.4	320.8	IR	1.970
						OR	-328.5	436.6	OR	2.749
L21U22	162.2	0.0	1.00	98.9	1.26	IR	-343.6	371.5	IR	2.117
						OR	-428.5	505.7	OR	3.474
U22L23	-173.9	-104.4	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.689
						OR	-567.1	693.4	OR	3.765
L23U24	235.2	0.0	1.00	112.1	1.24	IR	-454.7	509.4	IR	2.446
						OR	-567.1	693.4	OR	4.087
U24L25	-263.4	-114.0	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.965
						OR	-749.8	927.6	OR	4.269
L25U26	-251.5	-99.0	1.23	23.6	1.23	IR	-526.0	589.3	IR	2.774
						OR	-655.9	802.1	OR	4.087
U26L27	230.6	-25.9	1.30	92.3	1.23	IR	-453.5	509.4	IR	3.020
						OR	-565.6	693.4	OR	5.013
L27U28	-161.1	-82.5	1.23	25.9	1.30	IR	-382.8	430.0	IR	2.687
						OR	-477.4	585.3	OR	3.834
U28L29	131.8	-25.9	1.30	73.1	1.24	IR	-284.7	360.0	IR	3.124
						OR	-355.1	490.0	OR	4.904
L29U30	-61.6	-63.5	1.26	33.9	1.30	IR	-208.6	277.9	IR	2.314
						OR	-260.1	378.3	OR	3.125
U30L31	32.2	-44.0	1.29	53.9	1.27	IR	-117.8	174.6	IR	2.643
						OR	-146.9	237.6	OR	3.813
L31U32	37.9	-44.0	1.29	53.9	1.27	IR	-117.8	174.6	IR	2.537
						OR	-146.9	237.6	OR	3.708
U32L33	-67.3	-63.5	1.26	33.9	1.30	IR	-208.6	277.9	IR	2.224
						OR	-260.1	378.3	OR	3.036
L33U34	137.5	-25.8	1.30	73.0	1.24	IR	-284.7	360.0	IR	3.046
						OR	-355.1	490.0	OR	4.826
U34L35	-166.8	-82.4	1.23	25.8	1.30	IR	-382.8	430.0	IR	2.620
						OR	-477.4	585.3	OR	3.767
L35U36	236.4	-25.7	1.30	91.9	1.23	IR	-453.5	509.4	IR	2.969
						OR	-565.6	693.4	OR	4.970
U36L37	-257.0	-98.5	1.23	23.6	1.23	IR	-526.0	589.3	IR	2.730
						OR	-655.9	802.1	OR	4.049
L37U38	-275.7	-113.5	1.23	0.0	1.00	IR	-601.3	681.5	IR	2.868
						OR	-749.8	927.6	OR	4.177
U38L39	247.5	0.0	1.00	111.8	1.24	IR	-454.7	509.4	IR	2.343
						OR	-567.1	693.4	OR	3.988
L39U40	-185.6	-104.4	1.25	0.0	1.00	IR	-454.7	509.4	IR	2.578
						OR	-567.1	693.4	OR	3.654
U40L41	180.5	0.0	1.00	102.0	1.25	IR	-342.7	371.5	IR	1.874
						OR	-427.4	505.7	OR	3.190
L41U42	-110.7	-87.1	1.27	7.5	1.30	IR	-262.3	320.8	IR	1.741
						OR	-327.1	436.6	OR	2.485
U42L43	83.0	-21.4	1.30	71.3	1.29	IR	-176.9	227.7	IR	2.029
						OR	-220.6	309.9	OR	3.182
L43U44	-13.7	-55.0	1.30	38.2	1.30	IR	-112.1	153.4	IR	1.786
						OR	-139.8	208.7	OR	2.289
U44L45	-14.0	-55.1	1.30	38.1	1.30	IR	-112.1	153.4	IR	1.779
						OR	-139.8	208.7	OR	2.281
L45U46	83.2	-21.3	1.30	71.4	1.29	IR	-176.9	227.7	IR	2.025
						OR	-220.6	309.9	OR	3.177
U46L47	-110.9	-87.1	1.27	7.4	1.30	IR	-262.3	320.8	IR	1.738
						OR	-327.1	436.6	OR	2.482
L47U48	180.1	0.0	1.00	102.6	1.26	IR	-342.7	371.5	IR	1.866
						OR	-427.4	505.7	OR	3.173
U 1L 1	-55.0	-58.0	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.617

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						OR	-185.5	273.7	OR	2.251
U 3L 3	-57.0	-57.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.588
						OR	-185.5	273.7	OR	2.224
U 5L 5	-57.0	-57.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.588
						OR	-185.5	273.7	OR	2.224
U 7L 7	-57.0	-57.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.588
						OR	-185.5	273.7	OR	2.224
U 9L 9	-57.0	-57.8	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.588
						OR	-185.5	273.7	OR	2.224
U10L10	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U11L11	-50.0	-54.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.806
						OR	-185.5	273.7	OR	2.478
U12L12	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U13L13	-50.0	-54.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.808
						OR	-185.5	273.7	OR	2.481
U15L15	-47.0	-53.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.767
						OR	-176.9	237.6	OR	2.420
U17L17	-47.0	-53.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.770
						OR	-176.9	237.6	OR	2.424
U19L19	-47.0	-53.6	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.770
						OR	-176.9	237.6	OR	2.423
U21L21	-47.0	-53.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.767
						OR	-176.9	237.6	OR	2.420
U23L23	-50.0	-54.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.808
						OR	-185.5	273.7	OR	2.481
U24L24	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U25L25	-50.0	-54.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.806
						OR	-185.5	273.7	OR	2.478
U26L26	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U27L27	-55.0	-57.1	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.642
						OR	-185.5	273.7	OR	2.286
U29L29	-55.0	-57.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.640
						OR	-185.5	273.7	OR	2.283
U31L31	-55.0	-57.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.640
						OR	-185.5	273.7	OR	2.283
U33L33	-55.0	-57.2	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.640
						OR	-185.5	273.7	OR	2.283
U35L35	-55.0	-57.1	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.642
						OR	-185.5	273.7	OR	2.286
U37L37	-50.0	-54.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.806
						OR	-185.5	273.7	OR	2.478
U39L39	-50.0	-54.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.808
						OR	-185.5	273.7	OR	2.481
U41L41	-50.0	-55.5	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.654
						OR	-176.9	237.6	OR	2.286
U43L43	-50.0	-55.5	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.654
						OR	-176.9	237.6	OR	2.286
U45L45	-50.0	-55.5	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.655
						OR	-176.9	237.6	OR	2.286
U47L47	-50.0	-55.5	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.655
						OR	-176.9	237.6	OR	2.287

MEMBER L18L19 IS CRITICAL. SEE DETAILS BELOW.

DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS		RATING FACTOR	TONS
231.6	0.0	1.21	138.6	1.21	IR	-350.3	382.1	IR	1.086	39.80
					OR	-436.9	520.1	OR	2.082	76.29

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
U 0	182.4	86.2	1.22
L11	503.2	108.6	1.21
L25	468.7	107.4	1.21
L37	483.2	108.3	1.22
U48	150.1	83.9	1.23

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*  TRUSS  -  LIVE LOAD  P-82  *
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MEMBER FORCES AND RATINGS
I.F. = IMPACT FACTOR

MEMBER ID	DL FORCE	LL + IMPACT FORCE COMP	I.F.	TENS	I.F.		ALLOWABLE FORCE COMP	TENS		RATING FACTORS
U 0U 1	-132.0	-140.8	1.22	33.5	1.21	IR	-391.5	430.0	IR	1.843
						OR	-488.2	585.3	OR	2.530
U 1U 2	-132.0	-140.8	1.22	33.5	1.21	IR	-391.7	430.0	IR	1.844
						OR	-488.5	585.3	OR	2.532
U 2U 3	-283.2	-318.8	1.22	99.4	1.21	IR	-713.8	790.9	IR	1.351
						OR	-890.2	1076.5	OR	1.904
U 3U 4	-283.2	-318.8	1.22	99.4	1.21	IR	-713.8	790.9	IR	1.351
						OR	-890.2	1076.5	OR	1.904
U 4U 5	-304.2	-371.5	1.22	165.3	1.21	IR	-794.8	881.3	IR	1.321
						OR	-991.1	1199.5	OR	1.849
U 5U 6	-304.2	-371.5	1.22	165.3	1.21	IR	-794.8	881.3	IR	1.321
						OR	-991.1	1199.5	OR	1.849
U 6U 7	-194.8	-357.4	1.22	231.2	1.21	IR	-794.8	881.3	IR	1.678

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						OR	-991.1	1199.5	OR	2.228
U 7U 8	-194.8	-357.4	1.22	231.2	1.21	IR	-794.8	881.3	IR	1.678
						OR	-991.1	1199.5	OR	2.228
U 8U 9	44.7	-233.6	1.22	297.1	1.21	IR	-642.7	713.3	IR	2.251
						OR	-801.5	970.9	OR	3.118
U 9U10	44.7	-233.6	1.22	297.1	1.21	IR	-642.7	713.3	IR	2.251
						OR	-801.5	970.9	OR	3.118
U10U11	391.6	0.0	1.22	359.1	1.21	IR	-797.1	881.3	IR	1.364
						OR	-994.0	1199.5	OR	2.250
U11U12	391.6	0.0	1.21	359.1	1.21	IR	-797.2	881.3	IR	1.364
						OR	-994.1	1199.5	OR	2.250
U12U13	101.7	0.0	1.21	113.7	1.21	IR	-393.2	430.0	IR	2.887
						OR	-490.3	585.3	OR	4.252
U13U14	101.7	0.0	1.21	113.7	1.21	IR	-393.2	430.0	IR	2.887
						OR	-490.3	585.3	OR	4.252
U14U15	-107.8	-113.0	1.21	0.0	1.21	IR	-465.9	509.4	IR	3.170
						OR	-581.0	693.4	OR	4.188
U15U16	-107.8	-113.0	1.21	0.0	1.21	IR	-466.0	509.4	IR	3.170
						OR	-581.1	693.4	OR	4.189
U16U17	-223.5	-218.2	1.21	0.0	1.21	IR	-466.0	509.4	IR	1.111
						OR	-581.1	693.4	OR	1.639
U17U18	-223.5	-218.2	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.111
						OR	-581.1	693.4	OR	1.639
U18U19	-223.7	-218.3	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.110
						OR	-581.1	693.4	OR	1.637
U19U20	-223.7	-218.3	1.21	0.0	1.21	IR	-465.9	509.4	IR	1.110
						OR	-581.1	693.4	OR	1.637
U20U21	-108.3	-113.5	1.21	0.0	1.21	IR	-466.0	509.4	IR	3.151
						OR	-581.1	693.4	OR	4.165
U21U22	-108.3	-113.5	1.21	0.0	1.21	IR	-465.9	509.4	IR	3.150
						OR	-581.0	693.4	OR	4.164
U22U23	101.0	0.0	1.21	112.9	1.21	IR	-393.2	430.0	IR	2.913
						OR	-490.3	585.3	OR	4.288
U23U24	101.0	0.0	1.21	112.9	1.21	IR	-393.2	430.0	IR	2.913
						OR	-490.3	585.3	OR	4.288
U24U25	390.7	0.0	1.21	357.8	1.21	IR	-797.2	881.3	IR	1.371
						OR	-994.1	1199.5	OR	2.260
U25U26	390.7	0.0	1.21	357.8	1.21	IR	-797.1	881.3	IR	1.371
						OR	-994.0	1199.5	OR	2.260
U26U27	101.4	-236.1	1.21	300.3	1.21	IR	-643.3	713.3	IR	2.038
						OR	-802.2	970.9	OR	2.896
U27U28	101.4	-236.1	1.21	300.3	1.21	IR	-643.2	713.3	IR	2.038
						OR	-802.1	970.9	OR	2.896
U28U29	-80.5	-372.6	1.21	239.6	1.21	IR	-872.3	966.8	IR	2.125
						OR	-1087.8	1315.9	OR	2.703
U29U30	-80.5	-372.6	1.21	239.6	1.21	IR	-872.3	966.8	IR	2.125
						OR	-1087.8	1315.9	OR	2.703
U30U31	-138.8	-393.6	1.21	183.6	1.21	IR	-872.3	966.8	IR	1.864
						OR	-1087.8	1315.9	OR	2.411
U31U32	-138.8	-393.6	1.21	185.0	1.22	IR	-872.3	966.8	IR	1.864
						OR	-1087.8	1315.9	OR	2.411
U32U33	-73.4	-372.7	1.21	247.7	1.22	IR	-872.3	966.8	IR	2.144
						OR	-1087.8	1315.9	OR	2.722
U33U34	-73.4	-372.7	1.21	247.7	1.22	IR	-872.3	966.8	IR	2.144
						OR	-1087.8	1315.9	OR	2.722
U34U35	115.6	-236.2	1.21	310.5	1.22	IR	-643.2	713.3	IR	1.925
						OR	-802.1	970.9	OR	2.755
U35U36	115.6	-236.2	1.21	310.5	1.22	IR	-643.3	713.3	IR	1.925
						OR	-802.2	970.9	OR	2.755
U36U37	411.8	0.0	1.21	370.1	1.22	IR	-797.1	881.3	IR	1.269
						OR	-994.0	1199.5	OR	2.129
U37U38	411.8	0.0	1.23	370.1	1.22	IR	-797.2	881.3	IR	1.269
						OR	-994.1	1199.5	OR	2.129
U39U39	107.8	0.0	1.23	117.9	1.22	IR	-393.2	430.0	IR	2.732
						OR	-490.3	585.3	OR	4.049
U39U40	107.8	0.0	1.23	117.9	1.22	IR	-393.2	430.0	IR	2.732
						OR	-490.3	585.3	OR	4.049
U40U41	-124.9	-130.1	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.176
						OR	-670.8	802.1	OR	4.198
U41U42	-124.9	-130.1	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.176
						OR	-670.8	802.1	OR	4.198
U42U43	-259.0	-251.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.109
						OR	-670.8	802.1	OR	1.637
U43U44	-259.0	-251.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.109
						OR	-670.8	802.1	OR	1.637
U44U45	-258.8	-251.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.110
						OR	-670.8	802.1	OR	1.638
U45U46	-258.8	-251.5	1.23	0.0	1.22	IR	-537.9	589.3	IR	1.110
						OR	-670.8	802.1	OR	1.638
U46U47	-124.6	-129.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.187
						OR	-670.8	802.1	OR	4.211
U47U48	-124.6	-129.7	1.23	0.0	1.22	IR	-537.9	589.3	IR	3.187
						OR	-670.8	802.1	OR	4.211
L 1L 2	217.0	-66.5	1.21	246.2	1.22	IR	-349.2	382.1	IR	0.671
						OR	-435.4	520.1	OR	1.231

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L 2L 3	217.0	-66.5	1.21	246.2	1.22	IR	-349.2	382.1	IR	0.671
						OR	-435.4	520.1	OR	1.231
L 3L 4	303.0	-132.4	1.21	361.0	1.22	IR	-537.1	593.3	IR	0.804
						OR	-669.8	807.5	OR	1.397
L 4L 5	303.0	-132.4	1.21	361.0	1.22	IR	-537.1	593.3	IR	0.804
						OR	-669.8	807.5	OR	1.397
L 5L 6	258.9	-198.3	1.21	371.9	1.22	IR	-537.1	593.3	IR	0.899
						OR	-669.8	807.5	OR	1.475
L 6L 7	258.9	-198.3	1.21	371.9	1.22	IR	-537.1	593.3	IR	0.899
						OR	-669.8	807.5	OR	1.475
L 7L 8	84.4	-264.1	1.21	310.2	1.22	IR	-483.7	535.0	IR	1.452
						OR	-603.2	728.1	OR	2.075
L 8L 9	84.4	-264.1	1.21	310.2	1.22	IR	-483.7	535.0	IR	1.452
						OR	-603.2	728.1	OR	2.075
L 9L10	-220.3	-330.0	1.21	124.3	1.22	IR	-483.7	535.0	IR	0.798
						OR	-603.2	728.1	OR	1.160
L10L11	-220.3	-330.0	1.21	124.3	1.22	IR	-484.8	535.0	IR	0.802
						OR	-604.6	728.1	OR	1.164
L11L12	-238.5	-234.7	1.21	0.0	1.21	IR	-484.9	535.0	IR	1.050
						OR	-604.6	728.1	OR	1.560
L12L13	-238.5	-234.7	1.21	0.0	1.21	IR	-484.9	535.0	IR	1.050
						OR	-604.6	728.1	OR	1.560
L15L16	173.7	0.0	1.21	185.4	1.21	IR	-350.3	382.1	IR	1.125
						OR	-436.9	520.1	OR	1.869
L16L17	173.7	0.0	1.21	185.4	1.21	IR	-350.3	382.1	IR	1.125
						OR	-436.9	520.1	OR	1.869
L17L18	231.6	0.0	1.21	211.1	1.21	IR	-350.3	382.1	IR	0.713
						OR	-436.9	520.1	OR	1.366
L18L19	231.6	0.0	1.21	211.1	1.21	IR	-350.3	382.1	IR	0.713
						OR	-436.9	520.1	OR	1.366
L19L20	174.0	0.0	1.21	185.7	1.21	IR	-350.3	382.1	IR	1.121
						OR	-436.9	520.1	OR	1.864
L20L21	174.0	0.0	1.21	185.7	1.21	IR	-350.3	382.1	IR	1.121
						OR	-436.9	520.1	OR	1.864
L23L24	-237.7	-233.6	1.21	0.0	1.21	IR	-484.9	535.0	IR	1.058
						OR	-604.6	728.1	OR	1.571
L24L25	-237.7	-233.6	1.21	0.0	1.21	IR	-484.9	535.0	IR	1.058
						OR	-604.6	728.1	OR	1.571
L25L26	-244.0	-330.4	1.21	126.5	1.21	IR	-484.8	535.0	IR	0.729
						OR	-604.6	728.1	OR	1.091
L26L27	-244.0	-330.4	1.21	126.5	1.21	IR	-484.0	535.0	IR	0.727
						OR	-603.6	728.1	OR	1.089
L27L28	-1.3	-269.9	1.21	318.2	1.21	IR	-484.0	535.0	IR	1.685
						OR	-603.5	728.1	OR	2.231
L28L29	-1.3	-269.9	1.21	318.2	1.21	IR	-484.0	535.0	IR	1.685
						OR	-603.5	728.1	OR	2.231
L29L30	118.8	-209.3	1.21	396.9	1.21	IR	-537.4	593.3	IR	1.195
						OR	-670.2	807.5	OR	1.735
L30L31	118.8	-209.3	1.21	396.9	1.21	IR	-537.4	593.3	IR	1.195
						OR	-670.2	807.5	OR	1.735
L31L32	115.2	-216.4	1.22	397.0	1.21	IR	-537.4	593.3	IR	1.204
						OR	-670.2	807.5	OR	1.744
L32L33	115.2	-216.4	1.22	397.0	1.21	IR	-537.4	593.3	IR	1.204
						OR	-670.2	807.5	OR	1.744
L33L34	-12.0	-279.1	1.22	318.3	1.21	IR	-484.0	535.0	IR	1.691
						OR	-603.5	728.1	OR	2.119
L34L35	-12.0	-279.1	1.22	318.3	1.21	IR	-484.0	535.0	IR	1.691
						OR	-603.5	728.1	OR	2.119
L35L36	-261.9	-341.6	1.22	126.5	1.21	IR	-643.3	535.0	IR	1.116
						OR	-802.2	728.1	OR	1.582
L36L37	-261.9	-341.6	1.22	126.5	1.21	IR	-484.8	535.0	IR	0.653
						OR	-604.6	728.1	OR	1.003
L37L38	-251.6	-242.7	1.22	0.0	1.23	IR	-484.9	535.0	IR	0.961
						OR	-604.6	728.1	OR	1.455
L38L39	-251.6	-242.7	1.22	0.0	1.23	IR	-484.9	535.0	IR	0.961
						OR	-604.6	728.1	OR	1.455
L41L42	201.5	0.0	1.22	212.8	1.23	IR	-404.7	442.1	IR	1.130
						OR	-504.6	601.7	OR	1.881
L42L43	201.5	0.0	1.22	212.8	1.23	IR	-404.7	442.1	IR	1.130
						OR	-504.6	601.7	OR	1.881
L43L44	268.5	0.0	1.22	246.2	1.23	IR	-404.7	442.1	IR	0.705
						OR	-504.6	601.7	OR	1.353
L44L45	268.5	0.0	1.22	246.2	1.23	IR	-404.7	442.1	IR	0.705
						OR	-504.6	601.7	OR	1.353
L45L46	201.3	0.0	1.22	212.5	1.23	IR	-404.7	442.1	IR	1.133
						OR	-504.6	601.7	OR	1.884
L46L47	201.3	0.0	1.22	212.5	1.23	IR	-404.7	442.1	IR	1.133
						OR	-504.6	601.7	OR	1.884
U 0L 1	207.0	-53.4	1.23	220.7	1.22	IR	-452.8	509.4	IR	1.370
						OR	-564.7	693.4	OR	2.204
L 1U 2	-134.6	-191.4	1.23	55.9	1.30	IR	-362.4	416.0	IR	1.190
						OR	-451.9	566.2	OR	1.658
U 2L 3	104.9	-55.9	1.30	163.2	1.24	IR	-254.6	320.8	IR	1.322
						OR	-317.5	436.6	OR	2.032
L 3U 4	-31.4	-134.7	1.25	55.9	1.30	IR	-207.9	277.9	IR	1.311
						OR	-259.3	378.3	OR	1.692

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U 4L 5	1.7	-57.2	1.30	105.6	1.27	IR	-132.1	201.1	IR	1.888
						OR	-164.8	273.7	OR	2.575
L 5U 6	71.8	-75.9	1.28	81.7	1.28	IR	-132.1	201.1	IR	1.582
						OR	-164.8	273.7	OR	2.470
U 6L 7	-101.4	-109.6	1.27	45.5	1.30	IR	-207.9	277.9	IR	0.972
						OR	-259.3	378.3	OR	1.441
L 7U 8	174.9	-15.0	1.30	138.6	1.25	IR	-336.2	371.5	IR	1.419
						OR	-419.2	505.7	OR	2.387
U 8L 9	-204.6	-167.1	1.24	0.0	1.30	IR	-381.9	430.0	IR	1.062
						OR	-476.3	585.3	OR	1.626
L 9U10	278.1	0.0	1.30	196.0	1.23	IR	-453.1	509.4	IR	1.180
						OR	-565.0	693.4	OR	2.118
U10L11	-293.8	-215.6	1.23	0.0	1.00	IR	-601.2	681.5	IR	1.426
						OR	-749.7	927.6	OR	2.115
L11U12	-263.7	-251.0	1.23	0.0	1.00	IR	-601.3	681.5	IR	1.345
						OR	-749.8	927.6	OR	1.937
U12L13	235.4	0.0	1.00	231.5	1.24	IR	-454.7	509.4	IR	1.183
						OR	-567.1	693.4	OR	1.978
L13U14	-175.0	-202.1	1.25	0.0	1.00	IR	-419.7	463.7	IR	1.211
						OR	-523.4	631.1	OR	1.724
U14L15	161.4	0.0	1.00	177.0	1.26	IR	-343.6	371.5	IR	1.187
						OR	-428.5	505.7	OR	1.945
L15U16	-99.1	-138.7	1.28	8.9	1.30	IR	-263.4	320.8	IR	1.184
						OR	-328.5	436.6	OR	1.654
U16L17	75.1	-29.4	1.30	102.4	1.29	IR	-178.2	227.7	IR	1.491
						OR	-222.2	309.9	OR	2.294
L17U18	-12.2	-76.5	1.30	52.8	1.30	IR	-113.7	153.4	IR	1.328
						OR	-141.8	208.7	OR	1.695
U18L19	-11.9	-76.3	1.30	53.0	1.30	IR	-113.7	153.4	IR	1.335
						OR	-141.8	208.7	OR	1.703
L19U20	74.8	-29.5	1.30	102.2	1.29	IR	-178.2	227.7	IR	1.495
						OR	-222.2	309.9	OR	2.299
U20L21	-98.9	-138.5	1.28	8.9	1.30	IR	-263.4	320.8	IR	1.188
						OR	-328.5	436.6	OR	1.658
L21U22	162.2	0.0	1.00	177.8	1.26	IR	-343.6	371.5	IR	1.177
						OR	-428.5	505.7	OR	1.932
U22L23	-173.9	-201.1	1.25	0.0	1.00	IR	-454.7	509.4	IR	1.397
						OR	-567.1	693.4	OR	1.955
L23U24	235.2	0.0	1.00	231.4	1.24	IR	-454.7	509.4	IR	1.185
						OR	-567.1	693.4	OR	1.980
U24L25	-263.4	-250.9	1.23	0.0	1.00	IR	-601.3	681.5	IR	1.347
						OR	-749.8	927.6	OR	1.939
L25U26	-251.5	-220.4	1.23	49.0	1.23	IR	-526.0	589.3	IR	1.245
						OR	-655.9	802.1	OR	1.835
U26L27	230.6	-53.6	1.30	200.9	1.23	IR	-453.5	509.4	IR	1.388
						OR	-565.6	693.4	OR	2.304
L27U28	-161.1	-174.2	1.23	53.8	1.30	IR	-382.8	430.0	IR	1.272
						OR	-477.4	585.3	OR	1.815
U28L29	131.8	-53.8	1.30	148.3	1.24	IR	-284.7	360.0	IR	1.539
						OR	-355.1	490.0	OR	2.416
L29U30	-61.6	-122.1	1.26	53.8	1.30	IR	-208.6	277.9	IR	1.205
						OR	-260.1	378.3	OR	1.627
U30L31	32.2	-68.1	1.29	95.4	1.27	IR	-117.8	174.6	IR	1.493
						OR	-146.9	237.6	OR	2.154
L31U32	37.9	-68.2	1.29	95.4	1.27	IR	-117.8	174.6	IR	1.433
						OR	-146.9	237.6	OR	2.094
U32L33	-67.3	-122.0	1.26	52.4	1.30	IR	-208.6	277.9	IR	1.158
						OR	-260.1	378.3	OR	1.580
L33U34	137.5	-52.4	1.30	148.3	1.24	IR	-284.7	360.0	IR	1.501
						OR	-355.1	490.0	OR	2.378
U34L35	-166.8	-174.1	1.23	52.4	1.30	IR	-382.8	430.0	IR	1.241
						OR	-477.4	585.3	OR	1.784
L35U36	236.4	-52.3	1.30	200.1	1.23	IR	-453.5	509.4	IR	1.364
						OR	-565.6	693.4	OR	2.284
U36L37	-257.0	-219.5	1.23	48.0	1.23	IR	-526.0	589.3	IR	1.226
						OR	-655.9	802.1	OR	1.818
L37U38	-275.7	-253.9	1.23	0.0	1.00	IR	-601.3	681.5	IR	1.282
						OR	-749.8	927.6	OR	1.867
U38L39	247.5	0.0	1.00	236.0	1.24	IR	-454.7	509.4	IR	1.110
						OR	-567.1	693.4	OR	1.890
L39U40	-185.6	-207.4	1.25	0.0	1.00	IR	-454.7	509.4	IR	1.298
						OR	-567.1	693.4	OR	1.840
U40L41	180.5	0.0	1.00	190.8	1.25	IR	-342.7	371.5	IR	1.001
						OR	-427.4	505.7	OR	1.705
L41U42	-110.7	-150.4	1.27	9.8	1.30	IR	-262.3	320.8	IR	1.008
						OR	-327.1	436.6	OR	1.439
U42L43	83.0	-31.8	1.30	110.7	1.29	IR	-176.9	227.7	IR	1.307
						OR	-220.6	309.9	OR	2.050
L43U44	-13.7	-80.3	1.30	56.1	1.30	IR	-112.1	153.4	IR	1.225
						OR	-139.8	208.7	OR	1.570
U44L45	-14.0	-80.4	1.30	56.0	1.30	IR	-112.1	153.4	IR	1.220
						OR	-139.8	208.7	OR	1.564
L45U46	83.2	-31.7	1.30	110.8	1.29	IR	-176.9	227.7	IR	1.304
						OR	-220.6	309.9	OR	2.046
U46L47	-110.9	-150.5	1.27	9.8	1.30	IR	-262.3	320.8	IR	1.006

						OR	-327.1	436.6	OR	1.437
L47U48	180.1	0.0	1.00	192.0	1.26	IR	-342.7	371.5	IR	0.997
						OR	-427.4	505.7	OR	1.696
U 1L 1	-55.0	-82.1	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.143
						OR	-185.5	273.7	OR	1.591
U 3L 3	-57.0	-81.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.129
						OR	-185.5	273.7	OR	1.581
U 5L 5	-57.0	-81.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.129
						OR	-185.5	273.7	OR	1.581
U 7L 7	-57.0	-81.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.129
						OR	-185.5	273.7	OR	1.581
U 9L 9	-57.0	-81.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.129
						OR	-185.5	273.7	OR	1.581
U10L10	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U11L11	-50.0	-73.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.348
						OR	-185.5	273.7	OR	1.849
U12L12	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U13L13	-50.0	-73.0	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.353
						OR	-185.5	273.7	OR	1.857
U15L15	-47.0	-70.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.342
						OR	-176.9	237.6	OR	1.838
U17L17	-47.0	-70.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.350
						OR	-176.9	237.6	OR	1.848
U19L19	-47.0	-70.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.349
						OR	-176.9	237.6	OR	1.848
U21L21	-47.0	-70.7	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.342
						OR	-176.9	237.6	OR	1.838
U23L23	-50.0	-73.0	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.353
						OR	-185.5	273.7	OR	1.857
U24L24	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U25L25	-50.0	-73.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.348
						OR	-185.5	273.7	OR	1.849
U26L26	0.0	0.0	1.00	0.0	1.00	IR	-148.8	201.1	IR	999.999
U27L27	-55.0	-79.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.178
						OR	-185.5	273.7	OR	1.640
U29L29	-55.0	-79.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.177
						OR	-185.5	273.7	OR	1.638
U31L31	-55.0	-79.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.177
						OR	-185.5	273.7	OR	1.638
U33L33	-55.0	-79.7	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.177
						OR	-185.5	273.7	OR	1.638
U35L35	-55.0	-79.6	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.178
						OR	-185.5	273.7	OR	1.640
U37L37	-50.0	-73.3	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.348
						OR	-185.5	273.7	OR	1.849
U39L39	-50.0	-73.0	1.30	0.0	1.00	IR	-148.8	201.1	IR	1.353
						OR	-185.5	273.7	OR	1.857
U41L41	-50.0	-75.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.219
						OR	-176.9	237.6	OR	1.684
U43L43	-50.0	-75.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.219
						OR	-176.9	237.6	OR	1.684
U45L45	-50.0	-75.3	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.220
						OR	-176.9	237.6	OR	1.685
U47L47	-50.0	-75.2	1.30	0.0	1.00	IR	-141.8	174.6	IR	1.220
						OR	-176.9	237.6	OR	1.686

MEMBER L36L37 IS CRITICAL. SEE DETAILS BELOW.

DL	LL + IMPACT FORCE				ALLOWABLE FORCE				RATING	
FORCE	COMP	I.F.	TENS	I.F.		COMP	TENS		FACTOR	TONS
-261.9	-341.6	1.22	126.5	1.21	IR	-484.8	535.0	IR	0.653	66.56
					OR	-604.6	728.1	OR	1.003	102.32

SUPPORT REACTIONS

SUPPORT	D.L.	LL+I	I.F.
U 0	182.4	193.2	1.22
L11	503.2	259.9	1.21
L25	468.7	258.4	1.21
L37	483.2	260.9	1.22
U48	150.1	166.7	1.23

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+                                            +
+     S T R I N G E R   A N A L Y S I S      +
+                                            +
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THE STRINGER LOCATED AT 8.00 FT. FROM THE CENTER LINE OF GIRDER OR TRUSS IS CRITICAL.

DEAD LOADS ACTING ON STRINGER

STRINGER WEIGHT	SLAB WEIGHT	INPUT DL1	TOTAL DL1	TOTAL DL2
0.036	0.792	0.020	0.848	0.000

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*  STRINGER  -  LIVE LOAD  H20    *
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MAXIMUM REACTIONS

REACTIONS MOMENTS

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SUPPORT	DL1	DL2	+(LL+I)	-(LL+I)	+I.F.	-I.F.	+I.F.	-I.F.
1	4.0	0.0	29.0	0.0	1.30			
2	8.1	0.0	26.9 L	0.0	1.30			
3	8.1	0.0	26.9 L	0.0	1.30			
4	4.0	0.0	29.0	0.0	1.30			

NOTE: ALL SUPPORT REACTIONS AND END SHEARS IN EACH SPAN DUE TO A LIVE LOAD ARE CALCULATED BASED ON AASHTO ARTICLE 3.23.1 AS INTERPRETED IN SOL 431-93-05.

UNFACTORED MOMENTS AND SHEARS

SPAN 1 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 2 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 3 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

SPAN 1

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V

SPAN 2

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O

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2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V

SPAN 3
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X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	OR
0.00	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.28 V	2.14 V	172.2	1.28 V	2.14 V

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*  STRINGER  -  LIVE LOAD  HS20  *
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MAXIMUM REACTIONS

SUPPORT	DL1	DL2	+(LL+I)	-(LL+I)	REACTIONS +I.F.	REACTIONS -I.F.	MOMENTS +I.F.	MOMENTS -I.F.
1	4.0	0.0	30.0	0.0	1.30			
2	8.1	0.0	26.9 L	0.0	1.30			
3	8.1	0.0	30.0	0.0	1.30			
4	4.0	0.0	26.0	0.0	1.30			

NOTE: ALL SUPPORT REACTIONS AND END SHEARS IN EACH SPAN DUE TO A LIVE LOAD ARE CALCULATED BASED ON AASHTO ARTICLE 3.23.1 AS INTERPRETED IN SOL 431-93-05.

UNFACTORED MOMENTS AND SHEARS

SPAN 1 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
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X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	30.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-30.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 2 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	30.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.7	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 3 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	30.0	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.2	-3.0	1.30
	SIMULT	SHEAR	27.2	0.0	SIMULT	MOM	25.9	25.9	
1.90	6.1	0.0	46.0	0.0	2.4	0.0	24.2	-6.0	1.30
	SIMULT	SHEAR	24.2	0.0	SIMULT	MOM	46.0	46.0	
2.85	8.0	0.0	60.3	0.0	1.6	0.0	21.2	-9.1	1.30
	SIMULT	SHEAR	21.2	0.0	SIMULT	MOM	60.3	60.3	
3.80	9.2	0.0	69.0	0.0	0.8	0.0	18.1	-12.1	1.30
	SIMULT	SHEAR	18.1	0.0	SIMULT	MOM	69.0	69.0	
4.75	9.6	0.0	71.8	0.0	0.0	0.0	15.1	-15.1	1.30
	SIMULT	SHEAR	-15.1	0.0	SIMULT	MOM	71.8	71.8	
5.70	9.2	0.0	69.0	0.0	-0.8	0.0	12.1	-18.1	1.30
	SIMULT	SHEAR	-18.1	0.0	SIMULT	MOM	69.0	69.0	
6.65	8.0	0.0	60.3	0.0	-1.6	0.0	9.1	-21.2	1.30
	SIMULT	SHEAR	-21.2	0.0	SIMULT	MOM	60.3	60.3	
7.60	6.1	0.0	46.0	0.0	-2.4	0.0	6.0	-24.2	1.30
	SIMULT	SHEAR	-24.2	0.0	SIMULT	MOM	46.0	46.0	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	3.0	-27.2	1.30
	SIMULT	SHEAR	-27.2	0.0	SIMULT	MOM	25.9	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-26.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

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NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

SPAN 1
=======

X	NON-COMP OVERLOAD MOMENT STRENGTH	MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	OR
0.00	154.9 B	123.9	85.8	1.24 V	2.07 V	172.2	1.24 V	2.07 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.24 V	2.07 V	172.2	1.24 V	2.07 V

SPAN 2
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X	NON-COMP OVERLOAD MOMENT STRENGTH	MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	OR
0.00	154.9 B	123.9	85.8	1.24 V	2.07 V	172.2	1.24 V	2.07 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.25 V	2.09 V	172.2	1.25 V	2.09 V

SPAN 3
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X	NON-COMP OVERLOAD MOMENT STRENGTH	MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	OR
0.00	154.9 B	123.9	85.8	1.24 V	2.07 V	172.2	1.24 V	2.07 V
0.95	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
1.90	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
2.85	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
3.80	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
4.75	154.9 B	123.9	85.8	0.92 T	1.53 T	172.2	0.96 O	1.59 O
5.70	154.9 B	123.9	85.8	0.96 T	1.59 T	172.2	1.00 O	1.66 O
6.65	154.9 B	123.9	85.8	1.10 T	1.84 T	172.2	1.15 O	1.92 O
7.60	154.9 B	123.9	85.8	1.47 T	2.46 T	172.2	1.54 O	2.56 O
8.55	154.9 B	123.9	85.8	1.38 V	2.31 V	172.2	1.38 V	2.31 V
9.50	154.9 B	123.9	85.8	1.43 V	2.38 V	172.2	1.43 V	2.38 V

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*********************************
*  STRINGER  -  LIVE LOAD TK527  *
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MAXIMUM REACTIONS

SUPPORT	DL1	DL2	+(LL+I)	-(LL+I)	REACTIONS +I.F.	REACTIONS -I.F.	MOMENTS +I.F.	MOMENTS -I.F.
1	4.0	0.0	29.2	0.0	1.30			
2	8.1	0.0	33.7	0.0	1.30			
3	8.1	0.0	33.7	0.0	1.30			
4	4.0	0.0	29.2	0.0	1.30			

NOTE: ALL SUPPORT REACTIONS AND END SHEARS IN EACH SPAN DUE TO A LIVE LOAD ARE CALCULATED BASED ON AASHTO ARTICLE 3.23.1 AS INTERPRETED IN SOL 431-93-05.

UNFACTORED MOMENTS AND SHEARS

SPAN 1 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.2	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.3	-1.9	1.30
	SIMULT	SHEAR	27.3	0.0	SIMULT	MOM	25.9	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	
3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	56.5	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	-10.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30
	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	1.9	-27.3	1.30
	SIMULT	SHEAR	-27.3	0.0	SIMULT	MOM	16.6	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.2	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 2 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.2	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.3	-1.9	1.30
	SIMULT	SHEAR	27.3	0.0	SIMULT	MOM	25.9	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	
3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	56.5	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	-10.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30

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	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	1.9	-27.3	1.30
	SIMULT	SHEAR	-27.3	0.0	SIMULT	MOM	16.6	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.2	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 3 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	29.2	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	25.9	0.0	3.2	0.0	27.3	-1.9	1.30
	SIMULT	SHEAR	27.3	0.0	SIMULT	MOM	25.9	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	
3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	56.5	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	-10.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30
	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	25.9	0.0	-3.2	0.0	1.9	-27.3	1.30
	SIMULT	SHEAR	-27.3	0.0	SIMULT	MOM	16.6	25.9	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-29.2	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

SPAN 1
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X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	OR
0.00	154.9 B	123.9	85.8	1.27 V	2.12 V	172.2	1.27 V	2.12 V
0.95	154.9 B	123.9	85.8	1.38 V	2.30 V	172.2	1.38 V	2.30 V
1.90	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
2.85	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
3.80	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
4.75	154.9 B	123.9	85.8	1.16 T	1.94 T	172.2	1.21 O	2.02 O
5.70	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
6.65	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
7.60	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
8.55	154.9 B	123.9	85.8	1.38 V	2.30 V	172.2	1.38 V	2.30 V
9.50	154.9 B	123.9	85.8	1.27 V	2.12 V	172.2	1.27 V	2.12 V

SPAN 2
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	OR
0.00	154.9 B	123.9	85.8	1.27 V	2.12 V	172.2	1.27 V	2.12 V
0.95	154.9 B	123.9	85.8	1.38 V	2.30 V	172.2	1.38 V	2.30 V
1.90	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
2.85	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
3.80	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
4.75	154.9 B	123.9	85.8	1.16 T	1.94 T	172.2	1.21 O	2.02 O
5.70	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
6.65	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
7.60	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
8.55	154.9 B	123.9	85.8	1.38 V	2.30 V	172.2	1.38 V	2.30 V
9.50	154.9 B	123.9	85.8	1.27 V	2.12 V	172.2	1.27 V	2.12 V

SPAN 3
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X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	OR
0.00	154.9 B	123.9	85.8	1.27 V	2.12 V	172.2	1.27 V	2.12 V
0.95	154.9 B	123.9	85.8	1.38 V	2.30 V	172.2	1.38 V	2.30 V
1.90	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
2.85	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
3.80	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
4.75	154.9 B	123.9	85.8	1.16 T	1.94 T	172.2	1.21 O	2.02 O
5.70	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
6.65	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
7.60	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
8.55	154.9 B	123.9	85.8	1.38 V	2.30 V	172.2	1.38 V	2.30 V
9.50	154.9 B	123.9	85.8	1.27 V	2.12 V	172.2	1.27 V	2.12 V

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*  STRINGER  -  LIVE LOAD  ML80  *
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MAXIMUM REACTIONS

SUPPORT	DL1	DL2	+(LL+I)	-(LL+I)	REACTIONS +I.F.	REACTIONS -I.F.	MOMENTS +I.F.	MOMENTS -I.F.
1	4.0	0.0	31.1	0.0	1.30			
2	8.1	0.0	39.3	0.0	1.30			
3	8.1	0.0	39.3	0.0	1.30			
4	4.0	0.0	31.1	0.0	1.30			

NOTE: ALL SUPPORT REACTIONS AND END SHEARS IN EACH SPAN DUE TO A LIVE LOAD ARE CALCULATED BASED ON AASHTO ARTICLE 3.23.1 AS INTERPRETED IN SOL 431-93-05.

UNFACTORED MOMENTS AND SHEARS

SPAN 1 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	31.1	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	26.6	0.0	3.2	0.0	28.0	-1.9	1.30
	SIMULT	SHEAR	28.0	0.0	SIMULT	MOM	26.6	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	

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3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	60.8	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	9.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30
	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	26.6	0.0	-3.2	0.0	1.9	-28.0	1.30
	SIMULT	SHEAR	-28.0	0.0	SIMULT	MOM	16.6	26.6	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-31.1	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 2 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	31.1	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	26.6	0.0	3.2	0.0	28.0	-1.9	1.30
	SIMULT	SHEAR	28.0	0.0	SIMULT	MOM	26.6	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	
3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	60.8	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	9.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30
	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	26.6	0.0	-3.2	0.0	1.9	-28.0	1.30
	SIMULT	SHEAR	-28.0	0.0	SIMULT	MOM	16.6	26.6	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-31.1	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 3 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	31.1	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	26.6	0.0	3.2	0.0	28.0	-1.9	1.30
	SIMULT	SHEAR	28.0	0.0	SIMULT	MOM	26.6	16.6	
1.90	6.1	0.0	43.6	0.0	2.4	0.0	23.0	-3.9	1.30
	SIMULT	SHEAR	23.0	0.0	SIMULT	MOM	43.6	29.6	
2.85	8.0	0.0	54.3	0.0	1.6	0.0	19.1	-5.8	1.30
	SIMULT	SHEAR	19.1	0.0	SIMULT	MOM	54.3	38.8	
3.80	9.2	0.0	57.6	0.0	0.8	0.0	15.2	-7.8	1.30
	SIMULT	SHEAR	15.2	0.0	SIMULT	MOM	57.6	44.4	
4.75	9.6	0.0	60.8	0.0	0.0	0.0	11.3	-11.3	1.30
	SIMULT	SHEAR	9.7	0.0	SIMULT	MOM	53.5	53.5	
5.70	9.2	0.0	57.6	0.0	-0.8	0.0	7.8	-15.2	1.30
	SIMULT	SHEAR	-15.2	0.0	SIMULT	MOM	44.4	57.6	
6.65	8.0	0.0	54.3	0.0	-1.6	0.0	5.8	-19.1	1.30
	SIMULT	SHEAR	-19.1	0.0	SIMULT	MOM	38.8	54.3	
7.60	6.1	0.0	43.6	0.0	-2.4	0.0	3.9	-23.0	1.30
	SIMULT	SHEAR	-23.0	0.0	SIMULT	MOM	29.6	43.6	
8.55	3.4	0.0	26.6	0.0	-3.2	0.0	1.9	-28.0	1.30
	SIMULT	SHEAR	-28.0	0.0	SIMULT	MOM	16.6	26.6	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-31.1	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

SPAN 1
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V
0.95	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
1.90	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
2.85	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
3.80	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
4.75	154.9 B	123.9	85.8	1.08 T	1.80 T	172.2	1.13 O	1.88 O
5.70	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
6.65	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
7.60	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
8.55	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
9.50	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V

SPAN 2
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V
0.95	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
1.90	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
2.85	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
3.80	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
4.75	154.9 B	123.9	85.8	1.08 T	1.80 T	172.2	1.13 O	1.88 O
5.70	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
6.65	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
7.60	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
8.55	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
9.50	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V

SPAN 3
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V
0.95	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
1.90	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
2.85	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
3.80	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
4.75	154.9 B	123.9	85.8	1.08 T	1.80 T	172.2	1.13 O	1.88 O
5.70	154.9 B	123.9	85.8	1.14 T	1.91 T	172.2	1.19 O	1.99 O
6.65	154.9 B	123.9	85.8	1.23 T	2.05 T	172.2	1.28 O	2.13 O
7.60	154.9 B	123.9	85.8	1.55 T	2.59 T	172.2	1.62 O	2.70 O
8.55	154.9 B	123.9	85.8	1.35 V	2.24 V	172.2	1.35 V	2.24 V
9.50	154.9 B	123.9	85.8	1.20 V	1.99 V	172.2	1.20 V	1.99 V

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*  STRINGER  -  LIVE LOAD  P-82  *
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MAXIMUM REACTIONS

SUPPORT	DL1	DL2	+(LL+I)	-(LL+I)	REACTIONS +I.F.	REACTIONS -I.F.	MOMENTS +I.F.	MOMENTS -I.F.
1	4.0	0.0	40.7	0.0	1.30			
2	8.1	0.0	55.5	0.0	1.30			
3	8.1	0.0	55.5	0.0	1.30			
4	4.0	0.0	40.7	0.0	1.30			

NOTE: ALL SUPPORT REACTIONS AND END SHEARS IN EACH SPAN DUE TO A LIVE LOAD ARE CALCULATED BASED ON AASHTO ARTICLE 3.23.1 AS INTERPRETED IN SOL 431-93-05.

UNFACTORED MOMENTS AND SHEARS

SPAN 1 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	40.7	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	34.8	0.0	3.2	0.0	36.7	-2.6	1.30
	SIMULT	SHEAR	36.7	0.0	SIMULT	MOM	34.8	21.8	
1.90	6.1	0.0	57.2	0.0	2.4	0.0	30.1	-5.1	1.30
	SIMULT	SHEAR	30.1	0.0	SIMULT	MOM	57.2	38.8	
2.85	8.0	0.0	71.2	0.0	1.6	0.0	25.0	-7.7	1.30
	SIMULT	SHEAR	25.0	0.0	SIMULT	MOM	71.2	50.9	
3.80	9.2	0.0	75.5	0.0	0.8	0.0	19.9	-10.2	1.30
	SIMULT	SHEAR	19.9	0.0	SIMULT	MOM	75.5	58.2	
4.75	9.6	0.0	79.7	0.0	0.0	0.0	14.8	-14.8	1.30
	SIMULT	SHEAR	12.8	0.0	SIMULT	MOM	70.2	70.2	
5.70	9.2	0.0	75.5	0.0	-0.8	0.0	10.2	-19.9	1.30
	SIMULT	SHEAR	-19.9	0.0	SIMULT	MOM	58.2	75.5	
6.65	8.0	0.0	71.2	0.0	-1.6	0.0	7.7	-25.0	1.30
	SIMULT	SHEAR	-25.0	0.0	SIMULT	MOM	50.9	71.2	
7.60	6.1	0.0	57.2	0.0	-2.4	0.0	5.1	-30.1	1.30
	SIMULT	SHEAR	-30.1	0.0	SIMULT	MOM	38.8	57.2	
8.55	3.4	0.0	34.8	0.0	-3.2	0.0	2.6	-36.7	1.30
	SIMULT	SHEAR	-36.7	0.0	SIMULT	MOM	21.8	34.8	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-40.7	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 2 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	40.7	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	34.8	0.0	3.2	0.0	36.7	-2.6	1.30
	SIMULT	SHEAR	36.7	0.0	SIMULT	MOM	34.8	21.8	
1.90	6.1	0.0	57.2	0.0	2.4	0.0	30.1	-5.1	1.30
	SIMULT	SHEAR	30.1	0.0	SIMULT	MOM	57.2	38.8	
2.85	8.0	0.0	71.2	0.0	1.6	0.0	25.0	-7.7	1.30
	SIMULT	SHEAR	25.0	0.0	SIMULT	MOM	71.2	50.9	
3.80	9.2	0.0	75.5	0.0	0.8	0.0	19.9	-10.2	1.30
	SIMULT	SHEAR	19.9	0.0	SIMULT	MOM	75.5	58.2	
4.75	9.6	0.0	79.7	0.0	0.0	0.0	14.8	-14.8	1.30
	SIMULT	SHEAR	12.8	0.0	SIMULT	MOM	70.2	70.2	
5.70	9.2	0.0	75.5	0.0	-0.8	0.0	10.2	-19.9	1.30
	SIMULT	SHEAR	-19.9	0.0	SIMULT	MOM	58.2	75.5	
6.65	8.0	0.0	71.2	0.0	-1.6	0.0	7.7	-25.0	1.30
	SIMULT	SHEAR	-25.0	0.0	SIMULT	MOM	50.9	71.2	
7.60	6.1	0.0	57.2	0.0	-2.4	0.0	5.1	-30.1	1.30
	SIMULT	SHEAR	-30.1	0.0	SIMULT	MOM	38.8	57.2	
8.55	3.4	0.0	34.8	0.0	-3.2	0.0	2.6	-36.7	1.30
	SIMULT	SHEAR	-36.7	0.0	SIMULT	MOM	21.8	34.8	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-40.7	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

SPAN 3 - LIVE LOAD IMPACT FACTORS : POS MOM 1.30
=======

X	DL1 MOMENT	DL2 MOMENT	+(LL+I) MOMENT	-(LL+I) MOMENT	DL1 SHEAR	DL2 SHEAR	+(LL+I) SHEAR	-(LL+I) SHEAR	I.F.
0.00	0.0	0.0	0.0	0.0	4.0	0.0	40.7	0.0	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	
0.95	3.4	0.0	34.8	0.0	3.2	0.0	36.7	-2.6	1.30
	SIMULT	SHEAR	36.7	0.0	SIMULT	MOM	34.8	21.8	
1.90	6.1	0.0	57.2	0.0	2.4	0.0	30.1	-5.1	1.30
	SIMULT	SHEAR	30.1	0.0	SIMULT	MOM	57.2	38.8	
2.85	8.0	0.0	71.2	0.0	1.6	0.0	25.0	-7.7	1.30
	SIMULT	SHEAR	25.0	0.0	SIMULT	MOM	71.2	50.9	
3.80	9.2	0.0	75.5	0.0	0.8	0.0	19.9	-10.2	1.30
	SIMULT	SHEAR	19.9	0.0	SIMULT	MOM	75.5	58.2	
4.75	9.6	0.0	79.7	0.0	0.0	0.0	14.8	-14.8	1.30
	SIMULT	SHEAR	12.8	0.0	SIMULT	MOM	70.2	70.2	
5.70	9.2	0.0	75.5	0.0	-0.8	0.0	10.2	-19.9	1.30
	SIMULT	SHEAR	-19.9	0.0	SIMULT	MOM	58.2	75.5	
6.65	8.0	0.0	71.2	0.0	-1.6	0.0	7.7	-25.0	1.30
	SIMULT	SHEAR	-25.0	0.0	SIMULT	MOM	50.9	71.2	
7.60	6.1	0.0	57.2	0.0	-2.4	0.0	5.1	-30.1	1.30
	SIMULT	SHEAR	-30.1	0.0	SIMULT	MOM	38.8	57.2	
8.55	3.4	0.0	34.8	0.0	-3.2	0.0	2.6	-36.7	1.30
	SIMULT	SHEAR	-36.7	0.0	SIMULT	MOM	21.8	34.8	
9.50	0.0	0.0	0.0	0.0	-4.0	0.0	0.0	-40.7	1.30
	SIMULT	SHEAR	0.0	0.0	SIMULT	MOM	0.0	0.0	

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

SPAN 1
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V
0.95	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
1.90	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
2.85	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
3.80	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
4.75	154.9 B	123.9	85.8	0.82 T	1.37 T	172.2	0.86 O	1.43 O
5.70	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
6.65	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
7.60	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
8.55	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
9.50	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V

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SPAN 2
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V
0.95	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
1.90	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
2.85	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
3.80	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
4.75	154.9 B	123.9	85.8	0.82 T	1.37 T	172.2	0.86 O	1.43 O
5.70	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
6.65	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
7.60	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
8.55	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
9.50	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V

SPAN 3
=======

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V
0.95	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
1.90	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
2.85	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
3.80	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
4.75	154.9 B	123.9	85.8	0.82 T	1.37 T	172.2	0.86 O	1.43 O
5.70	154.9 B	123.9	85.8	0.87 T	1.46 T	172.2	0.91 O	1.52 O
6.65	154.9 B	123.9	85.8	0.94 T	1.56 T	172.2	0.98 O	1.63 O
7.60	154.9 B	123.9	85.8	1.19 T	1.98 T	172.2	1.24 O	2.06 O
8.55	154.9 B	123.9	85.8	1.03 V	1.71 V	172.2	1.03 V	1.71 V
9.50	154.9 B	123.9	85.8	0.91 V	1.52 V	172.2	0.91 V	1.52 V

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+                                          +
+    F L O O R B E A M   A N A L Y S I S   +
+                                          +
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FLOORBEAM SPAN: 16.00 CANTILEVER: 0.00

FLOORBEAM LIVE LOAD MOMENT AND SHEAR FACTORS

X	FACTOR	LANE 1/4/7		LANE 2/5/8		LANE 3/6
		---------- WHEEL LOAD POSITIONS ----------				
0.00	0.000 M	0.00	0.00			
	1.000 V	0.50	6.50	9.50	15.50	
1.60	1.140 M	1.60	7.60			
	0.713 V	1.60	7.60			
3.20	1.960 M	3.20	9.20			
	0.612 V	3.20	9.20			
4.80	2.650 M	0.50	6.50	9.50	15.50	
	0.512 V	4.80	10.80			
6.40	3.450 M	0.50	6.50	9.50	15.50	
	0.500 V	0.50	6.50	9.50	15.50	
8.00	3.500 M	0.50	6.50	9.50	15.50	
	0.313 V	8.00	14.00			

FACTOR CODES: M - MOMENT, V - SHEAR

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<    FLOORBEAM  1    >
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DEAD LOADS ACTING ON FLOORBEAM

UNIFORM LOAD FLOORBEAM WEIGHT	INPUT DL1	CONCENTRATED LOADS DIST	DL1	DL2
0.036	0.130	8.000	4.028	0.000

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************************************
*  FLOORBEAM  -  LIVE LOAD  H20    *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 32.00
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	3.3	0.0	41.6	1.30
1.60	5.1	0.0	47.4	3.1	0.0	29.6	1.30
3.20	9.8	0.0	81.5	2.8	0.0	25.5	1.30
4.80	14.1	0.0	110.2	2.5	0.0	21.3	1.30
6.40	18.0	0.0	143.5	2.3	0.0	20.8	1.30
8.00	21.4	0.0	145.6	-2.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.90 V	1.51 V	172.2	0.90 V	1.51 V
1.60	154.9 B	123.9	85.8	1.27 V	2.12 V	172.2	1.27 V	2.12 V
3.20	154.9 B	123.9	85.8	0.80 T	1.34 T	172.2	0.84 O	1.40 O
4.80	154.9 B	123.9	85.8	0.57 T	0.95 T	172.2	0.60 O	1.00 O
6.40	154.9 B	123.9	85.8	0.42 T	0.70 T	172.2	0.44 O	0.74 O
8.00	154.9 B	123.9	85.8	0.40 T	0.67 T	172.2	0.42 O	0.70 O

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************************************
*  FLOORBEAM  -  LIVE LOAD  HS20   *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 32.00
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	3.3	0.0	41.6	1.30
1.60	5.1	0.0	47.4	3.1	0.0	29.6	1.30

85/97

3.20	9.8	0.0	81.5	2.8	0.0	25.5	1.30
4.80	14.1	0.0	110.2	2.5	0.0	21.3	1.30
6.40	18.0	0.0	143.5	2.3	0.0	20.8	1.30
8.00	21.4	0.0	145.6	-2.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.90 V	1.51 V	172.2	0.90 V	1.51 V
1.60	154.9 B	123.9	85.8	1.27 V	2.12 V	172.2	1.27 V	2.12 V
3.20	154.9 B	123.9	85.8	0.80 T	1.34 T	172.2	0.84 O	1.40 O
4.80	154.9 B	123.9	85.8	0.57 T	0.95 T	172.2	0.60 O	1.00 O
6.40	154.9 B	123.9	85.8	0.42 T	0.70 T	172.2	0.44 O	0.74 O
8.00	154.9 B	123.9	85.8	0.40 T	0.67 T	172.2	0.42 O	0.70 O

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* FLOORBEAM - LIVE LOAD TK527 *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 33.83
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	3.3	0.0	44.0	1.30
1.60	5.1	0.0	50.1	3.1	0.0	31.3	1.30
3.20	9.8	0.0	86.2	2.8	0.0	26.9	1.30
4.80	14.1	0.0	116.5	2.5	0.0	22.5	1.30
6.40	18.0	0.0	151.7	2.3	0.0	22.0	1.30
8.00	21.4	0.0	153.9	-2.0	0.0	13.7	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.85 V	1.42 V	172.2	0.85 V	1.42 V
1.60	154.9 B	123.9	85.8	1.21 V	2.01 V	172.2	1.21 V	2.01 V
3.20	154.9 B	123.9	85.8	0.76 T	1.27 T	172.2	0.79 O	1.32 O
4.80	154.9 B	123.9	85.8	0.54 T	0.90 T	172.2	0.57 O	0.94 O
6.40	154.9 B	123.9	85.8	0.40 T	0.67 T	172.2	0.42 O	0.70 O
8.00	154.9 B	123.9	85.8	0.38 T	0.63 T	172.2	0.40 O	0.67 O

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* FLOORBEAM - LIVE LOAD ML80 *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 35.78
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	3.3	0.0	46.5	1.30
1.60	5.1	0.0	53.0	3.1	0.0	33.1	1.30
3.20	9.8	0.0	91.2	2.8	0.0	28.5	1.30
4.80	14.1	0.0	123.3	2.5	0.0	23.8	1.30
6.40	18.0	0.0	160.5	2.3	0.0	23.3	1.30
8.00	21.4	0.0	162.8	-2.0	0.0	14.5	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.81 V	1.35 V	172.2	0.81 V	1.35 V
1.60	154.9 B	123.9	85.8	1.14 V	1.90 V	172.2	1.14 V	1.90 V
3.20	154.9 B	123.9	85.8	0.72 T	1.20 T	172.2	0.75 O	1.25 O
4.80	154.9 B	123.9	85.8	0.51 T	0.85 T	172.2	0.53 O	0.89 O
6.40	154.9 B	123.9	85.8	0.38 T	0.63 T	172.2	0.40 O	0.66 O
8.00	154.9 B	123.9	85.8	0.36 T	0.60 T	172.2	0.38 O	0.63 O

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* FLOORBEAM - LIVE LOAD P-82 *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 46.89
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	3.3	0.0	61.0	1.30
1.60	5.1	0.0	69.5	3.1	0.0	43.4	1.30
3.20	9.8	0.0	119.5	2.8	0.0	37.3	1.30
4.80	14.1	0.0	161.6	2.5	0.0	31.2	1.30
6.40	18.0	0.0	210.3	2.3	0.0	30.5	1.30
8.00	21.4	0.0	213.4	-2.0	0.0	19.1	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.62 V	1.03 V	172.2	0.62 V	1.03 V

86/97

1.60	154.9 B	123.9	85.8	0.87 V	1.45 V	172.2	0.87 V	1.45 V
3.20	154.9 B	123.9	85.8	0.55 T	0.91 T	172.2	0.57 O	0.95 O
4.80	154.9 B	123.9	85.8	0.39 T	0.65 T	172.2	0.41 O	0.68 O
6.40	154.9 B	123.9	85.8	0.29 T	0.48 T	172.2	0.30 O	0.50 O
8.00	154.9 B	123.9	85.8	0.27 T	0.46 T	172.2	0.29 O	0.48 O

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<    FLOORBEAM  2    >
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DEAD LOADS ACTING ON FLOORBEAM

UNIFORM LOAD FLOORBEAM WEIGHT	INPUT DL1	CONCENTRATED LOADS DIST	DL1	DL2
0.036	0.130	8.000	8.055	0.000

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*  FLOORBEAM  -  LIVE LOAD  H20    *
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LIVE LOAD REACTION FROM DECK (ONE LANE) : 32.08
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	41.7	1.30
1.60	8.4	0.0	47.5	5.1	0.0	29.7	1.30
3.20	16.3	0.0	81.7	4.8	0.0	25.5	1.30
4.80	23.8	0.0	110.5	4.6	0.0	21.4	1.30
6.40	30.9	0.0	143.9	4.3	0.0	20.9	1.30
8.00	37.5	0.0	146.0	-4.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.87 V	1.45 V	172.2	0.87 V	1.45 V
1.60	154.9 B	123.9	85.8	1.23 V	2.05 V	172.2	1.23 V	2.05 V
3.20	154.9 B	123.9	85.8	0.75 T	1.26 T	172.2	0.79 O	1.32 O
4.80	154.9 B	123.9	85.8	0.52 T	0.86 T	172.2	0.54 O	0.91 O
6.40	154.9 B	123.9	85.8	0.37 T	0.61 T	172.2	0.39 O	0.65 O
8.00	154.9 B	123.9	85.8	0.34 T	0.56 T	172.2	0.35 O	0.59 O

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*  FLOORBEAM  -  LIVE LOAD  HS20   *
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LIVE LOAD REACTION FROM DECK (ONE LANE) : 32.08
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	41.7	1.30
1.60	8.4	0.0	47.5	5.1	0.0	29.7	1.30
3.20	16.3	0.0	81.7	4.8	0.0	25.5	1.30
4.80	23.8	0.0	110.5	4.6	0.0	21.4	1.30
6.40	30.9	0.0	143.9	4.3	0.0	20.9	1.30
8.00	37.5	0.0	146.0	-4.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.87 V	1.45 V	172.2	0.87 V	1.45 V
1.60	154.9 B	123.9	85.8	1.23 V	2.05 V	172.2	1.23 V	2.05 V
3.20	154.9 B	123.9	85.8	0.75 T	1.26 T	172.2	0.79 O	1.32 O
4.80	154.9 B	123.9	85.8	0.52 T	0.86 T	172.2	0.54 O	0.91 O
6.40	154.9 B	123.9	85.8	0.37 T	0.61 T	172.2	0.39 O	0.65 O
8.00	154.9 B	123.9	85.8	0.34 T	0.56 T	172.2	0.35 O	0.59 O

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*  FLOORBEAM  -  LIVE LOAD TK527   *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 38.60
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	50.2	1.30
1.60	8.4	0.0	57.2	5.1	0.0	35.8	1.30
3.20	16.3	0.0	98.3	4.8	0.0	30.7	1.30
4.80	23.8	0.0	133.0	4.6	0.0	25.7	1.30
6.40	30.9	0.0	173.1	4.3	0.0	25.1	1.30
8.00	37.5	0.0	175.6	-4.0	0.0	15.7	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.73 V	1.21 V	172.2	0.73 V	1.21 V
1.60	154.9 B	123.9	85.8	1.02 V	1.70 V	172.2	1.02 V	1.70 V
3.20	154.9 B	123.9	85.8	0.63 T	1.05 T	172.2	0.66 O	1.09 O
4.80	154.9 B	123.9	85.8	0.43 T	0.72 T	172.2	0.45 O	0.75 O
6.40	154.9 B	123.9	85.8	0.31 T	0.51 T	172.2	0.32 O	0.54 O

8.00	154.9 B	123.9	85.8	0.28 T	0.46 T	172.2	0.30 O	0.49 O

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*  FLOORBEAM  -  LIVE LOAD  ML80  *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 44.45
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	57.8	1.30
1.60	8.4	0.0	65.9	5.1	0.0	41.2	1.30
3.20	16.3	0.0	113.3	4.8	0.0	35.4	1.30
4.80	23.8	0.0	153.1	4.6	0.0	29.6	1.30
6.40	30.9	0.0	199.4	4.3	0.0	28.9	1.30
8.00	37.5	0.0	202.3	-4.0	0.0	18.1	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.63 V	1.05 V	172.2	0.63 V	1.05 V
1.60	154.9 B	123.9	85.8	0.89 V	1.48 V	172.2	0.89 V	1.48 V
3.20	154.9 B	123.9	85.8	0.54 T	0.91 T	172.2	0.57 O	0.95 O
4.80	154.9 B	123.9	85.8	0.37 T	0.62 T	172.2	0.39 O	0.65 O
6.40	154.9 B	123.9	85.8	0.27 T	0.44 T	172.2	0.28 O	0.47 O
8.00	154.9 B	123.9	85.8	0.24 T	0.40 T	172.2	0.26 O	0.43 O

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*  FLOORBEAM  -  LIVE LOAD  P-82  *
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 62.53
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	81.3	1.30
1.60	8.4	0.0	92.7	5.1	0.0	57.9	1.30
3.20	16.3	0.0	159.3	4.8	0.0	49.8	1.30
4.80	23.8	0.0	215.4	4.6	0.0	41.7	1.30
6.40	30.9	0.0	280.4	4.3	0.0	40.6	1.30
8.00	37.5	0.0	284.5	-4.0	0.0	25.4	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.45 V	0.75 V	172.2	0.45 V	0.75 V
1.60	154.9 B	123.9	85.8	0.63 V	1.05 V	172.2	0.63 V	1.05 V
3.20	154.9 B	123.9	85.8	0.39 T	0.65 T	172.2	0.41 O	0.68 O
4.80	154.9 B	123.9	85.8	0.27 T	0.44 T	172.2	0.28 O	0.46 O
6.40	154.9 B	123.9	85.8	0.19 T	0.31 T	172.2	0.20 O	0.33 O
8.00	154.9 B	123.9	85.8	0.17 T	0.29 T	172.2	0.18 O	0.30 O

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<    FLOORBEAM  3    >
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DEAD LOADS ACTING ON FLOORBEAM

UNIFORM LOAD FLOORBEAM WEIGHT	INPUT DL1	CONCENTRATED LOADS DIST	DL1	DL2
0.036	0.130	8.000	8.055	0.000

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*  FLOORBEAM  -  LIVE LOAD  H20   *
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LIVE LOAD REACTION FROM DECK (ONE LANE) : 32.08
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	41.7	1.30
1.60	8.4	0.0	47.5	5.1	0.0	29.7	1.30
3.20	16.3	0.0	81.7	4.8	0.0	25.5	1.30
4.80	23.8	0.0	110.5	4.6	0.0	21.4	1.30
6.40	30.9	0.0	143.9	4.3	0.0	20.9	1.30
8.00	37.5	0.0	146.0	-4.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.87 V	1.45 V	172.2	0.87 V	1.45 V
1.60	154.9 B	123.9	85.8	1.23 V	2.05 V	172.2	1.23 V	2.05 V
3.20	154.9 B	123.9	85.8	0.75 T	1.26 T	172.2	0.79 O	1.32 O
4.80	154.9 B	123.9	85.8	0.52 T	0.86 T	172.2	0.54 O	0.91 O
6.40	154.9 B	123.9	85.8	0.37 T	0.61 T	172.2	0.39 O	0.65 O
8.00	154.9 B	123.9	85.8	0.34 T	0.56 T	172.2	0.35 O	0.59 O

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*  FLOORBEAM  -  LIVE LOAD  HS20  *
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LIVE LOAD REACTION FROM DECK (ONE LANE) : 32.08
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	41.7	1.30
1.60	8.4	0.0	47.5	5.1	0.0	29.7	1.30
3.20	16.3	0.0	81.7	4.8	0.0	25.5	1.30
4.80	23.8	0.0	110.5	4.6	0.0	21.4	1.30
6.40	30.9	0.0	143.9	4.3	0.0	20.9	1.30
8.00	37.5	0.0	146.0	-4.0	0.0	13.0	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.87 V	1.45 V	172.2	0.87 V	1.45 V
1.60	154.9 B	123.9	85.8	1.23 V	2.05 V	172.2	1.23 V	2.05 V
3.20	154.9 B	123.9	85.8	0.75 T	1.26 T	172.2	0.79 O	1.32 O
4.80	154.9 B	123.9	85.8	0.52 T	0.86 T	172.2	0.54 O	0.91 O
6.40	154.9 B	123.9	85.8	0.37 T	0.61 T	172.2	0.39 O	0.65 O
8.00	154.9 B	123.9	85.8	0.34 T	0.56 T	172.2	0.35 O	0.59 O

```
************************************
*  FLOORBEAM  -  LIVE LOAD TK527  *
************************************
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 38.60
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	50.2	1.30
1.60	8.4	0.0	57.2	5.1	0.0	35.8	1.30
3.20	16.3	0.0	98.3	4.8	0.0	30.7	1.30
4.80	23.8	0.0	133.0	4.6	0.0	25.7	1.30
6.40	30.9	0.0	173.1	4.3	0.0	25.1	1.30
8.00	37.5	0.0	175.6	-4.0	0.0	15.7	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.73 V	1.21 V	172.2	0.73 V	1.21 V
1.60	154.9 B	123.9	85.8	1.02 V	1.70 V	172.2	1.02 V	1.70 V
3.20	154.9 B	123.9	85.8	0.63 T	1.05 T	172.2	0.66 O	1.09 O
4.80	154.9 B	123.9	85.8	0.43 T	0.72 T	172.2	0.45 O	0.75 O
6.40	154.9 B	123.9	85.8	0.31 T	0.51 T	172.2	0.32 O	0.54 O
8.00	154.9 B	123.9	85.8	0.28 T	0.46 T	172.2	0.30 O	0.49 O

```
************************************
*  FLOORBEAM  -  LIVE LOAD  ML80  *
************************************
```

LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 44.45
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	57.8	1.30
1.60	8.4	0.0	65.9	5.1	0.0	41.2	1.30
3.20	16.3	0.0	113.3	4.8	0.0	35.4	1.30
4.80	23.8	0.0	153.1	4.6	0.0	29.6	1.30
6.40	30.9	0.0	199.4	4.3	0.0	28.9	1.30
8.00	37.5	0.0	202.3	-4.0	0.0	18.1	1.30

NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.63 V	1.05 V	172.2	0.63 V	1.05 V
1.60	154.9 B	123.9	85.8	0.89 V	1.48 V	172.2	0.89 V	1.48 V
3.20	154.9 B	123.9	85.8	0.54 T	0.91 T	172.2	0.57 O	0.95 O
4.80	154.9 B	123.9	85.8	0.37 T	0.62 T	172.2	0.39 O	0.65 O
6.40	154.9 B	123.9	85.8	0.27 T	0.44 T	172.2	0.28 O	0.47 O
8.00	154.9 B	123.9	85.8	0.24 T	0.40 T	172.2	0.26 O	0.43 O

```
************************************
*  FLOORBEAM  -  LIVE LOAD  P-82  *
************************************
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LIVE LOAD REACTION FROM DECK (ONE TRUCK) : 62.53
LIVE LOAD IMPACT FACTORS : POS MOM 1.30

UNFACTORED MOMENTS AND SHEARS

X	DL1 MOMENT	DL2 MOMENT	LL+I MOMENT	DL1 SHEAR	DL2 SHEAR	LL+I SHEAR	I.F.
0.00	0.0	0.0	0.0	5.4	0.0	81.3	1.30
1.60	8.4	0.0	92.7	5.1	0.0	57.9	1.30
3.20	16.3	0.0	159.3	4.8	0.0	49.8	1.30
4.80	23.8	0.0	215.4	4.6	0.0	41.7	1.30
6.40	30.9	0.0	280.4	4.3	0.0	40.6	1.30
8.00	37.5	0.0	284.5	-4.0	0.0	25.4	1.30

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NOTE: THE SHEAR CAPACITIES CALCULATED HEREIN ARE BASED ON STIFFENED OR UNSTIFFENED EQUATIONS AS SPECIFIED BY INPUT REGARDLESS OF THE STIFFENER SPACINGS INPUT AND ARE NOT CHECKED AGAINST AASHTO CRITERIA.

STRENGTHS AND LOAD FACTOR RATINGS

X	NON-COMP MOMENT STRENGTH	OVERLOAD MOMENT STRENGTH	SHEAR STRENGTH	NON-COMPACT RATING FACTORS IR	NON-COMPACT RATING FACTORS OR	COMPACT MOMENT STRENGTH	COMPACT RATING FACTORS IR	COMPACT RATING FACTORS OR
0.00	154.9 B	123.9	85.8	0.45 V	0.75 V	172.2	0.45 V	0.75 V
1.60	154.9 B	123.9	85.8	0.63 V	1.05 V	172.2	0.63 V	1.05 V
3.20	154.9 B	123.9	85.8	0.39 T	0.65 T	172.2	0.41 O	0.68 O
4.80	154.9 B	123.9	85.8	0.27 T	0.44 T	172.2	0.28 O	0.46 O
6.40	154.9 B	123.9	85.8	0.19 T	0.31 T	172.2	0.20 O	0.33 O
8.00	154.9 B	123.9	85.8	0.17 T	0.29 T	172.2	0.18 O	0.30 O

++
+ +
+ R A T I N G S U M M A R Y +
+ +
++

MEMBER: TRUSS

ALLOWABLE STRESS RATING

LOAD		FACTOR	TONS	MEMBER
H20	IR (CRITICAL)	1.78	35.6	L36L37
	OR (CRITICAL)	2.74	54.7	L36L37
HS20	IR (CRITICAL)	1.28	46.2	L18L19
	OR (CRITICAL)	2.28	82.2	L36L37
TK527	IR (CRITICAL)	1.13	45.2	L18L19
	OR (CRITICAL)	2.01	80.4	L36L37
ML80	IR (CRITICAL)	1.09	39.8	L18L19
	OR (CRITICAL)	2.08	76.2	L36L37
P-82	IR (CRITICAL)	0.65	66.6	L36L37
	OR (CRITICAL)	1.00	102.3	L36L37

USE FOR TRUSS RATINGS

MEMBER: STRINGER AT 8.00

LOAD FACTOR RATING

LOAD		FACTOR	TONS	X	SPAN
H20	IR (CRITICAL)	0.96 O	19.1	4.75	3
	OR (CRITICAL)	1.59 O	31.8	4.75	3
	IR (POS MOM)	0.96 O	19.1	4.75	3
	OR (POS MOM)	1.59 O	31.8	4.75	3
HS20	IR (CRITICAL)	0.96 O	34.4	4.75	3
	OR (CRITICAL)	1.59 O	57.3	4.75	3
	IR (POS MOM)	0.96 O	34.4	4.75	3
	OR (POS MOM)	1.59 O	57.3	4.75	3
TK527	IR (CRITICAL)	1.19 O	47.8	5.70	3
	OR (CRITICAL)	1.99 O	79.6	5.70	3
	IR (POS MOM)	1.19 O	47.8	5.70	3
	OR (POS MOM)	1.99 O	79.6	5.70	3
ML80	IR (CRITICAL)	1.13 O	41.3	4.75	3
	OR (CRITICAL)	1.88 O	68.9	4.75	3
	IR (POS MOM)	1.13 O	41.3	4.75	3
	OR (POS MOM)	1.88 O	68.9	4.75	3
P-82	IR (CRITICAL)	0.86 O	87.7	4.75	3
	OR (CRITICAL)	1.43 O	146.2	4.75	3
	IR (POS MOM)	0.86 O	87.7	4.75	3
	OR (POS MOM)	1.43 O	146.2	4.75	3

SEE HAND CALCS FOR FLOORBEAM RATINGS

MEMBER: FLOORBEAM

LOAD FACTOR RATING

LOAD		FACTOR	TONS	X	FLBM
H20	IR (CRITICAL)	0.35 O	7.1	8.00	3
	OR (CRITICAL)	0.59 O	11.8	8.00	3
	IR (POS MOM)	0.35 O	7.1	8.00	3
	OR (POS MOM)	0.59 O	11.8	8.00	3
HS20	IR (CRITICAL)	0.35 O	12.8	8.00	3
	OR (CRITICAL)	0.59 O	21.3	8.00	3
	IR (POS MOM)	0.35 O	12.8	8.00	3
	OR (POS MOM)	0.59 O	21.3	8.00	3
TK527	IR (CRITICAL)	0.30 O	11.8	8.00	3
	OR (CRITICAL)	0.49 O	19.7	8.00	3
	IR (POS MOM)	0.30 O	11.8	8.00	3
	OR (POS MOM)	0.49 O	19.7	8.00	3
ML80	IR (CRITICAL)	0.26 O	9.4	8.00	3
	OR (CRITICAL)	0.43 O	15.6	8.00	3
	IR (POS MOM)	0.26 O	9.4	8.00	3
	OR (POS MOM)	0.43 O	15.6	8.00	3
P-82	IR (CRITICAL)	0.18 O	18.6	8.00	3
	OR (CRITICAL)	0.30 O	31.0	8.00	3
	IR (POS MOM)	0.18 O	18.6	8.00	3
	OR (POS MOM)	0.30 O	31.0	8.00	3

RATING FACTOR CODES:
- T - TOP STEEL STRESS/STRENGTH GOVERNS
- B - BOTTOM STEEL STRESS/STRENGTH GOVERNS
- C - CONCRETE STRESS/STRENGTH GOVERNS
- R - REINFORCEMENT STRESS/STRENGTH GOVERNS
- V - SHEAR STRESS/STRENGTH GOVERNS
- blank - COMPACT MOMENT STRENGTH GOVERNS
- O - OVERLOAD PROVISIONS GOVERN
- I - MOMENT-SHEAR INTERACTION GOVERNS
- F - SECTION DOES NOT MEET FLANGE PROJECTION/THICKNESS RATIO CRITERIA
- W - SECTION DOES NOT MEET WEB DEPTH/THICKNESS RATIO CRITERIA

NON-COMPACT MOMENT STRENGTH CODES:
- B - SECTION IS BRACED
- U - SECTION IS UNBRACED

NOTE: ALL RATINGS ARE BASED ON THE NUMBER OF DESIGN LANES OR THE ACTUAL TRAFFIC LANES AS DEFINED BY "D" OR "L" ENTERED FOR LANES IN THE PROJECT IDENTIFICATION.

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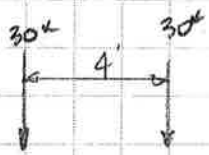
FLOORBEAM RATING ANALYSIS

- AS PER CALCS BY HARRY L. DOVELL, ANALYZE F.B AS BEING CONTINUOUS IF NEEDED
- AS PER CALCS BY HARRY L. DOVELL, DL ON F.B = 550 #/' ✓

LIVE LOAD: FIND THE AXLE LOAD ON EACH FLOORBEAM ASSUMING THE SLAB TO ACT AS A SIMPLE SPAN BTWN. FLOORBEAMS.

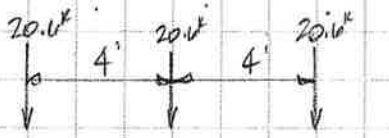
MAX FLOORBEAM SPACING = 9.5'

HS20 $R_{FB} = 32^K$



I.M.L $R_{FB} = 30^K + 30^K \times \frac{5.5'}{9.5'} = 47.4^K$

H20 $R_{FB} = 32^K$



ML-80 $R_{FB} = 20.6^K + 2 \times 20.6^K \times \frac{5.5'}{9.5'} = 44.4^K$

TK527 $R_{FB} = 20.6^K + 8.24^K \times \frac{5.5'}{9.5'} + 20.6^K \times \frac{5.5'}{9.5'} = 37.3^K$

P82 $R_{FB} = 27^K + 2 \times 27^K \times \frac{5.5'}{9.5'} = 58.2^K$

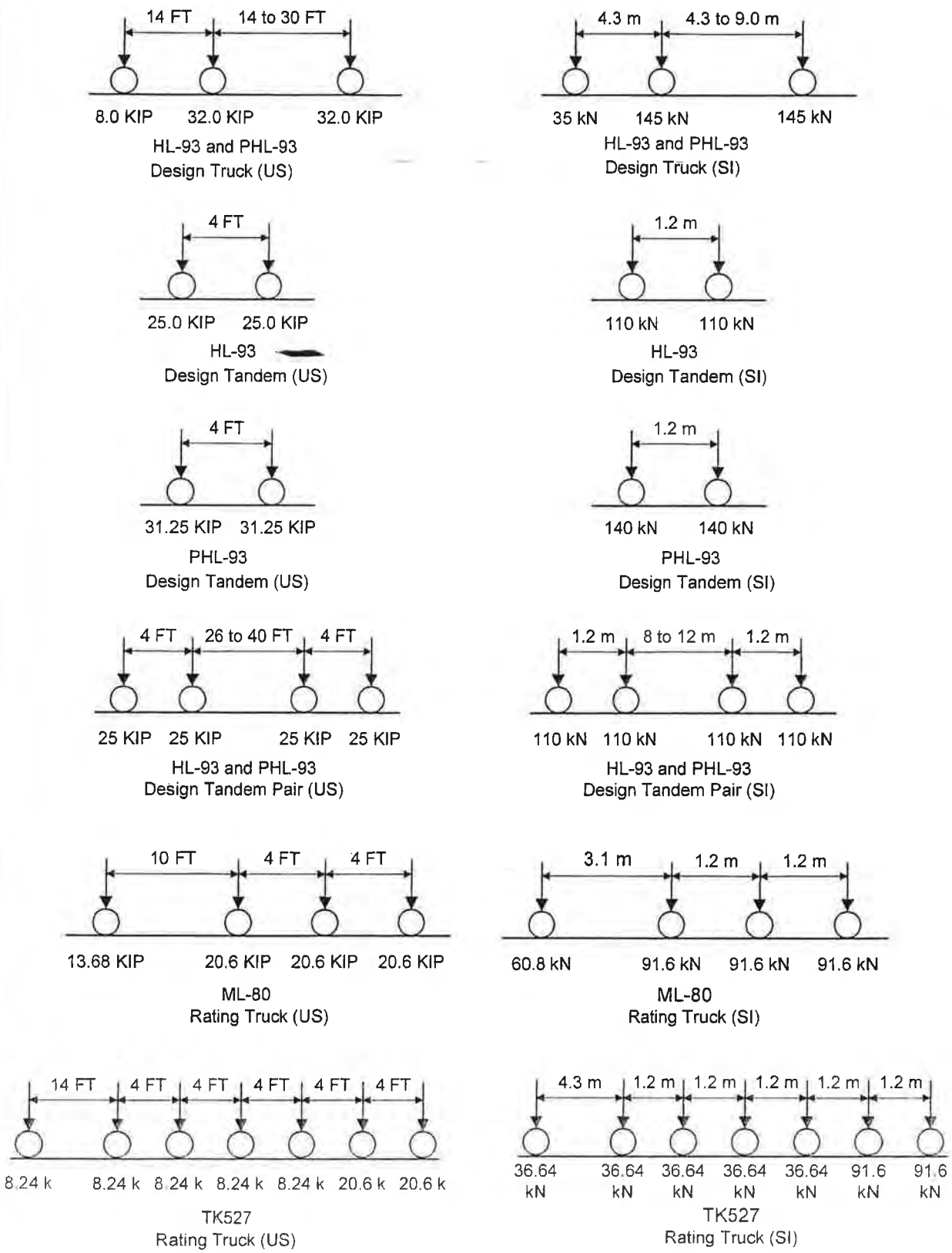


Figure 2.5-1 LRFD, ML-80, **and TK527** Live Loading

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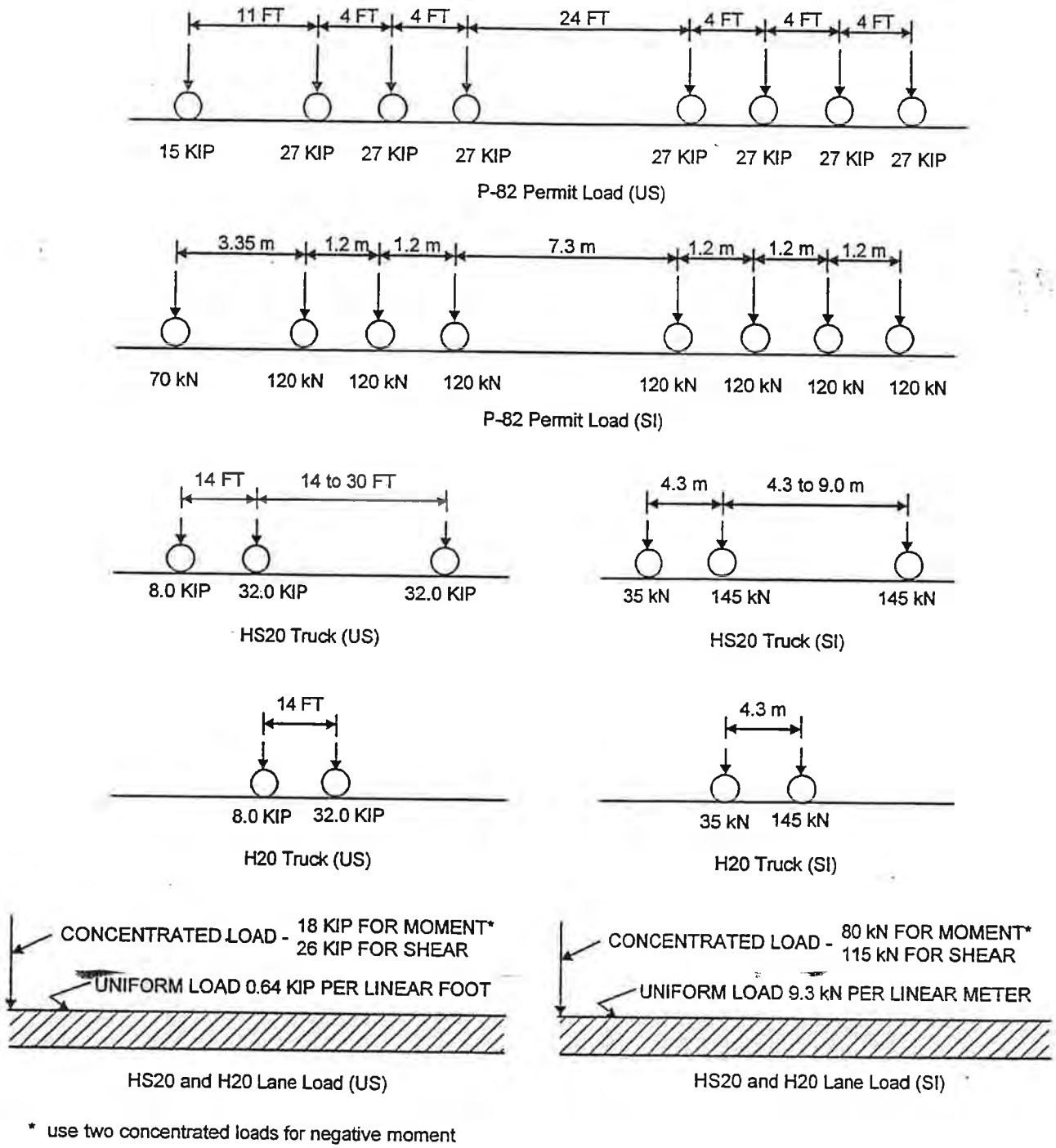


Figure 2.5-2 P-82, HS20, and H20 Live Loading

HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

JOB: MONACA BRIDGE RATING
SHEET NO. 94 OF 97
CALCULATED BY: AMK DATE: 5·19·08
CHECKED BY: DFL DATE: 5-20-08
SCALE:

FLOORBEAM RATING ANALYSIS

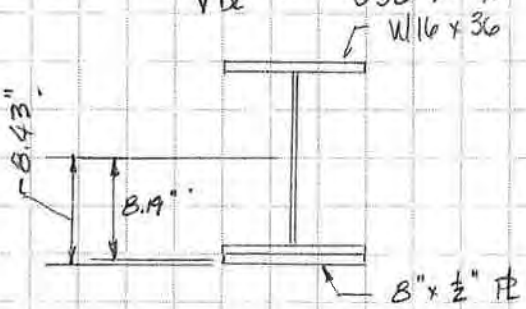
DEAD LOAD

F.B SPAN LENGTH: I.F. TO I.F. OF MAIN TRUSSES = 15'

SPAN = 7.5'

$M_{DL} = 550\,\#/' \times 7.5'^2 \div 8 = 3867'\#$

$V_{DL} = 550\,\#/' \times 7.5' \div 2 = 2{,}063\#$

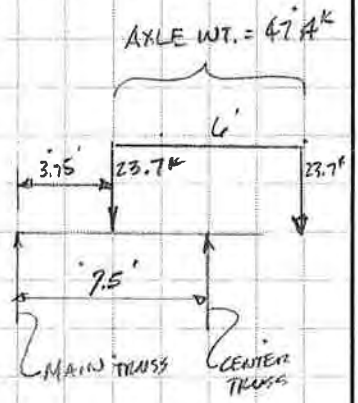


$I = 448\,in^4 + (8" \times \tfrac{1}{2}") \times 8.19"^2 = 716\,in^4$

$f_b = 3867'\# \times 12"/' \times 8.43" \div 716\,in^4 = 546\,psi$

$f_v = 2063\# \div (13.625" \times .295") = 513\,psi$

LIVE LOAD -



• I.M.L

$M_{LL+I} = (23.7^k \times 7.5' \div 4) \times 1000 \times 1.3$ (IMPACT) $= 57{,}768'\#$

$V_{LL+I} = 23.7^k \times 1000 \times 1.3 = 30{,}810\#$

$f_b = 57{,}768'\# \times 12 \times 8.43" \div 716\,in^4 = 8{,}162\,psi$

$f_v = 30{,}810\# \div (13.625" \times .295") = 7{,}665\,psi$

INVENTORY RATING: I.M.L.

MOMENT: $(18{,}000\,psi - 546\,psi) \div 8{,}162\,psi = 2.13$

SHEAR: $(11{,}000\,psi - 513\,psi) \div 7{,}665\,psi = 1.36$

SEE SPREADSHEET FOR RATINGS OF OTHER VEHICLES.

OPERATING RATING: I.M.L.

MOMENT: $(24{,}500\,psi - 546\,psi) \div 8162\,psi = 2.93$

SHEAR: $(15{,}000\,psi - 513\,psi) \div 7665\,psi = 1.89$

Floorbeam Rating

DL = 550 lb./ft
Span = 7.5 ft
I = 716 in^4
c = 8.43 in.
Web depth = 13.625 in.
Web Thick = 0.295 in.

Dead Load

M_{DL} = 3867 ft-lb
V_{DL} = 2063 lb

Live Load

Wheel reactions on floorbeam:

	axle wt	wheel wt.	Impact	LL + I
HS20	32	16	1.3	20.8
H20	32	16	1.3	20.8
TK527	37.3	18.65	1.3	24.245
ML80	44.4	22.2	1.3	28.86
P-82	58.2	29.1	1.3	37.83

Live Load Moments

M = P x L / 4

M_{HS20} = 39000 ft-lb
M_{H20} = 39000 ft-lb
M_{TK527} = 45459 ft-lb
M_{ML80} = 54113 ft-lb
M_{P-82} = 70931 ft-lb

Live Load Shear

V = R

V_{HS20} = 20800 Lb.
V_{H20} = 20800 Lb.
V_{TK527} = 24245 Lb.
V_{ML80} = 28860 Lb.
V_{P-82} = 37830 Lb.

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Calculate Stresses

Bending Stresses

Fb_{DL} =	546	psi
Fb_{HS20} =	5510	psi
Fb_{H20} =	5510	psi
Fb_{TK527} =	6423	psi
Fb_{ML80} =	7645	psi
Fb_{P-82} =	10022	psi

Shear Stresses

Fv_{DL} =	513
Fv_{HS20} =	5175
Fv_{H20} =	5175
Fv_{TK527} =	6032
Fv_{ML80} =	7180
Fv_{P-82} =	9412

Ratings

Inventory Stress Levels

Bending	18000	psi
Shear	11000	psi

Operating Stress Levels

Bending	24500	psi
Shear	15000	psi

Rating = (Allow. Stress - DL stress) / LL Stress

FLOOR BEAM RATINGS					
	HS20	H20	TK527	ML80	P-82
Inventory Rating - Moment	3.17	3.17	2.72	2.28	1.74
Inventory Rating - Shear	2.03	2.03	1.74	1.46	1.11
Operating Rating - Moment	4.35	4.35	3.73	3.13	2.39
Operating Rating - Shear	2.80	2.80	2.40	2.02	1.54

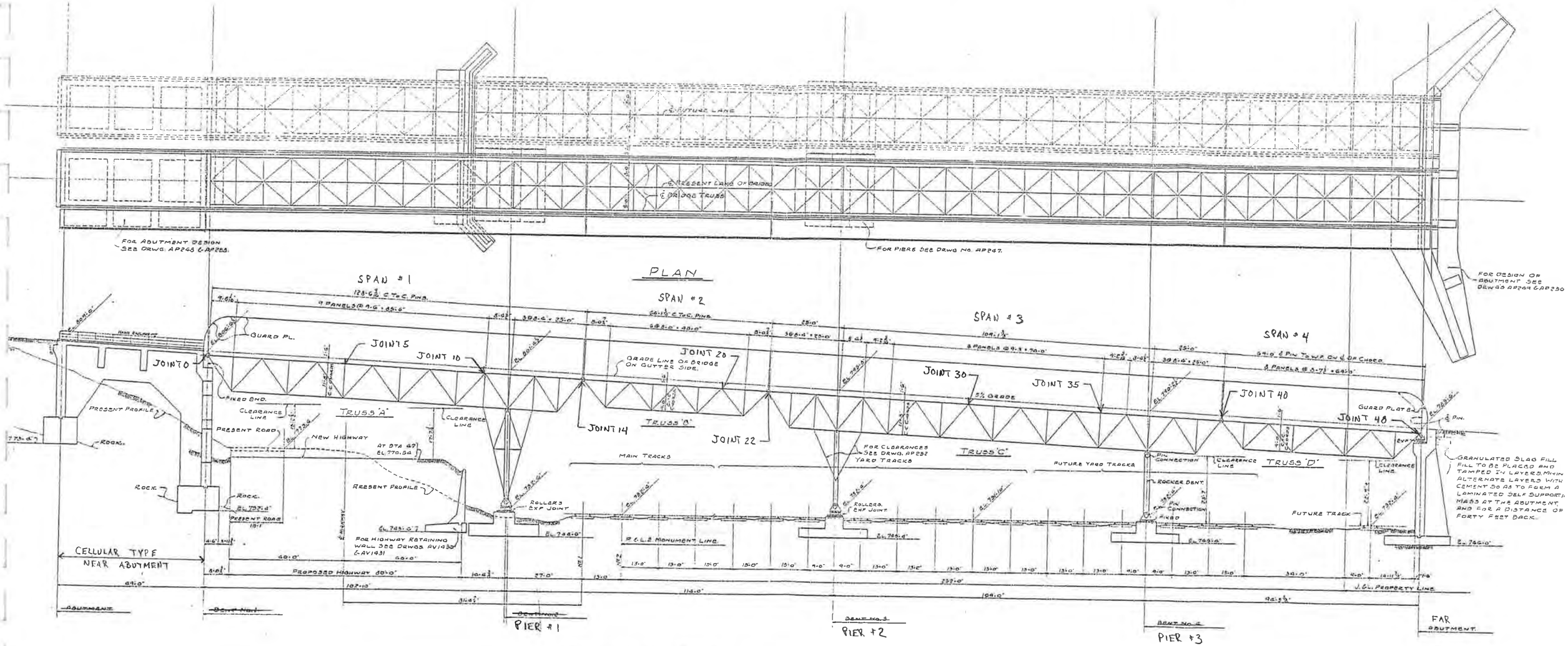
HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

JOB MONACA BRIDGE RATING
SHEET NO. 97 OF 97
CALCULATED BY AMK DATE 5.20.08
CHECKED BY DATE
SCALE 4396.001

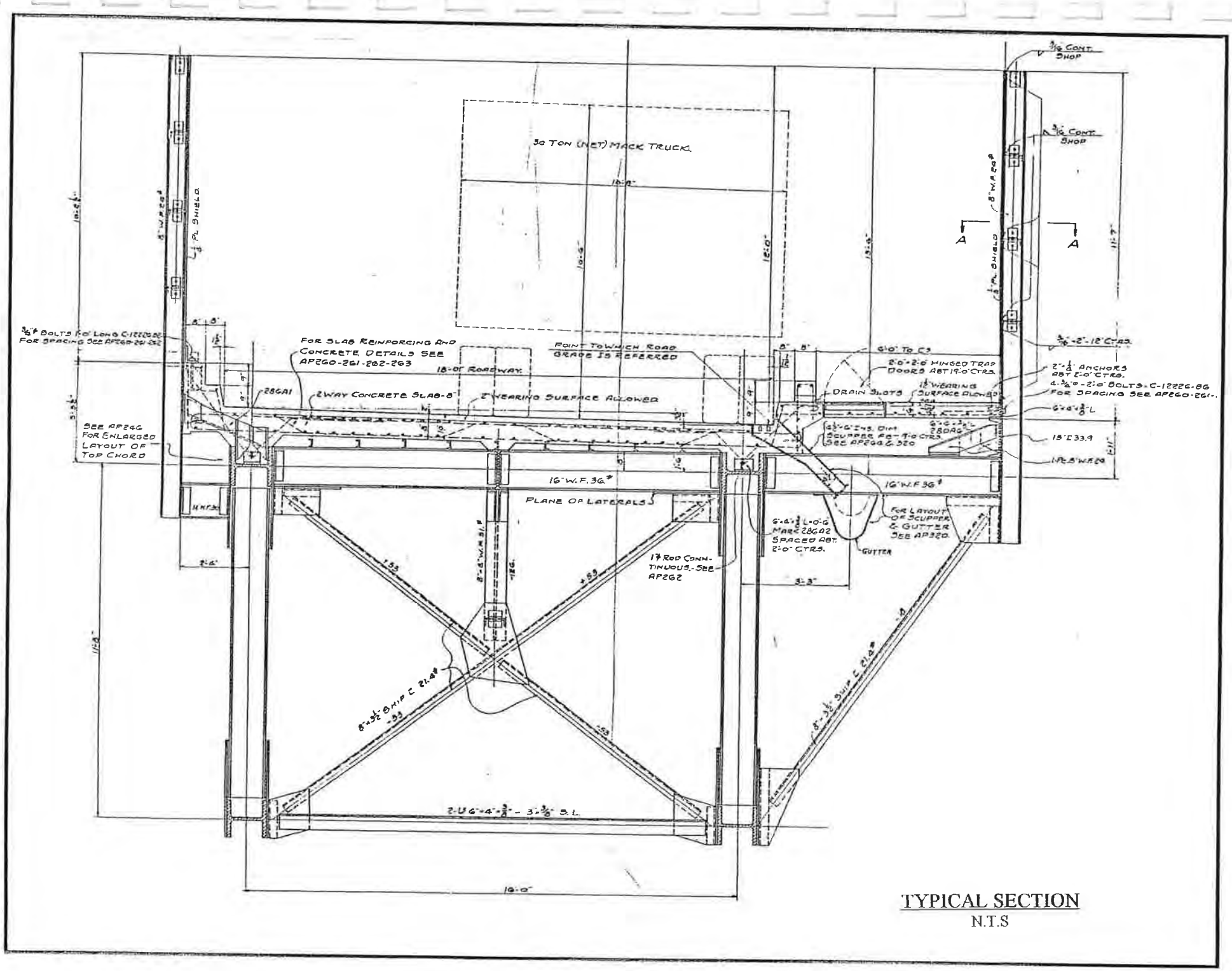
RATING SUMMARY

	HS20 (36T)		H20 (20T)		TK527 (40 T)		ML80 (37.7T)		P82 (102T)	
	FACTOR	TONS	FACTOR	TONS	FACTOR	TONS	FACTOR	TONS	FACTOR	TONS
INVENTORY	1.28	46.2	1.78	35.6	1.13	45.2	1.09	39.8	—	—
OPERATING	2.28	82.2	2.74	54.7	2.01	80.4	2.02*	76.2*	1.00	102.3

* FLOORBEAM SHEAR CONTROLS RATING. ALL OTHER RATINGS CONTROLED BY TRUSS MEMBERS



ELEVATION OF BRIDGE
LOOKING DOWN RIVER



TYPICAL SECTION
N.T.S