



Twin Falls Archway Project Ad Hoc Citizens Advisory Committee Agenda

Thursday, June 7, 2018, 8:45 AM

203 Main Avenue East
Twin Falls, ID 83301

Members: Greg Middlekauff, Jeanette Roe, John Kapeleris, Leonard Anderson, Micah Campbell, Nikki Boyd, Paula Brown Sinclair, Rex Lytle, Tony Prater, Ruth Pierce, Melissa Crane

Facilitator: Kathy Markus

Staff: Mitch Humble, Lisa Strickland

- 1) Confirmation of Quorum/Call Meeting to Order
- 2) Consent Calendar
 - a) Approval of minutes from the following meeting: 05-03-18
Purpose: **ACTION ITEM**
- 3) Items for Discussion
 - a) Update on Location
Purpose: **Discussion**
 - b) Update on Funding
Purpose: **Discussion**
 - c) Update on Engineering
Purpose: **Discussion**
 - d) Sign Up Sheet
Purpose: **Discussion**
- 4) General Input/Announcements - Public/Staff
- 5) Upcoming Meeting(s)
 - a) July 5, 2018
- 6) Adjournment

Any person(s) needing special accommodations to participate in the above-noticed meeting could contact Kathy Markus (208) 735-7222 at least two working days before the meeting. Si desea esta información en español, llame Leila Sanchez (208) 735-7287.



Twin Falls Archway Project Ad Hoc Citizens Advisory Committee Minutes

Thursday, May 3, 2018, 8:45 AM

203 Main Ave E
Twin Falls, ID 83301

SPECIAL MEETING

Members: Greg Middlekauff, Jeanette Roe, John Kapeleris, Leonard Anderson, Micah Campbell, Nikki Boyd, Paula Brown Sinclair, Rex Lytle, Tony Prater, Ruth Pierce, Melissa Crane

Facilitator: Kathy Markus

Staff: Lisa Strickland

1) Confirmation of Quorum/Call Meeting to Order

IT Director Markus called the meeting to order and confirmed a quorum.

2) Consent Calendar

- a) Approval of minutes from the following meeting(s): 04-05-18
Members Present: Prater, Lytle, Sinclair, Anderson, Roe, Pierce

Motion:

Member Pierce made a motion to approve the consent calendar, as presented. Member Anderson seconded the motion.

Unanimously Approved

3) Items for Discussion

a) Fundraising Update

Member Anderson provided a brochure highlighting this project for fund raising purposes. The brochure highlights the archway and identifies how donations can be made. He made an update on other donations from John Deere, Kiwanis and a few others.

Member Pierce stated she has done three presentations to the rotary board and they are reviewing the request to make a decision. She would like to receive a donation large enough for the rotary to have a bubble on the recognition sign.

Member Prater stated that Jensen Jewelers has made a donation.

IT Director Markus stated she has contacted Rise n Shine and stated that the do a shoe live at Noon it is a 3 minute interview and there is a spot open from May 14, 2018 forward. She also provided a list of different upcoming events and explained if the committee wants to do a booth at one of these events she will have to know in advance and there will have to be volunteers from the committee to sit at the booth.

Member Pierce suggested Western Days and the Band Concerts would be a good place to have a booth.

IT Director Markust explained she will work on getting information about the Western Days and send out information for members to sign up for times to sit at the booth.

b) Engineering Documents

Rex explained that the costs are up from when it was originally designed, a single beam was presented but now it has two beams and engineered steel supports for the sign construction. This would be approximately 300,000.00 as well as the fact that it is going over a city street will increase the cost. The structure being much more significant is the only thing that he can think of that was not included in the original cost estimate. On the message center a different matrix could be used reducing the cost.

Member Anderson asked if there were in-kind builders, electrical or excavators would that reduce the cost.

IT Director Markus explained that she doesn't have an itemized list so she couldn't say what the in-kind may have on the cost.

Member Sinclair asked if the bid could ask for cost itemization as well as alternative.

IT Director Markus stated she would have to look into the details for a bid request.

4) General Input/Announcements - Public/Staff

5) Upcoming Meeting(s)

a) June 7, 2018 at 8:45 am

6) Adjournment

Lisa A. Strickland, Administrative Assistant

Member	Collected	Pledged	Possible Funding Sources
		43000	43000 City of Twin Falls
Sinclair		30000	30000 Seagraves Foundation
Pierce		20000	20000 Twin Falls County
Lytle		10000	10000 First Federal
	10000		10000 Idaho Central Credit Union
Mitch		10000	10000 Western Days Committee
	4872		4872 Sinclair, Paula Brown - Stock Donation
	2500		2500 Jensen Jewelers
		1000	1000 Aamco Transmissions
	1000		1000 Boyd, Jim & Nikki
		1000	1000 John Deer
		1000	1000 K&T Steel Corp.
	1000		1000 Newberry, Dave & Donna
	1000		1000 Premier Auto Group
	1000		1000 Stotz Equipment
Markus		1000	1000 Title One
	500		500 CapEd
	500		500 LeForgee, Rex & Cheryl
	500		500 Middlekauff Automotive Group
	300		303 Anderson, Leonard & Alice
	300		300 Ataraxis Accountinig & Advisory Services
	300		300 Gem State Welders Supply
	250		250 Library Foundation
	250		250 Magic Valley Arts Council
Boyd		250	250 Magic Valley Relators
	250		250 Munoz, Gerardo "In Memory of Guillermo Munoz Loving Father"
	250		250 Sinclair, Paula Brown - Jean Art Award
	250		250 Twin Falls Education Foundation
Kapeleris		250	250 Xavier school
	200		200 Archway Brick Purchases - Missing Donator
	200		200 Heinrich, Linda
	150		150 Mason Trophies
	150		150 Watt, Willie & Kristene
	125		125 Glenda Thompson
	101		101 Humphries , Andrew
	100		100 Birrell, Shane "Shane J Birrell, Sasha E Birrell"
	100		100 Bolton, Jeanette & Brian
	100		100 Bud & Mary Touchette
	100		100 Eaton, Curtis & Mardo
	100		100 Fairbanks, Kelly and Mary
	100		100 Flowers, Gus & Lou
	100		100 Fraser, Donn & Anna
	100		100 Gem State Paper & Supply
	100		100 Holmstead Howe, PLLC
	100		100 Long, Eric
	100		100 Markus, Dave and Kathy

100
100
100
100
100
100
100
12

Anderson

Anderson Email - bounced back

Anderson Email

Sinclair

Anderson Mailed

Anderson

Lytle

Anderson Mailed

Greg?

Kapeleris

Prater

Anderson Email

Crane

Anderson Contacted

Ruth

Crane

Anderson No Answer

Anderson Email

Roe

Pierce

Anderson Email

Markus

Sinclair Declined

Pierce

Pierce

Ruth

Sinclair

Boyd

Anderson Contacted

Crane

Sinclair

Sinclair

Roe

Crane

Boyd letter of interest

Sinclair letter of intent

100 Philipp, George

100 Ricks, James "James T. Ricks, Wathc the Signs to be informed!

100 Sabala, Ray & Arlene

100 Smallwood, Eric

100 Wilkinson, Brad

100 Wills, Brad & Lucy

12 Western Days Misc Cash

0 Complete Crane - Service

0 Lytle Signs - Service

0 Petruzzelli Electric - Electrical

0 Rob Green

0 Tractor Company - Groundwork

60 Hours to Fight Hunger

Agri Service

Albertsons Foundation

American Cancer Society

American Legion Family

Bey, Bob & Betty

Boy Scouts of America Snake River Council

Boys and Girls Club of Magic Valley

Cactus Petes

Canyon Crest Dining & Event Center

Canyon Gate Dental

Canyon Park, LLC

Capstone

CH2M HILL

Chamber Leads Group

Chobani

Clear Springs Foods Inc

Clif Bar

Confidential

Cooper Norman

Crafts in the Country

CSI Foundation (Maybe marketing dollars after it is built)

D L Evans Bank-Main St Branch

DL Evans Foundation

Doug Vollmer

Education Foundation

EHM Engineers

Farmers National Bank

Festival of Giving

First Federal Foundation

Florence Gardner Trust

Fred Meyers

Friends of the NRA

Girl Scout Silver Sage Council

Glanbia Foundation

Lytle		Gloria - Janzio Mexican Resturaunt
Sinclair	Declined	Grace Smith-Keveran & Kenneth A Keveran Foundation
Crane		Habitat for Humanity
Anderson	Email	Harvest Festival (Delta Epsilon Chi)
Crane		Hilex Poly Co., LLC
Markus		Home Depot
Markus		Idaho Community Foundation
Crane		Idaho Dairymen's Association
Crane		Idaho Farm Bureau Federation
Roe	no	Idaho Power Company
Pierce		Independent Meat Co
Anderson	Contacted	INL (Idaho National Laboratory
Roe		Integrated Technologies
Anderson	Email	Intermountain Gas Co.
Pierce		Jaker's Bar & Grill
Anderson	Contacted	Kapstone (Longview Fiber)
Crane		KickBack Rewards Systems - Loyalty Mrk & Gift Card
Anderson	Mailed	Kids Count Too Inc
Anderson	Maybe 1000	Kiwanis Club of Twin Falls
Crane		KMVT
Crane		Lions Club
Markus		Lowe's
Rex		Lytle Signs
Crane		Magic Valley Air Show
Anderson	Email	Magic Valley Builders Association
Markus	No	Magic Valley Electric
Lytle		Magic Valley Mall
Crane		Magic Valley Symphony Orchestra
Boyd		MagicFest - Lance Clow
Anderson	Mailed	Make a Wish Foundation
		Mark & Debby Brady
Sinclair		Maurice Bowers Trust
Pratter	Maybe	McDonald's of Twin Falls - Blue Lakes Blvd N
Kapeleris		MelQualie
Pierce		Middlekauff Foundation
Anderson	Email	National Letter Carrier's
Anderson	Email	National Police Week
Anderson	Email	Northwest Farm Credit Services
Prater		Oasis Stop 'N Go, LLC Administration
Prater	Presented	Optimist Club Twin Falls
Crane		Our Talent Our Strength
Anderson	Email	Paint Magic
Sinclair		Paul G. Allen Family Foundation
Crane		Perrine Bridge Festival
Markus	Will Donate Electrical - Get Estimate from Rex	Petruzzelli Electric
Anderson	Contacted	Pioneer FCU
Anderson		Pioneer FCU

Sinclair	Grant Applications
Anderson	Email
Nikki	Presented
Crane	
	Not Now Maybe October
Lytle	
Ruth	Presented
Sinclair	Declined
Sinclair	
Anderson	
Sinclair	Submitted
Anderson	Mailed
Markus	
Anderson	Mailed
Boyd	
Markus	NO
Roe	
Pierce	
Anderson	Email
Anderson	Contacted
Pierce	
Anderson	Email
Roe	
Boyd	
Humble	Contacted
Anderson	Email
Anderson	Email
Anderson	Email - bounced back
Anderson	Email
Boyd	
Anderson	No -Maybe Comittees
Roe	
Anderson	Mailed
Anderson	Mailed
Markus	
Anderson	Mailed
Kapeleris	
Anderson	Email -bounced back
Pierce	
Pratter	
Lytle	
Lytle	
Lytle	
Lytle	
Anderson	Mailed

PMT Foundation
 Ray Neilsen
 Realtor's association
 Relay For Life
 Rob Green
 Roger - Retired owner of Boat Dealership in Burley
 Rotary Evening Group
 Rotary Foundation - Death by Chocolate
 Rotary Foundation - Ice Cream Fun Day
 Rotary Morning Group
 Rotary's Death by Chocolate - Lunch Group
 Safe Harbor
 Simplot
 South Central Community Action Partnership 733-9351?
 Southern Idaho Tourism
 St Lukes Foundation
 St Luke's Magic Valley Medical Center
 Standlee Associates
 Stanley Associates, Inc.
 Starr Corp.
 Stone House & Co / Catering By Karen
 The Land Group
 TitleFact Inc
 Travelers' Oasis Truck Plaza
 Twin Falls Canal Co
 Twin Falls Chamber of Commerce
 Twin Falls County Fair and Rodeo
 Twin Falls County Farm Bureau Federation
 Twin Falls County Farm Bureau Federation
 Twin Falls County Tree Board (Arbor Day)
 Twin Falls Flea Market
 Twin Falls Municipal Band
 Twin Falls School District
 Twin Falls Senior Center
 United Way of South Central Idaho
 Valley House Homeless Shelter
 Vintage Vixens
 Voices Against Violence
 WalMart
 Western Magic Valley Realtors (March 7)
 Western Waste Services
 Winco
 Woodbury Corporation
 Woodbury Corporation
 Woodbury Corporation
 Woodbury Corporation
 YMCA - Twin Falls

Boyd
Boyd

Zions Bank
Zions Bank

27660 117500
 145160

 154840

Total Pledged/Collected

Remaining to 300,000

Expenses

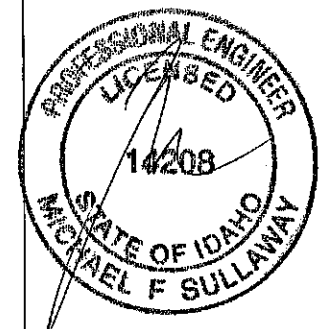
-4975
-500
-38.68
-500
-12.38
-6026.06

Engineering
Fee to Twin Falls Community Foundation
Fees to Square
Prize money awarded
Square Fees from Western Days



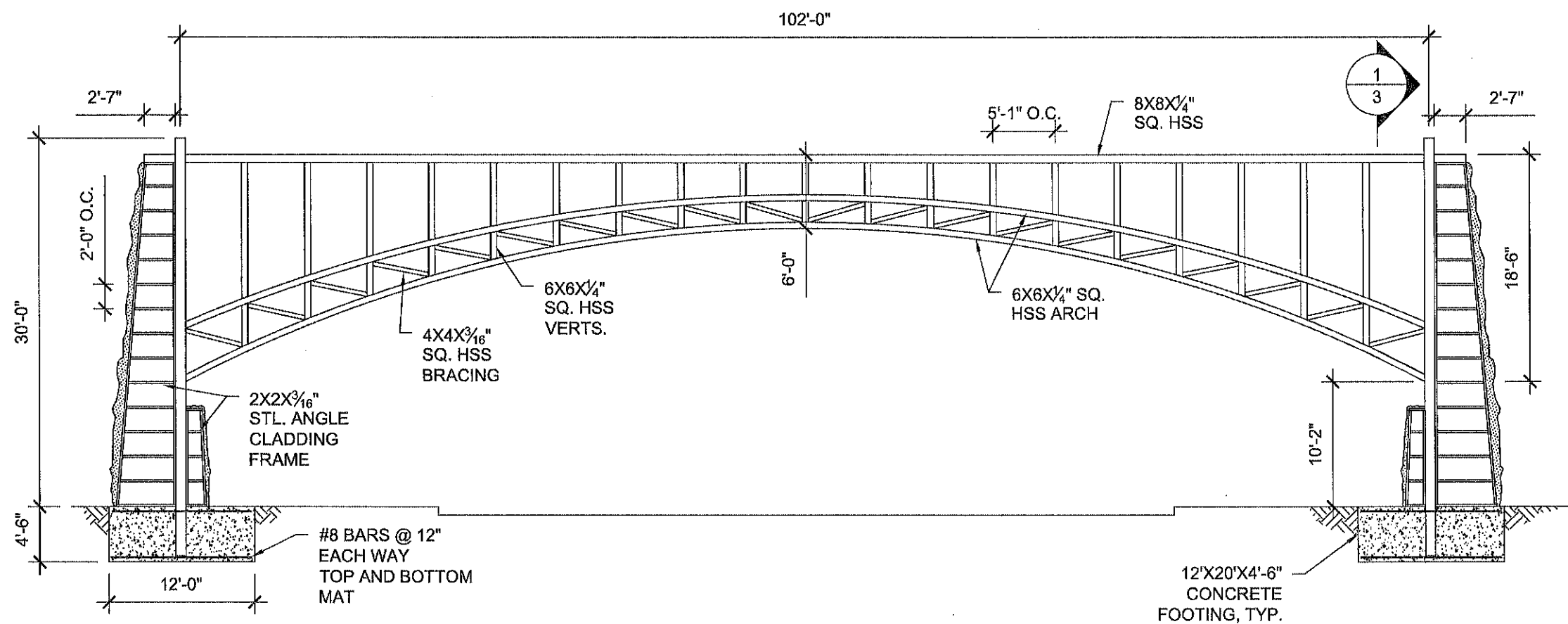
1. DESIGN CODE AND LOADS: AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS
2. WIND VELOCITY: 120 MPH EXPOSURE C
3. CONCRETE 3000 PSI MIN.
4. SQ./RECT. HSS STEEL ASTM A500 GR.B, $F_y = 46$ KSI MIN. 30" TAL
OR CORTEN TUBE STEEL ASTM A847, $F_y = 50$ KSI MIN. ALSO OK LETT
5. ANGLE STEEL ASTM A36 AL. B
6. BOLT STEEL ASTM A307
ALL BOLTS TO BE HOT DIPPED GALVANIZED
7. WELD $F_{exx} = 70$ KSI MIN.
8. REINFORCING BAR (REBAR) STEEL ASTM A615 GR. 60 KIS
9. PROVIDE 3" CONCRETE COVER MIN. FOR REBAR
10. PROVIDE PROTECTION AGAINST DISSIMILAR METALS
USING ANTI-CORROSIVE PAINT OR NEOPRENE GASKETS.
11. VERTICAL SOIL BEARING PER IBC CLASS 4 (2000 PSF)
12. ALL EXISTING ELEMENTS AND DIMENSIONS TO BE VERIFIED IN FIELD.
13. ALL DIMENSIONS TO BE VERIFIED PRIOR TO FABRICATION.
14. SPECIAL INSPECTION REQUIRED FOR ALL FIELD WELDS.

2	
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4	
5	

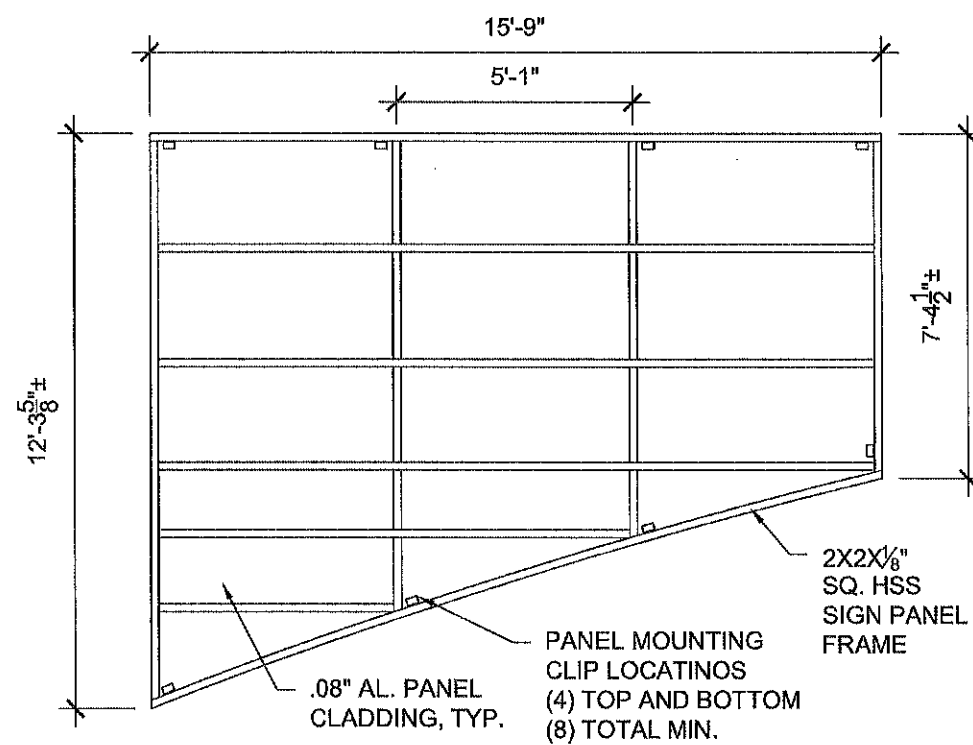


SHEET:
1 of 25

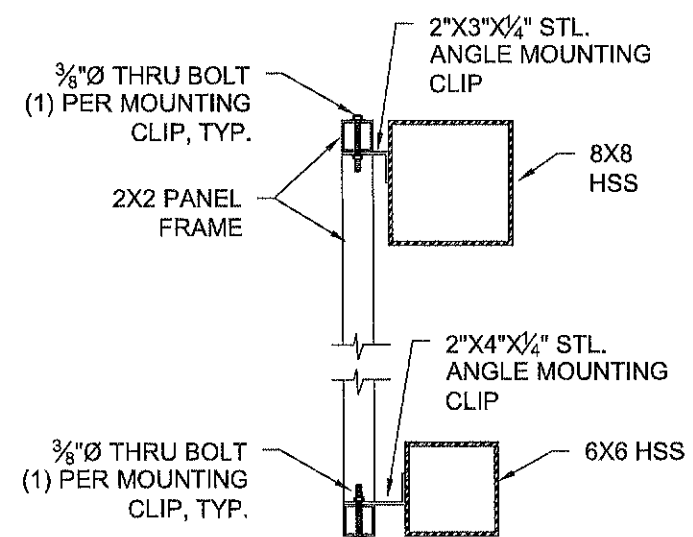
APR 24 2018



FRONT ELEVATION - FRAMING



TYP. SIGN PANEL FRAME



TYP. PANEL FRAME TO ARCH CONNECTION

SULLAWAY ENGINEERING
 10815 RANCHO BERNARDO ROAD, SUITE 260
 SAN DIEGO, CA 92127
 (858) 312-5150
 www.sullawayeng.com

TWIN FALLS ARCHWAY
 TWIN FALLS, ID

CLIENT:
 LYTLE SIGNS INC.

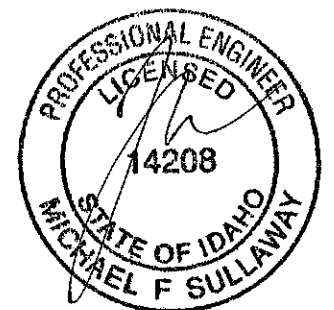
PROJECT NUMBER:
 15975

DATE: 04-04-2018
SCALE: NO SCALE
DRAWN BY: JS
DESIGNED BY: JS

REVISIONS:

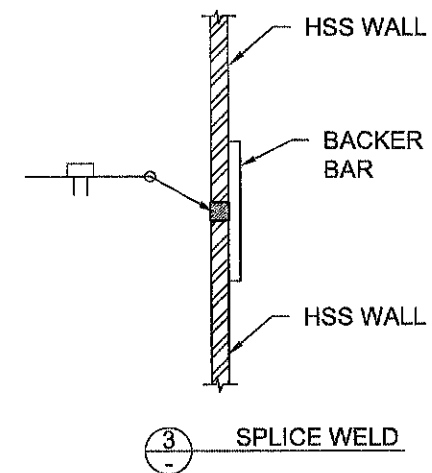
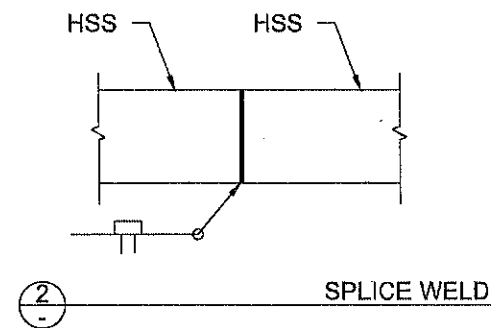
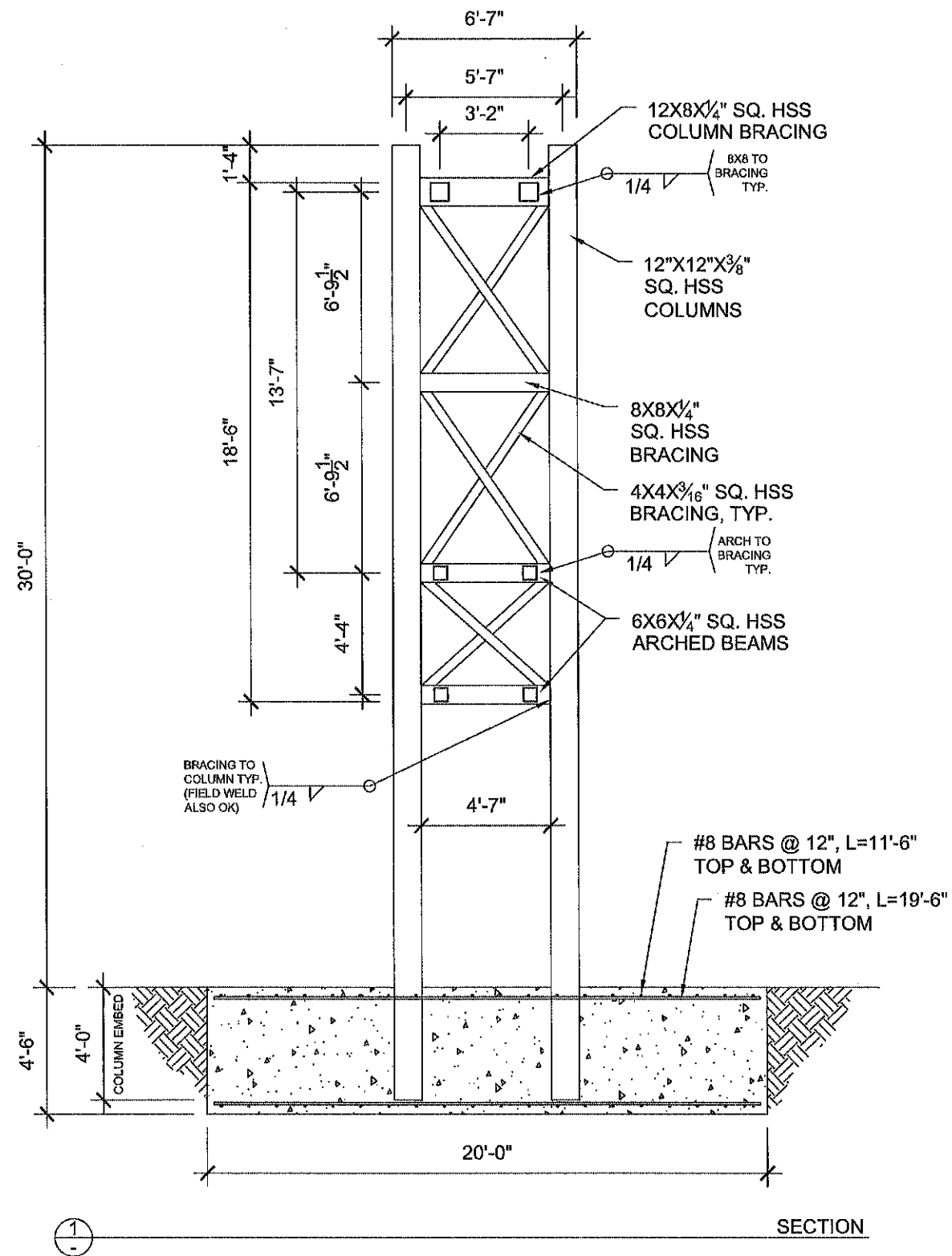
NO.	DATE	DESCRIPTION
1	4-17-16	REVISED FRAME SPAN TO END IN COLUMN BRACING, NOT COLUMN VERTICALS

2
3
4
5



APR 24 2018

SHEET:
 2 of 25



SULLAWAY ENGINEERING
 10816 RANCHO BERNARDO ROAD, SUITE 260
 SAN DIEGO, CA 92127
 (858) 312-5150
 www.sullawayeng.com

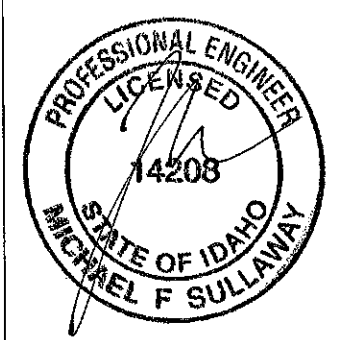
TWIN FALLS ARCHWAY
 TWIN FALLS, ID

CLIENT:
 LYTLE SIGNS INC.

PROJECT NUMBER:
 15975

DATE: 04-04-2018
SCALE: NO SCALE
DRAWN BY: JS
DESIGNED BY: JS

REVISIONS:	NO.	DATE
1	4-17-18	REVISED FRAME SPAN TO END IN COLUMN BRACING, NOT COLUMN VERTICALS
2		
3		
4		
5		



APR 24 2018

SHEET:
 3 of 25

PROJECT: Twin Falls - Archway
PROJ. NO.: 15975
CLIENT: Lytle Signs, Inc.

DATE: 3/9/2018
ENGINEER: JS

Applied Wind Loads Per AASHTO LRFD Specifications for Structural Supports for Highway signs

$$P_z = 0.00256 * K_z * K_d * G * V^2 * C_d \quad \text{eq. 3.8.1-1}$$

$K_z = 1.0$ (Sec. 3.8.4)
 $K_d = 0.85$ (Table 3.8.5.1)
 $G = 1.14$ (Sec. 3.8.6)
 $V = 120$ mph
 $C_d \text{ truss} = 1.25$ (Table 3.8.7-1)
 $P_z \text{ truss} = 44.85$ PSF
 $C_d \text{ panel} = 1.15$ (Table 3.8.7-1)
 $P_z \text{ panel} = 41.08$ PSF

Fatigue Loading (Ch. 11)

Galloping: N/A

Natural Wind Gust: $P_{nw} = 5.2 * C_d * I_f$ (eq. 11.7.1.2-1)

Importance factor $I_f = 1.00$ (sec. 11.6)
 $P_{nw} \text{ truss} = 6.50$ PSF
 $P_{nw} \text{ Panel} = 5.98$ PSF

Truck Induced Gust: $P_{tg} = 18.8 * C_d * (V_t / 65 \text{ mph})^2 * I_f$ (eq. C11.7.1.3-1)

Importance factor $I_f = 1.00$ (sec. 11.6) $V_t = 25$ mph
 $P_{tg} \text{ truss} = 3.48$ PSF
 $P_{tg} \text{ Panel} = 3.20$ PSF

Check 3/8" Thru Bolt securing panel frame to mounting clips

Trib. Area = $.5(5.25 \text{ ft})(12.167 \text{ ft}) = 32 \text{ ft}^2$
wind force = $(32 \text{ ft}^2)(41 \text{ psf}) = 1312 \text{ lbs}$
dead load = $1.25(10 \text{ psf})(32 \text{ ft}^2) = 400 \text{ lbs}$

T per anchor = .400 k
T capacity = $.75(45 \text{ ksi})(.11 \text{ in}^2) = 3.71 \text{ k}$ OK
V per anchor = 1.31 k
V capacity = $.75(27 \text{ ksi})(.11 \text{ in}^2) = 2.22 \text{ k}$ OK

Fatigue load = $(32 \text{ ft}^2)(6 \text{ psf}) = 192 \text{ lbs}$
A bolt = .11 in²
Bolt Stress = $.192 \text{ k} / .11 \text{ in}^2 = 1.75 \text{ ksi} < 7 \text{ ksi Threshold}$ OK

Check 2"x4"x1/4" Mounting clip for panel frames, L= 3"

Bolt Bearing = 1.31 k
 $\Phi R_n = 2.4 * D * t * F_u = 2.4(.375 \text{ in})(.25 \text{ in})(60 \text{ ksi}) = 13.5 \text{ k}$ OK

Angle Leg Mu = $(.400 \text{ k})(3 \text{ in}) = 1.20 \text{ k-in}$
 $Z = .25(3 \text{ in})(.25 \text{ in})^2 = .047 \text{ in}^3$
 $\phi M = \phi f_y Z = (.9)(36 \text{ ksi})(.047 \text{ in}^3) = 1.52 \text{ k-in}$ OK

Check 3/8" Thru Bolt securing EMC to Panel frame - (3) top and bottom - (6) total min.

EMC Area = $(5.667 \text{ ft})(10.667 \text{ ft}) = 61 \text{ ft}^2$
wind force = $(61 \text{ ft}^2)(41 \text{ psf}) = 2501 \text{ lbs}$
dead load = $1.25(10 \text{ psf})(61 \text{ ft}^2) = 763 \text{ lbs}$

T per anchor = $.763 \text{ k} / 6 = .127 \text{ k}$
T capacity = $.75(45 \text{ ksi})(.11 \text{ in}^2) = 3.71 \text{ k}$ OK
V per anchor = $2.501 \text{ k} / 6 = .417 \text{ k}$
V capacity = $.75(27 \text{ ksi})(.11 \text{ in}^2) = 2.22 \text{ k}$ OK

Fatigue load = $(11 \text{ ft}^2)(6 \text{ psf}) = 66 \text{ lbs}$
A bolt = .11 in²
Bolt Stress = $.066 \text{ k} / .11 \text{ in}^2 = 0.60 \text{ ksi} < 7 \text{ ksi Threshold}$ OK

Check 3/8" Thru Bolt securing letters to mounting clips - (3) per letter min. - (2) OK for letter "I"

Area per letter= $(2.50 \text{ ft})(2.50 \text{ ft}) = 6.25 \text{ ft}^2$
 wind force= $(6.25 \text{ ft}^2)(41 \text{ psf}) = 256 \text{ lbs}$
 dead load= $1.25(10 \text{ psf})(6.25 \text{ ft}^2) = 78 \text{ lbs}$

T per anchor= .078 k/3 = .026 k
T capacity= .75(45 ksi)(.11 in^2)= 3.71 k OK
V per anchor= .256 k/3 = .085 k
V capacity= .75(27 ksi)(.11 in^2)= 2.22 k OK

Fatigue load= $(6.25 \text{ ft}^2)(6 \text{ psf})/3= 13 \text{ lbs}$
 A bolt= $.11 \text{ in}^2$
 Bolt Stress= $.013 \text{ k/1.1 in}^2 = 0.12 \text{ ksi} < 7 \text{ ksi Threshold}$ OK

PROJECT: Twin Falls Archway
PROJ. NO.: 15975
CLIENT: Lytle Signs

DATE: 4/16/18
ENGINEER: JS

Version 3.0

Longitude Direction

units; pounds, feet unless noted otherwise

applied shear at grade	v=	30	kip	unfactored load	Z per RISA Report
applied moment at grade	m=	622	kip-ft	unfactored load	Mx per RISA Report
depth of soil above footing	h _s =	0	ft		
allowable soil bearing	p=	2.0	ksf		

(use a factor of 1.33 for wind or seismic)

Spread Footing Design

moment m=	757.0	k-ft	at base of footing				
Footing size (ft)	b=	12.00	L=	20.0	h=	4.50	S= 800.2
Footing Weight=	162.0	k	signage weight=		40.0	k	soil 0.00
Overturning;	M _c =	2020	M _c >1.5M	2.6684			total= 202.00
soil pressure;	max=	1.795	ksf				ok
forces on concrete pad;			V=	157.8	k	V _r =	252 k (=1.6V)
			M=	789	k-ft	M _r =	1262 k-ft

Check Slab;

	$\phi = 0.9$	$f_y = 60$ ksi	$f_c = 2.5$ ksi	150 lbs/ft ³
Flexure	$A_s = 7.00$	$d = 50.0$ in		
$\phi M_n = \phi A_s f_y (d - a/2) =$	18641 k-in	$= 1553$ k-ft		$M_i < \phi M_n$ ok
$a = A_s f_y / 0.85 f_c b =$	1.373 in			

Check minimum

$$A_{smin}=2\sqrt{f_c}bd/f_y = 18 \quad 200bd/f_y = 24.00 \quad \text{or } 1.33A_s = 9.33 \text{ in}^2$$

Use $A_s = 9.33 \text{ in}^2$

Shear; $\phi V_n = \phi 2 \text{sqrt}(f_c) b d$ $\phi V_c = 540.0$ $\phi = 0.75$ $V_r < \phi V_n$ ok

PROJECT: Twin Falls Archway
PROJ. NO.: 15975
CLIENT: Lytle Signs

DATE: 4/16/18
ENGINEER: JS

Version 3.0

Transverse Direction

units: pounds, feet unless noted otherwise

applied shear at grade $v = 19$ kip unfactored load X per RISA Report
applied moment at grade $m = 96$ kip-ft unfactored load Mz per RISA Report
depth of soil above footing $h_s = 0$ ft
allowable soil bearing $p = 2.0$ ksf

(use a factor of 1.33 for wind or seismic)

Spread Footing Design

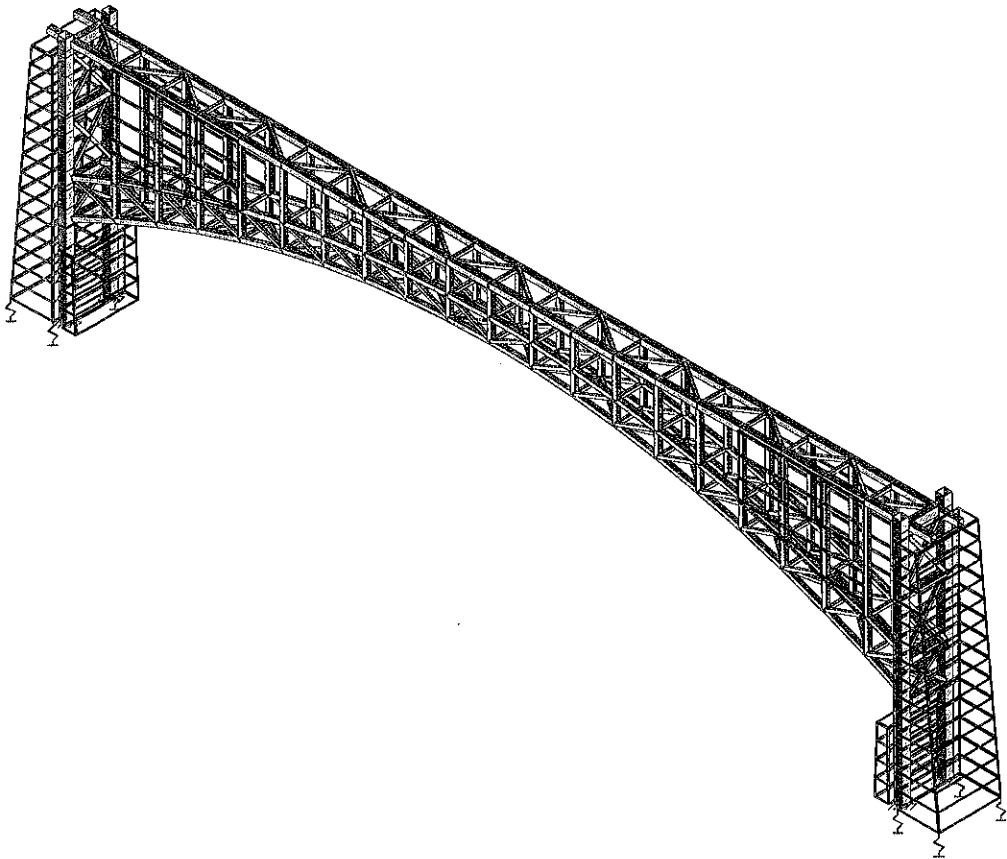
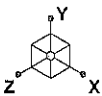
moment $m = 181.5$ k-ft at base of footing
Footing size (ft) $b = 20.00$ $L = 12.0$ $h = 4.50$ $S = 480.1$
Footing Weight = 162.0 k signage weight = 40.0 k soil 0.00 total = 202.00
Overturning; $M_o = 1212$ $M_o > 1.5M$ 6.6777 ok
soil pressure; max = 1.220 ksf ok
forces on concrete pad; $V = 123.7$ k $V_r = 198$ k ($= 1.6V$)
 $M = 371$ k-ft $M_r = 594$ k-ft

Check Slab;

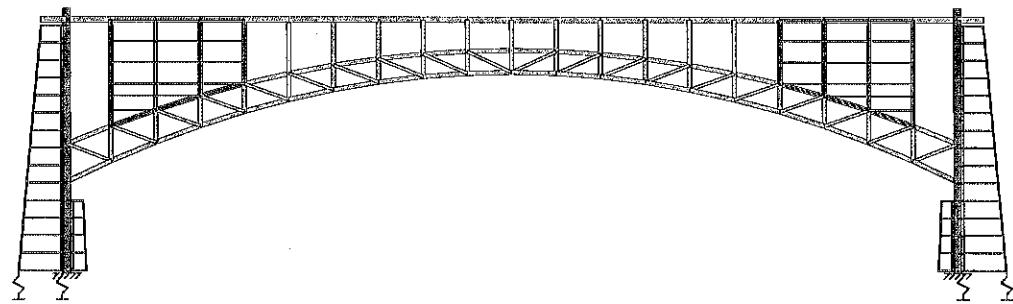
$\phi = 0.9$ $f_y = 60$ ksi $f_c = 2.5$ ksi 150 lbs/ft³
Flexure $A_s = 4.00$ $d = 50.0$ in
 $\phi M_n = \phi A_s f_y (d - a/2) = 10749$ k-in = 895.8 k-ft $M_r < \phi M_n$ ok
 $a = A_s f_y / 0.85 f_c b = 0.471$ in

Check minimum $A_{smin} = 2 \sqrt{f_c} b d / f_y = 30$ $200 b d / f_y = 40.00$ or $1.333 A_s = 5.33$ in²
Use $A_s = 5.33$ in²

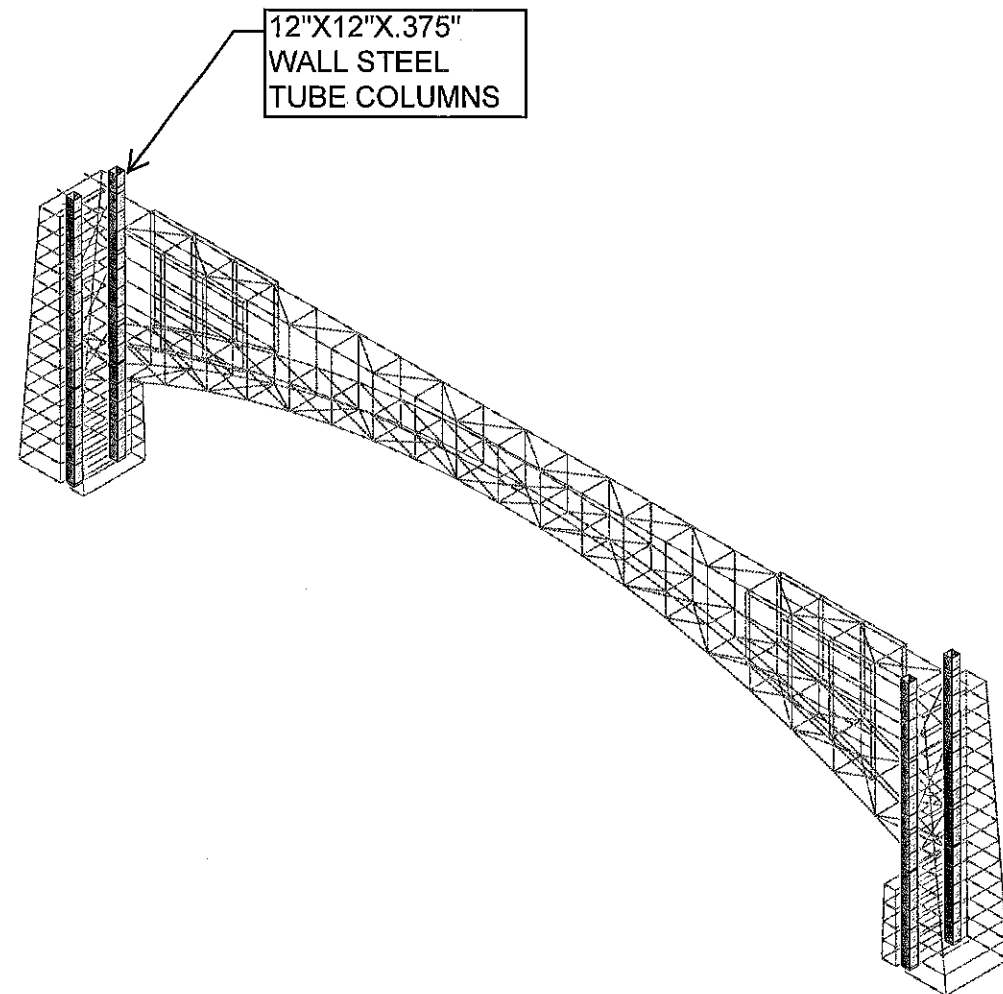
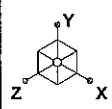
Shear; $\phi V_n = \phi 2 \sqrt{f_c} b d$ $\phi V_c = 900.0$ $\phi = 0.75$ $V_r < \phi V_n$ ok



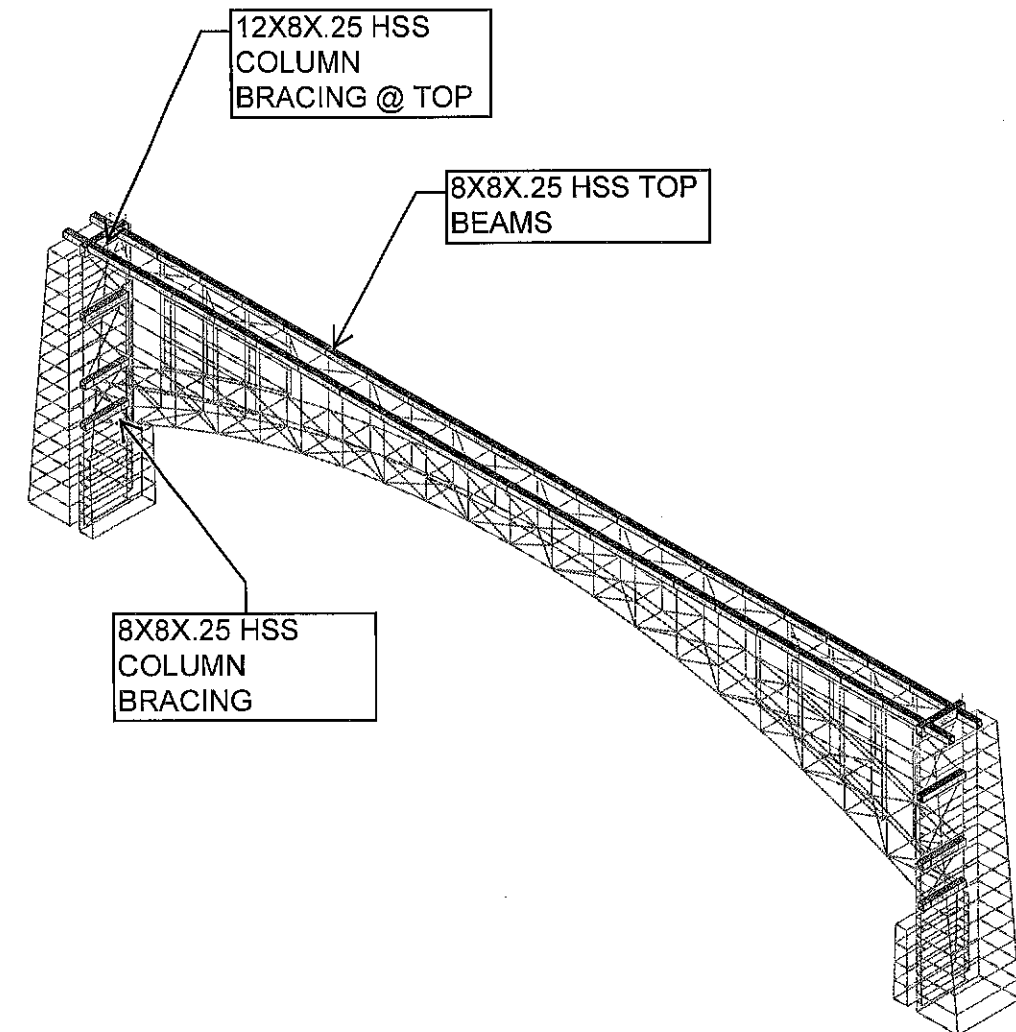
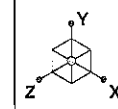
Envelope Only Solution

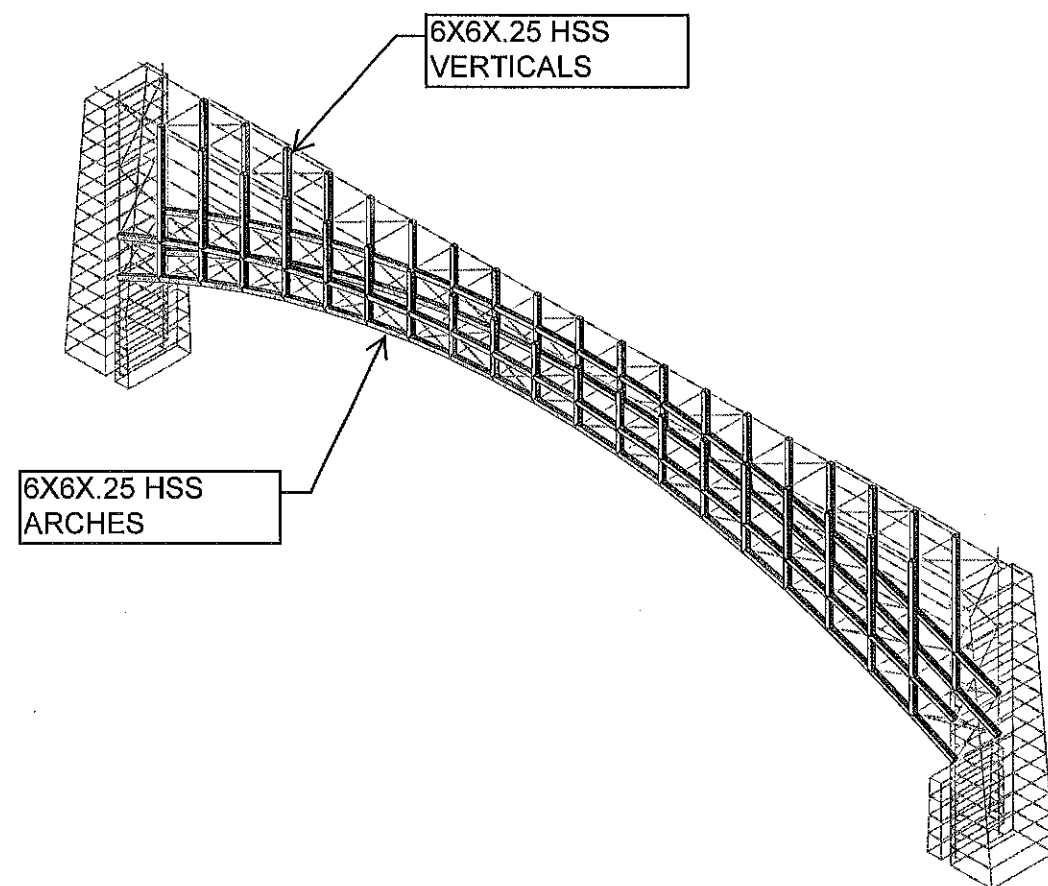
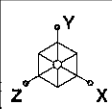


Envelope Only Solution

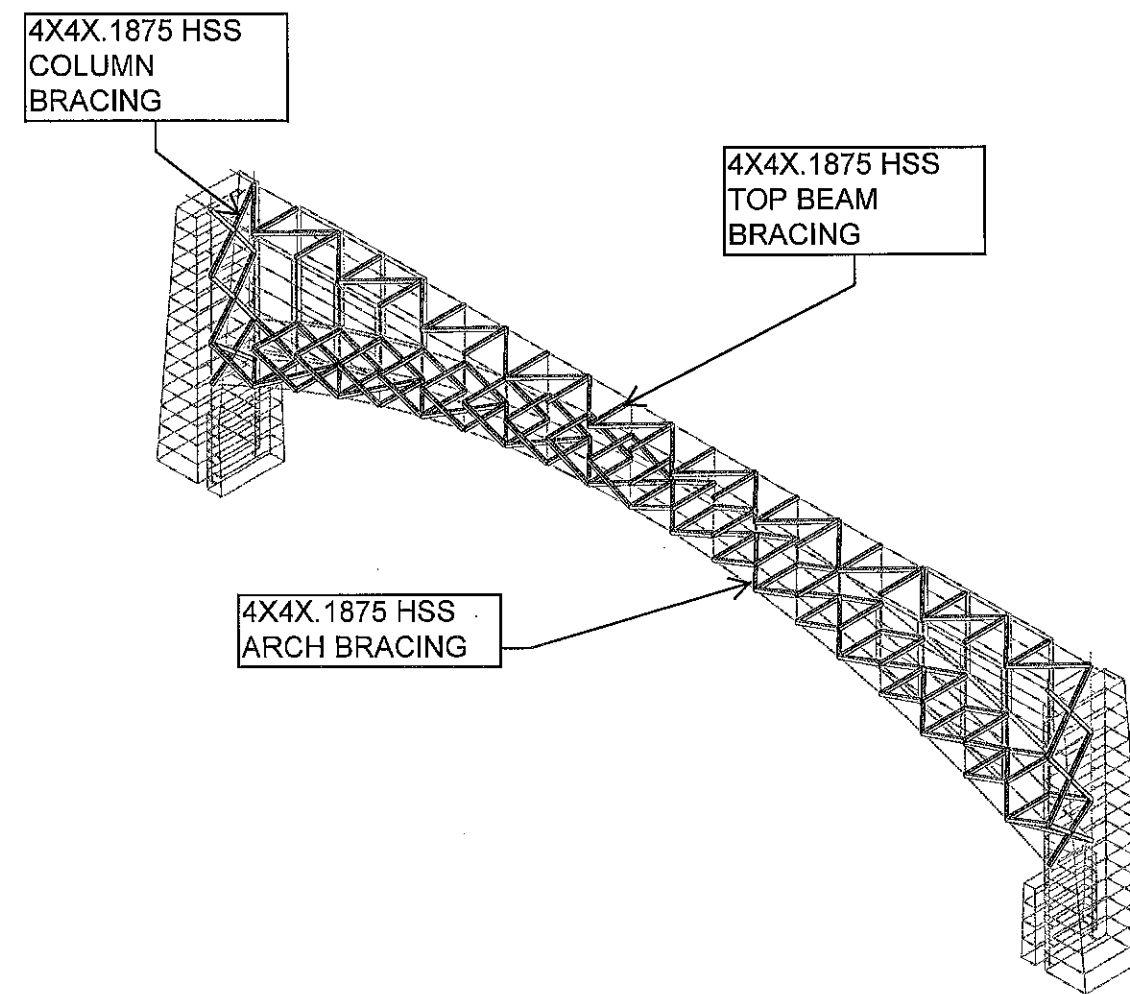
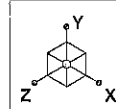


Envelope Only Solution

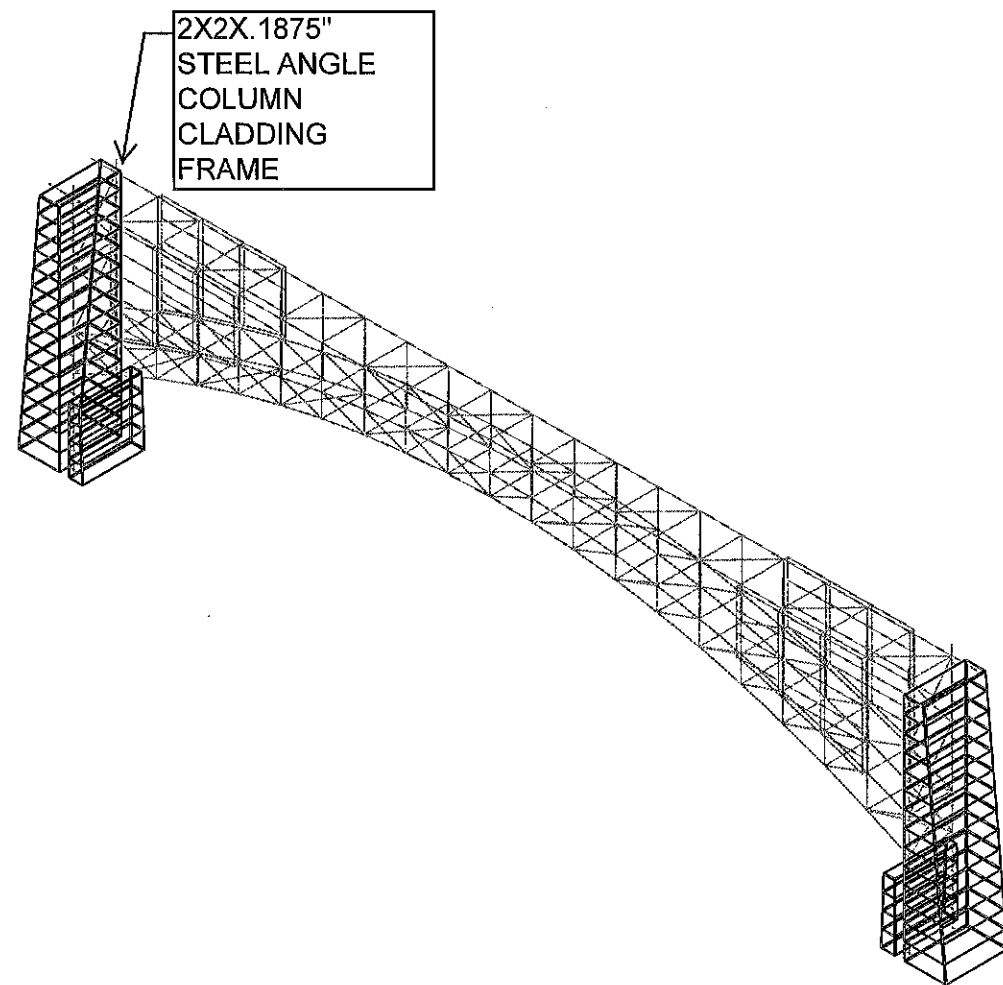
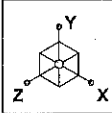




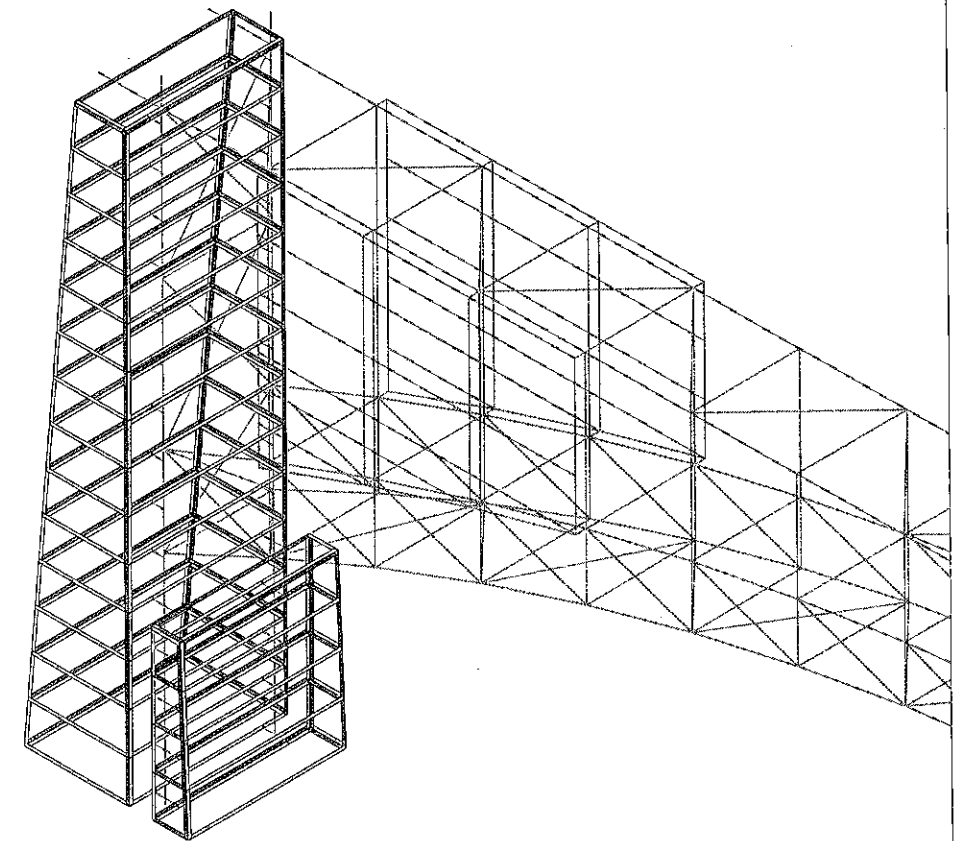
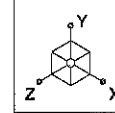
Envelope Only Solution



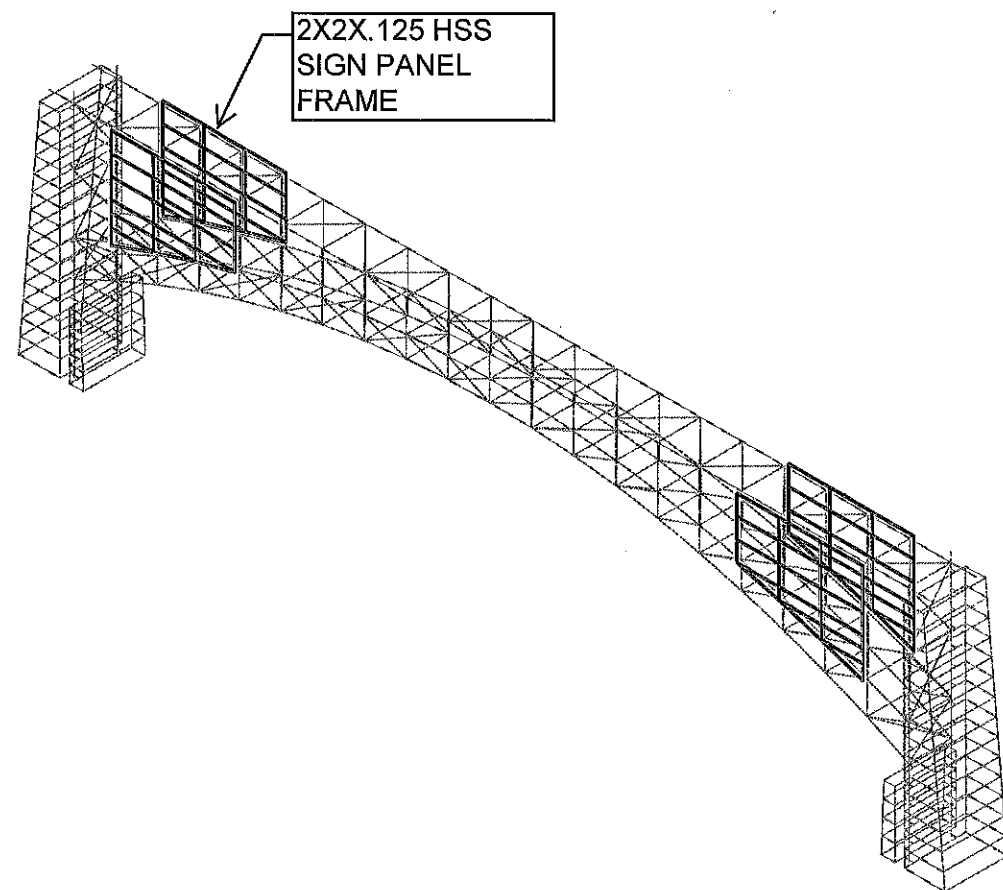
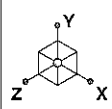
Envelope Only Solution



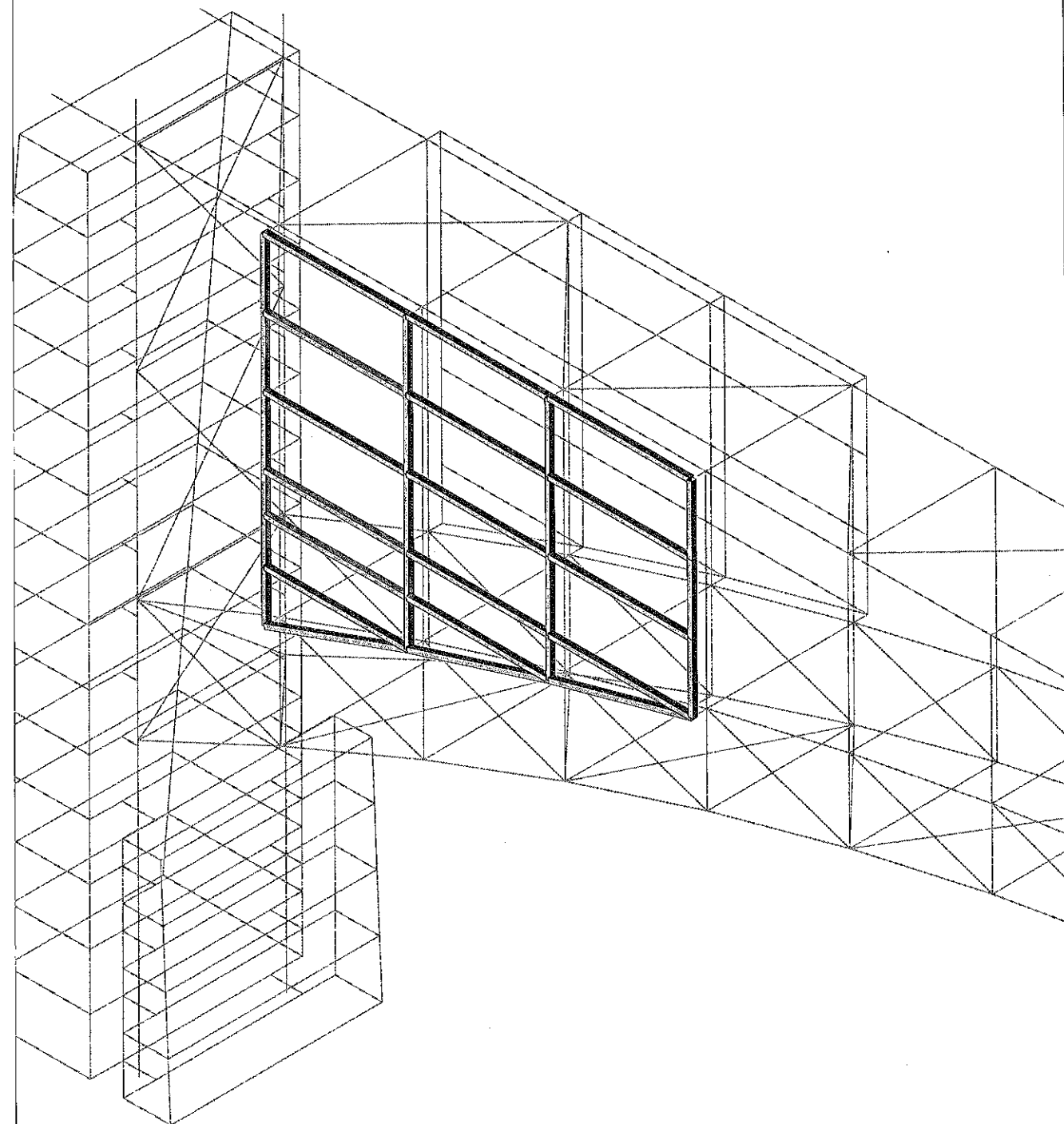
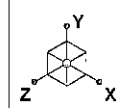
Envelope Only Solution



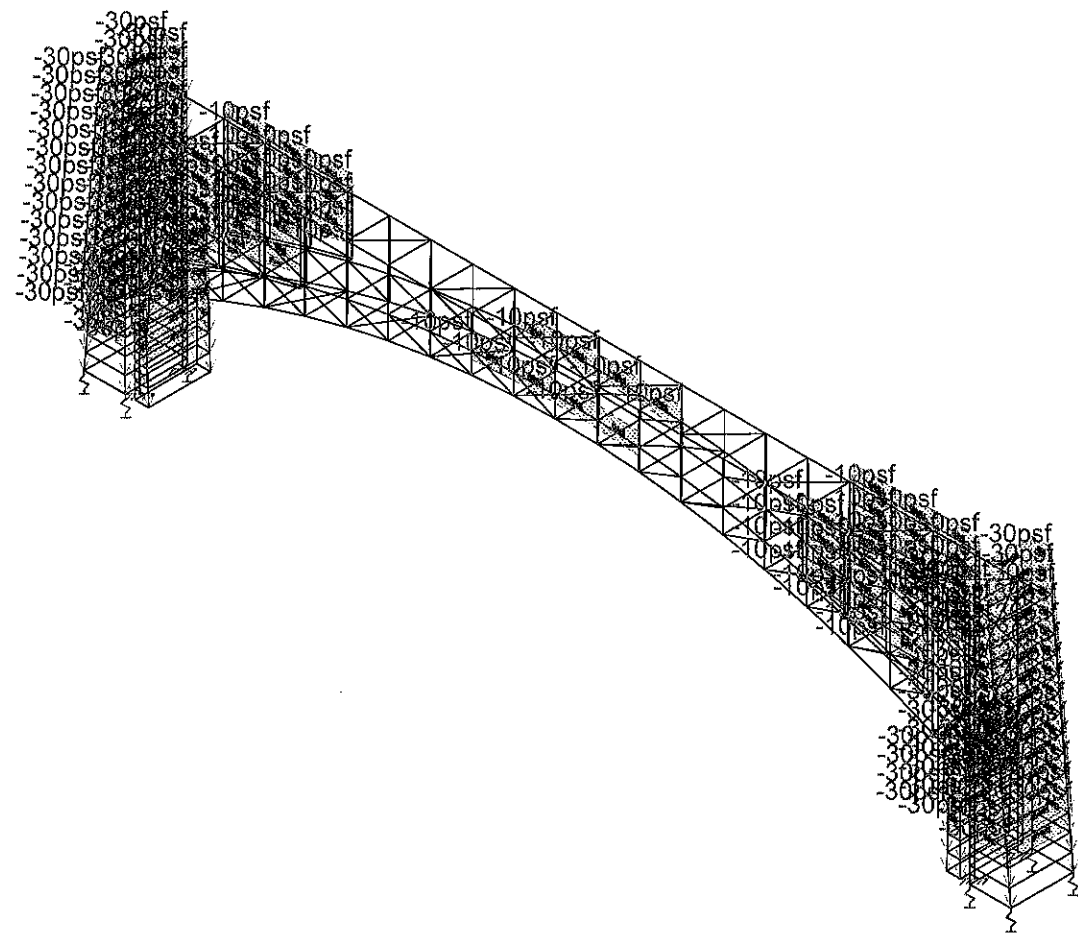
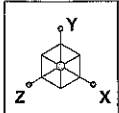
Envelope Only Solution



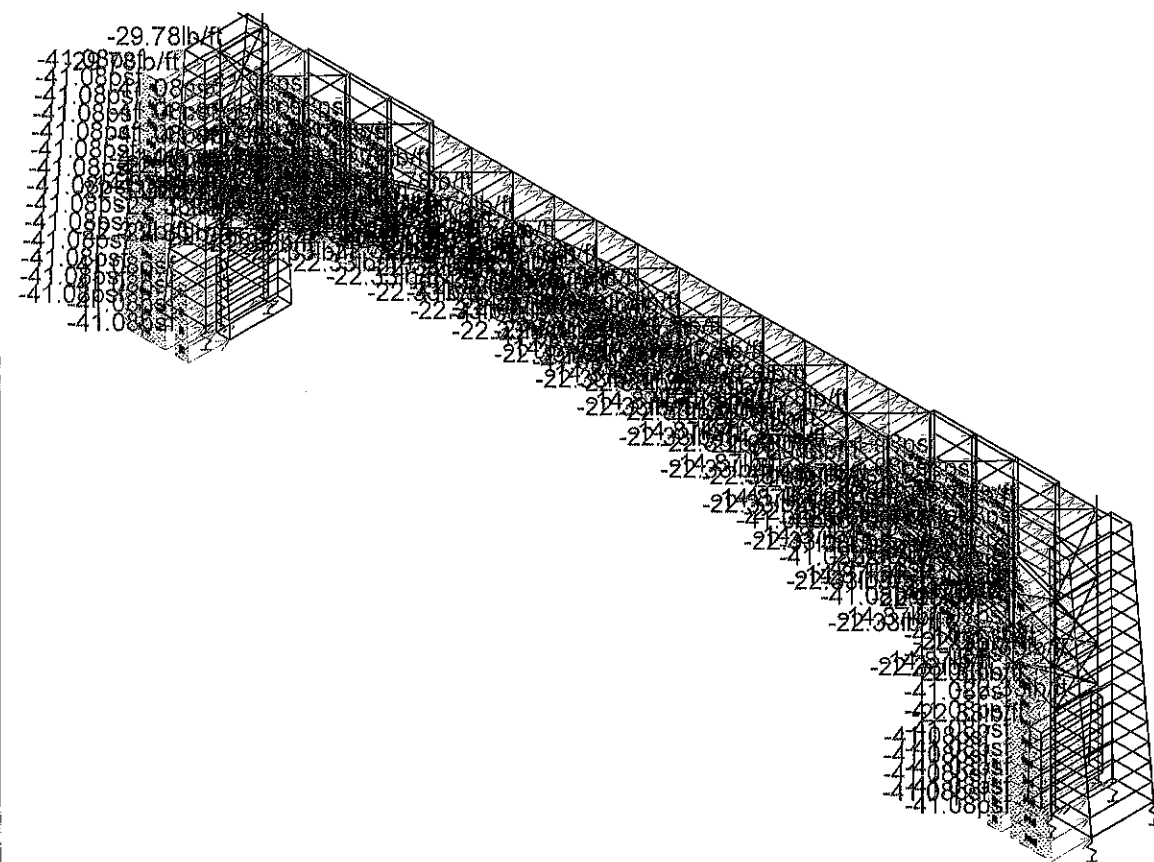
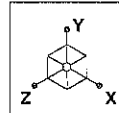
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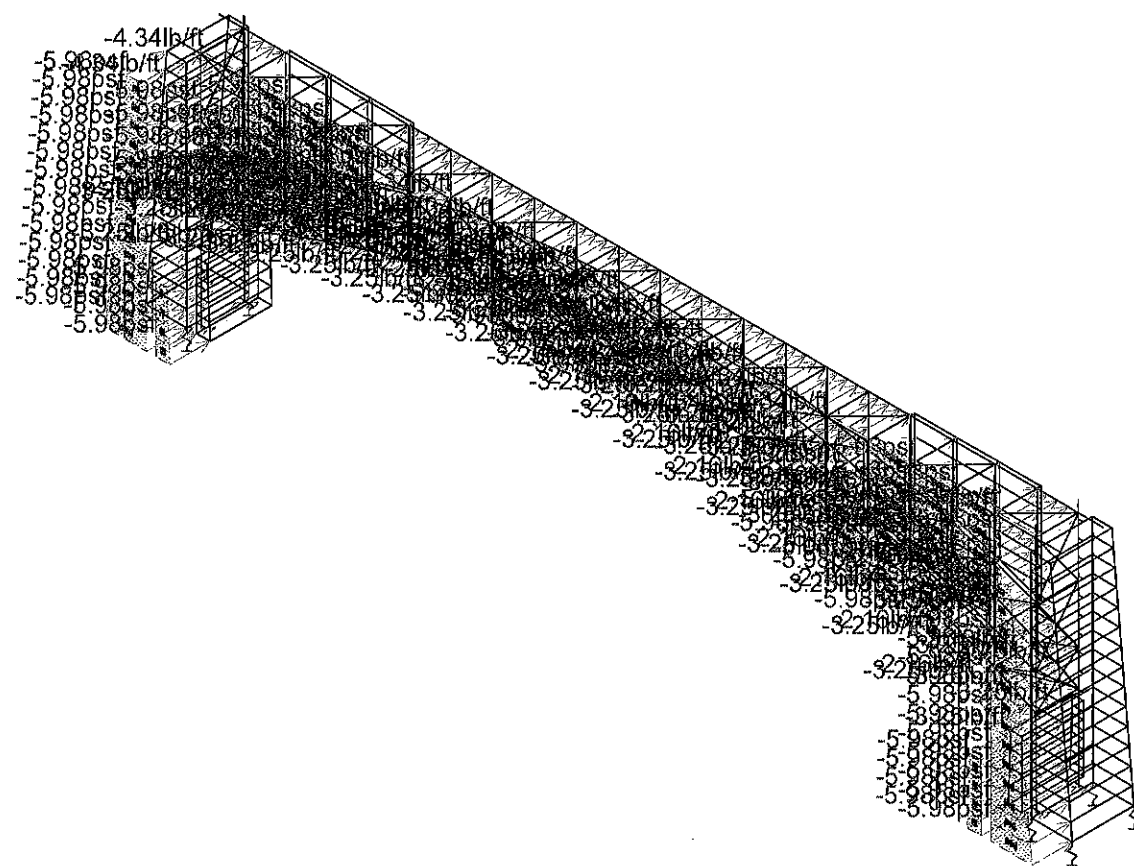
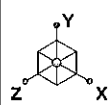
Envelope Only Solution



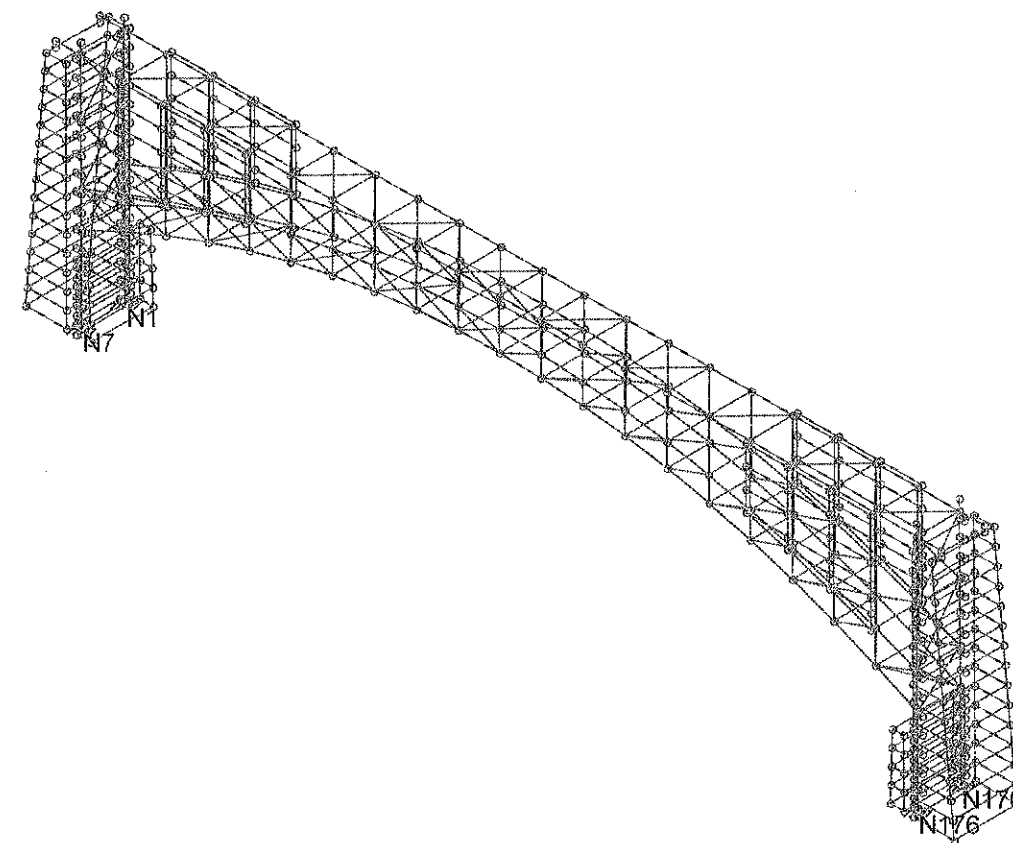
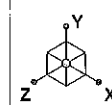
Loads: BLC 1, D
Envelope Only Solution



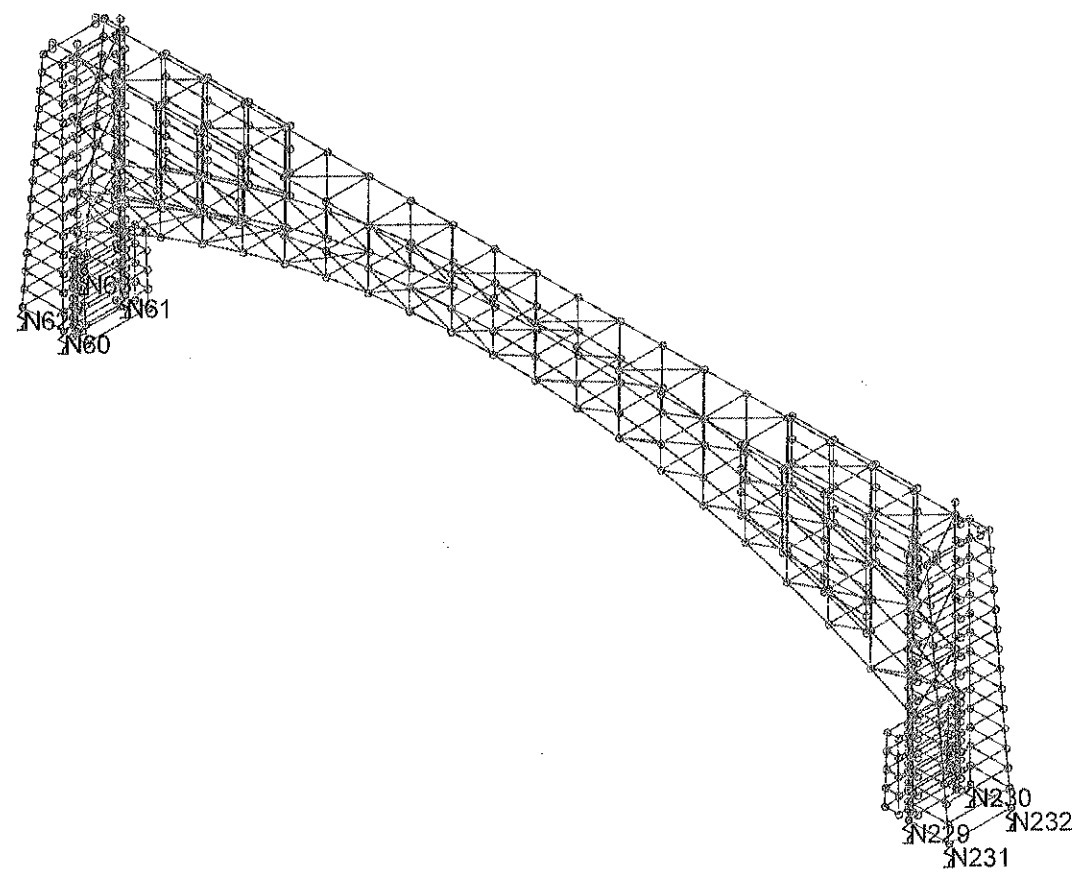
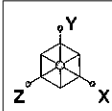
Loads: BLC 2, W
Envelope Only Solution



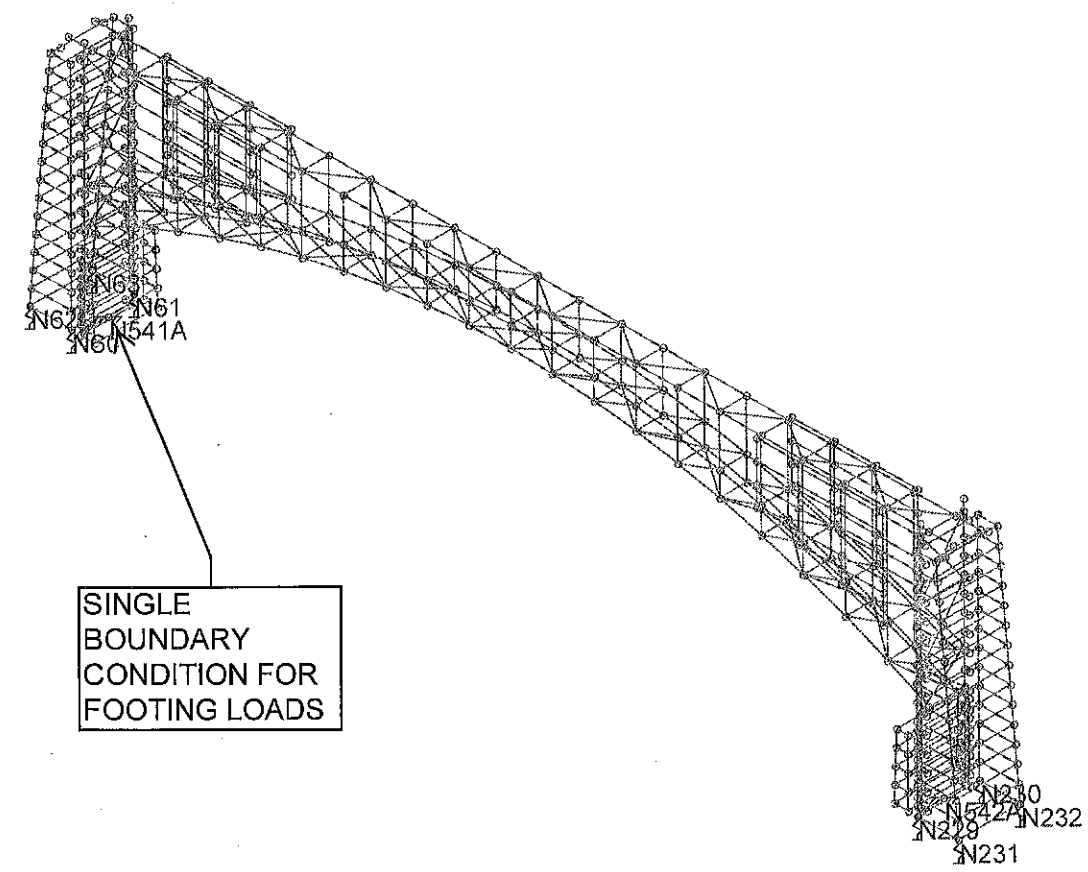
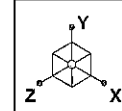
Loads: BLC 3, F
Envelope Only Solution



Envelope Only Solution



Envelope Only Solution



Envelope Only Solution

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	8X8X.25 HSS	HSS8x8x4	Beam	SquareTube	A500 Gr.B Rect	Typical	7.1	70.7	70.7	111
2	6X6X.25 HSS	HSS6x6x4	Beam	SquareTube	A500 Gr.B Rect	Typical	5.24	28.6	28.6	45.6
3	4X4X.1875 HSS	HSS4x4x3	Beam	SquareTube	A500 Gr.B Rect	Typical	2.58	6.21	6.21	10
4	12X12X.375 TUBE	HSS12x12x6	Beam	SquareTube	A500 Gr.B Rect	Typical	16	357	357	561
5	L2X2X.1875	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical	.722	.271	.271	.009
6	2X2X.188 HSS	HSS2x2x3	Beam	SquareTube	A500 Gr.B Rect	Typical	1.19	.641	.641	1.09
7	12X8X.25 HSS	HSS12x8x4	Beam	SquareTube	A500 Gr.B Rect	Typical	8.96	98.8	184	202

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(...
1	D	DL		-1				180	
2	W	WL					200	104	
3	F	None					200	104	
4	BLC 1 Transient Ar...	None					690		
5	BLC 2 Transient Ar...	None					417		
6	BLC 3 Transient Ar...	None					417		

Load Combinations

	Description	So...	PDelta	S...	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.	BLCFac.
1	D	Yes	Y	1	1													
2	W	Yes	Y	2	1													
3	F	Yes	Y	3	1													
4	1.25D	Yes	Y	1	1.25													
5	1.1D+1.0W	Yes	Y	1	1.1	2	1											
6	0.9D+1.0W	Yes	Y	1	.9	2	1											
7	1.0D+1.0F	Yes	Y	1	1	3	1											

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N7	max	9.385	4	19.433	4	15.313	5	87.944	2	-.529	1	37.703	2
2		min	-6.456	2	-85.862	2	.316	1	-.27	4	-19.587	5	-47.691	4
3	N1	max	14.78	5	100.044	5	14.351	2	87.445	5	.769	4	-5.503	3
4		min	.966	3	12.038	3	-.395	4	.14	1	-19.132	2	-80.416	5
5	N170	max	-.966	3	100.034	5	14.351	2	87.446	5	19.132	2	80.417	5
6		min	-14.78	5	12.038	3	-.395	4	.14	1	-.768	4	5.503	3
7	N176	max	6.456	2	19.446	4	15.313	5	87.944	2	19.588	5	47.69	4
8		min	-9.385	4	-85.863	2	.316	1	-.27	4	.53	1	-37.703	2
9	N62	max	0	1	5.006	4	0	1	0	1	0	1	0	1
10		min	0	1	0	2	0	1	0	1	0	1	0	1
11	N63	max	0	1	5.679	5	0	1	0	1	0	1	0	1
12		min	0	1	.176	3	0	1	0	1	0	1	0	1
13	N60	max	0	1	.612	4	0	1	0	1	0	1	0	1

Envelope Joint Reactions (Continued)

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
14		min	0	1	0	2	0	1	0	1	0	1	0	1
15	N61	max	0	1	2.493	5	0	1	0	1	0	1	0	1
16		min	0	1	.285	3	0	1	0	1	0	1	0	1
17	N230	max	0	1	2.493	5	0	1	0	1	0	1	0	1
18		min	0	1	.285	3	0	1	0	1	0	1	0	1
19	N232	max	0	1	5.685	5	0	1	0	1	0	1	0	1
20		min	0	1	.176	3	0	1	0	1	0	1	0	1
21	N231	max	0	1	4.997	4	0	1	0	1	0	1	0	1
22		min	0	1	0	2	0	1	0	1	0	1	0	1
23	N229	max	0	1	.612	4	0	1	0	1	0	1	0	1
24		min	0	1	0	2	0	1	0	1	0	1	0	1
25	Totals:	max	0	5	100.282	4	58.553	6						
26		min	0	3	0	3	0	4						

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Lo...	LC	Shear...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Egn
1	M1	HSS12x12x6	.827	0	5	.173	0	z 5 662.3...	662.4	223.27	223.27	H1-1b
2	M2	HSS12x12x6	.000	0	4	.000	0	y 5 661.8...	662.4	223.27	223.27	H1-1b
3	M3	HSS12x12x6	.428	0	5	.177	0	z 5 661.4...	662.4	223.27	223.27	H1-1b
4	M4	HSS12x12x6	.072	0	5	.041	0	y 2 661.7...	662.4	223.27	223.27	H1-1b
5	M5	HSS12x12x6	.041	0	5	.043	0	y 5 662.35	662.4	223.27	223.27	H1-1b
6	M6	HSS12x12x6	.628	0	2	.180	0	y 5 662.3...	662.4	223.27	223.27	H1-1b
7	M7	HSS12x12x6	.000	0	4	.000	0	y 5 661.8...	662.4	223.27	223.27	H1-1b
8	M8	HSS12x12x6	.274	0	2	.111	0	y 2 661.4...	662.4	223.27	223.27	H1-1b
9	M9	HSS12x12x6	.062	0	2	.043	0	y 5 661.7...	662.4	223.27	223.27	H1-1b
10	M10	HSS12x12x6	.036	0	2	.043	0	y 2 662.35	662.4	223.27	223.27	H1-1b
11	M11	HSS12x8x4	.153	0	5	.097	0	y 5 326.7...	370.9...	73.797	116.951	H1-1b
12	M12	HSS8x8x4	.261	0	5	.218	0	z 5 293.6...	293.94	66.288	66.288	H1-1b
13	M13	HSS8x8x4	.532	0	5	.492	0	z 5 293.6...	293.94	66.288	66.288	H1-1b
14	M14	HSS8x8x4	.078	63.5	5	.048	0	y 5 286.0...	293.94	66.288	66.288	H1-1b
15	M15	HSS4x4x3	.082	53...	5	.004	0	z 2 98.733	106.8...	12.662	12.662	H1-1b
16	M16	HSS4x4x3	.078	53...	5	.003	53...	y 5 98.733	106.8...	12.662	12.662	H1-1b
17	M17	HSS4x4x3	.243	41...	2	.015	0	y 2 101.9...	106.8...	12.662	12.662	H1-1a
18	M18	HSS4x4x3	.410	41...	2	.045	0	y 5 101.9...	106.8...	12.662	12.662	H1-1a
19	M19	HSS4x4x3	.079	53...	2	.010	0	y 5 98.733	106.8...	12.662	12.662	H1-1b
20	M20	HSS4x4x3	.076	53...	2	.009	0	y 5 98.733	106.8...	12.662	12.662	H1-1b
21	M21	HSS4x4x3	.105	0	5	.008	0	y 2 98.733	106.8...	12.662	12.662	H1-...
22	M22	HSS4x4x3	.103	0	5	.006	0	z 5 98.733	106.8...	12.662	12.662	H1-...
23	M23	HSS4x4x3	.125	0	5	.009	0	y 5 98.733	106.8...	12.662	12.662	H1-...
24	M24	HSS4x4x3	.123	0	5	.003	53...	y 5 98.733	106.8...	12.662	12.662	H1-...
25	M25	HSS4x4x3	.456	0	5	.029	0	y 2 101.9...	106.8...	12.662	12.662	H1-1a
26	M26	HSS4x4x3	.257	0	5	.019	41...	y 5 101.9...	106.8...	12.662	12.662	H1-1a
27	M29	HSS12x12x6	.800	0	2	.182	0	y 5 661.2...	662.4	223.27	223.27	H1-1b
28	M30	HSS12x12x6	.791	0	5	.175	0	y 2 661.2...	662.4	223.27	223.27	H1-1b
29	M31	HSS12x12x6	.409	0	2	.180	0	y 5 661.2...	662.4	223.27	223.27	H1-1b
30	M32	HSS12x12x6	.231	0	2	.181	0	y 5 661.2...	662.4	223.27	223.27	H1-1b
31	M33	HSS12x12x6	.247	24	2	.182	0	y 5 661.2...	662.4	223.27	223.27	H1-1b
32	M34	HSS12x12x6	.420	24	2	.189	0	y 5 661.2...	662.4	223.27	223.27	H1-1b
33	M35	HSS12x12x6	.534	0	5	.173	0	y 2 661.2...	662.4	223.27	223.27	H1-1b
34	M36	HSS12x12x6	.286	0	5	.173	0	y 2 661.2...	662.4	223.27	223.27	H1-1b
35	M37	HSS12x12x6	.363	24	5	.173	0	y 2 661.2...	662.4	223.27	223.27	H1-1b
36	M38	HSS12x12x6	.619	24	5	.177	0	y 2 661.2...	662.4	223.27	223.27	H1-1b
37	M49	L2x2x3	.471	13...	5	.064	0	z 5 21.904	23.393	.558	1.239	H2-1
38	M50	L2x2x3	.453	0	5	.022	0	y 5 6.121	23.393	.558	1.196	H2-1
39	M51	L2x2x3	.585	0	5	.075	0	y 5 21.904	23.393	.558	1.239	H2-1
40	M52	L2x2x3	.556	13...	4	.080	13...	z 4 21.904	23.393	.558	1.239	H2-1
41	M53	L2x2x3	.420	0	5	.019	0	z 5 6.121	23.393	.558	1.197	H2-1
42	M54	L2x2x3	.697	0	5	.094	0	z 5 21.904	23.393	.558	1.239	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Egn
43	M55	L2x2x3	.560	13...	4	.074	13... z	4	21.904	23.393	.558	1.239 ... H2-1
44	M56	L2x2x3	.372	0	5	.017	0 z	5	6.121	23.393	.558	1.197 ... H2-1
45	M57	L2x2x3	.576	0	5	.076	0 z	5	21.904	23.393	.558	1.239 ... H2-1
46	M58	L2x2x3	.651	13...	5	.075	13... z	5	21.904	23.393	.558	1.239 ... H2-1
47	M59	L2x2x3	.244	0	5	.011	0 z	5	6.121	23.393	.558	1.197 ... H2-1
48	M60	L2x2x3	.482	0	4	.061	0 z	4	21.904	23.393	.558	1.239 ... H2-1
49	M61	L2x2x3	.856	13...	5	.085	13... z	5	21.904	23.393	.558	1.239 ... H2-1
50	M62	L2x2x3	.041	0	5	.002	0 z	5	6.121	23.393	.558	1.203 ... H2-1
51	M63	L2x2x3	.588	0	2	.066	0 z	2	21.904	23.393	.558	1.239 ... H2-1
52	M64	L2x2x3	.306	16	4	.056	0 y	4	21.399	23.393	.558	1.239 ... H2-1
53	M65	L2x2x3	.396	16	5	.058	0 z	5	21.399	23.393	.558	1.239 ... H2-1
54	M66	L2x2x3	.211	0	4	.023	24... y	5	19.138	23.393	.558	1.239 ... H2-1
55	M67	L2x2x3	.292	0	5	.022	0 z	4	19.138	23.393	.558	1.239 ... H2-1
56	M68	L2x2x3	.705	0	5	.033	0 z	5	2.981	23.393	.558	1.094 ... H2-1
57	M69	L2x2x3	.354	0	5	.019	0 y	5	2.981	23.393	.558	1.088 ... H2-1
58	M70	L2x2x3	.207	20	4	.028	0 z	4	20.354	23.393	.558	1.239 ... H2-1
59	M71	L2x2x3	.219	0	5	.036	0 y	5	20.354	23.393	.558	1.239 ... H2-1
60	M72	L2x2x3	.285	24	2	.027	24 z	2	19.145	23.393	.558	1.239 ... H2-1
61	M73	L2x2x3	.218	0	5	.023	0 y	4	19.145	23.393	.558	1.239 ... H2-1
62	M74	L2x2x3	.233	24	4	.028	0 z	5	19.145	23.393	.558	1.239 ... H2-1
63	M75	L2x2x3	.259	24	5	.030	0 z	5	19.145	23.393	.558	1.239 ... H2-1
64	M76	L2x2x3	.382	0	5	.034	0 y	5	19.145	23.393	.558	1.239 ... H2-1
65	M77	L2x2x3	.216	0	4	.023	0 z	4	19.145	23.393	.558	1.239 ... H2-1
66	M78	L2x2x3	.279	24	5	.026	0 z	4	19.145	23.393	.558	1.239 ... H2-1
67	M79	L2x2x3	.322	24	5	.023	0 z	5	19.145	23.393	.558	1.239 ... H2-1
68	M80	L2x2x3	.222	0	4	.024	0 y	4	19.138	23.393	.558	1.239 ... H2-1
69	M81	L2x2x3	.223	24...	4	.026	0 z	4	19.138	23.393	.558	1.239 ... H2-1
70	M82	L2x2x3	.349	24...	4	.038	0 y	4	19.138	23.393	.558	1.239 ... H2-1
71	M83	L2x2x3	.341	0	5	.030	.25 z	5	19.138	23.393	.558	1.239 ... H2-1
72	M84	L2x2x3	.298	0	5	.032	2.5 z	5	19.138	23.393	.558	1.239 ... H2-1
73	M85	L2x2x3	.464	24...	5	.050	.25 z	5	19.138	23.393	.558	1.239 ... H2-1
74	M86	L2x2x3	.517	0	4	.062	0 z	4	21.155	23.393	.558	1.239 ... H2-1
75	M87	L2x2x3	.545	18	4	.063	0 z	4	20.899	23.393	.558	1.239 ... H2-1
76	M88	L2x2x3	.426	19	4	.050	0 z	4	20.632	23.393	.558	1.239 ... H2-1
77	M89	L2x2x3	.426	19	4	.050	0 y	4	20.632	23.393	.558	1.239 ... H2-1
78	M90	L2x2x3	.553	18	5	.063	0 y	4	20.899	23.393	.558	1.239 ... H2-1
79	M91	L2x2x3	.553	17	5	.062	0 y	4	21.155	23.393	.558	1.239 ... H2-1
80	M92	L2x2x3	.742	0	5	.036	0 y	5	2.981	23.393	.558	1.12 ... H2-1
81	M93	L2x2x3	.722	0	5	.035	0 y	5	2.981	23.393	.558	1.113 ... H2-1
82	M94	L2x2x3	.672	0	5	.034	0 y	5	2.981	23.393	.558	1.109 ... H2-1
83	M95	L2x2x3	.625	13...	5	.088	13... y	5	21.904	23.393	.558	1.239 ... H2-1
84	M96	L2x2x3	.037	0	5	.002	0 y	5	6.121	23.393	.558	1.2 ... H2-1
85	M97	L2x2x3	.670	0	2	.072	0 y	2	21.904	23.393	.558	1.239 ... H2-1
86	M100	L2x2x3	.504	0	5	.027	60 z	5	6.856	23.393	.558	1.147 ... H2-1
87	M101	L2x2x3	.355	91	5	.016	0 z	5	2.981	23.393	.558	1.124 ... H2-1
88	M102	L2x2x3	.383	0	2	.032	0 z	6	6.856	23.393	.558	1.136 ... H2-1
89	M103	HSS12x12x6	.641	2	5	.178	0 y	2	662.3	662.4	223.27	223.27 ... H1-1b
90	M104	HSS12x12x6	.433	2	2	.186	0 y	5	662.3	662.4	223.27	223.27 ... H1-1b
91	M105	HSS12x12x6	.255	0	5	.177	0 z	5	661.2	662.4	223.27	223.27 ... H1-1b
92	M106	HSS12x12x6	.087	0	5	.179	0 z	5	662.3	662.4	223.27	223.27 ... H1-1b
93	M107	HSS12x12x6	.168	0	2	.113	0 y	2	661.2	662.4	223.27	223.27 ... H1-1b
94	M108	HSS12x12x6	.065	0	5	.116	0 y	2	662.3	662.4	223.27	223.27 ... H1-1b
95	M109	HSS12x12x6	.060	0	5	.042	0 y	2	661.2	662.4	223.27	223.27 ... H1-1b
96	M110	HSS12x12x6	.052	0	2	.044	0 y	5	661.2	662.4	223.27	223.27 ... H1-1b
97	M111	HSS12x12x6	.049	0	5	.043	0 y	2	661.2	662.4	223.27	223.27 ... H1-1b
98	M112	HSS12x12x6	.048	0	5	.044	0 z	2	661.6	662.4	223.27	223.27 ... H1-1b
99	M113	HSS12x12x6	.041	0	2	.045	0 y	5	661.2	662.4	223.27	223.27 ... H1-1b
100	M114	HSS12x12x6	.031	0	2	.046	0 y	5	661.6	662.4	223.27	223.27 ... H1-1b
101	M115	HSS12x12x6	.036	0	5	.043	0 y	5	661.2	662.4	223.27	223.27 ... H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Egn		
102	M116	HSS12x12x6	.032	0	2	.043	0	y	2	661.2	662.4	223.27	223.27	H1-1b
103	M117	HSS12x12x6	.029	24	5	.044	0	z	5	661.2	662.4	223.27	223.27	H1-1b
104	M118	HSS12x12x6	.052	24	5	.045	0	z	5	661.2	662.4	223.27	223.27	H1-1b
105	M119	HSS12x12x6	.025	24	2	.043	0	y	2	661.2	662.4	223.27	223.27	H1-1b
106	M120	HSS12x12x6	.043	24	2	.044	0	z	2	661.2	662.4	223.27	223.27	H1-1b
107	M121	HSS12x12x6	.060	8	5	.045	0	y	2	662.2	662.4	223.27	223.27	H1-1b
108	M122	HSS12x12x6	.049	8	2	.047	0	z	5	662.2	662.4	223.27	223.27	H1-1b
109	M123	L2x2x3	.420	0	2	.021	13...	y	4	21.904	23.393	.558	1.239	H2-1
110	M124	L2x2x3	.190	63.5	2	.011	0	y	5	6.121	23.393	.558	1.195	H2-1
111	M125	L2x2x3	.545	13...	5	.030	0	y	2	21.904	23.393	.558	1.239	H2-1
112	M128	L2x2x3	.658	13...	5	.076	0	y	5	21.904	23.393	.558	1.239	H2-1
113	M129	L2x2x3	.267	0	5	.015	0	y	5	6.121	23.393	.558	1.194	H2-1
114	M130	L2x2x3	.649	13...	5	.057	0	y	5	21.904	23.393	.558	1.239	H2-1
115	M133	L2x2x3	.829	13...	5	.098	0	y	5	21.904	23.393	.558	1.239	H2-1
116	M134	L2x2x3	.290	0	5	.015	0	y	5	6.121	23.393	.558	1.192	H2-1
117	M135	L2x2x3	.670	13...	5	.074	0	y	5	21.904	23.393	.558	1.239	H2-1
118	M138	L2x2x3	.718	13...	2	.083	0	y	5	21.904	23.393	.558	1.239	H2-1
119	M139	L2x2x3	.259	0	5	.012	0	y	5	6.121	23.393	.558	1.186	H2-1
120	M140	L2x2x3	.635	0	5	.073	0	y	5	21.904	23.393	.558	1.239	H2-1
121	M143	L2x2x3	.421	13...	5	.048	0	y	2	21.904	23.393	.558	1.239	H2-1
122	M144	L2x2x3	.167	0	5	.006	0	y	5	6.121	23.393	.558	1.151	H2-1
123	M145	L2x2x3	.553	13...	5	.056	0	y	5	21.904	23.393	.558	1.239	H2-1
124	M148	L2x2x3	.404	13...	5	.038	13...	y	4	21.904	23.393	.558	1.239	1 H2-1
125	M149	L2x2x3	.083	0	5	.002	0	z	5	6.121	23.393	.558	1.143	H2-1
126	M150	L2x2x3	.453	13...	5	.040	0	y	5	21.904	23.393	.558	1.239	H2-1
127	M153	L2x2x3	.360	13...	5	.046	13...	y	4	21.904	23.393	.558	1.239	H2-1
128	M154	L2x2x3	.069	0	5	.002	0	y	5	6.121	23.393	.558	1.238	H2-1
129	M155	L2x2x3	.441	13...	5	.046	0	y	4	21.904	23.393	.558	1.239	H2-1
130	M158	L2x2x3	.336	13...	4	.047	13...	y	4	21.904	23.393	.558	1.239	H2-1
131	M159	L2x2x3	.075	0	5	.002	0	y	5	6.121	23.393	.558	1.231	H2-1
132	M160	L2x2x3	.441	13...	5	.048	0	y	5	21.904	23.393	.558	1.239	H2-1
133	M163	L2x2x3	.335	13...	4	.047	13...	y	4	21.904	23.393	.558	1.239	H2-1
134	M164	L2x2x3	.060	0	5	.003	0	y	5	6.121	23.393	.558	1.22	H2-1
135	M165	L2x2x3	.436	13...	5	.055	0	y	5	21.904	23.393	.558	1.239	H2-1
136	M168	L2x2x3	.335	13...	4	.047	13...	y	4	21.904	23.393	.558	1.239	H2-1
137	M169	L2x2x3	.053	0	5	.003	0	y	5	6.121	23.393	.558	1.219	H2-1
138	M170	L2x2x3	.442	0	5	.059	0	y	5	21.904	23.393	.558	1.239	H2-1
139	M173	L2x2x3	.344	13...	4	.051	13...	y	4	21.904	23.393	.558	1.239	H2-1
140	M174	L2x2x3	.048	0	5	.003	0	y	5	6.121	23.393	.558	1.227	H2-1
141	M175	L2x2x3	.486	0	5	.065	0	y	5	21.904	23.393	.558	1.239	H2-1
142	M178	L2x2x3	.348	13...	4	.051	13...	y	4	21.904	23.393	.558	1.239	H2-1
143	M179	L2x2x3	.038	0	5	.003	0	y	5	6.121	23.393	.558	1.239	H2-1
144	M180	L2x2x3	.509	0	5	.069	0	y	5	21.904	23.393	.558	1.239	H2-1
145	M183	L2x2x3	.355	13...	4	.055	13...	y	4	21.904	23.393	.558	1.239	H2-1
146	M184	L2x2x3	.026	0	5	.003	0	y	5	6.121	23.393	.558	1.226	H2-1
147	M185	L2x2x3	.520	0	5	.075	0	y	5	21.904	23.393	.558	1.239	H2-1
148	M188	L2x2x3	.490	13...	4	.076	0	y	4	21.904	23.393	.558	1.239	H2-1
149	M189	L2x2x3	.208	0	4	.019	0	z	5	6.121	23.393	.558	1.205	H2-1
150	M190	L2x2x3	.736	0	5	.096	0	y	5	21.904	23.393	.558	1.239	H2-1
151	M193	L2x2x3	.627	0	4	.033	0	y	4	21.904	23.393	.558	1.239	H2-1
152	M194	L2x2x3	.511	33...	4	.032	63.5	y	4	6.121	23.393	.558	1.032	H2-1
153	M195	L2x2x3	.657	13...	4	.038	13...	y	4	21.904	23.393	.558	1.239	H2-1
154	M196	L2x2x3	.386	0	4	.047	0	y	4	17.459	23.393	.558	1.239	H2-1
155	M197	L2x2x3	.543	0	5	.052	0	z	5	17.459	23.393	.558	1.239	H2-1
156	M198	L2x2x3	.657	0	5	.027	0	y	5	19.112	23.393	.558	1.239	H2-1
157	M199	L2x2x3	.569	24...	4	.026	0	z	4	19.112	23.393	.558	1.239	H2-1
158	M200	L2x2x3	.542	0	5	.036	0	z	5	19.145	23.393	.558	1.239	H2-1
159	M201	L2x2x3	.344	0	2	.017	0	y	2	19.145	23.393	.558	1.239	H2-1
160	M202	L2x2x3	.269	0	5	.021	0	y	2	19.145	23.393	.558	1.239	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Eqn
161	M203	L2x2x3	271	24	5	.021	0 y 2	19.145	23.393	558	1.239	H2-1
162	M204	L2x2x3	206	24	2	.018	0 y 2	19.145	23.393	558	1.239	H2-1
163	M205	L2x2x3	195	0	4	.018	0 y 4	19.145	23.393	558	1.239	H2-1
164	M206	L2x2x3	189	0	5	.020	0 z 5	19.145	23.393	558	1.239	H2-1
165	M207	L2x2x3	180	0	4	.018	0 y 4	19.145	23.393	558	1.239	H2-1
166	M208	L2x2x3	190	24	4	.018	0 y 4	19.145	23.393	558	1.239	H2-1
167	M209	L2x2x3	196	0	4	.018	0 y 4	19.145	23.393	558	1.239	H2-1
168	M210	L2x2x3	232	24	4	.020	0 y 4	19.145	23.393	558	1.239	H2-1
169	M211	L2x2x3	255	24	4	.023	0 y 4	19.145	23.393	558	1.239	H2-1
170	M212	L2x2x3	294	24	4	.025	0 y 4	19.145	23.393	558	1.239	H2-1
171	M213	L2x2x3	387	24	4	.028	0 y 4	19.145	23.393	558	1.239	H2-1
172	M216	L2x2x3	527	0	2	.039	0 y 2	19.145	23.393	558	1.239	H2-1
173	M217	L2x2x3	344	0	5	.028	0 z 5	19.145	23.393	558	1.239	H2-1
174	M218	L2x2x3	280	0	5	.028	0 z 5	19.145	23.393	558	1.239	H2-1
175	M219	L2x2x3	255	24	5	.028	0 z 5	19.145	23.393	558	1.239	H2-1
176	M220	L2x2x3	269	24	5	.027	0 z 5	19.145	23.393	558	1.239	H2-1
177	M221	L2x2x3	279	24	5	.026	0 z 5	19.145	23.393	558	1.239	H2-1
178	M222	L2x2x3	284	24	5	.024	24 y 2	19.145	23.393	558	1.239	H2-1
179	M223	L2x2x3	287	24	5	.025	0 z 5	19.145	23.393	558	1.239	H2-1
180	M224	L2x2x3	294	24	5	.027	0 z 5	19.145	23.393	558	1.239	H2-1
181	M225	L2x2x3	297	24	5	.028	5 z 5	19.145	23.393	558	1.239	H2-1
182	M226	L2x2x3	317	24	5	.027	0 z 5	19.145	23.393	558	1.239	H2-1
183	M227	L2x2x3	347	24	5	.032	0 z 5	19.145	23.393	558	1.239	H2-1
184	M228	L2x2x3	385	24	5	.033	0 z 5	19.145	23.393	558	1.239	H2-1
185	M229	L2x2x3	504	24	5	.040	0 z 5	19.145	23.393	558	1.239	H2-1
186	M230	L2x2x3	688	0	5	.026	502 y 5	19.112	23.393	558	1.239	H2-1
187	M231	L2x2x3	645	0	5	.029	24... z 5	19.112	23.393	558	1.239	H2-1
188	M232	L2x2x3	623	0	5	.031	0 y 5	19.112	23.393	558	1.239	H2-1
189	M233	L2x2x3	569	0	5	.031	4.5... y 5	19.112	23.393	558	1.239	H2-1
190	M234	L2x2x3	488	0	5	.027	251 y 5	19.112	23.393	558	1.239	H2-1
191	M235	L2x2x3	432	0	5	.025	0 y 5	19.112	23.393	558	1.239	H2-1
192	M236	L2x2x3	397	0	5	.024	0 y 5	19.112	23.393	558	1.239	H2-1
193	M237	L2x2x3	373	0	5	.024	2.5... y 5	19.112	23.393	558	1.239	H2-1
194	M238	L2x2x3	350	0	5	.024	0 y 5	19.112	23.393	558	1.239	H2-1
195	M239	L2x2x3	338	0	5	.024	0 y 5	19.112	23.393	558	1.239	H2-1
196	M240	L2x2x3	316	0	5	.024	0 y 5	19.112	23.393	558	1.239	H2-1
197	M241	L2x2x3	299	0	5	.022	0 y 5	19.112	23.393	558	1.239	H2-1
198	M242	L2x2x3	458	24...	5	.052	502 y 4	19.112	23.393	558	1.239	H2-1
199	M243	L2x2x3	555	24...	4	.021	753 z 4	19.112	23.393	558	1.239	H2-1
200	M244	L2x2x3	521	24...	4	.021	0 z 5	19.112	23.393	558	1.239	H2-1
201	M245	L2x2x3	498	0	4	.022	0 z 4	19.112	23.393	558	1.239	H2-1
202	M246	L2x2x3	463	0	4	.023	1.2... z 4	19.112	23.393	558	1.239	H2-1
203	M247	L2x2x3	418	0	4	.023	24... z 5	19.112	23.393	558	1.239	H2-1
204	M248	L2x2x3	371	0	4	.024	24... z 5	19.112	23.393	558	1.239	H2-1
205	M249	L2x2x3	337	0	4	.025	24... z 5	19.112	23.393	558	1.239	H2-1
206	M250	L2x2x3	309	0	4	.025	24... z 5	19.112	23.393	558	1.239	H2-1
207	M251	L2x2x3	284	0	4	.024	24... z 5	19.112	23.393	558	1.239	H2-1
208	M252	L2x2x3	263	0	4	.026	0 y 5	19.112	23.393	558	1.239	H2-1
209	M253	L2x2x3	246	0	4	.026	0 y 5	19.112	23.393	558	1.239	H2-1
210	M254	L2x2x3	334	24...	5	.032	0 y 5	19.112	23.393	558	1.239	H2-1
211	M255	L2x2x3	472	24...	4	.051	0 z 4	19.112	23.393	558	1.239	H2-1
212	M256	L2x2x3	634	0	4	.031	0 z 4	2.981	23.393	558	1.002	H2-1
213	M257	L2x2x3	626	0	4	.031	0 z 5	2.981	23.393	558	1.01	H2-1
214	M258	L2x2x3	626	0	4	.031	0 z 5	2.981	23.393	558	1.009	H2-1
215	M259	L2x2x3	628	0	4	.031	0 z 4	2.981	23.393	558	.997	H2-1
216	M260	L2x2x3	630	0	4	.031	0 z 4	2.981	23.393	558	.978	H2-1
217	M261	L2x2x3	634	91	4	.031	91 z 4	2.981	23.393	558	.978	H2-1
218	M262	L2x2x3	634	91	4	.031	91 z 4	2.981	23.393	558	.976	H2-1
219	M263	L2x2x3	635	91	4	.031	91 z 4	2.981	23.393	558	.976	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Eqn		
220	M264	L2x2x3	636	91	4	.031	91	z	4	2.981	23.393	558	.976	H2-1
221	M265	L2x2x3	638	91	4	.031	91	z	4	2.981	23.393	558	.976	H2-1
222	M266	L2x2x3	636	91	4	.031	91	z	4	2.981	23.393	558	.975	H2-1
223	M267	L2x2x3	637	0	4	.031	0	z	4	2.981	23.393	558	.974	H2-1
224	M268	L2x2x3	674	0	4	.034	0	z	4	2.981	23.393	558	1.002	H2-1
225	M269	L2x2x3	571	0	4	.046	0	z	4	16.667	23.393	558	1.239	H2-1
226	M270	L2x2x3	576	0	4	.046	0	z	4	15.858	23.393	558	1.239	H2-1
227	M271	L2x2x3	543	0	4	.044	0	z	4	15.036	23.393	558	1.239	H2-1
228	M272	L2x2x3	460	0	4	.031	0	z	4	14.208	23.393	558	1.239	H2-1
229	M273	L2x2x3	446	0	4	.030	0	z	4	13.381	23.393	558	1.239	H2-1
230	M274	L2x2x3	427	0	4	.028	0	z	4	12.558	23.393	558	1.239	H2-1
231	M275	L2x2x3	404	0	4	.027	0	z	4	11.746	23.393	558	1.239	H2-1
232	M276	L2x2x3	361	0	4	.024	0	z	4	10.949	23.393	558	1.239	H2-1
233	M277	L2x2x3	342	0	4	.033	48...	z	5	10.171	23.393	558	1.239	H2-1
234	M278	L2x2x3	321	51...	5	.040	51...	z	5	9.417	23.393	558	1.229	H2-1
235	M279	L2x2x3	401	53...	5	.044	53...	z	5	8.669	23.393	558	1.213	H2-1
236	M280	L2x2x3	397	55...	5	.044	55...	z	5	7.992	23.393	558	1.201	H2-1
237	M281	L2x2x3	453	0	5	.039	57...	z	5	7.392	23.393	558	1.181	H2-1
238	M282	L2x2x3	685	0	5	.058	0	y	5	16.667	23.393	558	1.239	H2-1
239	M283	L2x2x3	678	0	5	.056	0	y	5	15.858	23.393	558	1.239	H2-1
240	M284	L2x2x3	617	0	5	.053	0	y	5	15.036	23.393	558	1.239	H2-1
241	M285	L2x2x3	548	0	5	.040	0	y	5	14.208	23.393	558	1.239	H2-1
242	M286	L2x2x3	507	0	5	.039	0	y	5	13.381	23.393	558	1.239	H2-1
243	M287	L2x2x3	464	0	5	.036	0	y	5	12.558	23.393	558	1.239	H2-1
244	M288	L2x2x3	421	0	5	.034	0	y	5	11.746	23.393	558	1.239	H2-1
245	M289	L2x2x3	384	0	5	.032	0	y	5	10.949	23.393	558	1.239	H2-1
246	M290	L2x2x3	406	0	2	.042	0	z	6	10.171	23.393	558	1.192	H2-1
247	M291	L2x2x3	445	0	2	.045	0	z	6	9.417	23.393	558	1.2	H2-1
248	M292	L2x2x3	494	0	2	.047	0	z	2	8.669	23.393	558	1.2	H2-1
249	M293	L2x2x3	536	0	2	.048	0	z	2	7.992	23.393	558	1.193	H2-1
250	M294	L2x2x3	584	0	2	.047	0	z	6	7.392	23.393	558	1.183	H2-1
251	M295	HSS12x12x6	827	0	5	.173	0	z	5	662.3	662.4	223.27	223.27	H1-1b
252	M296	HSS12x12x6	000	0	4	.000	0	y	5	661.8	662.4	223.27	223.27	1 H1-1b
253	M297	HSS12x12x6	428	0	5	.177	0	z	5	661.4	662.4	223.27	223.27	H1-1b
254	M298	HSS12x12x6	072	0	5	.041	0	y	2	661.7	662.4	223.27	223.27	H1-1b
255	M299	HSS12x12x6	041	0	5	.043	0	y	5	662.35	662.4	223.27	223.27	H1-1b
256	M300	HSS12x12x6	628	0	2	.180	0	y	5	662.3	662.4	223.27	223.27	H1-1b
257	M301	HSS12x12x6	000	0	4	.000	0	y	5	661.8	662.4	223.27	223.27	1 H1-1b
258	M302	HSS12x12x6	274	0	2	.111	0	y	2	661.4	662.4	223.27	223.27	H1-1b
259	M303	HSS12x12x6	062	0	2	.043	0	y	5	661.7	662.4	223.27	223.27	H1-1b
260	M304	HSS12x12x6	036	0	2	.043	0	y	2	662.35	662.4	223.27	223.27	H1-1b
261	M305	HSS12x8x4	153	0	5	.097	0	y	5	326.7	370.9	73.797	116.951	H1-1b
262	M306	HSS8x8x4	261	0	5	.218	0	z	5	293.6	293.94	66.288	66.288	H1-1b
263	M307	HSS8x8x4	532	0	5	.492	0	z	5	293.6	293.94	66.288	66.288	H1-1b
264	M308	HSS8x8x4	078	63.5	5	.048	0	y	5	286.0	293.94	66.288	66.288	H1-1b
265	M309	HSS4x4x3	082	53...	5	.004	0	z	2	98.733	106.8	12.662	12.662	H1-1b
266	M310	HSS4x4x3	078	53...	5	.003	53...	y	5	98.733	106.8	12.662	12.662	H1-1b
267	M311	HSS4x4x3	243	41...	2	.015	0	y	2	101.9	106.8	12.662	12.662	H1-1a
268	M312	HSS4x4x3	410	41...	2	.045	0	y	5	101.9	106.8	12.662	12.662	H1-1a
269	M313	HSS4x4x3	079	53...	2	.010	0	y	5	98.733	106.8	12.662	12.662	H1-1b
270	M314	HSS4x4x3	076	53...	2	.009	0	y	5	98.733	106.8	12.662	12.662	H1-1b
271	M315	HSS4x4x3	105	0	5	.008	0	y	2	98.733	106.8	12.662	12.662	H1-...
272	M316	HSS4x4x3	103	0	5	.006	0	z	5	98.733	106.8	12.662	12.662	H1-...
273	M317	HSS4x4x3	125	0	5	.009	0	y	5	98.733	106.8	12.662	12.662	H1-...
274	M318	HSS4x4x3	123	0	5	.003	53...	y	5	98.733	106.8	12.662	12.662	H1-...
275	M319	HSS4x4x3	456	0	5	.029	0	y	2	101.9	106.8	12.662	12.662	H1-1a
276	M320	HSS4x4x3	257	0	5	.019	41...	y	5	101.9	106.8	12.662	12.662	H1-1a
277	M323	HSS12x12x6	600	0	2	.182	0	y	5	661.2	662.4	223.27	223.27	H1-1b
278	M324	HSS12x12x6	791	0	5	.175	0	y	2	661.2	662.4	223.27	223.27	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

Member	Shape	Code Check	Lo...	LC	Shear	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Eqn
279	M325 HSS12x12x6	409	0	2	180	0	y 5 661.2	662.4	223.27	223.27	H1-1b
280	M326 HSS12x12x6	231	0	2	181	0	y 5 661.2	662.4	223.27	223.27	H1-1b
281	M327 HSS12x12x6	247	24	2	182	0	y 5 661.2	662.4	223.27	223.27	H1-1b
282	M328 HSS12x12x6	420	24	2	189	0	y 5 661.2	662.4	223.27	223.27	H1-1b
283	M329 HSS12x12x6	534	0	5	173	0	y 2 661.2	662.4	223.27	223.27	H1-1b
284	M330 HSS12x12x6	286	0	5	173	0	y 2 661.2	662.4	223.27	223.27	H1-1b
285	M331 HSS12x12x6	363	24	5	173	0	y 2 661.2	662.4	223.27	223.27	H1-1b
286	M332 HSS12x12x6	619	24	5	177	0	y 2 661.2	662.4	223.27	223.27	H1-1b
287	M343 L2x2x3	471	13...	5	064	0	y 5 21.904	23.393	558	1.239	H2-1
288	M344 L2x2x3	453	0	5	022	0	z 5 6.121	23.393	558	1.196	H2-1
289	M345 L2x2x3	585	0	5	075	0	z 5 21.904	23.393	558	1.239	H2-1
290	M346 L2x2x3	556	13...	4	080	13...	y 4 21.904	23.393	558	1.239	H2-1
291	M347 L2x2x3	420	0	5	019	0	y 5 6.121	23.393	558	1.197	H2-1
292	M348 L2x2x3	697	0	5	094	0	y 5 21.904	23.393	558	1.239	H2-1
293	M349 L2x2x3	560	13...	4	074	13...	y 4 21.904	23.393	558	1.239	H2-1
294	M350 L2x2x3	372	0	5	017	0	y 5 6.121	23.393	558	1.197	H2-1
295	M351 L2x2x3	576	0	5	076	0	y 5 21.904	23.393	558	1.239	H2-1
296	M352 L2x2x3	651	13...	5	075	13...	y 5 21.904	23.393	558	1.239	H2-1
297	M353 L2x2x3	244	0	5	011	0	y 5 6.121	23.393	558	1.197	H2-1
298	M354 L2x2x3	482	0	4	061	0	y 4 21.904	23.393	558	1.239	H2-1
299	M355 L2x2x3	856	13...	5	085	13...	y 5 21.904	23.393	558	1.239	H2-1
300	M356 L2x2x3	041	0	5	002	0	y 5 6.121	23.393	558	1.203	H2-1
301	M357 L2x2x3	588	0	2	066	0	y 2 21.904	23.393	558	1.239	H2-1
302	M358 L2x2x3	306	16	4	056	0	z 4 21.399	23.393	558	1.239	H2-1
303	M359 L2x2x3	396	16	5	058	0	y 5 21.399	23.393	558	1.239	H2-1
304	M360 L2x2x3	211	0	4	023	24...	z 5 19.138	23.393	558	1.239	H2-1
305	M361 L2x2x3	292	0	5	022	0	y 4 19.138	23.393	558	1.239	H2-1
306	M362 L2x2x3	705	0	5	033	0	y 5 2.981	23.393	558	1.094	H2-1
307	M363 L2x2x3	354	0	5	019	0	z 5 2.981	23.393	558	1.088	H2-1
308	M364 L2x2x3	207	20	4	028	0	y 4 20.354	23.393	558	1.239	H2-1
309	M365 L2x2x3	219	0	5	036	0	z 5 20.354	23.393	558	1.239	H2-1
310	M366 L2x2x3	285	24	2	027	24	y 2 19.145	23.393	558	1.239	H2-1
311	M367 L2x2x3	218	0	5	023	0	z 4 19.145	23.393	558	1.239	H2-1
312	M368 L2x2x3	233	24	4	028	0	y 5 19.145	23.393	558	1.239	H2-1
313	M369 L2x2x3	259	24	5	030	0	y 5 19.145	23.393	558	1.239	H2-1
314	M370 L2x2x3	382	0	5	034	0	z 5 19.145	23.393	558	1.239	H2-1
315	M371 L2x2x3	216	0	4	023	0	y 4 19.145	23.393	558	1.239	H2-1
316	M372 L2x2x3	279	24	5	026	0	y 4 19.145	23.393	558	1.239	H2-1
317	M373 L2x2x3	322	24	5	023	0	y 5 19.145	23.393	558	1.239	H2-1
318	M374 L2x2x3	222	0	4	024	25	z 4 19.138	23.393	558	1.239	H2-1
319	M375 L2x2x3	223	24...	4	026	0	y 4 19.138	23.393	558	1.239	H2-1
320	M376 L2x2x3	349	24...	4	038	0	z 4 19.138	23.393	558	1.239	H2-1
321	M377 L2x2x3	341	0	5	030	0	y 5 19.138	23.393	558	1.239	H2-1
322	M378 L2x2x3	298	0	5	032	751	y 5 19.138	23.393	558	1.239	H2-1
323	M379 L2x2x3	464	24...	5	050	15	y 5 19.138	23.393	558	1.239	H2-1
324	M380 L2x2x3	517	0	4	062	0	y 4 21.155	23.393	558	1.239	H2-1
325	M381 L2x2x3	545	18	4	063	0	y 4 20.899	23.393	558	1.239	H2-1
326	M382 L2x2x3	426	19	4	050	0	y 4 20.632	23.393	558	1.239	H2-1
327	M383 L2x2x3	426	19	4	050	0	z 4 20.632	23.393	558	1.239	H2-1
328	M384 L2x2x3	553	18	5	063	0	z 4 20.899	23.393	558	1.239	H2-1
329	M385 L2x2x3	553	17	5	062	0	z 4 21.155	23.393	558	1.239	H2-1
330	M386 L2x2x3	742	0	5	036	0	z 5 2.981	23.393	558	1.12	H2-1
331	M387 L2x2x3	722	0	5	035	0	z 5 2.981	23.393	558	1.113	H2-1
332	M388 L2x2x3	672	0	5	034	0	z 5 2.981	23.393	558	1.109	H2-1
333	M389 L2x2x3	626	13...	5	088	13...	z 5 21.904	23.393	558	1.239	H2-1
334	M390 L2x2x3	037	0	5	002	0	z 5 6.121	23.393	558	1.2	H2-1
335	M391 L2x2x3	670	0	2	072	0	z 2 21.904	23.393	558	1.239	H2-1
336	M394 L2x2x3	504	0	5	027	60	y 5 6.856	23.393	558	1.147	H2-1
337	M395 L2x2x3	355	91	5	016	0	y 5 2.981	23.393	558	1.124	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Eqn
338	M396	L2x2x3	383	0	2	.032	0 y 6	6.856	23.393	.558	1.136	H2-1
339	M397	HSS12x12x6	.641	2	5	.178	0 y 2	.662.3	.662.4	223.27	223.27	H1-1b
340	M398	HSS12x12x6	.433	2	2	.186	0 y 5	.662.3	.662.4	223.27	223.27	H1-1b
341	M399	HSS12x12x6	.255	0	5	.177	0 z 5	.661.2	.662.4	223.27	223.27	H1-1b
342	M400	HSS12x12x6	.087	0	5	.179	0 z 5	.662.3	.662.4	223.27	223.27	H1-1b
343	M401	HSS12x12x6	.168	0	2	.113	0 y 2	.661.2	.662.4	223.27	223.27	H1-1b
344	M402	HSS12x12x6	.065	0	5	.116	0 y 2	.662.3	.662.4	223.27	223.27	H1-1b
345	M403	HSS12x12x6	.060	0	5	.042	0 y 2	.661.2	.662.4	223.27	223.27	H1-1b
346	M404	HSS12x12x6	.052	0	2	.044	0 y 5	.661.2	.662.4	223.27	223.27	H1-1b
347	M405	HSS12x12x6	.049	0	5	.043	0 y 2	.661.2	.662.4	223.27	223.27	H1-1b
348	M406	HSS12x12x6	.048	0	5	.044	0 z 2	.661.6	.662.4	223.27	223.27	H1-1b
349	M407	HSS12x12x6	.041	0	2	.045	0 y 5	.661.2	.662.4	223.27	223.27	H1-1b
350	M408	HSS12x12x6	.031	0	2	.046	0 y 5	.661.6	.662.4	223.27	223.27	H1-1b
351	M409	HSS12x12x6	.036	0	5	.043	0 y 5	.661.2	.662.4	223.27	223.27	H1-1b
352	M410	HSS12x12x6	.032	0	2	.043	0 y 2	.661.2	.662.4	223.27	223.27	H1-1b
353	M411	HSS12x12x6	.029	24	5	.044	0 z 5	.661.2	.662.4	223.27	223.27	H1-1b
354	M412	HSS12x12x6	.052	24	5	.045	0 z 5	.661.2	.662.4	223.27	223.27	H1-1b
355	M413	HSS12x12x6	.025	24	2	.043	0 y 2	.661.2	.662.4	223.27	223.27	H1-1b
356	M414	HSS12x12x6	.043	24	2	.044	0 z 2	.661.2	.662.4	223.27	223.27	H1-1b
357	M415	HSS12x12x6	.060	8	5	.045	0 y 2	.662.2	.662.4	223.27	223.27	H1-1b
358	M416	HSS12x12x6	.049	8	2	.047	0 z 5	.662.2	.662.4	223.27	223.27	H1-1b
359	M417	L2x2x3	.420	0	2	.021	13... z 4	21.904	23.393	.558	1.239	H2-1
360	M418	L2x2x3	.190	63.5	2	.011	0 z 5	6.121	23.393	.558	1.195	H2-1
361	M419	L2x2x3	.545	13...	5	.030	0 z 2	21.904	23.393	.558	1.239	H2-1
362	M422	L2x2x3	.658	13...	5	.076	0 z 5	21.904	23.393	.558	1.239	H2-1
363	M423	L2x2x3	.267	0	5	.015	0 z 5	6.121	23.393	.558	1.194	H2-1
364	M424	L2x2x3	.649	13...	5	.057	0 z 5	21.904	23.393	.558	1.239	H2-1
365	M427	L2x2x3	.829	13...	5	.098	0 z 5	21.904	23.393	.558	1.239	H2-1
366	M428	L2x2x3	.290	0	5	.015	0 z 5	6.121	23.393	.558	1.192	H2-1
367	M429	L2x2x3	.670	13...	5	.074	0 z 5	21.904	23.393	.558	1.239	H2-1
368	M432	L2x2x3	.718	13...	2	.083	0 z 5	21.904	23.393	.558	1.239	H2-1
369	M433	L2x2x3	.259	0	5	.012	0 z 5	6.121	23.393	.558	1.186	H2-1
370	M434	L2x2x3	.635	0	5	.073	0 z 5	21.904	23.393	.558	1.239	H2-1
371	M437	L2x2x3	.421	13...	5	.048	0 z 2	21.904	23.393	.558	1.239	H2-1
372	M438	L2x2x3	.167	0	5	.006	0 z 5	6.121	23.393	.558	1.151	H2-1
373	M439	L2x2x3	.553	13...	5	.056	0 z 5	21.904	23.393	.558	1.239	H2-1
374	M442	L2x2x3	.404	13...	5	.038	13... z 4	21.904	23.393	.558	1.239	H2-1
375	M443	L2x2x3	.083	0	5	.002	0 y 5	6.121	23.393	.558	1.143	H2-1
376	M444	L2x2x3	.453	13...	5	.040	0 z 5	21.904	23.393	.558	1.239	H2-1
377	M447	L2x2x3	.360	13...	5	.046	13... z 4	21.904	23.393	.558	1.239	H2-1
378	M448	L2x2x3	.069	0	5	.002	0 z 5	6.121	23.393	.558	1.238	H2-1
379	M449	L2x2x3	.441	13...	5	.046	0 z 4	21.904	23.393	.558	1.239	H2-1
380	M452	L2x2x3	.336	13...	4	.047	13... z 4	21.904	23.393	.558	1.239	H2-1
381	M453	L2x2x3	.075	0	5	.002	0 z 5	6.121	23.393	.558	1.231	H2-1
382	M454	L2x2x3	.441	13...	5	.048	0 z 5	21.904	23.393	.558	1.239	H2-1
383	M457	L2x2x3	.335	13...	4	.047	13... z 4	21.904	23.393	.558	1.239	H2-1
384	M458	L2x2x3	.060	0	5	.003	0 z 5	6.121	23.393	.558	1.122	H2-1
385	M459	L2x2x3	.436	13...	5	.054	0 z 5	21.904	23.393	.558	1.239	H2-1
386	M462	L2x2x3	.336	13...	4	.047	13... z 4	21.904	23.393	.558	1.239	H2-1
387	M463	L2x2x3	.053	0	5	.003	0 z 5	6.121	23.393	.558	1.219	H2-1
388	M464	L2x2x3	.442	0	5	.059	0 z 5	21.904	23.393	.558	1.239	H2-1
389	M467	L2x2x3	.344	13...	4	.051	13... z 4	21.904	23.393	.558	1.239	H2-1
390	M468	L2x2x3	.048	0	5	.003	0 z 5	6.121	23.393	.558	1.227	H2-1
391	M469	L2x2x3	.486	0	5	.065	0 z 5	21.904	23.393	.558	1.239	H2-1
392	M472	L2x2x3	.348	13...	4	.051	13... z 4	21.904	23.393	.558	1.239	H2-1
393	M473	L2x2x3	.038	0	5	.003	0 z 5	6.121	23.393	.558	1.239	H2-1
394	M474	L2x2x3	.510	0	5	.069	0 z 5	21.904	23.393	.558	1.239	H2-1
395	M477	L2x2x3	.356	13...	4	.055	13... z 4	21.904	23.393	.558	1.239	H2-1
396	M478	L2x2x3	.026	0	5	.003	0 z 5	6.121	23.393	.558	1.226	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Egn
397	M479	L2x2x3	519	0	5	.075	0 z 5	21.904	23.393	.558	1.239	H2-1
398	M482	L2x2x3	492	13...	4	.075	0 z 4	21.904	23.393	.558	1.239	H2-1
399	M483	L2x2x3	208	63.5	4	.019	63.5 y 4	6.121	23.393	.558	1.204	H2-1
400	M484	L2x2x3	735	0	5	.097	0 z 5	21.904	23.393	.558	1.239	H2-1
401	M487	L2x2x3	657	0	4	.038	0 z 4	21.904	23.393	.558	1.239	H2-1
402	M488	L2x2x3	511	30...	4	.032	0 z 4	6.121	23.393	.558	1.032	H2-1
403	M489	L2x2x3	627	13...	4	.033	13... z 4	21.904	23.393	.558	1.239	H2-1
404	M490	L2x2x3	389	0	4	.049	0 z 4	17.459	23.393	.558	1.239	H2-1
405	M491	L2x2x3	540	0	5	.049	0 y 5	17.459	23.393	.558	1.239	H2-1
406	M492	L2x2x3	658	0	5	.027	.251 z 5	19.112	23.393	.558	1.239	H2-1
407	M493	L2x2x3	568	24...	4	.026	0 y 4	19.112	23.393	.558	1.239	H2-1
408	M494	L2x2x3	542	0	5	.036	0 y 5	19.145	23.393	.558	1.239	H2-1
409	M495	L2x2x3	344	0	2	.017	0 z 2	19.145	23.393	.558	1.239	H2-1
410	M496	L2x2x3	269	0	5	.021	0 z 2	19.145	23.393	.558	1.239	H2-1
411	M497	L2x2x3	271	24	5	.021	0 z 2	19.145	23.393	.558	1.239	H2-1
412	M498	L2x2x3	206	24	2	.018	0 z 2	19.145	23.393	.558	1.239	H2-1
413	M499	L2x2x3	195	0	4	.018	0 z 4	19.145	23.393	.558	1.239	H2-1
414	M500	L2x2x3	189	0	5	.020	0 y 5	19.145	23.393	.558	1.239	H2-1
415	M501	L2x2x3	180	0	4	.018	0 z 4	19.145	23.393	.558	1.239	H2-1
416	M502	L2x2x3	190	24	4	.018	0 z 4	19.145	23.393	.558	1.239	H2-1
417	M503	L2x2x3	196	0	4	.018	0 z 4	19.145	23.393	.558	1.239	H2-1
418	M504	L2x2x3	232	24	4	.020	0 z 4	19.145	23.393	.558	1.239	H2-1
419	M505	L2x2x3	256	24	4	.023	0 z 4	19.145	23.393	.558	1.239	H2-1
420	M506	L2x2x3	292	24	4	.025	0 z 4	19.145	23.393	.558	1.239	H2-1
421	M507	L2x2x3	385	24	4	.028	0 z 4	19.145	23.393	.558	1.239	H2-1
422	M510	L2x2x3	527	0	2	.039	0 z 2	19.145	23.393	.558	1.239	H2-1
423	M511	L2x2x3	344	0	5	.028	0 y 5	19.145	23.393	.558	1.239	H2-1
424	M512	L2x2x3	280	0	5	.028	0 y 5	19.145	23.393	.558	1.239	H2-1
425	M513	L2x2x3	254	24	5	.028	0 y 5	19.145	23.393	.558	1.239	H2-1
426	M514	L2x2x3	269	24	5	.027	0 y 5	19.145	23.393	.558	1.239	H2-1
427	M515	L2x2x3	279	24	5	.026	0 y 5	19.145	23.393	.558	1.239	H2-1
428	M516	L2x2x3	284	24	5	.024	24 z 2	19.145	23.393	.558	1.239	H2-1
429	M517	L2x2x3	287	24	5	.025	0 y 5	19.145	23.393	.558	1.239	H2-1
430	M518	L2x2x3	294	24	5	.027	0 y 5	19.145	23.393	.558	1.239	H2-1
431	M519	L2x2x3	297	24	5	.028	0 y 5	19.145	23.393	.558	1.239	H2-1
432	M520	L2x2x3	317	24	5	.027	1.25 y 5	19.145	23.393	.558	1.239	H2-1
433	M521	L2x2x3	346	24	5	.032	0 y 5	19.145	23.393	.558	1.239	H2-1
434	M522	L2x2x3	386	24	5	.033	0 y 5	19.145	23.393	.558	1.239	H2-1
435	M523	L2x2x3	506	24	5	.040	0 y 5	19.145	23.393	.558	1.239	H2-1
436	M524	L2x2x3	688	0	5	.026	1.5 z 5	19.112	23.393	.558	1.239	H2-1
437	M525	L2x2x3	645	0	5	.029	24... y 5	19.112	23.393	.558	1.239	H2-1
438	M526	L2x2x3	624	0	5	.031	0 z 5	19.112	23.393	.558	1.239	H2-1
439	M527	L2x2x3	569	0	5	.031	3.0... z 5	19.112	23.393	.558	1.239	H2-1
440	M528	L2x2x3	488	0	5	.027	0 z 5	19.112	23.393	.558	1.239	H2-1
441	M529	L2x2x3	432	0	5	.025	0 z 5	19.112	23.393	.558	1.239	H2-1
442	M530	L2x2x3	398	0	5	.024	0 z 5	19.112	23.393	.558	1.239	H2-1
443	M531	L2x2x3	373	0	5	.024	0 z 5	19.112	23.393	.558	1.239	H2-1
444	M532	L2x2x3	350	0	5	.024	.251 z 5	19.112	23.393	.558	1.239	H2-1
445	M533	L2x2x3	339	0	5	.024	.753 z 5	19.112	23.393	.558	1.239	H2-1
446	M534	L2x2x3	317	0	5	.024	0 z 5	19.112	23.393	.558	1.239	H2-1
447	M535	L2x2x3	298	0	5	.022	0 z 5	19.112	23.393	.558	1.239	H2-1
448	M536	L2x2x3	479	24...	5	.051	0 z 4	19.112	23.393	.558	1.239	H2-1
449	M537	L2x2x3	554	24...	4	.021	1.5... y 4	19.112	23.393	.558	1.239	H2-1
450	M538	L2x2x3	520	24...	4	.021	0 y 5	19.112	23.393	.558	1.239	H2-1
451	M539	L2x2x3	498	0	4	.022	0 y 4	19.112	23.393	.558	1.239	H2-1
452	M540	L2x2x3	463	0	4	.023	0 y 4	19.112	23.393	.558	1.239	H2-1
453	M541	L2x2x3	417	0	4	.023	24... y 5	19.112	23.393	.558	1.239	H2-1
454	M542	L2x2x3	370	0	4	.024	24... y 5	19.112	23.393	.558	1.239	H2-1
455	M543	L2x2x3	336	0	4	.025	24... y 5	19.112	23.393	.558	1.239	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Ean
456	M544	L2x2x3	309	0	4	.025	24... y 5	19.112	23.393	.558	1.239	H2-1
457	M545	L2x2x3	284	0	4	.024	24... y 5	19.112	23.393	.558	1.239	H2-1
458	M546	L2x2x3	262	0	4	.026	0 z 5	19.112	23.393	.558	1.239	H2-1
459	M547	L2x2x3	246	0	4	.026	0 z 5	19.112	23.393	.558	1.239	H2-1
460	M548	L2x2x3	328	24...	5	.031	0 z 5	19.112	23.393	.558	1.239	H2-1
461	M549	L2x2x3	447	24...	4	.052	1.0... y 4	19.112	23.393	.558	1.239	H2-1
462	M550	L2x2x3	634	0	4	.031	0 y 4	2.981	23.393	.558	1.002	H2-1
463	M551	L2x2x3	626	0	4	.031	0 y 5	2.981	23.393	.558	1.01	H2-1
464	M552	L2x2x3	626	0	4	.031	0 y 5	2.981	23.393	.558	1.009	H2-1
465	M553	L2x2x3	628	0	4	.031	0 y 4	2.981	23.393	.558	.997	H2-1
466	M554	L2x2x3	630	91	4	.031	91 y 4	2.981	23.393	.558	.978	H2-1
467	M555	L2x2x3	634	91	4	.031	91 y 4	2.981	23.393	.558	.978	H2-1
468	M556	L2x2x3	634	91	4	.031	91 y 4	2.981	23.393	.558	.976	H2-1
469	M557	L2x2x3	635	91	4	.031	91 y 4	2.981	23.393	.558	.976	H2-1
470	M558	L2x2x3	636	91	4	.031	91 y 4	2.981	23.393	.558	.976	H2-1
471	M559	L2x2x3	638	91	4	.031	91 y 4	2.981	23.393	.558	.976	H2-1
472	M560	L2x2x3	636	91	4	.031	0 y 4	2.981	23.393	.558	.975	H2-1
473	M561	L2x2x3	637	91	4	.031	91 y 4	2.981	23.393	.558	.974	H2-1
474	M562	L2x2x3	674	91	4	.034	91 y 4	2.981	23.393	.558	1.002	H2-1
475	M563	L2x2x3	569	0	4	.046	0 y 4	16.667	23.393	.558	1.239	H2-1
476	M564	L2x2x3	576	0	4	.046	0 y 4	15.858	23.393	.558	1.239	H2-1
477	M565	L2x2x3	544	0	4	.044	0 y 4	15.036	23.393	.558	1.239	H2-1
478	M566	L2x2x3	461	0	4	.031	0 y 4	14.208	23.393	.558	1.239	H2-1
479	M567	L2x2x3	447	0	4	.030	0 y 4	13.381	23.393	.558	1.239	H2-1
480	M568	L2x2x3	428	0	4	.028	0 y 4	12.558	23.393	.558	1.239	H2-1
481	M569	L2x2x3	405	0	4	.027	0 y 4	11.746	23.393	.558	1.239	H2-1
482	M570	L2x2x3	362	0	4	.024	0 y 4	10.949	23.393	.558	1.239	H2-1
483	M571	L2x2x3	342	0	4	.033	48... y 5	10.171	23.393	.558	1.239	H2-1
484	M572	L2x2x3	321	51...	5	.040	51... y 5	9.417	23.393	.558	1.229	H2-1
485	M573	L2x2x3	401	53...	5	.044	53... y 5	8.669	23.393	.558	1.213	H2-1
486	M574	L2x2x3	397	55...	5	.043	55... y 5	7.992	23.393	.558	1.201	H2-1
487	M575	L2x2x3	453	0	5	.039	57... y 5	7.392	23.393	.558	1.181	H2-1
488	M576	L2x2x3	687	0	5	.058	0 z 5	16.667	23.393	.558	1.239	H2-1
489	M577	L2x2x3	678	0	5	.056	0 z 5	15.858	23.393	.558	1.239	H2-1
490	M578	L2x2x3	616	0	5	.053	0 z 5	15.036	23.393	.558	1.239	H2-1
491	M579	L2x2x3	547	0	5	.040	0 z 5	14.208	23.393	.558	1.239	H2-1
492	M580	L2x2x3	506	0	5	.038	0 z 5	13.381	23.393	.558	1.239	H2-1
493	M581	L2x2x3	463	0	5	.036	0 z 5	12.558	23.393	.558	1.239	H2-1
494	M582	L2x2x3	420	0	5	.034	0 z 5	11.746	23.393	.558	1.239	H2-1
495	M583	L2x2x3	384	0	5	.032	0 z 5	10.949	23.393	.558	1.239	H2-1
496	M584	L2x2x3	406	0	2	.042	0 y 6	10.171	23.393	.558	1.192	H2-1
497	M585	L2x2x3	445	0	2	.045	0 y 6	9.417	23.393	.558	1.2	H2-1
498	M586	L2x2x3	494	0	2	.047	0 y 2	8.669	23.393	.558	1.2	H2-1
499	M587	L2x2x3	536	0	2	.048	0 y 2	7.992	23.393	.558	1.193	H2-1
500	M588	L2x2x3	584	0	2	.047	0 y 6	7.392	23.393	.558	1.183	H2-1
501	M591	HSS6x6x4	116	0	5	.032	66.3 z 2	205.4	216.9	38.64	38.64	H1-...
502	M592	HSS6x6x4	038	0	4	.032	65... z 5	205.8	216.9	38.64	38.64	H1-1b
503	M593	HSS6x6x4	033	0	2	.027	64... z 2	206.1	216.9	38.64	38.64	H1-1b
504	M594	HSS6x6x4	058	0	5	.029	63... y 5	206.4	216.9	38.64	38.64	H1-1b
505	M595	HSS6x6x4	076	0	5	.031	62... y 5	206.6	216.9	38.64	38.64	H1-1b
506	M596	HSS6x6x4	094	0	5	.027	62... y 5	206.8	216.9	38.64	38.64	H1-1b
507	M597	HSS6x6x4	120	0	5	.025	61... y 5	207.0	216.9	38.64	38.64	H1-1b
508	M598	HSS6x6x4	131	14...	5	.014	0 y 2	207.0	216.9	38.64	38.64	H1-1b
509	M599	HSS6x6x4	259	0	5	.010	61... y 5	207.1	216.9	38.64	38.64	H1-1a
510	M601	HSS6x6x4	116	0	5	.032	66.3 z 2	205.4	216.9	38.64	38.64	H1-...
511	M602	HSS6x6x4	038	0	4	.032	65... z 5	205.8	216.9	38.64	38.64	H1-1b
512	M603	HSS6x6x4	033	0	2	.027	64... z 2	206.1	216.9	38.64	38.64	H1-1b
513	M604	HSS6x6x4	058	0	5	.029	63... y 5	206.4	216.9	38.64	38.64	H1-1b
514	M605	HSS6x6x4	076	0	5	.031	62... y 5	206.6	216.9	38.64	38.64	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Eqn
515	M606	HSS6x6x4	.094	0	5	.027	62... y 5	206.8...	216.9...	38.64	38.64	H1-1b
516	M607	HSS6x6x4	.120	0	5	.025	61... y 5	207.0...	216.9...	38.64	38.64	H1-1b
517	M608	HSS6x6x4	.131	14...	5	.014	0 v 2	207.0...	216.9...	38.64	38.64	H1-1b
518	M608A	HSS6x6x4	.259	0	5	.010	61... y 5	207.1...	216.9...	38.64	38.64	H1-1a
519	M611	HSS6x6x4	.068	0	4	.034	0 z 5	205.4...	216.9...	38.64	38.64	H1-...
520	M612	HSS6x6x4	.040	0	4	.032	65... z 5	205.8...	216.9...	38.64	38.64	H1-1b
521	M613	HSS6x6x4	.072	0	5	.028	0 v 5	206.1...	216.9...	38.64	38.64	H1-...
522	M614	HSS6x6x4	.059	0	2	.032	0 v 5	206.4...	216.9...	38.64	38.64	H1-...
523	M615	HSS6x6x4	.096	0	2	.031	0 v 5	206.6...	216.9...	38.64	38.64	H1-...
524	M616	HSS6x6x4	.102	0	2	.029	0 v 5	206.8...	216.9...	38.64	38.64	H1-...
525	M617	HSS6x6x4	.138	0	2	.024	0 v 5	207.0...	216.9...	38.64	38.64	H1-...
526	M618	HSS6x6x4	.150	0	2	.015	0 v 5	207.0...	216.9...	38.64	38.64	H1-...
527	M619	HSS6x6x4	.179	0	2	.009	0 v 5	207.1...	216.9...	38.64	38.64	H1-...
528	M620	HSS6x6x4	.068	0	4	.034	0 z 5	205.4...	216.9...	38.64	38.64	H1-...
529	M621	HSS6x6x4	.040	0	4	.032	65... z 5	205.8...	216.9...	38.64	38.64	H1-1b
530	M622	HSS6x6x4	.072	0	5	.028	0 v 5	206.1...	216.9...	38.64	38.64	H1-...
531	M623	HSS6x6x4	.059	0	2	.032	0 v 5	206.4...	216.9...	38.64	38.64	H1-...
532	M624	HSS6x6x4	.096	0	2	.031	0 v 5	206.6...	216.9...	38.64	38.64	H1-...
533	M625	HSS6x6x4	.102	0	2	.029	0 v 5	206.8...	216.9...	38.64	38.64	H1-...
534	M626	HSS6x6x4	.138	0	2	.024	0 v 5	207.0...	216.9...	38.64	38.64	H1-...
535	M627	HSS6x6x4	.150	0	2	.015	0 v 5	207.0...	216.9...	38.64	38.64	H1-...
536	M628	HSS6x6x4	.179	0	2	.009	0 v 5	207.1...	216.9...	38.64	38.64	H1-...
537	M631	HSS4x4x3	.167	0	5	.048	0 v 5	102.1...	106.8...	12.662	12.662	H1-1b
538	M632	HSS4x4x3	.124	40	5	.044	0 v 5	102.1...	106.8...	12.662	12.662	H1-1b
539	M633	HSS4x4x3	.076	0	2	.035	0 v 5	102.1...	106.8...	12.662	12.662	H1-1b
540	M634	HSS4x4x3	.042	40	5	.033	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
541	M635	HSS4x4x3	.057	0	2	.032	0 z 2	102.1...	106.8...	12.662	12.662	H1-1b
542	M636	HSS4x4x3	.077	40	5	.034	40 v 5	102.1...	106.8...	12.662	12.662	H1-1b
543	M637	HSS4x4x3	.084	0	5	.034	40 v 5	102.1...	106.8...	12.662	12.662	H1-1b
544	M638	HSS4x4x3	.079	40	2	.028	0 v 2	102.1...	106.8...	12.662	12.662	H1-1b
545	M639	HSS4x4x3	.052	40	5	.017	40 v 5	102.1...	106.8...	12.662	12.662	H1-1b
546	M640	HSS4x4x3	.027	0	5	.006	0 v 5	102.1...	106.8...	12.662	12.662	H1-1b
547	M641	HSS4x4x3	.052	40	5	.017	40 v 5	102.1...	106.8...	12.662	12.662	H1-1b
548	M642	HSS4x4x3	.079	40	2	.028	0 v 2	102.1...	106.8...	12.662	12.662	H1-1b
549	M643	HSS4x4x3	.084	0	5	.034	40 v 5	102.1...	106.8...	12.662	12.662	H1-1b
550	M644	HSS4x4x3	.077	40	5	.034	40 v 5	102.1...	106.8...	12.662	12.662	H1-1b
551	M645	HSS4x4x3	.057	0	2	.032	0 z 2	102.1...	106.8...	12.662	12.662	H1-1b
552	M646	HSS4x4x3	.042	40	5	.033	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
553	M647	HSS4x4x3	.076	0	2	.035	0 v 5	102.1...	106.8...	12.662	12.662	H1-1b
554	M648	HSS4x4x3	.124	40	5	.044	0 v 5	102.1...	106.8...	12.662	12.662	H1-1b
555	M649	HSS4x4x3	.167	0	5	.048	0 v 5	102.1...	106.8...	12.662	12.662	H1-1b
556	M650	HSS8x8x4	.104	61.2	2	.036	0 z 2	286.5...	293.94	66.288	66.288	H1-1b
557	M651	HSS8x8x4	.125	61.2	2	.047	0 v 2	286.5...	293.94	66.288	66.288	H1-1b
558	M652	HSS8x8x4	.164	0	5	.050	0 v 2	286.5...	293.94	66.288	66.288	H1-...
559	M653	HSS8x8x4	.197	0	5	.052	0 v 2	286.5...	293.94	66.288	66.288	H1-...
560	M654	HSS8x8x4	.322	61.2	2	.048	0 v 2	286.5...	293.94	66.288	66.288	H1-1a
561	M655	HSS8x8x4	.316	61.2	2	.045	0 v 2	286.5...	293.94	66.288	66.288	H1-1a
562	M656	HSS8x8x4	.335	61.2	5	.033	0 v 2	286.5...	293.94	66.288	66.288	H1-1a
563	M657	HSS8x8x4	.325	0	5	.021	0 v 2	286.5...	293.94	66.288	66.288	H1-1a
564	M658	HSS8x8x4	.346	61.2	5	.008	0 v 5	286.5...	293.94	66.288	66.288	H1-1a
565	M659	HSS8x8x4	.346	0	5	.008	61.2 y 5	286.5...	293.94	66.288	66.288	H1-1a
566	M660	HSS8x8x4	.325	61.2	5	.021	0 v 2	286.5...	293.94	66.288	66.288	H1-1a
567	M661	HSS8x8x4	.335	0	5	.033	0 v 2	286.5...	293.94	66.288	66.288	H1-1a
568	M662	HSS8x8x4	.316	0	2	.045	0 v 2	286.5...	293.94	66.288	66.288	H1-1a
569	M663	HSS8x8x4	.322	0	2	.048	0 v 2	286.5...	293.94	66.288	66.288	H1-1a
570	M664	HSS8x8x4	.197	0	5	.052	0 v 2	286.5...	293.94	66.288	66.288	H1-...
571	M665	HSS8x8x4	.164	0	5	.050	0 v 2	286.5...	293.94	66.288	66.288	H1-...
572	M666	HSS8x8x4	.125	0	2	.047	0 v 2	286.5...	293.94	66.288	66.288	H1-1b
573	M667	HSS8x8x4	.104	0	2	.036	0 z 2	286.5...	293.94	66.288	66.288	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear	Lo...	phi*P	phi*P	phi*Mn	phi*Mn	Eqn
574	M669	HSS8x8x4	109	61.2	5	.043	0 y 5	286.5	293.94	66.288	66.288	H1-1b
575	M670	HSS8x8x4	156	61.2	5	.051	0 y 5	286.5	293.94	66.288	66.288	H1-1b
576	M671	HSS8x8x4	144	61.2	5	.060	0 y 5	286.5	293.94	66.288	66.288	H1-1b
577	M672	HSS8x8x4	311	61.2	5	.059	0 y 5	286.5	293.94	66.288	66.288	H1-1a
578	M673	HSS8x8x4	314	61.2	6	.060	0 y 5	286.5	293.94	66.288	66.288	H1-1a
579	M674	HSS8x8x4	340	61.2	5	.052	0 y 5	286.5	293.94	66.288	66.288	H1-1a
580	M675	HSS8x8x4	328	61.2	5	.044	0 y 5	286.5	293.94	66.288	66.288	H1-1a
581	M676	HSS8x8x4	312	61.2	2	.025	0 y 5	286.5	293.94	66.288	66.288	H1-1a
582	M677	HSS8x8x4	288	61.2	2	.007	0 z 5	286.5	293.94	66.288	66.288	H1-1a
583	M678	HSS8x8x4	288	0	2	.007	61.2 z 5	286.5	293.94	66.288	66.288	H1-1a
584	M679	HSS8x8x4	312	0	2	.025	61.2 y 5	286.5	293.94	66.288	66.288	H1-1a
585	M680	HSS8x8x4	328	0	5	.044	61.2 y 5	286.5	293.94	66.288	66.288	H1-1a
586	M681	HSS8x8x4	340	0	5	.052	61.2 y 5	286.5	293.94	66.288	66.288	H1-1a
587	M682	HSS8x8x4	314	0	6	.060	61.2 y 5	286.5	293.94	66.288	66.288	H1-1a
588	M683	HSS8x8x4	311	0	5	.059	61.2 y 5	286.5	293.94	66.288	66.288	H1-1a
589	M684	HSS8x8x4	144	0	5	.060	61.2 y 5	286.5	293.94	66.288	66.288	H1-1b
590	M685	HSS8x8x4	156	0	5	.051	61.2 y 5	286.5	293.94	66.288	66.288	H1-1b
591	M686	HSS8x8x4	109	0	5	.043	61.2 y 5	286.5	293.94	66.288	66.288	H1-1b
592	M688	HSS6x6x4	122	0	5	.044	0 z 2	205.9	216.9	38.64	38.64	H1-1b
593	M689	HSS6x6x4	100	64...	5	.037	0 y 5	206.2	216.9	38.64	38.64	H1-1b
594	M690	HSS6x6x4	100	63...	5	.037	0 y 5	206.4	216.9	38.64	38.64	H1-1b
595	M691	HSS6x6x4	125	62...	5	.045	0 y 5	206.6	216.9	38.64	38.64	H1-1b
596	M692	HSS6x6x4	136	62...	5	.046	0 y 5	206.8	216.9	38.64	38.64	H1-1b
597	M693	HSS6x6x4	142	61...	5	.041	0 y 5	206.9	216.9	38.64	38.64	H1-1b
598	M694	HSS6x6x4	131	61...	5	.034	0 y 5	207.0	216.9	38.64	38.64	H1-1b
599	M695	HSS6x6x4	108	61...	5	.018	0 y 5	207.1	216.9	38.64	38.64	H1-1b
600	M696	HSS6x6x4	086	61...	2	.007	61... y 5	207.1	216.9	38.64	38.64	H1-1b
601	M697	HSS6x6x4	122	0	5	.044	0 z 2	205.9	216.9	38.64	38.64	H1-1b
602	M698	HSS6x6x4	100	64...	5	.037	0 y 5	206.2	216.9	38.64	38.64	H1-1b
603	M699	HSS6x6x4	100	63...	5	.037	0 y 5	206.4	216.9	38.64	38.64	H1-1b
604	M700	HSS6x6x4	125	62...	5	.045	0 y 5	206.6	216.9	38.64	38.64	H1-1b
605	M701	HSS6x6x4	136	62...	5	.046	0 y 5	206.8	216.9	38.64	38.64	H1-1b
606	M702	HSS6x6x4	142	61...	5	.041	0 y 5	206.9	216.9	38.64	38.64	H1-1b
607	M703	HSS6x6x4	131	61...	5	.034	0 y 5	207.0	216.9	38.64	38.64	H1-1b
608	M704	HSS6x6x4	108	61...	5	.018	0 y 5	207.1	216.9	38.64	38.64	H1-1b
609	M705	HSS6x6x4	086	61...	2	.007	61... y 5	207.1	216.9	38.64	38.64	H1-1b
610	M708	HSS6x6x4	096	64...	2	.043	0 z 2	205.9	216.9	38.64	38.64	H1-1b
611	M709	HSS6x6x4	091	64...	2	.035	0 z 5	206.2	216.9	38.64	38.64	H1-1b
612	M710	HSS6x6x4	080	0	5	.028	0 y 2	206.4	216.9	38.64	38.64	H1...
613	M711	HSS6x6x4	119	0	5	.036	0 y 2	206.6	216.9	38.64	38.64	H1...
614	M712	HSS6x6x4	131	0	5	.037	0 z 5	206.8	216.9	38.64	38.64	H1...
615	M713	HSS6x6x4	141	0	5	.033	0 y 2	206.9	216.9	38.64	38.64	H1...
616	M714	HSS6x6x4	145	0	5	.026	0 z 5	207.0	216.9	38.64	38.64	H1...
617	M715	HSS6x6x4	146	0	5	.015	0 z 2	207.1	216.9	38.64	38.64	H1...
618	M716	HSS6x6x4	135	0	5	.010	0 y 5	207.1	216.9	38.64	38.64	H1...
619	M717	HSS6x6x4	096	64...	2	.043	0 z 2	205.9	216.9	38.64	38.64	H1-1b
620	M718	HSS6x6x4	091	64...	2	.035	0 z 5	206.2	216.9	38.64	38.64	H1-1b
621	M719	HSS6x6x4	080	0	5	.028	0 y 2	206.4	216.9	38.64	38.64	H1...
622	M720	HSS6x6x4	119	0	5	.036	0 y 2	206.6	216.9	38.64	38.64	H1...
623	M721	HSS6x6x4	131	0	5	.037	0 z 5	206.8	216.9	38.64	38.64	H1...
624	M722	HSS6x6x4	141	0	5	.033	0 y 2	206.9	216.9	38.64	38.64	H1...
625	M723	HSS6x6x4	145	0	5	.026	0 z 5	207.0	216.9	38.64	38.64	H1...
626	M724	HSS6x6x4	146	0	5	.015	0 z 2	207.1	216.9	38.64	38.64	H1...
627	M725	HSS6x6x4	135	0	5	.010	0 y 5	207.1	216.9	38.64	38.64	H1...
628	M728	HSS4x4x3	109	0	5	.039	0 z 5	102.1	106.8	12.662	12.662	H1-1b
629	M729	HSS4x4x3	149	40	5	.035	0 z 5	102.1	106.8	12.662	12.662	H1-1b
630	M730	HSS4x4x3	151	0	5	.038	40 y 5	102.1	106.8	12.662	12.662	H1-1b
631	M731	HSS4x4x3	173	40	5	.034	40 y 5	102.1	106.8	12.662	12.662	H1-1b
632	M732	HSS4x4x3	115	0	5	.029	40 y 5	102.1	106.8	12.662	12.662	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Eqn
633	M733	HSS4x4x3	107	40	5	.028	40	y 5	102.1...	106.8...	12.662 12.662 ... H1-1b
634	M734	HSS4x4x3	106	0	5	.025	40	y 5	102.1...	106.8...	12.662 12.662 ... H1-1b
635	M735	HSS4x4x3	100	40	2	.022	40	y 5	102.1...	106.8...	12.662 12.662 ... H1-1b
636	M736	HSS4x4x3	079	40	5	.024	40	y 5	102.1...	106.8...	12.662 12.662 ... H1-1b
637	M737	HSS4x4x3	016	40	2	.004	0	y 2	102.1...	106.8...	12.662 12.662 ... H1-1b
638	M738	HSS4x4x3	079	40	5	.024	40	y 5	102.1...	106.8...	12.662 12.662 ... H1-1b
639	M739	HSS4x4x3	100	40	2	.022	40	y 5	102.1...	106.8...	12.662 12.662 ... H1-1b
640	M740	HSS4x4x3	106	0	5	.025	40	y 5	102.1...	106.8...	12.662 12.662 ... H1-1b
641	M741	HSS4x4x3	107	40	5	.028	40	y 5	102.1...	106.8...	12.662 12.662 ... H1-1b
642	M742	HSS4x4x3	115	0	5	.029	40	y 5	102.1...	106.8...	12.662 12.662 ... H1-1b
643	M743	HSS4x4x3	173	40	5	.034	40	y 5	102.1...	106.8...	12.662 12.662 ... H1-1b
644	M744	HSS4x4x3	151	0	5	.038	40	y 5	102.1...	106.8...	12.662 12.662 ... H1-1b
645	M745	HSS4x4x3	149	40	5	.035	0	z 5	102.1...	106.8...	12.662 12.662 ... H1-1b
646	M746	HSS4x4x3	109	0	5	.039	0	z 5	102.1...	106.8...	12.662 12.662 ... H1-1b
647	M748	HSS4x4x3	136	0	5	.009	0	y 5	91.99	106.8...	12.662 12.662 ... H1-1b
648	M749	HSS4x4x3	176	0	5	.012	0	y 2	91.99	106.8...	12.662 12.662 ... H1-1b
649	M750	HSS4x4x3	129	0	5	.018	0	y 5	91.99	106.8...	12.662 12.662 ... H1-1b
650	M751	HSS4x4x3	124	0	2	.015	0	y 2	91.99	106.8...	12.662 12.662 ... H1-1b
651	M752	HSS4x4x3	096	0	5	.018	0	y 5	91.99	106.8...	12.662 12.662 ... H1-1b
652	M753	HSS4x4x3	085	0	2	.013	0	y 2	91.99	106.8...	12.662 12.662 ... H1-1b
653	M754	HSS4x4x3	073	0	5	.015	0	y 5	91.99	106.8...	12.662 12.662 ... H1-1b
654	M755	HSS4x4x3	060	0	5	.009	0	y 2	91.99	106.8...	12.662 12.662 ... H1-1b
655	M756	HSS4x4x3	035	73...	5	.006	0	y 5	91.99	106.8...	12.662 12.662 ... H1-1b
656	M757	HSS4x4x3	035	0	5	.006	73...	y 5	91.99	106.8...	12.662 12.662 ... H1-1b
657	M758	HSS4x4x3	060	73...	5	.009	0	y 2	91.99	106.8...	12.662 12.662 ... H1-1b
658	M759	HSS4x4x3	073	73...	5	.015	73...	y 5	91.99	106.8...	12.662 12.662 ... H1-1b
659	M760	HSS4x4x3	085	73...	2	.013	0	y 2	91.99	106.8...	12.662 12.662 ... H1-1b
660	M761	HSS4x4x3	096	73...	5	.018	73...	y 5	91.99	106.8...	12.662 12.662 ... H1-1b
661	M762	HSS4x4x3	124	73...	2	.015	0	y 2	91.99	106.8...	12.662 12.662 ... H1-1b
662	M763	HSS4x4x3	129	73...	5	.018	73...	y 5	91.99	106.8...	12.662 12.662 ... H1-1b
663	M764	HSS4x4x3	176	0	5	.012	0	y 2	91.99	106.8...	12.662 12.662 ... H1-1b
664	M765	HSS4x4x3	136	73...	5	.009	73...	y 5	91.99	106.8...	12.662 12.662 ... H1-1b
665	M768	HSS4x4x3	102	77...	2	.012	0	y 2	90.334	106.8...	12.662 12.662 ... H1-1b
666	M769	HSS4x4x3	105	0	5	.012	0	y 5	90.698	106.8...	12.662 12.662 ... H1-1b
667	M770	HSS4x4x3	056	0	5	.008	75...	y 5	91.018	106.8...	12.662 12.662 ... H1-1b
668	M771	HSS4x4x3	063	0	2	.007	0	z 2	91.293	106.8...	12.662 12.662 ... H1-1b
669	M772	HSS4x4x3	066	0	5	.010	0	y 5	91.523	106.8...	12.662 12.662 ... H1-1b
670	M773	HSS4x4x3	069	0	2	.008	0	y 2	91.707	106.8...	12.662 12.662 ... H1-1b
671	M774	HSS4x4x3	073	0	5	.010	0	y 5	91.846	106.8...	12.662 12.662 ... H1-1b
672	M775	HSS4x4x3	059	0	2	.005	73...	y 5	91.938	106.8...	12.662 12.662 ... H1-1b
673	M776	HSS4x4x3	037	0	5	.004	73...	y 4	91.984	106.8...	12.662 12.662 ... H1-1b
674	M777	HSS4x4x3	037	73...	5	.004	0	y 4	91.984	106.8...	12.662 12.662 ... H1-1b
675	M778	HSS4x4x3	059	73...	2	.005	0	y 5	91.938	106.8...	12.662 12.662 ... H1-1b
676	M779	HSS4x4x3	073	73...	5	.010	73...	y 5	91.846	106.8...	12.662 12.662 ... H1-1b
677	M780	HSS4x4x3	069	73...	2	.008	0	y 2	91.707	106.8...	12.662 12.662 ... H1-1b
678	M781	HSS4x4x3	066	74...	5	.010	74...	y 5	91.523	106.8...	12.662 12.662 ... H1-1b
679	M782	HSS4x4x3	063	74...	2	.007	0	z 2	91.293	106.8...	12.662 12.662 ... H1-1b
680	M783	HSS4x4x3	056	75...	5	.008	0	y 5	91.018	106.8...	12.662 12.662 ... H1-1b
681	M784	HSS4x4x3	105	76...	5	.012	76...	y 5	90.698	106.8...	12.662 12.662 ... H1-1b
682	M785	HSS4x4x3	102	0	2	.012	0	y 2	90.334	106.8...	12.662 12.662 ... H1-1b
683	M787	HSS4x4x3	379	0	5	.074	0	z 2	102.1...	106.8...	12.662 12.662 ... H1-1b
684	M788	HSS4x4x3	353	0	5	.077	0	z 5	102.1...	106.8...	12.662 12.662 ... H1-1b
685	M789	HSS4x4x3	271	0	5	.072	0	z 5	102.1...	106.8...	12.662 12.662 ... H1-1b
686	M790	HSS4x4x3	273	40	5	.075	0	z 5	102.1...	106.8...	12.662 12.662 ... H1-1b
687	M791	HSS4x4x3	264	40	5	.066	0	z 5	102.1...	106.8...	12.662 12.662 ... H1-1b
688	M792	HSS4x4x3	265	40	5	.060	0	z 5	102.1...	106.8...	12.662 12.662 ... H1-1b
689	M793	HSS4x4x3	249	40	5	.050	0	z 5	102.1...	106.8...	12.662 12.662 ... H1-1b
690	M794	HSS4x4x3	208	0	2	.037	0	z 5	102.1...	106.8...	12.662 12.662 ... H1-1b
691	M795	HSS4x4x3	134	40	5	.020	0	z 2	102.1...	106.8...	12.662 12.662 ... H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Eqn
692	M796	HSS4x4x3	010	0	5	.003	0	y 5	102.1...	106.8...	12.662	12.662 ... H1-1b
693	M797	HSS4x4x3	134	40	5	.020	0	z 2	102.1...	106.8...	12.662	12.662 ... H1-1b
694	M798	HSS4x4x3	208	0	2	.037	0	z 5	102.1...	106.8...	12.662	12.662 ... H1-1b
695	M799	HSS4x4x3	249	40	5	.050	0	z 5	102.1...	106.8...	12.662	12.662 ... H1-1b
696	M800	HSS4x4x3	265	40	5	.060	0	z 5	102.1...	106.8...	12.662	12.662 ... H1-1b
697	M801	HSS4x4x3	264	40	5	.066	0	z 5	102.1...	106.8...	12.662	12.662 ... H1-1b
698	M802	HSS4x4x3	273	40	5	.075	0	z 5	102.1...	106.8...	12.662	12.662 ... H1-1b
699	M803	HSS4x4x3	271	0	5	.072	0	z 5	102.1...	106.8...	12.662	12.662 ... H1-1b
700	M804	HSS4x4x3	353	0	5	.077	0	z 5	102.1...	106.8...	12.662	12.662 ... H1-1b
701	M805	HSS4x4x3	379	0	5	.074	0	z 2	102.1...	106.8...	12.662	12.662 ... H1-1b
702	M806	HSS6x6x4	075	0	5	.026	0	z 5	210.9...	216.9...	38.64	38.64 ... H1-1b
703	M807	HSS6x6x4	061	0	2	.025	0	y 2	167.0...	216.9...	38.64	38.64 ... H1-1b
704	M808	HSS6x6x4	080	0	5	.020	0	y 5	210.9...	216.9...	38.64	38.64 ... H1-1b
705	M809	HSS6x6x4	098	0	5	.030	0	y 5	167.0...	216.9...	38.64	38.64 ... H1-1b
706	M810	HSS6x6x4	065	0	5	.024	0	z 2	211.8...	216.9...	38.64	38.64 ... H1-1b
707	M811	HSS6x6x4	109	0	2	.035	0	y 2	179.53	216.9...	38.64	38.64 ... H1-1b
708	M812	HSS6x6x4	060	0	2	.026	0	z 2	211.8...	216.9...	38.64	38.64 ... H1-1b
709	M813	HSS6x6x4	169	0	5	.040	0	y 5	179.53	216.9...	38.64	38.64 ... H1-1b
710	M814	HSS6x6x4	071	0	5	.023	0	y 5	212.5...	216.9...	38.64	38.64 ... H1-1b
711	M815	HSS6x6x4	142	0	2	.044	0	y 2	189.5...	216.9...	38.64	38.64 ... H1-1b
712	M816	HSS6x6x4	064	40...	5	.020	0	z 5	212.5...	216.9...	38.64	38.64 ... H1-1b
713	M817	HSS6x6x4	211	0	5	.055	0	y 5	189.5...	216.9...	38.64	38.64 ... H1-1b
714	M818	HSS6x6x4	060	37...	2	.033	0	y 5	213.1...	216.9...	38.64	38.64 ... H1-1b
715	M819	HSS6x6x4	148	0	2	.054	0	y 2	197.1...	216.9...	38.64	38.64 ... H1-1b
716	M820	HSS6x6x4	081	37...	5	.035	0	y 2	213.1...	216.9...	38.64	38.64 ... H1-1b
717	M821	HSS6x6x4	234	0	5	.069	0	y 5	197.1...	216.9...	38.64	38.64 ... H1-1b
718	M822	HSS6x6x4	067	35.5	2	.035	0	y 2	213.5...	216.9...	38.64	38.64 ... H1-1b
719	M823	HSS6x6x4	161	0	2	.059	0	y 2	202.7...	216.9...	38.64	38.64 ... H1-1b
720	M824	HSS6x6x4	081	35.5	5	.034	0	y 5	213.5...	216.9...	38.64	38.64 ... H1-1b
721	M825	HSS6x6x4	248	0	5	.079	0	y 5	202.7...	216.9...	38.64	38.64 ... H1-1b
722	M826	HSS6x6x4	069	33...	2	.036	0	y 2	213.9...	216.9...	38.64	38.64 ... H1-1b
723	M827	HSS6x6x4	164	0	2	.064	0	y 2	206.7...	216.9...	38.64	38.64 ... H1-1b
724	M828	HSS6x6x4	094	33...	5	.042	0	y 5	213.9...	216.9...	38.64	38.64 ... H1-1b
725	M829	HSS6x6x4	262	0	5	.088	0	y 5	206.7...	216.9...	38.64	38.64 ... H1-1b
726	M830	HSS6x6x4	078	31...	2	.039	0	y 2	214.2...	216.9...	38.64	38.64 ... H1-1b
727	M831	HSS6x6x4	164	0	2	.064	0	y 2	209.4...	216.9...	38.64	38.64 ... H1-1b
728	M832	HSS6x6x4	097	31...	5	.040	0	y 5	214.2...	216.9...	38.64	38.64 ... H1-1b
729	M833	HSS6x6x4	247	0	5	.089	0	y 5	209.4...	216.9...	38.64	38.64 ... H1-1b
730	M834	HSS6x6x4	071	30...	2	.032	0	y 2	214.4...	216.9...	38.64	38.64 ... H1-1b
731	M835	HSS6x6x4	135	0	2	.052	0	y 2	211.08	216.9...	38.64	38.64 ... H1-1b
732	M836	HSS6x6x4	095	30...	5	.038	0	y 5	214.4...	216.9...	38.64	38.64 ... H1-1b
733	M837	HSS6x6x4	206	0	5	.075	0	y 5	211.08	216.9...	38.64	38.64 ... H1-1b
734	M838	HSS6x6x4	063	30...	2	.026	0	y 2	214.5...	216.9...	38.64	38.64 ... H1-1b
735	M839	HSS6x6x4	079	0	2	.027	0	y 2	211.9...	216.9...	38.64	38.64 ... H1-1b
736	M840	HSS6x6x4	067	30...	5	.027	0	y 5	214.5...	216.9...	38.64	38.64 ... H1-1b
737	M841	HSS6x6x4	114	0	5	.040	0	y 5	211.9...	216.9...	38.64	38.64 ... H1-1b
738	M842	HSS6x6x4	016	30	5	.006	0	z 5	214.5...	216.9...	38.64	38.64 ... H1-1b
739	M843	HSS6x6x4	006	31...	5	.001	42	z 2	212.2...	216.9...	38.64	38.64 ... H1-1b
740	M844	HSS6x6x4	016	30	5	.007	0	z 5	214.5...	216.9...	38.64	38.64 1 H1-1b
741	M845	HSS6x6x4	007	0	2	.002	42	z 2	212.2...	216.9...	38.64	38.64 ... H1-1b
742	M846	HSS6x6x4	063	30...	2	.026	0	y 2	214.5...	216.9...	38.64	38.64 ... H1-1b
743	M847	HSS6x6x4	079	0	2	.027	0	y 2	211.9...	216.9...	38.64	38.64 ... H1-1b
744	M848	HSS6x6x4	067	30...	5	.027	0	y 5	214.5...	216.9...	38.64	38.64 ... H1-1b
745	M849	HSS6x6x4	114	0	5	.040	0	y 5	211.9...	216.9...	38.64	38.64 ... H1-1b
746	M850	HSS6x6x4	071	30...	2	.032	0	y 2	214.4...	216.9...	38.64	38.64 ... H1-1b
747	M851	HSS6x6x4	135	0	2	.052	0	y 2	211.08	216.9...	38.64	38.64 ... H1-1b
748	M852	HSS6x6x4	095	30...	5	.038	0	y 5	214.4...	216.9...	38.64	38.64 ... H1-1b
749	M853	HSS6x6x4	206	0	5	.075	0	y 5	211.08	216.9...	38.64	38.64 ... H1-1b
750	M854	HSS6x6x4	078	31...	2	.039	0	y 2	214.2...	216.9...	38.64	38.64 ... H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Eqn		
751	M855	HSS6x6x4	.164	0	2	.064	0	y	2	209.4	216.9	38.64	38.64	H1-1b
752	M856	HSS6x6x4	.097	31...	5	.040	0	y	5	214.2	216.9	38.64	38.64	H1-1b
753	M857	HSS6x6x4	.247	0	5	.089	0	y	5	209.4	216.9	38.64	38.64	H1-1b
754	M858	HSS6x6x4	.069	33...	2	.036	0	y	2	213.9	216.9	38.64	38.64	H1-1b
755	M859	HSS6x6x4	.164	0	2	.064	0	y	2	206.7	216.9	38.64	38.64	H1-1b
756	M860	HSS6x6x4	.094	33...	5	.042	0	y	5	213.9	216.9	38.64	38.64	H1-1b
757	M861	HSS6x6x4	.262	0	5	.088	0	y	5	206.7	216.9	38.64	38.64	H1-1b
758	M862	HSS6x6x4	.067	35.5	2	.035	0	y	2	213.5	216.9	38.64	38.64	H1-1b
759	M863	HSS6x6x4	.161	0	2	.059	0	y	2	202.7	216.9	38.64	38.64	H1-1b
760	M864	HSS6x6x4	.081	35.5	5	.034	0	y	5	213.5	216.9	38.64	38.64	H1-1b
761	M865	HSS6x6x4	.248	0	5	.079	0	y	5	202.7	216.9	38.64	38.64	H1-1b
762	M866	HSS6x6x4	.060	37...	2	.033	0	y	5	213.1	216.9	38.64	38.64	H1-1b
763	M867	HSS6x6x4	.148	0	2	.054	0	y	2	197.1	216.9	38.64	38.64	H1-1b
764	M868	HSS6x6x4	.081	37...	5	.035	0	y	2	213.1	216.9	38.64	38.64	H1-1b
765	M869	HSS6x6x4	.234	0	5	.069	0	y	5	197.1	216.9	38.64	38.64	H1-1b
766	M870	HSS6x6x4	.071	0	5	.023	0	y	5	212.5	216.9	38.64	38.64	H1-1b
767	M871	HSS6x6x4	.142	0	2	.044	0	y	2	189.5	216.9	38.64	38.64	H1-1b
768	M872	HSS6x6x4	.064	40...	5	.020	0	z	5	212.5	216.9	38.64	38.64	H1-1b
769	M873	HSS6x6x4	.211	0	5	.055	0	y	5	189.5	216.9	38.64	38.64	H1-1b
770	M874	HSS6x6x4	.065	0	5	.024	0	z	2	211.8	216.9	38.64	38.64	H1-1b
771	M875	HSS6x6x4	.109	0	2	.035	0	y	2	179.53	216.9	38.64	38.64	H1-1b
772	M876	HSS6x6x4	.060	0	2	.026	0	z	2	211.8	216.9	38.64	38.64	H1-1b
773	M877	HSS6x6x4	.169	0	5	.040	0	y	5	179.53	216.9	38.64	38.64	H1-1b
774	M878	HSS6x6x4	.075	0	5	.026	0	z	5	210.9	216.9	38.64	38.64	H1-1b
775	M879	HSS6x6x4	.061	0	2	.025	0	y	2	167.0	216.9	38.64	38.64	H1-1b
776	M880	HSS6x6x4	.080	0	5	.020	0	y	5	210.9	216.9	38.64	38.64	H1-1b
777	M881	HSS6x6x4	.098	0	5	.030	0	y	5	167.0	216.9	38.64	38.64	H1-1b
778	M883	HSS4x4x3	.052	65...	5	.013	0	z	5	94.867	106.8	12.662	12.662	H1-1b
779	M884	HSS4x4x3	.043	43...	5	.011	0	z	5	94.953	106.8	12.662	12.662	H1-1b
780	M885	HSS4x4x3	.042	64...	5	.013	0	z	5	94.987	106.8	12.662	12.662	H1-1b
781	M886	HSS4x4x3	.040	27...	2	.012	0	z	2	94.971	106.8	12.662	12.662	H1-1b
782	M887	HSS4x4x3	.045	59...	2	.014	0	z	5	94.904	106.8	12.662	12.662	H1-1b
783	M888	HSS4x4x3	.046	65...	5	.011	0	z	2	94.783	106.8	12.662	12.662	H1-1b
784	M889	HSS4x4x3	.048	52...	2	.009	0	y	5	94.599	106.8	12.662	12.662	H1-1b
785	M890	HSS4x4x3	.048	37...	2	.006	0	z	2	94.344	106.8	12.662	12.662	H1-1b
786	M891	HSS4x4x3	.054	0	2	.009	67...	z	2	94.005	106.8	12.662	12.662	H1-1b
787	M892	HSS4x4x3	.054	0	2	.009	0	z	2	94.005	106.8	12.662	12.662	H1-1b
788	M893	HSS4x4x3	.048	29...	2	.006	66...	z	2	94.344	106.8	12.662	12.662	H1-1b
789	M894	HSS4x4x3	.048	13...	2	.009	65...	y	5	94.599	106.8	12.662	12.662	H1-1b
790	M895	HSS4x4x3	.046	0	5	.011	65...	z	2	94.783	106.8	12.662	12.662	H1-1b
791	M896	HSS4x4x3	.045	5.42	2	.014	65...	z	5	94.904	106.8	12.662	12.662	H1-1b
792	M897	HSS4x4x3	.040	37...	2	.012	64...	z	2	94.971	106.8	12.662	12.662	H1-1b
793	M898	HSS4x4x3	.042	0	5	.013	64...	z	5	94.987	106.8	12.662	12.662	H1-1b
794	M899	HSS4x4x3	.043	20...	5	.011	64...	z	5	94.953	106.8	12.662	12.662	H1-1b
795	M900	HSS4x4x3	.052	0	5	.013	65...	z	5	94.867	106.8	12.662	12.662	H1-1b
796	M903	HSS4x4x3	.070	65...	5	.012	0	z	5	94.867	106.8	12.662	12.662	H1-1b
797	M904	HSS4x4x3	.055	0	5	.010	0	z	2	94.953	106.8	12.662	12.662	H1-1b
798	M905	HSS4x4x3	.048	64...	5	.013	0	y	5	94.987	106.8	12.662	12.662	H1-1b
799	M906	HSS4x4x3	.058	0	5	.013	0	y	5	94.971	106.8	12.662	12.662	H1-1b
800	M907	HSS4x4x3	.057	65...	5	.014	0	y	5	94.904	106.8	12.662	12.662	H1-1b
801	M908	HSS4x4x3	.058	65...	5	.011	0	z	2	94.783	106.8	12.662	12.662	H1-1b
802	M909	HSS4x4x3	.056	0	5	.009	0	y	5	94.599	106.8	12.662	12.662	H1-1b
803	M910	HSS4x4x3	.053	40...	5	.006	0	z	2	94.344	106.8	12.662	12.662	H1-1b
804	M911	HSS4x4x3	.053	26...	5	.008	67...	z	2	94.005	106.8	12.662	12.662	H1-1b
805	M912	HSS4x4x3	.053	40...	5	.008	0	z	2	94.005	106.8	12.662	12.662	H1-1b
806	M913	HSS4x4x3	.053	26...	5	.006	66...	z	2	94.344	106.8	12.662	12.662	H1-1b
807	M914	HSS4x4x3	.056	65...	5	.009	65...	y	5	94.599	106.8	12.662	12.662	H1-1b
808	M915	HSS4x4x3	.058	0	5	.011	65...	z	2	94.783	106.8	12.662	12.662	H1-1b
809	M916	HSS4x4x3	.057	0	5	.014	65...	y	5	94.904	106.8	12.662	12.662	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Ean	
810	M917	HSS4x4x3	.058	64...	5	.013	64...	y 5	94.971	106.8...	12.662	12.662	H1-1b
811	M918	HSS4x4x3	.048	0	5	.013	64...	y 5	94.987	106.8...	12.662	12.662	H1-1b
812	M919	HSS4x4x3	.055	64...	5	.010	64...	z 2	94.953	106.8...	12.662	12.662	H1-1b
813	M920	HSS4x4x3	.070	0	5	.012	65...	z 5	94.867	106.8...	12.662	12.662	H1-1b
814	M930	HSS2x2x3	.387	0	2	.038	0	z 6	46.437	49.266	2.75	2.75	H1-1b
815	M931	HSS2x2x3	.175	0	5	.014	0	z 2	30.861	49.266	2.75	2.75	H1-1b
816	M932	HSS2x2x3	.245	61.2	5	.016	0	z 5	30.861	49.266	2.75	2.75	H1-1a
817	M933	HSS2x2x3	.336	61.2	5	.017	0	z 5	30.861	49.266	2.75	2.75	H1-1a
818	M934	HSS2x2x3	.252	0	2	.079	0	z 5	44.238	49.266	2.75	2.75	H1-1b
819	M935	HSS2x2x3	.086	0	5	.016	0	z 2	29.089	49.266	2.75	2.75	H1-1b
820	M936	HSS2x2x3	.132	0	5	.014	0	z 5	29.473	49.266	2.75	2.75	H1-1b
821	M937	HSS2x2x3	.131	0	5	.011	0	z 2	29.812	49.266	2.75	2.75	H1-1b
822	M938	HSS2x2x3	.631	0	5	.129	0	z 5	47.049	49.266	2.75	2.75	H1-1b
823	M939	HSS2x2x3	.549	0	5	.129	0	z 5	47.592	49.266	2.75	2.75	H1-1b
824	M940	HSS2x2x3	.169	0	5	.038	0	z 2	47.049	49.266	2.75	2.75	H1-1b
825	M941	HSS2x2x3	.223	16...	2	.056	0	z 5	47.592	49.266	2.75	2.75	H1-1b
826	M942	HSS2x2x3	.277	0	2	.048	0	y 2	44.238	49.266	2.75	2.75	H1-1b
827	M943	HSS2x2x3	.354	29...	2	.042	0	z 6	44.238	49.266	2.75	2.75	H1-1b
828	M944	HSS2x2x3	.103	61.2	5	.077	61.2	z 5	30.861	49.266	2.75	2.75	H1-1b
829	M945	HSS2x2x3	.225	16...	2	.056	0	z 5	47.592	49.266	2.75	2.75	H1-1b
830	M946	HSS2x2x3	.079	61.2	2	.029	61.2	z 2	30.861	49.266	2.75	2.75	H1-1b
831	M947	HSS2x2x3	.086	61.2	5	.092	61.2	z 5	30.861	49.266	2.75	2.75	H1-1b
832	M948	HSS2x2x3	.379	29...	2	.054	0	z 5	44.238	49.266	2.75	2.75	H1-1b
833	M949	HSS2x2x3	.083	28...	5	.051	53...	z 5	30.861	49.266	2.75	2.75	H1-1b
834	M950	HSS2x2x3	.127	61.2	2	.028	53...	z 5	30.861	49.266	2.75	2.75	H1-1b
835	M951	HSS2x2x3	.088	61.2	2	.066	0	z 5	30.861	49.266	2.75	2.75	H1-1b
836	M952	HSS2x2x3	.292	0	2	.029	29...	z 5	44.238	49.266	2.75	2.75	H1-1b
837	M953	HSS2x2x3	.580	29...	2	.080	29...	z 2	44.238	49.266	2.75	2.75	H1-1b
838	M954	HSS2x2x3	.410	0	2	.060	29...	z 5	44.238	49.266	2.75	2.75	H1-1b
839	M955	HSS2x2x3	.721	29...	2	.086	29...	z 5	44.238	49.266	2.75	2.75	H1-1b
840	M956	HSS2x2x3	.348	0	2	.057	29...	z 5	44.238	49.266	2.75	2.75	H1-1b
841	M957	HSS2x2x3	.560	29...	2	.095	29...	z 5	44.238	49.266	2.75	2.75	H1-1b
842	M958	HSS2x2x3	.174	29...	2	.033	0	y 2	44.238	49.266	2.75	2.75	H1-1b
843	M959	HSS2x2x3	.200	29...	5	.088	29...	z 5	44.238	49.266	2.75	2.75	H1-1b
844	M960	HSS2x2x3	.100	0	2	.046	0	z 5	30.861	49.266	2.75	2.75	H1-1b
845	M961	HSS2x2x3	.147	61.2	2	.056	51	z 5	30.861	49.266	2.75	2.75	H1-1b
846	M962	HSS2x2x3	.143	61.2	2	.021	51...	z 5	30.861	49.266	2.75	2.75	H1-1b
847	M963	HSS2x2x3	.124	0	2	.015	51	z 2	30.861	49.266	2.75	2.75	H1-1b
848	M964	HSS2x2x3	.122	61.2	2	.056	51	z 5	30.861	49.266	2.75	2.75	H1-1b
849	M965	HSS2x2x3	.118	0	2	.070	0	z 5	30.861	49.266	2.75	2.75	H1-1b
850	M974	HSS2x2x3	.388	0	5	.036	0	z 2	46.437	49.266	2.75	2.75	H1-1b
851	M975	HSS2x2x3	.099	0	5	.014	0	z 5	30.861	49.266	2.75	2.75	H1-1b
852	M976	HSS2x2x3	.142	0	5	.016	0	z 5	30.861	49.266	2.75	2.75	H1-1b
853	M977	HSS2x2x3	.137	0	5	.017	0	z 2	30.861	49.266	2.75	2.75	H1-1b
854	M978	HSS2x2x3	.289	0	5	.076	0	z 2	44.238	49.266	2.75	2.75	H1-1b
855	M979	HSS2x2x3	.085	0	5	.016	0	z 2	29.089	49.266	2.75	2.75	H1-1b
856	M980	HSS2x2x3	.071	0	5	.014	0	z 5	29.473	49.266	2.75	2.75	H1-1b
857	M981	HSS2x2x3	.064	0	5	.011	0	z 2	29.812	49.266	2.75	2.75	H1-1b
858	M982	HSS2x2x3	.605	0	5	.124	0	z 5	47.049	49.266	2.75	2.75	H1-1b
859	M983	HSS2x2x3	.537	0	5	.124	0	z 5	47.592	49.266	2.75	2.75	H1-1b
860	M984	HSS2x2x3	.146	0	5	.037	0	z 5	47.049	49.266	2.75	2.75	H1-1b
861	M985	HSS2x2x3	.218	16...	5	.054	0	z 5	47.592	49.266	2.75	2.75	H1-1b
862	M986	HSS2x2x3	.311	0	5	.053	0	y 5	44.238	49.266	2.75	2.75	H1-1b
863	M987	HSS2x2x3	.372	29...	5	.038	0	z 5	44.238	49.266	2.75	2.75	H1-1b
864	M988	HSS2x2x3	.098	61.2	5	.073	61.2	z 5	30.861	49.266	2.75	2.75	H1-1b
865	M989	HSS2x2x3	.223	16...	5	.052	0	z 5	47.592	49.266	2.75	2.75	H1-1b
866	M990	HSS2x2x3	.088	61.2	5	.029	61.2	z 2	30.861	49.266	2.75	2.75	H1-1b
867	M991	HSS2x2x3	.081	61.2	2	.087	61.2	z 5	30.861	49.266	2.75	2.75	H1-1b
868	M992	HSS2x2x3	.393	29...	5	.051	0	z 5	44.238	49.266	2.75	2.75	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

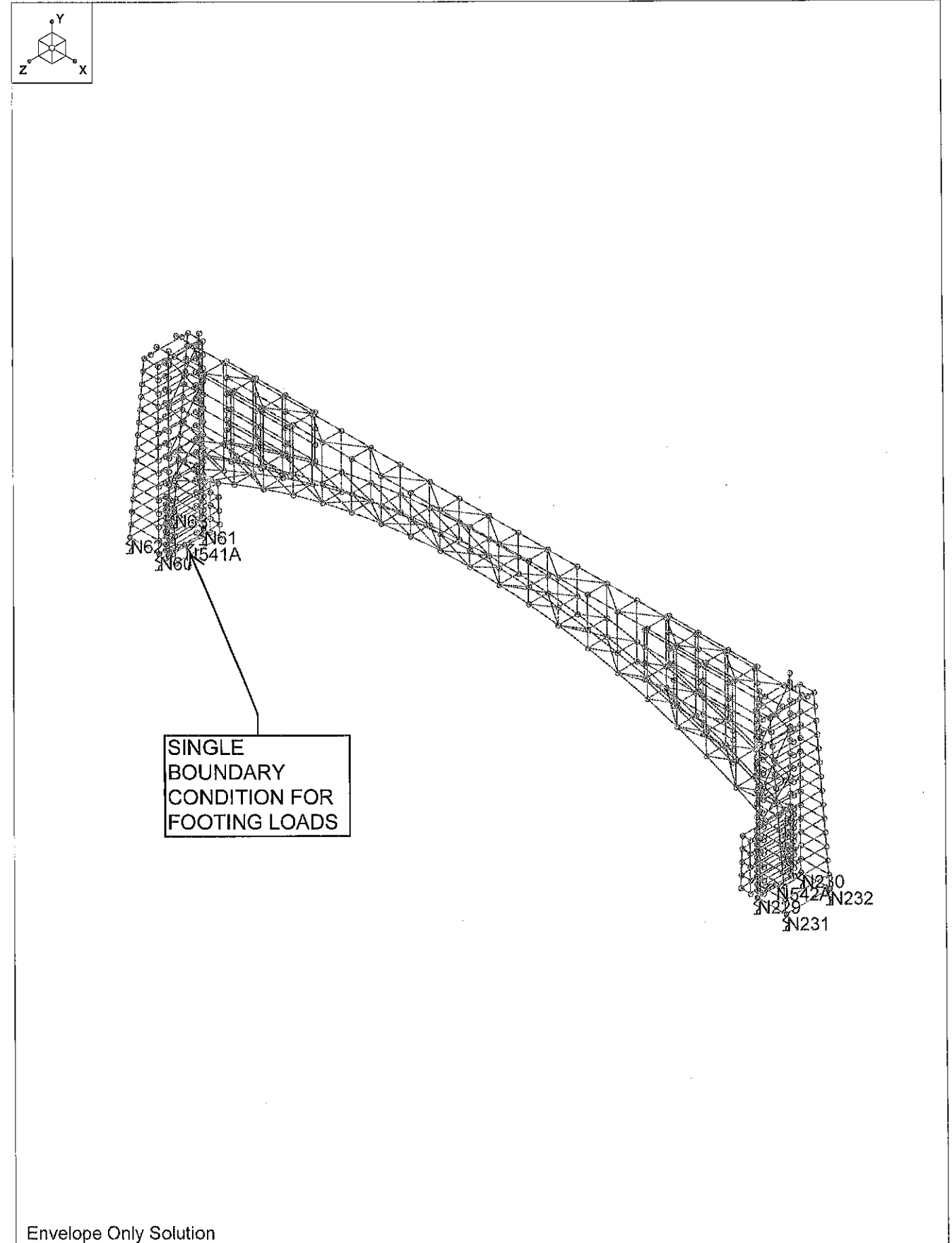
	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Eqn
869	M993	HSS2x2x3	.083	33...	5	.050	53... z 5	30.861	49.266	2.75	2.75	...H1-1b
870	M994	HSS2x2x3	.124	61.2	5	.026	53... z 2	30.861	49.266	2.75	2.75	...H1-1b
871	M995	HSS2x2x3	.108	0	5	.064	0 z 5	30.861	49.266	2.75	2.75	...H1-1b
872	M996	HSS2x2x3	.315	0	5	.027	29... z 5	44.238	49.266	2.75	2.75	...H1-1b
873	M997	HSS2x2x3	.612	29...	5	.077	29... z 5	44.238	49.266	2.75	2.75	...H1-1b
874	M998	HSS2x2x3	.436	0	5	.056	29... z 5	44.238	49.266	2.75	2.75	...H1-1b
875	M999	HSS2x2x3	.763	29...	5	.082	29... z 5	44.238	49.266	2.75	2.75	...H1-1b
876	M1000	HSS2x2x3	.380	0	5	.060	0 y 5	44.238	49.266	2.75	2.75	...H1-1b
877	M1001	HSS2x2x3	.596	29...	5	.093	29... z 5	44.238	49.266	2.75	2.75	...H1-1b
878	M1002	HSS2x2x3	.183	29...	5	.035	0 y 5	44.238	49.266	2.75	2.75	...H1-1b
879	M1003	HSS2x2x3	.227	29...	5	.086	29... z 2	44.238	49.266	2.75	2.75	...H1-1b
880	M1004	HSS2x2x3	.166	0	5	.045	0 y 5	30.861	49.266	2.75	2.75	...H1-1b
881	M1005	HSS2x2x3	.163	61.2	5	.054	51 z 5	30.861	49.266	2.75	2.75	...H1-1b
882	M1006	HSS2x2x3	.183	0	5	.022	0 y 5	30.861	49.266	2.75	2.75	...H1-1b
883	M1007	HSS2x2x3	.187	0	5	.016	0 y 5	30.861	49.266	2.75	2.75	...H1-1b
884	M1008	HSS2x2x3	.181	0	5	.054	51 z 5	30.861	49.266	2.75	2.75	...H1-1b
885	M1009	HSS2x2x3	.180	0	5	.068	0 z 5	30.861	49.266	2.75	2.75	...H1-1b
886	M1018	HSS2x2x3	.387	0	2	.038	0 z 6	46.437	49.266	2.75	2.75	...H1-1b
887	M1019	HSS2x2x3	.174	0	5	.014	0 z 2	30.861	49.266	2.75	2.75	...H1-1b
888	M1020	HSS2x2x3	.245	61.2	5	.016	0 z 5	30.861	49.266	2.75	2.75	...H1-1a
889	M1021	HSS2x2x3	.336	61.2	5	.017	0 z 5	30.861	49.266	2.75	2.75	...H1-1a
890	M1022	HSS2x2x3	.252	0	2	.079	0 z 5	44.238	49.266	2.75	2.75	...H1-1b
891	M1023	HSS2x2x3	.086	0	5	.016	0 z 2	29.089	49.266	2.75	2.75	...H1-1b
892	M1024	HSS2x2x3	.132	0	5	.014	0 z 5	29.473	49.266	2.75	2.75	...H1-1b
893	M1025	HSS2x2x3	.131	0	5	.011	0 z 2	29.812	49.266	2.75	2.75	...H1-1b
894	M1026	HSS2x2x3	.631	0	5	.129	0 z 5	47.049	49.266	2.75	2.75	...H1-1b
895	M1027	HSS2x2x3	.549	0	5	.129	0 z 5	47.592	49.266	2.75	2.75	...H1-1b
896	M1028	HSS2x2x3	.169	0	5	.038	0 z 2	47.049	49.266	2.75	2.75	...H1-1b
897	M1029	HSS2x2x3	.223	16...	2	.056	0 z 5	47.592	49.266	2.75	2.75	...H1-1b
898	M1030	HSS2x2x3	.277	0	2	.048	0 y 2	44.238	49.266	2.75	2.75	...H1-1b
899	M1031	HSS2x2x3	.354	29...	2	.042	0 z 6	44.238	49.266	2.75	2.75	...H1-1b
900	M1032	HSS2x2x3	.103	61.2	5	.077	61.2 z 5	30.861	49.266	2.75	2.75	...H1-1b
901	M1033	HSS2x2x3	.225	16...	2	.056	0 z 5	47.592	49.266	2.75	2.75	...H1-1b
902	M1034	HSS2x2x3	.079	61.2	2	.029	61.2 z 2	30.861	49.266	2.75	2.75	...H1-1b
903	M1035	HSS2x2x3	.086	61.2	5	.092	61.2 z 5	30.861	49.266	2.75	2.75	...H1-1b
904	M1036	HSS2x2x3	.379	29...	2	.054	0 z 5	44.238	49.266	2.75	2.75	...H1-1b
905	M1037	HSS2x2x3	.083	28...	5	.051	54... z 5	30.861	49.266	2.75	2.75	...H1-1b
906	M1038	HSS2x2x3	.127	61.2	2	.028	54... z 5	30.861	49.266	2.75	2.75	...H1-1b
907	M1039	HSS2x2x3	.088	61.2	2	.066	0 z 5	30.861	49.266	2.75	2.75	...H1-1b
908	M1040	HSS2x2x3	.292	0	2	.029	29... z 5	44.238	49.266	2.75	2.75	...H1-1b
909	M1041	HSS2x2x3	.580	29...	2	.080	29... z 2	44.238	49.266	2.75	2.75	...H1-1b
910	M1042	HSS2x2x3	.410	0	2	.060	29... z 5	44.238	49.266	2.75	2.75	...H1-1b
911	M1043	HSS2x2x3	.721	29...	2	.086	29... z 5	44.238	49.266	2.75	2.75	...H1-1b
912	M1044	HSS2x2x3	.348	0	2	.057	29... z 5	44.238	49.266	2.75	2.75	...H1-1b
913	M1045	HSS2x2x3	.560	29...	2	.095	29... z 5	44.238	49.266	2.75	2.75	...H1-1b
914	M1046	HSS2x2x3	.174	29...	2	.033	0 y 2	44.238	49.266	2.75	2.75	...H1-1b
915	M1047	HSS2x2x3	.200	29...	5	.088	29... z 5	44.238	49.266	2.75	2.75	...H1-1b
916	M1048	HSS2x2x3	.100	0	2	.046	0 z 5	30.861	49.266	2.75	2.75	...H1-1b
917	M1049	HSS2x2x3	.147	61.2	2	.056	51 z 5	30.861	49.266	2.75	2.75	...H1-1b
918	M1050	HSS2x2x3	.143	61.2	2	.021	51... z 5	30.861	49.266	2.75	2.75	...H1-1b
919	M1051	HSS2x2x3	.124	0	2	.015	51 z 2	30.861	49.266	2.75	2.75	...H1-1b
920	M1052	HSS2x2x3	.122	61.2	2	.056	51... z 5	30.861	49.266	2.75	2.75	...H1-1b
921	M1053	HSS2x2x3	.118	0	2	.070	0 z 5	30.861	49.266	2.75	2.75	...H1-1b
922	M1062	HSS2x2x3	.388	0	5	.036	0 z 2	46.437	49.266	2.75	2.75	...H1-1b
923	M1063	HSS2x2x3	.099	0	5	.014	0 z 5	30.861	49.266	2.75	2.75	...H1-1b
924	M1064	HSS2x2x3	.142	0	5	.016	0 z 5	30.861	49.266	2.75	2.75	...H1-1b
925	M1065	HSS2x2x3	.137	0	5	.017	0 z 2	30.861	49.266	2.75	2.75	...H1-1b
926	M1066	HSS2x2x3	.289	0	5	.076	0 z 2	44.238	49.266	2.75	2.75	...H1-1b
927	M1067	HSS2x2x3	.085	0	5	.016	0 z 2	29.089	49.266	2.75	2.75	...H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Eqn			
928	M1068	HSS2x2x3	.071	0	5	.014	0	z	5	29.473	49.266	2.75	2.75	...	H1-1b
929	M1069	HSS2x2x3	.064	0	5	.011	0	z	2	29.812	49.266	2.75	2.75	...	H1-1b
930	M1070	HSS2x2x3	.605	0	5	.124	0	z	5	47.049	49.266	2.75	2.75	...	H1-1b
931	M1071	HSS2x2x3	.537	0	5	.124	0	z	5	47.592	49.266	2.75	2.75	...	H1-1b
932	M1072	HSS2x2x3	.146	0	5	.037	0	z	5	47.049	49.266	2.75	2.75	...	H1-1b
933	M1073	HSS2x2x3	.218	16...	5	.054	0	z	5	47.592	49.266	2.75	2.75	...	H1-1b
934	M1074	HSS2x2x3	.311	0	5	.053	0	y	5	44.238	49.266	2.75	2.75	...	H1-1b
935	M1075	HSS2x2x3	.372	29...	5	.038	0	z	5	44.238	49.266	2.75	2.75	...	H1-1b
936	M1076	HSS2x2x3	.098	61.2	5	.073	61.2	z	5	30.861	49.266	2.75	2.75	...	H1-1b
937	M1077	HSS2x2x3	.223	16...	5	.052	0	z	5	47.592	49.266	2.75	2.75	...	H1-1b
938	M1078	HSS2x2x3	.088	61.2	5	.029	61.2	z	2	30.861	49.266	2.75	2.75	...	H1-1b
939	M1079	HSS2x2x3	.081	61.2	2	.087	61.2	z	5	30.861	49.266	2.75	2.75	...	H1-1b
940	M1080	HSS2x2x3	.393	29...	5	.051	0	z	5	44.238	49.266	2.75	2.75	...	H1-1b
941	M1081	HSS2x2x3	.083	33...	5	.050	54...	z	5	30.861	49.266	2.75	2.75	...	H1-1b
942	M1082	HSS2x2x3	.124	61.2	5	.026	54...	z	2	30.861	49.266	2.75	2.75	...	H1-1b
943	M1083	HSS2x2x3	.108	0	5	.064	0	z	5	30.861	49.266	2.75	2.75	...	H1-1b
944	M1084	HSS2x2x3	.315	0	5	.027	29...	z	5	44.238	49.266	2.75	2.75	...	H1-1b
945	M1085	HSS2x2x3	.612	29...	5	.077	29...	z	5	44.238	49.266	2.75	2.75	...	H1-1b
946	M1086	HSS2x2x3	.436	0	5	.056	29...	z	5	44.238	49.266	2.75	2.75	...	H1-1b
947	M1087	HSS2x2x3	.763	29...	5	.082	29...	z	5	44.238	49.266	2.75	2.75	...	H1-1b
948	M1088	HSS2x2x3	.380	0	5	.060	0	y	5	44.238	49.266	2.75	2.75	...	H1-1b
949	M1089	HSS2x2x3	.596	29...	5	.093	29...	z	5	44.238	49.266	2.75	2.75	...	H1-1b
950	M1090	HSS2x2x3	.183	29...	5	.035	0	y	5	44.238	49.266	2.75	2.75	...	H1-1b
951	M1091	HSS2x2x3	.227	29...	5	.086	29...	z	2	44.238	49.266	2.75	2.75	...	H1-1b
952	M1092	HSS2x2x3	.166	0	5	.045	0	y	5	30.861	49.266	2.75	2.75	...	H1-1b
953	M1093	HSS2x2x3	.163	61.2	5	.054	51	z	5	30.861	49.266	2.75	2.75	...	H1-1b
954	M1094	HSS2x2x3	.183	0	5	.022	0	y	5	30.861	49.266	2.75	2.75	...	H1-1b
955	M1095	HSS2x2x3	.187	0	5	.016	0	y	5	30.861	49.266	2.75	2.75	...	H1-1b
956	M1096	HSS2x2x3	.181	0	5	.054	51...	z	5	30.861	49.266	2.75	2.75	...	H1-1b
957	M1097	HSS2x2x3	.180	0	5	.068	0	z	5	30.861	49.266	2.75	2.75	...	H1-1b
958	M1088A	HSS8x8x4	.409	0	5	.141	0	z	5	290.78	293.94	66.288	66.288	...	H1-1b
959	M1089A	HSS8x8x4	.133	0	5	.033	0	y	2	290.78	293.94	66.288	66.288	...	H1-1b
960	M1090A	HSS12x8x4	.064	40	5	.033	0	y	2	324.1	370.9	73.797	116.951	...	H1-1b
961	M1091A	HSS8x8x4	.409	0	5	.141	0	z	5	290.78	293.94	66.288	66.288	...	H1-1b
962	M1092A	HSS8x8x4	.133	0	5	.033	0	y	2	290.78	293.94	66.288	66.288	...	H1-1b
963	M1093A	HSS12x8x4	.064	40	5	.033	0	y	2	324.1	370.9	73.797	116.951	...	H1-1b
964	M1094B	HSS8x8x4	.500	11...	5	.286	0	z	4	293.6	293.94	66.288	66.288	...	H1-1b
965	M1095B	HSS8x8x4	.161	11...	2	.132	0	z	4	293.6	293.94	66.288	66.288	...	H1-1b
966	M1096B	HSS12x8x4	.154	0	5	.072	0	y	2	326.7	370.9	73.797	116.951	...	H1-1b
967	M1097B	HSS8x8x4	.500	11...	5	.286	0	z	4	293.6	293.94	66.288	66.288	...	H1-1b
968	M1098	HSS8x8x4	.161	11...	2	.132	0	z	4	293.6	293.94	66.288	66.288	...	H1-1b
969	M1099	HSS12x8x4	.154	0	5	.072	0	y	2	326.7	370.9	73.797	116.951	...	H1-1b
970	M1086A	HSS8x8x4	.004	0	5	.001	0	y	4	291.3	293.94	66.288	66.288	...	H1-1b
971	M1087A	HSS8x8x4	.004	0	5	.001	0	y	4	291.3	293.94	66.288	66.288	...	H1-1b
972	M1088B	HSS8x8x4	.004	0	5	.001	0	y	4	291.3	293.94	66.288	66.288	...	H1-1b
973	M1089B	HSS8x8x4	.004	0	5	.001	0	y	4	291.3	293.94	66.288	66.288	...	H1-1b
974	M1090B	HSS8x8x4	.190	0	5	.042	0	z	5	286.5	293.94	66.288	66.288	...	H1-1b
975	M1091B	HSS8x8x4	.152	0	2	.044	0	z	5	286.5	293.94	66.288	66.288	...	H1-1b
976	M1092B	HSS6x6x4	.177	0	5	.045	0	z	2	205.6	216.9	38.64	38.64	...	H1-1b
977	M1093B	HSS6x6x4	.172	0	2	.046	0	z	5	205.6	216.9	38.64	38.64	...	H1-1b
978	M1094C	HSS6x6x4	.338	0	5	.037	0	y	5	205.0	216.9	38.64	38.64	...	H1-1b
979	M1095C	HSS6x6x4	.224	0	4	.027	0	z	2	205.0	216.9	38.64	38.64	...	H1-1b
980	M1096C	HSS4x4x3	.246	73...	5	.012	73...	y	5	91.99	106.8	12.662	12.662	...	H1-1a
981	M1097C	HSS4x4x3	.227	78...	5	.025	78...	y	5	89.925	106.8	12.662	12.662	...	H1-1b
982	M1098A	HSS8x8x4	.190	0	5	.042	0	z	5	286.5	293.94	66.288	66.288	...	H1-1b
983	M1099A	HSS8x8x4	.152	0	2	.044	0	z	5	286.5	293.94	66.288	66.288	...	H1-1b
984	M1100	HSS6x6x4	.177	0	5	.045	0	z	2	205.6	216.9	38.64	38.64	...	H1-1b
985	M1101	HSS6x6x4	.172	0	2	.046	0	z	5	205.6	216.9	38.64	38.64	...	H1-1b
986	M1102	HSS6x6x4	.338	0	5	.037	0	y	5	205.0	216.9	38.64	38.64	...	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Eqn
987	M1103	HSS6x6x4	.224	0	4	.027	0 z 2	205.0	216.9	38.64	38.64	H1-1b
988	M1104	HSS4x4x3	.227	78...	5	.025	78... y 5	89.925	106.8	12.662	12.662	H1-1b
989	M1105	HSS4x4x3	.246	73...	5	.012	73... y 5	91.99	106.8	12.662	12.662	H1-1a
990	M1106	HSS4x4x3	.051	0	5	.026	0 z 5	94.724	106.8	12.662	12.662	H1-1b
991	M1107	HSS4x4x3	.065	0	4	.025	0 z 2	94.724	106.8	12.662	12.662	H1-1b
992	M1108	HSS4x4x3	.051	65...	5	.026	65... z 5	94.724	106.8	12.662	12.662	H1-1b
993	M1109	HSS4x4x3	.065	65...	4	.025	65... z 2	94.724	106.8	12.662	12.662	H1-1b



Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(...
1	D	DL		-1				200	180
2	W	WL						200	104
3	F	None						200	104
4	BLC 1 Transient Ar...	None						690	
5	BLC 2 Transient Ar...	None						417	
6	BLC 3 Transient Ar...	None						417	

Load Combinations

	Description	So...	PDelta	S...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...
1	D	Yes	Y	1	1										
2	W	Yes	Y	2	1										
3	F	Yes	Y	3	1										
4	1.25D	Yes	Y	1	1.25										
5	1.1D+1.0W	Yes	Y	1	1.1	2	1								
6	0.9D+1.0W	Yes	Y	1	.9	2	1								
7	1.0D+1.0F	Yes	Y	1	1	3	1								

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N62	max	0	1	5.006	4	0	1	0	1	0	1	0	1
2		min	0	1	0	2	0	1	0	1	0	1	0	1
3	N63	max	0	1	5.679	5	0	1	0	1	0	1	0	1
4		min	0	1	.176	3	0	1	0	1	0	1	0	1
5	N60	max	0	1	.612	4	0	1	0	1	0	1	0	1
6		min	0	1	0	2	0	1	0	1	0	1	0	1
7	N61	max	0	1	2.493	5	0	1	0	1	0	1	0	1
8		min	0	1	.285	3	0	1	0	1	0	1	0	1
9	N230	max	0	1	2.493	5	0	1	0	1	0	1	0	1
10		min	0	1	.285	3	0	1	0	1	0	1	0	1
11	N232	max	0	1	5.685	5	0	1	0	1	0	1	0	1
12		min	0	1	.176	3	0	1	0	1	0	1	0	1
13	N231	max	0	1	4.997	4	0	1	0	1	0	1	0	1
14		min	0	1	0	2	0	1	0	1	0	1	0	1
15	N229	max	0	1	.612	4	0	1	0	1	0	1	0	1
16		min	0	1	0	2	0	1	0	1	0	1	0	1
17	N541A	max	18.849	4	38.915	4	29.276	2	621.216	2	-.081	1	-.003	3
18		min	.038	3	-3.169	2	0	4	.026	1	-73.076	5	-95.704	4
19	N542A	max	-.038	3	38.914	4	29.277	5	621.214	2	73.081	5	95.705	4
20		min	-18.849	4	-3.169	2	0	1	-.033	4	.085	1	.003	3
21	Totals:	max	0	2	100.282	4	58.553	2						
22		min	0	4	0	3	0	4						

Fundraising Events - Volunteer Sheet

<i>Volunteer</i>	<i>Date</i>	<i>Time</i>	<i>Event Name</i>	<i>Location</i>	<i>Contact</i>	<i>Phone</i>
Jeanette Roe	All Summer		Municipal Band	City Park	Sandy Hacking	208-731-5577
		7/4/2018	Fireworks		Nathan Murray	Not Known yet
		7/6/2018	Commons Ribbon Cutting	Downtown Between Main and 2nd	Nathan Murray	Approved
		7/27/2018	7 am to 8 pm Art in the Park	City Park	Carolyn White	208- Approved - call her wit
		8/4/2018	8 am to 8 pm Magic Valley Beer Festival	City Park	Marianne Barker	208- Cost About \$50
		8/11/2018	set up at 8 shc Car Show	City Park	Richard Linares	208- ask for Richard
	7/6/2018		Art in the Park/Ice Cream Fun Days			
			Fun Run			Not Approved
			Bike Race			Not Approved
			Twin Falls Tonight		Robin	208- tony jensens
			Farmers Market			

h details