Twin Falls Archway Project
Ad Hoc Citizens Advisory Committee
Agenda

Thursday, June 6, 2019, 8:45 AM

Members: Jeanette Roe, John Kapeleris, Leonard Anderson, Paula Brown Sinclair, Rex Lytle, Tony Prater, Ruth Pierce, Melissa Crane
Facilitator: Kathy Markus
Advisors: Greg Middlekauff, Micah Campbell, and Nikki Boyd
Staff: Mitch Humble, Lisa Strickland

1) Confirmation of Quorum/Call Meeting to Order
2) Consent Calendar
   a) Approval of minutes from the following meeting: 04-04-19
      Purpose: **ACTION ITEM**
3) Items for Discussion
   a) **DISCUSSION:** Grant Applications (Chobani $30,000 & State Farm Neighborhood Assist Grant)
      By: Kathy Markus
   b) **DISCUSSION:** Fundraising
      By: Kathy Markus
   c) **INFORMATIONAL:** City Council Approval
      By: Kathy Markus
   d) **DISCUSSION:** Bid Package
      By: Kathy Markus
4) General Input/Announcements - Public/Staff
5) Upcoming Meeting(s)
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, April 4, 2019, 8:45 AM

Members: Jeanette Roe, John Kapeleris, Leonard Anderson, Paula Brown Sinclair, Rex Lytle, Tony Prater, Ruth Pierce, Melissa Crane
Facilitator: Kathy Markus
Advisors: Greg Middlekauff, Micah Campbell, and Nikki Boyd
Staff: Mitch Humble, Lisa Strickland

1) **Confirmation of Quorum/Call Meeting to Order**
Member Anderson called the meeting to order and confirmed a quorum.

2) **Consent Calendar**

a) Approval of minutes for the following meeting: April 7, 2019
Member Roe made a motion to approve the consent calendar, as presented. Member Prater seconded the motion.

3) **Items for Discussion**

a) Fundraising Update
Member Anderson updated the Committee on the status of the fund raising. Since the last meeting he sent out several packets out for donations and received 23,000 so far in donations. He has approached Idaho Power about doing in kind work. The people that have committed to donations, the money needs to be collected, The City has decided to fund the difference on the project so that it can move forward. He asked that the members approach their contributors if they have not paid yet.

b) No Need to Attend Council Meeting April 8
The item does not need to be presented, so there is no need to attend the City Council meeting.

c) Bid Package
- Member Anderson explained the in-kind values need to be calculated and the commitments need to be official, the format for the Bid Package will need to be put together for a preliminary.
- Member Lytle explained to the committee that he has put together a list of items that will most likely need to be included in the Bid packet and has provided a rough draft, for the committee to review on the overhead. He also stated that he has concerns about the lava rock and people climbing the posts. He would recommended that the rock be exchanged for a different shapes of steel and build the post too replicate the canyon wall. It would be welded together, reducing the ability for people to climb the posts because the material is slick. The maintenance would be easier and it would be a more artistic approach to the project. It would be low maintenance and graffiti proof because it can be sandblasted. This recommendation would be more practical and would not change the engineering for the

project and possibly more economical.

- Member Prater explained if it cost less up front and reduces the cost of maintenance, it sounds like a good plan.
- Member Lytle explained he thinks it is a very good option and can be more abstract and shaped to look more like the canyon.
- Member Anderson asked how it would be constructed an erected.
- Member Lytle explained it could be built in a shop using a water jet cutter and weld the shapes together. It would be placed with a crane at the sight. He thinks the cost will be equal or less than the masonry work quoted for the lava rock. There would have to be prototypes prior to approval of the bid.
- Member Anderson asked if the construction of the sign would include the erection of these posts.
- Member Roe stated her understanding would be that it would be packages as an entire project and pieces that were volunteered for as in-kind work would be accounted for where necessary.
- Member Lytle also brought up the donation recognition signage, and explained that originally there was a thought that there would be multiple large donations around $50,000 dollars and it hasn't really turned out that way, so everything is going to be shrinking. The big circles will be a different size and the sign may need to be larger to accommodate the donation recognition.
- Member Anderson stated there will not be many subway tiles for the project either, there have not been many 250.00 or less donations.
- Member Roe suggested that it could be done with a mix of raw steel and powder coat to give the metal color variation like the canyon.
- Member Sinclair agreed this would allow for more artistic variation because the canyon is not all one color.

Motion:
Member Roe made a motion that the steel material be used to form the rock look on the posts of the archway with a variation in texture that replicates the canyon wall. Member Prater seconded the motion.

4) General Input/Announcements - Public/Staff

- Member Anderson asked if anyone would be willing to donate concrete or rebar.
- Member Lytle stated he spoke to a company and may have someone that is willing to donate some on the concrete.
- Member Anderson was willing to work on possibly getting a donation for rebar.
- Member Prater explained that this project is outside of the URA area so they couldn't donate anything to the project, but they think it is a great idea and will try and get the word out.

5) Upcoming Meeting(s)
May 2, 2019 at 8:45 am.

Member Anderson stated he will not be able to attend the May 2nd meeting along with Member Roe, he recommended the meeting be moved to May 9th, 2019 at 8:45 am. All members present were fine with the change. He also recommended the meeting scheduled the first Thursday in July be moved to July 11th, 2019 at 8:45 am due to the holiday.

6) Adjournment

Member Anderson adjourned the meeting at 9:25 am.

_____

Lisa A. Strickland, City Planner

Generous Donators - Thank You!!!	Donated	Donated	Donated	Donated	Pledged	Possible	In Kind
City of Twin Falls - Pledged	0	0	0	0	43000		
Seagraves Foundation - Pledged	0	0	0	0	30000		
Twin Falls County - Pledged	0	0	0	0	20000		
Plant Therapy	10000						
Plant Therapy	1000						
First Federal	0	0	0	0	10000		
Falls Brand	1000						
Twin Falls County Democratic Central Committee	0	1000	0	0			
K&T Steel Corp. - Pledged	1000	0	0	0			
Premier Auto Group - Pledged	0	0	0	0	1000		
Republican Central Committee - Pledged	0	0	0	0	400		
Xavier School - Pledged	0	0	0	0	250		
Middlekauff Automotive Group - Paid and Pledged to give more	0	0	0	0			
Ruth Pierce	0	0	0	0	0		
Idaho Central Credit Union	10000	0	0	0	0		
Twin Falls Western Days	10000	0	0	0	0		
Sinclair, Paula Brown - Stock Donation	4872	0	0	0	0		
Jensen Jewelers	0	0	0	2000	0		
"In Memory Of Hank SGK LLC" - Wills	0	1500	0	0	0		
Aamco Transmissions	0	1000	0	0	0		
Agri-Stor Company/Eric Evans	0	0	0	1000	0		
Boyd, Jim & Nikki	1000	0	0	0	0		
Brizee Family (Pledge)	1000	0	0	0	0		
Jane Munro	1000	0	0	0	0		
Middlekauff Ford	1000	0	0	0	0		
Newberry, Dave & Donna	0	0	0	1000	0		
Stotz Equipment	1000	0	0	0	0		
Title One, Corp	1000	0	0	0	0		
Twin Falls Kiwanis	1000	0	0	0	0		
Ray & Flo Lytle	0	999	0	0	0		
CapEd	500	0	0	0	0		
Rex & Cheryl LeForgee	0	0	0	500	0		
Ataraxis Accounting & Advisory Services	0	0	300	0	0		
Gem State Welders Supply	0	0	0	300	0		
Leonard & Alice Anderson	0	0	300	0	0		
"In Memory of Guillermo Munoz Loving Father" - Munoz, Gerardo	0	0	0	250	0		
Eric & Sherry Evans	0	0	0	250	0		

Library Foundation	0	0	0	250	0		
Magic Valley Arts Council	0	0	0	250	0		
Paula Brown Sinclair	0	0	250	0	0		
Twin Falls Education Foundation	0	0	0	250	0		
Rex & Emmie Lytle	0	200	0	0	0		
"In Memory of Linda Rearrick" - Rearick, Eugine D	0	0	150	0	0		
"The Canty Family" - Cathy Canty	0	0	150	0	0		
Kristene & Willie Watt	0	0	0	150	0		
Mason Trophies	0	0	0	150	0		
Tracy & Donald Thurlo	0	0	150	0	0		
Glenda Thompson	0	0	0	125	0		
"Humphries Family/Love Ya Mom & Dad/Your Son Andrew" - Humphr	0	0	101	0	0		
"Andy/loves/Gayle" - Andy Fitzwater	0	0	0	100	0		
"Blamires -Kraig/Lindsey, Quinn/Laney, Teague" - Gardner Charitable	0	0	0	100	0		
"Chris Lauren/ and Lucas / Newton" - Gardner Charitable Trust	0	0		100	0		
"Hartleys - Bill/Pam, Jakob, Nan/ Lauren Lindsey" - Gardner Charitable	0	0	0	100	0		
"James T. Ricks, Watch the Signs to be informed!" - Ricks, James	0	0	0	100	0		
"Loving memory/Jerry DeWall/Always Linda" - Linda Heinrich	0	0	0	0	0	Leonard Verified	
"Loving Parents Dean & Dorothy Howard" - Linda Heinrich	0	0	0	0	0	Leonard Verified	
"Patrick Natalie/Piper Archer/ Harris" - Gardner Charitable Trust	0	0		100	0		
"Shane J Birrell, Sasha E Birrell" - Birrell, Shane	0	0	0	0	0	?	
Suzie and John Kapeleris "LA VIDA ES BELLA"'	0	0	0	100	0		
"Twin Falls/Monarch/Lions Club"	0	0	0	100	0		
Brad & Amy Wilkinson	0	0	100	0	0		
Brad Wills	0	0	0	100	0		
Carl & Teddy Snow	0	0	100	0	0		
Curtis & Mardo Eaton	0	0	0	100	0		
Dave & Kathy Markus	0	0	0	100	0		
Dockstader	0	0	100	0	0		
Donn & Anna Fraser	0	0	0	0	0	Leonard Verified	
Eric long- Online purchase no form filled out	0	0	100	0	0		
Gem State Paper & Supply	0	0	0	100	0		
Gene & Deena Benavidez	0	0	0	100	0		
George Phillip	0	0	0	100	0		
Greg/Lanting/TF City Council	0	0	0	100	0		
Gus & Lou Flowers - cash	0	0	0	100	0		
Holesinsky Winery - Eric Smallwood	0	0	0	100	0		
Holmstead Howe & Heward, PLLC	0	0	0	100	0		

Jakob Hartley / Florence M. Gardner Donated	0	0	100	0	0		
Jeanette & Brian Bolton	0	0	100	0	0		
Kathleen Touchette - Bud & Mary Touchette	0	0	0	100	0		
Keegan Callihan	0	0	0	100	0		
Keith & Irene Easton	0	0	0	100	0		
Kelly & Mary Fairbanks	0	0	0	0	0	Leonard Verified	
Kevin Bradshaw	0	0	100	0	0		
Mallor Fustos - Yvonne Sipe	0	0	100	0	0		
Michelle Richman	0	0	100	0	0		
Ray & Arlene Sabala	0	0	0	100	0		
Robin Dober	0	0	0	100	0		
Senica Prater	0	0	0	100	0		
Tony Prater	0	0	0	100	0		
Vince & Kristen Prater	0	0	0	100	0		
Misc Cash (Beer Fest, Western Days, Arts in park	46	0	0	0	0		
Misc Cash	0	0	0	2	0		
Leonard Anderson	0	0		1	0		
Canal Company - Groundwork John Kaperleris							2100
Complete Crane - Service							1703
Lytle Signs - Service							
Petruzzelli Electric - Electrical							2000
Rebar K & T Steel - Leonard						2021	
Concrete - Idaho Material Handling - Possible						13776	
Masonry - Ray Walt Masonry - Possible						39746	
In Kind from Starr - Michael Arrington							10000
Message Center - Datronics - Possible						55853	
(Calculated with 20% Markup)					0		
Platt Electric Parts - Platt Electric GED or Magic Valley - Possible					0		
Monrock concrete if Rex doesn't work.							
			0	0			
Not included			0	0			
Magic Valley Relators				200			
6/4/18 Donation				100			
6/20/18 Donation				200			
Western Days Cash				12			

7/28/18 Arts In Park Cash Recorded as Beer Fest							
6/4/18 Square Fees (12.38 not taken out				-12.38			
6/27/18 Square Fees (27.80 not taken out)				0			
7/30/18 Square Fee				-3.65			
8/2/18 Square Fee				-3.65			
				0			
				0			
				0			
	45418	4699	2301	9570.32	104650	111396	15803
				11871.3			
Total Pledged	104650						
Total Collected	61988.32						
Grand Total	166638.32						
In-Kind	15803						
Donations for prize and beer fest application	550						
	$ 182,991.32						

Archway Committee Balance Sheet

Donations	45418
Sponsors	4699
Participants	11871.32
Cash Collected	61988.32
Pledges	104650
Donations Direct	550
In Kind	15803
Total Donations	**182991.32**
Expenses	-6378.64
Balance	176612.68
Remaining to Reach $300,000	**123387.32**

City of Twin Falls, Idaho

Request for Proposal #IT201901
for
Archway with Message Boards

May 30, 2019

Proposal Due:

August 5, 2019

12 PM Mountain Time

Submit Sealed Proposal to:
Kathy Markus/RFP #IT201901
203 Main Avenue East #320
Twin Falls, ID 83301

TABLE OF CONTENTS

1. Introduction

1.1 Overview

The City of Twin Falls, Idaho intends to build an archway in the likeness of the Perrine Bridge with two message boards. One message board will face each direction of traffic. The message boards will provide the people who drive Shoshone Street with critical information and the dates of public events. The City of Twin Falls is seeking the services of a company to fabricate and install components as described in the drawings, stamped engineering & specifications. The Archway with electronic message boards will be installed over Shoshone St. between 4th Ave North and 6th Ave North in Twin Falls.

The location of the archway is in the Twin Falls Historical Preservation District. The district was established to preserve and protect the rich heritage of the City of Twin Falls. The engineering and design plans attached call out specific material, which are required, to meet the historic preservation guidelines.

Bidders are encouraged to propose a system design that will best meet the requirements of the City. The system shall be proposed as a complete system with firm prices for all the equipment and services required by these specifications.

The proposed archway shall:

- Follow the Graphic Designs in Appendix A.
- Follow the stamped engineering plans found in Appendix B.
- Follow the Site Plan found in Appendix C.
- Include the recognition sign in Appendix D.
- Include the installation of the new recognition bricks on the City Park Side.
- Include the moving of the recognition bricks on the rose garden path.
- Follow all Federal, State, and Local permitting processes.

1.2 Contacts

All communication regarding the RFP shall be directed to:

Kathy Markus
Information Technology Communication Manager
P.O. Box 1907
Twin Falls, Idaho 83303-1907
kmarkus@tfid.org
1.208.735.7222

No Bidder, employee, or consultant shall contact anyone else at the City of Twin Falls for purposes of soliciting information about this RFP, the evaluation of the proposals, or the selection process until the City of Twin Falls announces its intent to award the contract or otherwise completes the RFP process.

1.3 Detailed Responses

This RFP is pursuant to Idaho Code 67-2806A. Bidders shall provide detailed responses for each requirement in this RFP. Bidder shall propose an archway solution that addresses all City requirements provided in this RFP document.

The City will accept bids only from qualified Bidders per section 2.5 of this solicitation.

Throughout this document, the term "Requirement" or "Shall" is intended to identify needed operational or conditions of the proposed solution. The term "Specification" is intended to identify a needed equipment or device condition. The term "Option" is intended to identify a desired condition, however Bidders should provide the optional aspects, features, or conditions.

Bidder shall consider how its proposed solution can contribute to the quality replication of the graphically designed archway as depicted in Appendix A. Enhancements will be welcomed and evaluated.

1.4 RFP Response Submission

One original proposal document, two (2) hard copies (a total of seven (3)) and one (1) electronic copy on a flash drive of the complete proposal must be received on or before the time and date stated in the Project Timetable, at which time all proposals will be opened and reviewed.

The original and all copies must be submitted in a sealed envelope/container delivered to the contact below:

Kathy Markus
Information Technology Communication Manager
P.O. Box 1907
Twin Falls, Idaho 83303-1907
kmarkus@tfid.org
1.208.735.7222

Bidders are responsible for all delivery requirements. Any response received after the date and time stated in the Project Timetable will not be considered.

1.5 Letter of Intent to Respond to RFP

Bidders should send a letter expressing their intent to respond, by the date designated in the Project Timetable above to:

Kathy Markus
Information Technology Communication Manager
kmarkus@tfid.org

The letter of intent to propose should include Bidder's primary point of contact information for the purposes of this RFP. Only Bidders submitting a letter of intent will receive updates, clarifications, etc., for this RFP.

1.6 Project Timetable

The following schedule details key dates related to this RFP. The City of Twin Falls reserves the right to revise this timetable as necessary.

Date	Time	Activity
May 30, 2019		RFP Distribution
June 13, 2019	5:00 p.m. (MT)	Intent to Respond to RFP
June 27, 2019	5:00 p.m. (MT)	RFP Questions Due
July, 19, 2019		Response to RFP Questions Issued
August 5, 2019	5:00 p.m. (MT)	Proposal Due Date
August 12th-16th, 2019		Oral Presentation and Demonstrations (if necessary)
September 27, 2019		Bidder Selection
October 14, 2019		Contract Awarded/Signed

1.7 RFP Questions

Any questions regarding the RFP should be submitted by the date stated in the Project Timetable via email to:

Kathy Markus
Information Technology Communication Manager
kmarkus@tfid.org

1.8 Evaluation Criteria

The City of Twin Falls intends to select a Bidder that demonstrates the best-perceived overall solution, regardless of the cost of that proposal relative to other proposals received. Submissions will be evaluated on a variety of quantitative and qualitative criteria. The following evaluation criteria will be used to assess the responses to this RFP.

Criteria	Percentage
Bidder Experience & Performance in the Market & Financial Stability	10%
Ability to Meet Product Specifications	50%
Price	30%

Warranty/Maintenance/Support	5%
Adherence to RFP Instructions and Format	5%

1.9 General Guidelines

Proposals will be evaluated in accordance with their adherence to project objectives as well as accuracy and completeness. The following general rules and comments are provided to the Bidders responding to this RFP:

- Proposals may be ranked without requests for further clarification; Bidders are encouraged to submit comprehensive proposals without expectation of follow up activities.
- It should not be assumed that Bidders might be invited for interviews to present their proposals in more detail and to answer any questions the evaluation panel may have.
- All provided specification pages must be completed and returned with the Bidder's proposal.
- Any information that may have been released by the City of Twin Falls, either verbally or in writing, prior to issuing this RFP is hereby superseded by the contents of this RFP.
- Bidders can submit requests for clarifications to the contact identified in the RFP Questions section.
- Any such clarification will be made in writing and made available to all Bidders indicating their intent to submit a proposal.
- Any expenses for proposal development are entirely the responsibility of the Bidder and will not be reimbursed in any manner.
- All design drawings, plans and proposals submitted in response to the RFP will be retained by the City of Twin Falls and will not be returned.
- The evaluation panel reserves the right to reject any or all proposals should they be deemed unsatisfactory, or to conclude that there are no satisfactory proposals and discontinue evaluations. The City of Twin Falls reserves the right to waive any formalities and make the award in any manner deemed in the best interest of the City of Twin Falls.

2. RFP Response Format

To ensure consistency in proposal presentation and allow the evaluation team to compare competitive proposals, proposals must follow the format described in this section. If desired, the Bidder may attach additional sections or appendices to substantiate their proposal claims. These attachments must be cross-referenced within the proposal as appropriate. The Bidder may also include brochures or other sales collateral as attachments to the proposal. All optionally requested items should be included and clearly identified as options, otherwise, the Bidder may be required to provide the item(s) as part of the base proposal.

If confidential or proprietary information is included in the proposal, each page containing such information should be marked “Proprietary and Confidential.”

Pages are to be numbered. Additional header or footer information (such as company or section title) may also be included.

Bidders may follow their standard proposal format concerning line length, spacing, indentations, etc. Hard copies should be double-sided.

Each copy, complete with appendices and/or attachments, should be bound separately.

Proposals must include the following materials in the following identified order:

2.1 LETTER OF TRANSMITTAL

The response should include a letter of transmittal with the following information:

- RFP title and number
- Bidder company name
- Bidder primary contact information, including name, title, and telephone number
- Proposal validity period
- Include the original signed letter of transmittal with the original proposal and a copy of the letter of transmittal with each copy of the proposal

2.2 TABLE OF CONTENTS

The response should include a table of contents that reflects the sections identified.

2.3 SECTION 1 – EXECUTIVE SUMMARY

Include an overall description of the proposed bid.

2.4 SECTION 2 – CORPORATE AND COMPANY INFORMATION

Provide introductory information about Bidder's company, history, clients and industry involvement:

- Provide company name, address, telephone number, and website.
- Provide information on the company history.
- Describe your company's qualifications to assume responsibility for the success of this project.

2.5 SECTION 3 – FINANCIAL STABILITY

Bidders must provide documentation that they meet minimum qualification to be considered for this project. This documentation may be in the form of affidavits from the CEO verifying the qualification. The minimum qualifications are as follows:

- In business for a minimum of 5 years.
- No bankruptcy filings within the past 60 months.
- No current or pending lawsuits for performance related issues.
- No lawsuits for performance related issues within the last 24 months.

2.6 SECTION 3 – REFERENCES

This section should establish the Bidder's ability to perform the required work by describing the Bidder's experience with similar projects and include reference information from current customers.

Bidder must have successfully implemented five or more projects similar to those required in this RFP. Provide a brief summary for at least five such projects, including:

- Client name
- Client address
- Contact name
- Contact title
- Contact telephone number
- Contact email address
- Project description

2.7 SECTION 4 – RESPONSE TO REQUIREMENTS

This section should include the completed responses to the component requirements. Each component shall be identified and plans for implementation shall be documented. The components are as follows:

2.7.1 Archway

The archway will be structured to look like the bridge. It is required to be constructed of Weathering Steel Square and rectangular tube with natural rust finish to match the engineered plans.

- All exposed steel elements are required to be fabricated with weathering steel.
- The archway is required to be built in the location identified in the site plan (appendix c).
- Two one-inch conduit for electrical wiring and network cable is required to be concealed within the structure. This conduit should run to both electronic message centers.
- The concrete shall have two 2" conduit on the city park side of the structure. This conduit will run from the grass at the edge of the sidewalk to a locked and tamper proof accessible electrical control panel hidden at the base of the archway structure. This panel will be covered with the same fabrication as the canyon walls in section 2.2 below.
- On the courthouse side of the archway, two 2" conduits shall be installed and capped at the grass side 24 inches below the surface, finished grade. On the archway side, it should come up into a locked and tamper proof accessible electrical box hidden at the base of the archway structure and be capped.

2.7.2 Archway Electrical

Proper electrical cabling and installation to the message center from the access point shall be included.

2.7.3 Fabricated Canyon Walls

The canyon walls are required to be steel frame columns with concrete board and substrate and lava rock veneer to match the local Twin Falls canyon walls. The gaps are required to be packed with mortar to create a smoother surface to deter climbing. Any part of the frame that is visible must be weathering steel with natural rust finish.

2.7.4 Climbing Deterrent

Four "U" shaped clear polycarbonate panels are required to be installed over the steel beams o the first sections of the structure to prevent climbing.

2.7.5 Electronic Message Centers

As indicated on the stamped engineered plans (appendix b) the archway will have two electronic message centers. The message centers will be placed on the archway above and to the right of the oncoming traffic. The message centers will be centrally controlled using the Navori software. The message centers have the following minimum requirements:

- Must be at least 10'8" by 5'7.5"
- Must be at least 15.85MM 100x200 matrix or better
- Must be compatible with the Navori Digital Signage hardware and software
- Must be capable of displaying amber alerts
- Must be capable of remote configuration

- The provided and installed Navori device is required to communicate back to the City network using a Wi-Fi device that must be placed within the archway for optimal communication and out of the public view. This device must interface with existing software.
- The background of the message center is required to be 2" weathering steel with square tube frame and .080 Aluminum shaped backer panel powder coated silver.
- The 15.9' background of the message center is required to be 2" weathering Steel Square and rectangular tube with natural rust finish.

2.7.6 Twin Falls Lettering

There will be two sets of lettering "TWIN FALLS". One set will be placed in the center on each side of the archway. The lettering shall meet the following requirements:

- Must be 2'6" tall and span across four of the center vertical steel tubes as specified in the engineering plan.
- Must be reverse pan channel letters with blue LED Halo illumination
- Aluminum Faces with 2" aluminum returns painted blue (PMS3015C)
- .080 aluminum shaped backer panel powder coated silver.

2.7.7 Twin Falls City and County Logos

The 6'x6'4" City of Twin Falls logo will be facing northeast and be viewable by the traffic coming into the downtown area. The 7'6"x4'7" Twin Falls County Logo will be facing southwest and be viewable by the traffic headed towards Blue Lakes Blvd. These two items require the following:

- Fabricated with aluminum cabinets and retainers painted Duranodic Bronze with internal white L.E.D. illumination.
- Clear Polycarbonate faces
- Second surface color on color digitally printed logos
- Flush mounted to the frame
- The background of the message center is required to be 2" Weathering Steel Square and rectangular tube with natural rust finish.
- The 15'9" background of the logo is required to be 2" Weathering Steel Square and rectangular tube with natural rust finish.

2.7.8 Work Hours

Due to the public location, the staging and construction of the archway and ancillary projects must be timed and coordinated to work around the other events. These other events will include things like park events (movie night, Western Days, Concerts etc.), road construction, sidewalk construction.

Half of this project is on an easement provided by the county. Out of consideration for the County, it will be important that the County Commissioners be notified of the intended work schedule.

Careful planning and strict adherence to schedules is critical. Prior to the inception of the project, the Bidder will need to provide the proposed schedule to Kathy Markus at kmarkus@tifd.org or 208-735-7222 so that the schedule can be reviewed and approved based on the above considerations.

2.7.9 Traffic/Barricades

Traffic control and signage is the responsibility of the Bidder. This section of Shoshone St. is not part of the state highway. Coordination with the City of Twin Falls Street Department and Parks Department will be required.

Proper safety is the responsibility of the Bidder. Barricades must be in place for the duration of the project.

2.7.10 Permits

All permits are the responsibility of the Bidder. It is anticipated that this project will require a special welding permit.

2.7.11 Donation Recognition and Services

The bid project includes coordination and installation of the donation recognition bricks and the donation sign. The donation bricks will be ordered by the Twin Falls Community Foundation. The recognition sign must be created according to the description in Appendix D. The new recognition bricks and the recognition sign will be located on the City Park side of the project just off of the sidewalk. The bricks shall be installed at the base of the sign.

The existing recognition bricks on the rose garden side of the archway will need to be preserved and relocated and the path needs to continue around the archway. There is flexibility in the proposed solution for this item.

The following Bidders have volunteered to donate services during the construction of the tower. If the Bidder chooses to use these services, they must subcontract with the Bidders.

Twin Falls Canal Company – Brian Olmstead
olmstead@tfcanal.com
Excavation Work, Dump Truck Work, Some Hand Labor – Not available in April or May

Petruzzelli Electric – Susan Petruzzelli
petz@cableone.net
Electrical Installation Services

Complete Crane Service – Brian Lamb
208-709-6313
Crane Service During Installation

It will be the responsibility of the Bidder to notify Kathy Markus, at kmarkus@tfid.org or 208-735-7222, of the donated services and the value of those services so that their contributions will be added to the recognition sign.

2.7.12 Sprinkler System, Grass and Sidewalks

The existing sprinkler system, grass and sidewalk in the area must be preserved and returned to functioning at the end of construction.

2.7.13 Cleaning

This area is a high traffic area and the entry into the downtown corridor. It is required that the construction area be kept orderly and cleaned up at the end of each workday.

2.7.14 Documentation

Bidder shall provide complete as-builts, operational, and maintenance documentation.

2.8 SECTION 5 – PRODUCT FEATURES

This section should include detailed product information that will help reviewers evaluate each of Bidder's products.

2.9 SECTION 6 – IMPLEMENTATION

This section should include information pertaining to implementation, including project management methodologies, implementation methodology, and a preliminary project schedule.

Bidder must assign a Project Manager to oversee implementation of the Bidder's solution. The Project Manager must have at least five years project management experience.

In this section, Bidders are expected to:

- Provide a high-level overview of the Bidder's Project Management function and Implementation Methodologies.
- Provide sample resumes illustrating the Bidder's project management expertise available to support this project.
- Provide a preliminary Project Schedule.
- Provide a sample Statement of Work that defines the scope of the project, the key tasks required to complete the project, and the responsibilities of both parties.
- Describe the processes and practices employed to minimize risk and control the scope and schedule of the project.

2.10 SECTION 7 – ACCEPTANCE TESTING

This section should include information describing the Bidder's proposed methodologies for administering an Acceptance Testing Process that allows the City of Twin Falls to verify that all deliverables comply with the resulting contract between the Bidder and City of Twin Falls.

- Final Inspection - Upon notification of completion of all installation and resolution of all punch list items, the City will conduct final inspection of the installation. Any deficiencies will be noted on the punch list and provided to the Bidder for resolution. Final acceptance will not commence until all punch list items are resolved.
- Customer Acceptance Testing - The Bidder shall verify and document that all equipment, assemblies, hardware, software, and firmware are upgraded to the latest factory revision before the start of final acceptance testing. Multiple revision levels among similar equipment are unacceptable. The City shall be given two weeks written notice that the system is ready for final acceptance testing.
- The Bidder shall provide all necessary technical personnel, and test equipment to conduct final testing. The Bidder shall remedy all variances or deficiencies in a timely manner and at the Bidder's sole expense.
- Upon completion, receipt of documentation, and satisfactory review of the following, the City will recommend acceptance of the system.
    - Construction completed according to plans
    - Navori system integration
    - Final inspection and punch list resolution
    - As-built documentation
    - Training

2.11 SECTION 8 - WARRANTY/MAINTENANCE SUPPORT

The Bidder shall warrant that all goods and services supplied, systems, equipment, software and work shall conform to and perform as called for in the Contract and shall be free from all defects and faulty materials and workmanship. Any services supplied, systems, equipment, or work found to be defective within the Warranty periods described herein shall be repaired, remedied, or replaced, by the Bidder, free of all charges including transportation. The Bidder shall provide to the City a warranty of three years on fixed system infrastructure. The warranty period for all services, systems and equipment, shall commence on the date of final acceptance of the system.

2.12 SECTION 9 – SAMPLE LICENSE AGREEMENTS/CONTRACTS

This section should include all applicable sample license agreements and maintenance support agreements.

2.12.1 Terms and Conditions

Response to this RFP shall include a sample contract with representative terms and conditions. A contract with the successful Bidder will incorporate, but not be limited to, all items included in the submitted RFP.

2.12.2 Workers Compensation Act Coverage and Compliance with Other Laws

Prior to performing work under this Contract, Bidder shall provide or purchase industrial insurance coverage for its employees, subcontractors and agents, as required of an "employer" as defined in the State of Idaho statutes, and shall maintain full compliance with the Workers Compensation Act during the course of this Contract. The City of Twin Falls will not be responsible for payment of Workers Compensation Act insurance premiums or for any other claim or benefit for Bidder or any subcontractors or employee of Bidder, which might arise under 30th Workers Compensation Act or other laws applicable to the employer/employee relationship during the performance of duties and services under this Contract. Prior to performance of this contract or permitting any subcontractors or other agent to perform work under this contract, Bidder shall supply written evidence to The City of Twin Fall's satisfaction that Bidder is insured pursuant to the Workers Compensation Act or that they are the recipients of certificates of exemption from the Workers Compensation Act as provided by law in the State of Idaho.

2.13 SECTION 10 – EXCEPTIONS

This section should include any exceptions to the RFP terms and conditions. Please provide your exceptions by indicating the RFP section or subsection number, the specific item that is the focus of the exception, and an explanation for the exception, with alternative(s) where applicable.

2.14 SECTION 11 – ADDITIONAL INFORMATION

This section should include any additional information Bidder deems necessary.

2.15 SECTION 12 – PRICING

This section should include a Fixed Price Quotation for the proposed components for the archway project. An itemized list of all components including services, travel, and third party deliverables shall be included.

Bidders shall provide pricing information on the following price forms.

Item	Description	Price Each	Extended Price

If confidential or proprietary information is included in the proposal, each page containing such information should be marked "Proprietary and Confidential."

2.16 SECTION 13 – STATEMENT OF COMPLIANCE

The Bidder shall complete the statement of compliance, which clearly indicates compliance, non-compliance, or partial compliance with clarification for each requirement in this RFP.

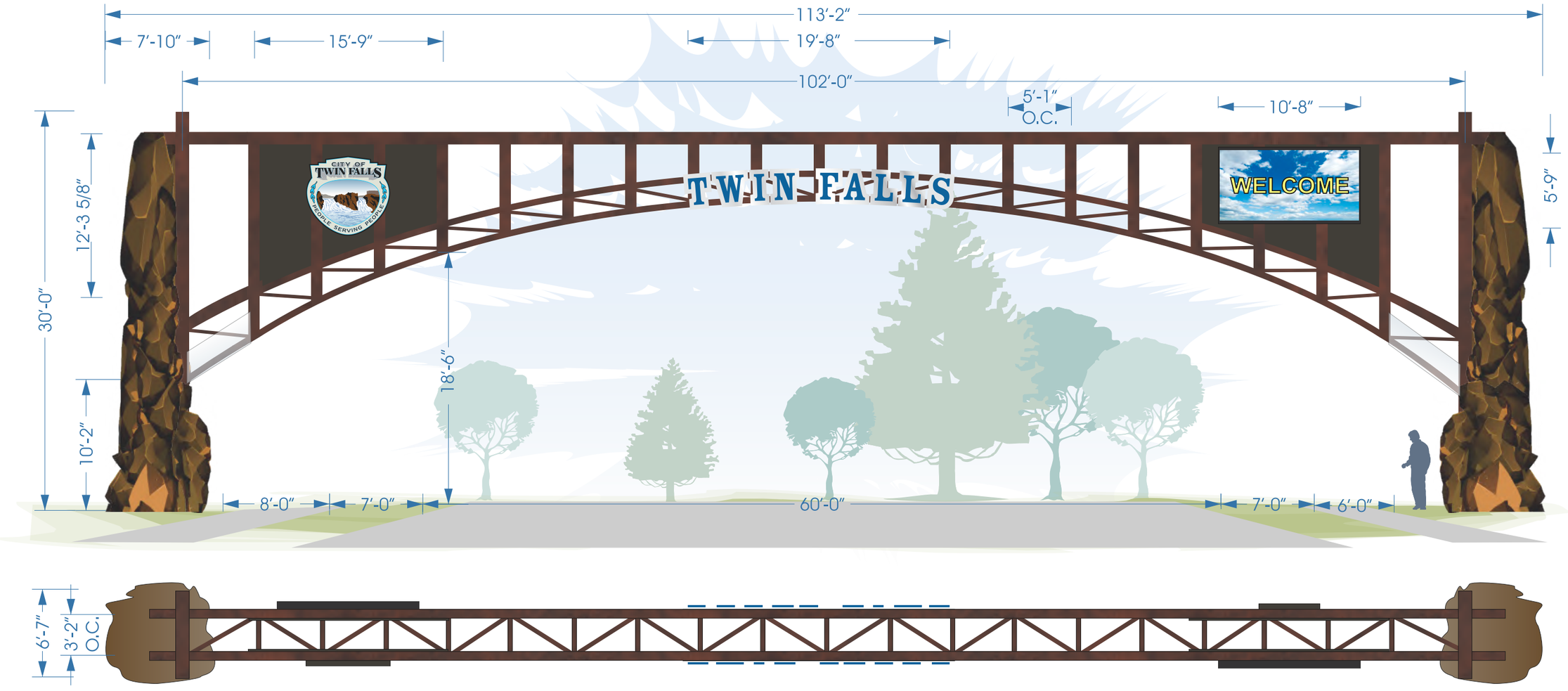
Statement of Compliance

Instructions: Identify the Page of the response and check Yes, No, or N/A for Compliance

Page	Compliant			Compliant Category
	Yes	No	N/A	
				Executive Summary
				Corporate and Company Information
				Financial Stability
				References
				Response to Requirements
				Archway
				Archway Electrical
				Fabricated Canyon Walls
				Climbing Deterrent
				Electronic Message Centers with Navori
				Twin Falls Lettering
				Twin Falls City and County Logos
				Work Hours
				Traffic/Barricades
				Permits
				Donation and Recognition Services
				New Donation Bricks
				Donation Sign
				Rose Garden Existing Donation Bricks
				Volunteer Services Twin Falls Canal Company
				Volunteer Services Petruzzelli Electric
				Volunteer Services Complete Crane Services
				Sprinkler Systems, Grass Sidewalks
				Cleaning
				Documentation/As Built

				Implementation Plan
				Product Features
				Implementation
				Acceptance Testing
				Warranty/Maintenance
				Sample License Agreements/Contracts
				Workers Compensation
				Exceptions
				Additional Information
				Pricing

Appendix A – Graphic Design



AERIAL VIEW TO DEMONSTRATE COLUMN LAYOUT

SIMULATED NIGHT VIEW TO DEMONSTRATE ILLUMINATION

(1) D/F ENTRY WAY ARCH

CLIENT:
Twin Falls Archway Committee

ADDRESS:
Twin Falls, ID 83303

JOB LOCATION:
Twin Falls, Idaho

DATE:
3/6/2017

SCALE:
1/8" = 1'

ACCOUNT EXECUTIVE:
RL

DRAWN BY:
AS

FILENAME:
TWIN FALLS CITY\Entry Archway\Entry Archway - 29971 REV 8

QUOTE #:
29971

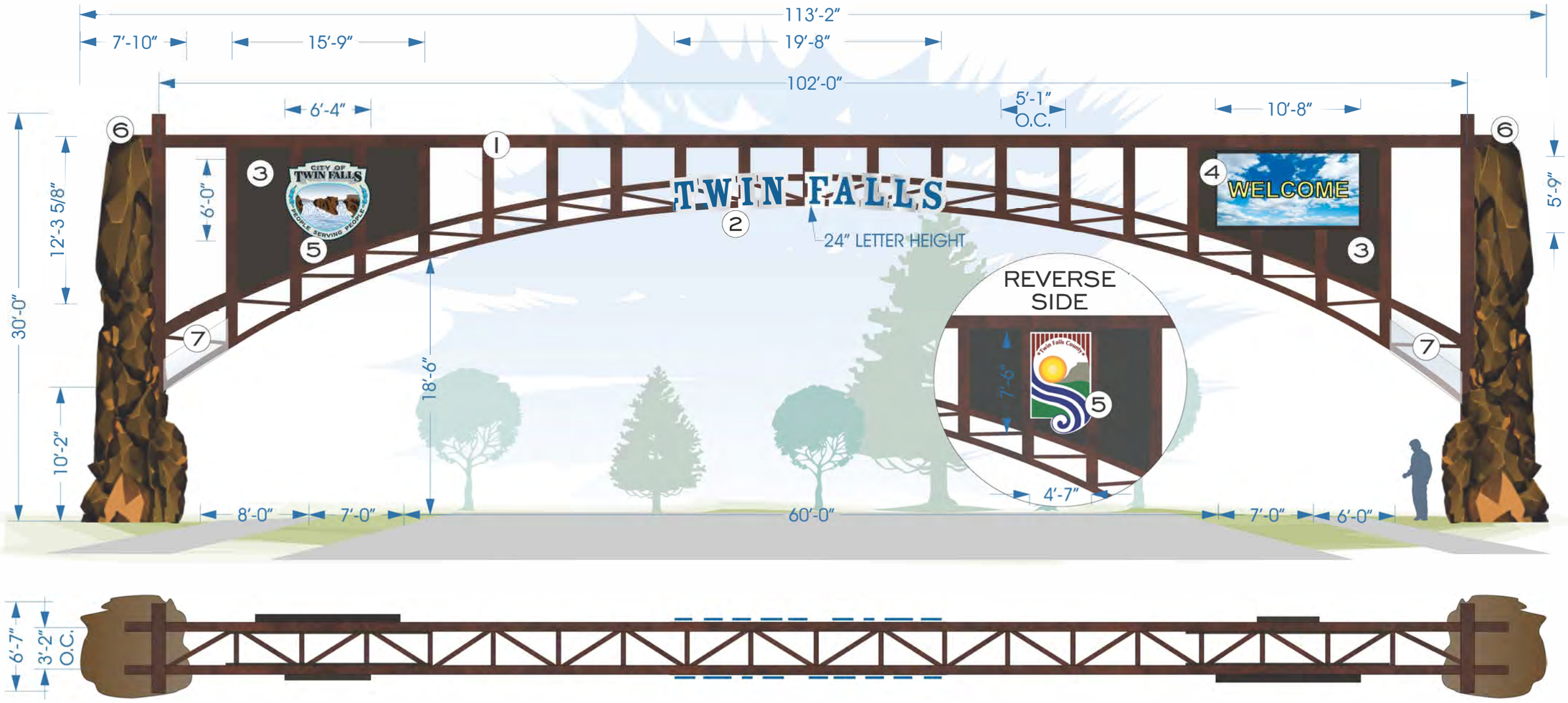
REVISIONS:
03-26-2019
04-11-2019

Lytle Signs Inc.

Twin Falls Office
P.O. BOX 305
1925 KIMBERLY RD.
TWIN FALLS, IDAHO 83303
208.733.1739
1.800.621.6836
fax 208.736.8653

Boise/Meridian Office
2070 E. COMMERCIAL ST.
MERIDIAN, IDAHO 83642
208.388.1739
fax 208.388.3966

www.lytlesigns.com
sales @lytlesigns.com



AERIAL VIEW TO DEMONSTRATE COLUMN LAYOUT

(1) D/F ENTRY WAY ARCH

1. BRIDGE & SUPPORTS CONSTRUCTED FROM
   WEATHERING STEEL SQUARE & RECTANGLE TUBE
   WITH NATURAL RUST FINISH (SEE STAMPED ENGINEERED PLANS)

2. (2 SETS) REVERSE PAN CHANNEL LETTERS
   ALUMINUM FACES & 2" ALUMINUM RETURNS PAINTED BLUE (PMS 3015C)
   CLEAR POLYCARBONATE BACKS
   BLUE L.E.D HALO ILLUMINATION
   .080 ALUMINUM SHAPED BACKER PANEL POWDER COATED SILVER

3. (4) SIGN PANEL BACKGROUNDS
   2" WEATHERING STEEL SQ. TUBE FRAME (SEE STAMPED ENGINEERED PLANS)
   .080 ALUMINUM CLADDING PAINTED DURANODIC BRONZE (BOTH SIDES)

4. (2) COLOR L.E.D. ELECTRONIC MESSAGE CENTERS WITH CELLULAR COMMUNICATION
   COMPATIBLE WITH NAVORI & CAPABLE OF DISPLAYING AMBER ALERT
   15.85MM 100 X 200 MATRIX
   MOUNTED ON EACH SIDE OF ARCH ABOVE ONCOMING TRAFFIC

5. (1 EA.) ILLUMINATED CITY & COUNTY LOGOS
   FABRICATED ALUMINUM CABINETS & RETAINERS PAINTED DURANODIC BRONZE
   INTERNAL WHITE L.E.D. ILLUMINATION
   CLEAR POLYCARBONATE FACES
   SECOND SURFACE COLOR ON COLOR DIGITALLY PRINTED LOGOS
   FLUSH MOUNTED TO FRAME

6. (2) STEEL FRAME COLUMNS WITH CONCRETE BOARD SUBSTRATE
   AND LAVA ROCK VENEER TO MATCH CANYON WALLS
   TO BE PACKED WITH MORTAR TO CREATE A SMOOTHER SURFACE
   TO DISCOURAGE CLIMBING

7. (4) "U" SHAPED CLEAR POLYCARBONATE
   INSTALLED OVER STEEL BEAMS ON FIRST SECTIONS OF STRUCTURE
   TO PREVENT CLIMBING

NOTE: ALL EXPOSED STEEL ELEMENTS FABRICATED WITH WEATHERING STEEL

CLIENT:
Twin Falls Archway Committee

ADDRESS:
Twin Falls, ID 83303

JOB LOCATION:
Twin Falls, Idaho

DATE:
3/6/2017

SCALE:
1/8" = 1'

ACCOUNT EXECUTIVE:
RL

DRAWN BY:
AS

FILENAME:
TWIN FALLS CITY\Entry Archway\Entry Archway - 29971 REV 8

QUOTE #:
29971

REVISIONS:
03-26-2019
04-02-2019
04-08-2019
04-11-2019

Lytle Signs Inc.

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MERIDIAN, IDAHO 83642
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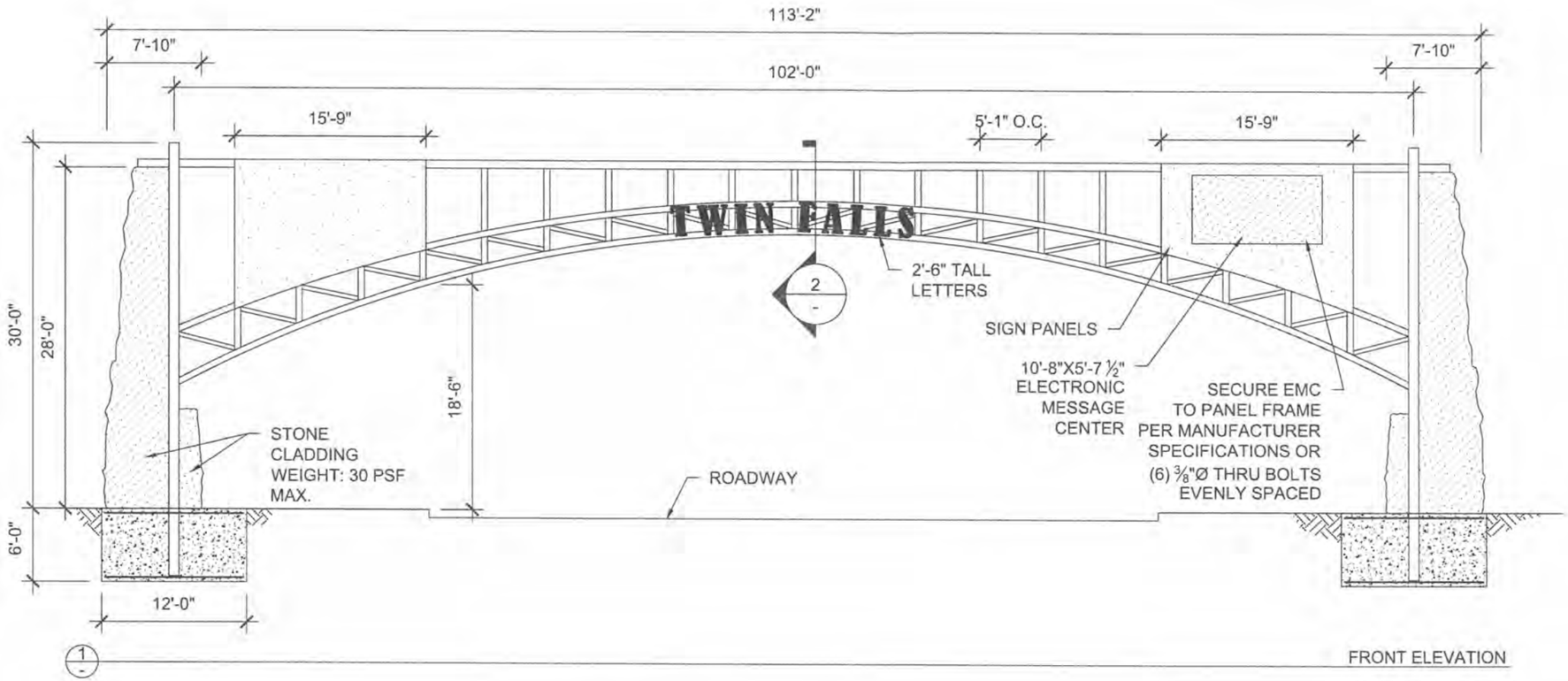
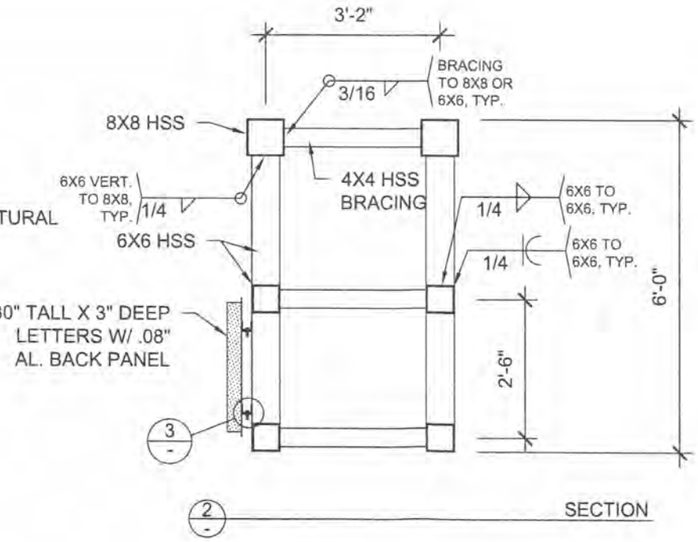
www.lytlesigns.com
sales @lytlesigns.com

Appendix B Engineering Plans



1
-

FRONT ELEVATION



2
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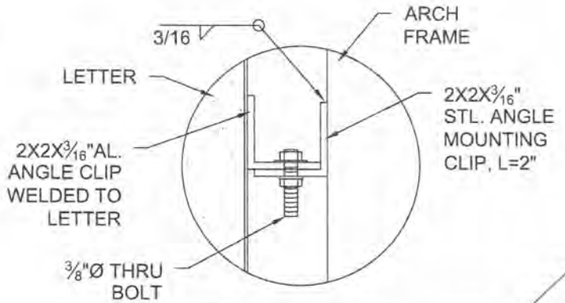
SECTION



USE (3) MIN. MOUNTING CLIPS/BOLTS
PER LETTER, (2) MIN. FOR LETTER "I" OK

3
-

TYP. LETTER CONNECTION

GENERAL NOTES

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, Fy= 46 KSI MIN. OR CORTEN TUBE STEEL ASTM A847, Fy= 50 KSI MIN. ALSO OK
5. ANGLE STEEL ASTM A36
6. BOLT STEEL ASTM A307
   ALL BOLTS TO BE HOT DIPPED GALVANIZED
7. WELD Fexx: 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.

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

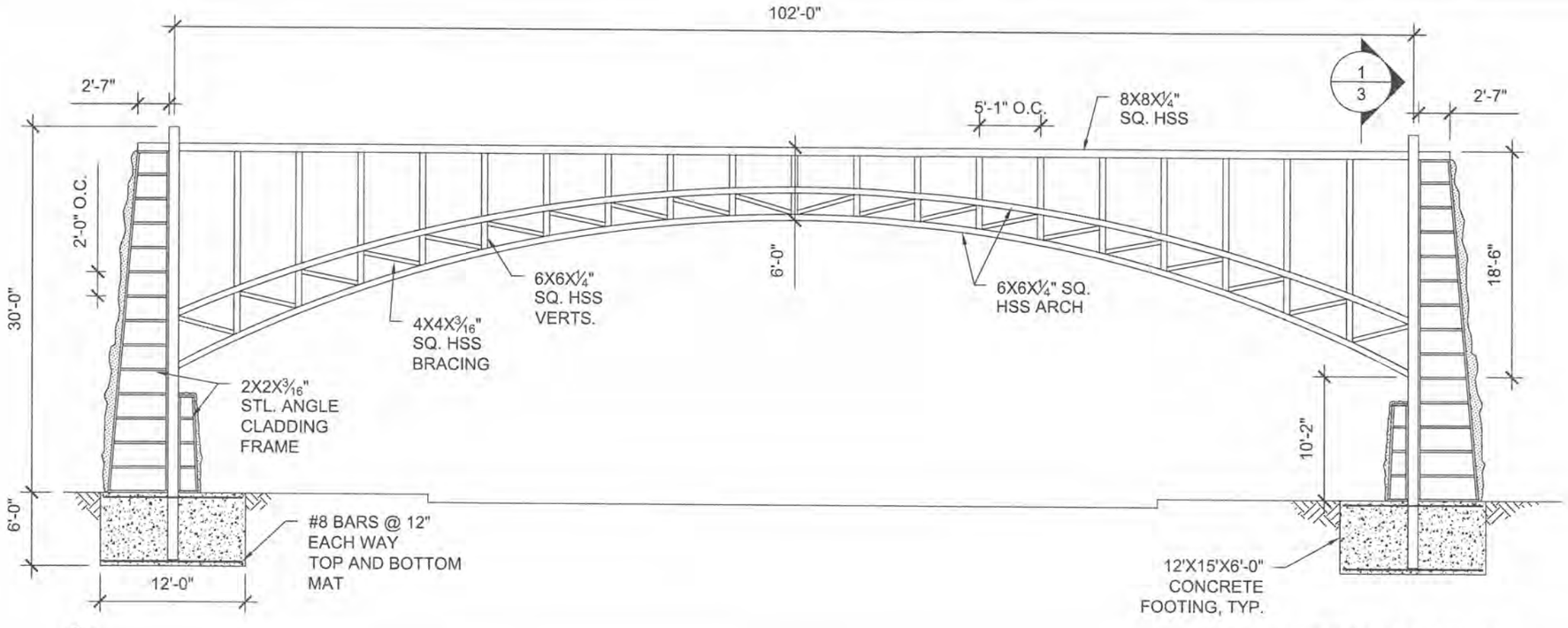
REVISIONS:

NO.	DATE
1	4-17-18 - REVISED FRAME SPAN TO END IN COLUMN BRACING, NOT COLUMN VERTICALS
2	7-24-18 - REVISED FOOTING SIZE
3	
4	
5	

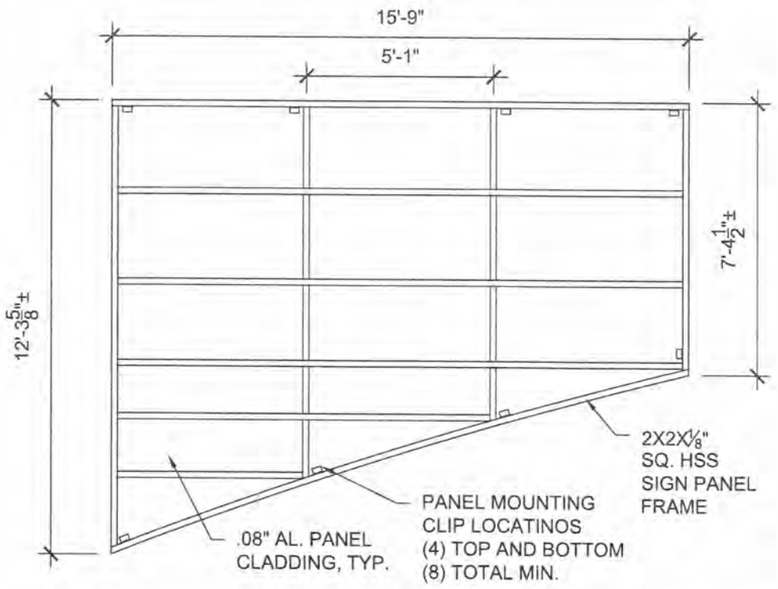
PROFESSIONAL ENGINEER LICENSED 14203 STATE OF IDAHO MICHAEL F SULLAWAY

JUL 30 2018

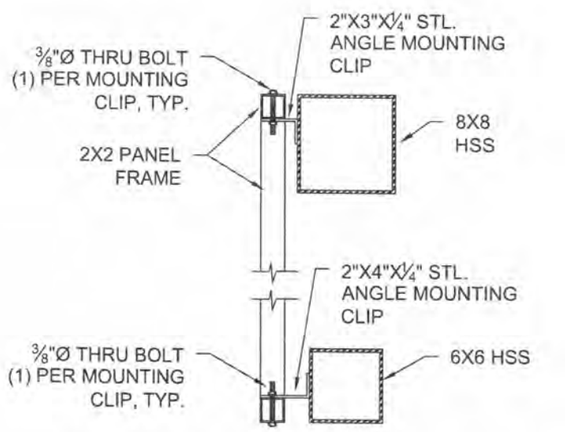
SHEET:
1 of 25



1 FRONT ELEVATION - FRAMING



2 TYP. SIGN PANEL FRAME



3 TYP. PANEL FRAME TO ARCH CONNECTION

SULLAWAY ENGINEERING
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SAN DIEGO, CA 92127
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TWIN FALLS
ARCHWAY
TWIN FALLS, ID

CLIENT:
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DESIGNED BY: JS

REVISIONS:

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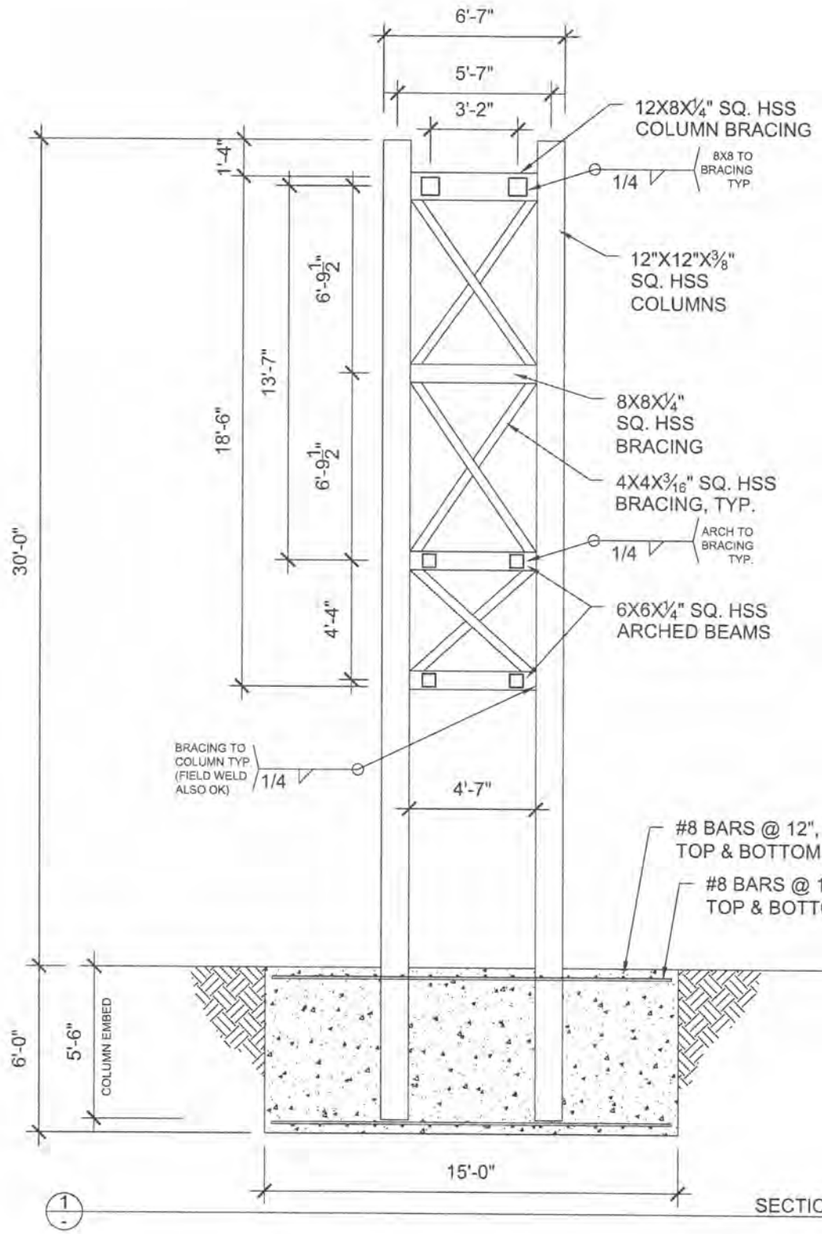
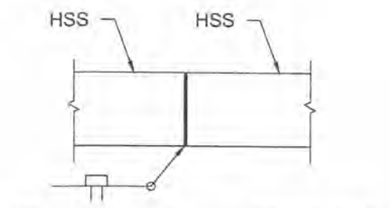
1	4-17-18 - REVISED FRAME SPAN TO END IN COLUMN BRACING, NOT COLUMN VERTICALS
2	7-24-18 - REVISED FOOTING SIZE
3	
4	
5	

PROFESSIONAL ENGINEER LICENSED 14208 STATE OF IDAHO MICHAEL F SULLAWAY

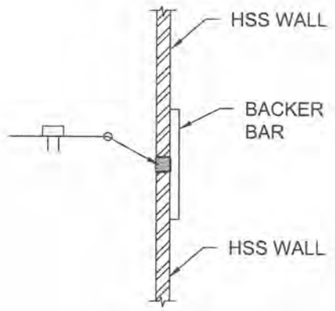
SHEET:
2 of 25



1 - SECTION



2 - SPLICE WELD



3 - SPLICE WELD

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10815 RANCHO BERNARDO ROAD, SUITE 260
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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	7-24-18 - REVISED FOOTING SIZE
3	
4	
5	

PROFESSIONAL ENGINEER LICENSED 14208 STATE OF IDAHO MICHAEL F SULLAWAY

SHEET:
3 of 25

SULLAWAY
ENGINEERING

10815 Rancho Bernardo RD., SD, CA 92127
projectmanager@sullawayeng.com
Phone: 858-312-5150 Fax: 858-777-3534

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

Pz= 0.00256*Kz*Kd*G*V^2*Cd eq. 3.8.1-1
Kz= 1.0 (Sec. 3.8.4)
Kd= 0.85 (Table 3.8.5.1)
G= 1.14 (Sec. 3.8.6)
V= 120 mph
Cd truss= 1.25 (Table 3.8.7-1)
Pz truss= 44.65 PSF
Cd panel= 1.15 (Table 3.8.7-1)
Pz panel= 41.08 PSF

Fatigue Loading (Ch. 11)

Galloping: N/A
Natural Wind Gust: Pnw=5.2*Cd*If (eq. 11.7.1.2-1)
Importance factor If= 1.00 (sec. 11.6)
Pnw truss= 6.50 PSF
Pnw Panel= 5.98 PSF

Truck Induced Gust: Ptg=18.8*Cd*(Vt/ 65 mph)^2*If (eq. C11.7.1.3-1)
Importance factor If= 1.00 (sec. 11.6) Vt= 25 mph
Ptg truss= 3.48 PSF
Ptg Panel= 3.20 PSF

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

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

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

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

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

Bolt Bearing= 1.31 k
ΦRn= 2.4*D*t*Fu = 2.4(.375 in)(.25")(60 ksi) = 13.5 k OK

Angle Leg Mu= (.400 k)(3")= 1.20 k-in
Z= .25(3")(.25")^2= .047 in^3
ϕM= ϕfyZ= (.9)(36 ksi)(.047 in^3)= 1.52 k-in OK

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

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

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

Fatigue load= (11 ft^2)(6 psf)= 66 lbs
A bolt= .11 in^2
Bolt Stress= .066 k/.11 in^2 = 0.60 ksi < 7 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 ft)(2.50 ft) = 6.25 ft^2
wind force= (6.25 ft^2)(41 psf)= 256 lbs
dead load= 1.25(10 psf)(6.25 ft^2)= 78 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 ft^2)(6 psf)/3= 13 lbs
A bolt= .11 in^2
Bolt Stress= .013 k/.11 in^2 = 0.12 ksi < 7 ksi Threshold OK

SULLAWAY ENGINEERING
P.O. Box 28789, SD, CA 92198
mikesullaway@gmail.com
Phone: 858-312-5150 Fax: 858-777-3534

PROJECT: Twin Falls Archway DATE: 7/24/18
PROJ. NO.: 15975-1 ENGINEER: JS
CLIENT: Lytle Signs

Version 3.0

Longitude Direction factored loads per RISA Report

applied shear at grade v= **18** kip unfactored load 30 k - Z per RISA Report
applied moment at grade m= **374** kip-ft unfactored load 622 k-ft Mx per RISA Report
depth of soil above footing h_s= **0** ft
allowable soil bearing p= **2.7** ksf (2000 x 1.33 = 2667
(use a factor of 1.33 for wind or seismic)

Spread Footing Design

moment m= 482.0 k-ft at base of footing
Footing size (ft) b= **12.00** L= **15.0** h= **6.00** S= 450.1
Footing Weight= 162.0 k signage weight= **31.0** k soil 0.00 total= 193.00
Overturning; M_c= 1448 M_c>1.5M 3.00 ok
soil pressure; max= 2.143 ksf ok
forces on concrete pad; V= 144.7 k V_r= 232 k (=1.6V)
M= 543 k-ft M_r= 868 k-ft

Check Slab;

ϕ= 0.9 f_y= 60 ksi f_c= 2.5 ksi 150 lbs/ft3

Flexure A_s= **7.00** d= 68.0 in
$\phi M_n=\phi A_s f_y(d-a/2)$= 25445 k-in = 2120 k-ft $M_r<\phi M_n$ ok
$a=A_s f_y/0.85f_c b$= 1.373 in

Check minimum $A_{smin}=2\sqrt{f_c}bd/f_y$ = 24.5 200bd/fy= 32.64 or $1.333A_s$= 9.33 in^2

Use A_s= 9.33 in^2

Shear; $\phi V_n=\phi 2\sqrt{f_c}bd$ ϕV_c= 734.4 ϕ= 0.75 $V_r<\phi V_n$ ok

SULLAWAY
ENGINEERING
P.O. Box 28789, SD, CA 92198
mikesullaway@gmail.com
Phone: 858-312-5150 Fax: 858-777-3534

PROJECT: Twin Falls Archway
PROJ. NO.: 15975-1
CLIENT: Lytle Signs

DATE: 7/24/18
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= 210.0 k-ft at base of footing

Footing size (ft) b= **15.00** L= **12.0** h= **6.00** S= 360.1

Footing Weight= 162.0 k signage weight= **31.0** k soil 0.00 total= 193.00

Overturning; M_c= 1158 M_c>1.5M 5.5143 ok

soil pressure; max= 1.655 ksf ok

forces on concrete pad; V= 122.7 k V_r= 196 k (=1.6V)

M= 368 k-ft M_r= 589 k-ft

Check Slab;

ϕ= 0.9 f_y= 60 ksi f_c= 2.5 ksi 150 lbs/ft3

Flexure A_s= **4.00** d= 68.0 in

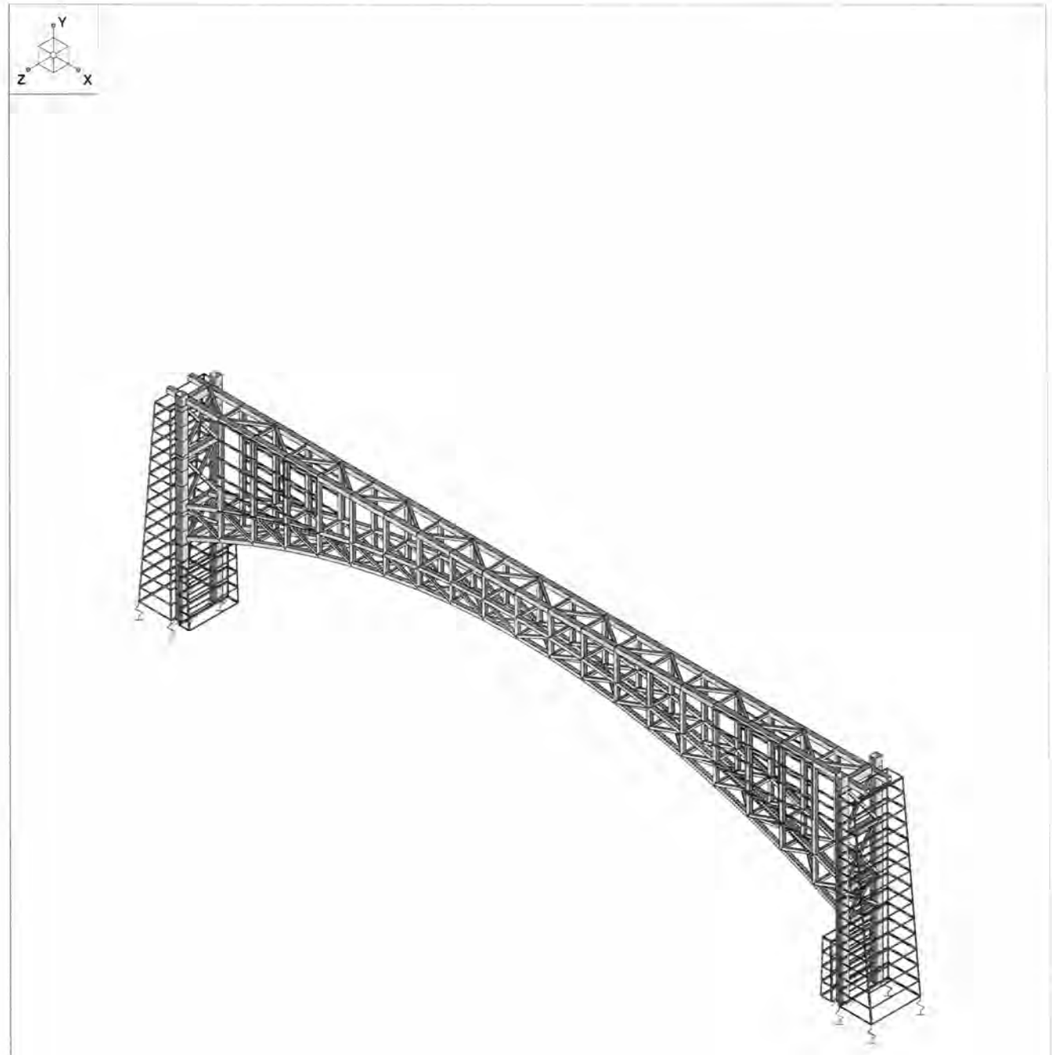
$\phi M_n=\phi A_s f_y(d-a/2)$= 14620 k-in = 1218 k-ft $M_r<\phi M_n$ ok

$a=A_s f_y/0.85 f_c b$= 0.627 in

Check minimum $A_{smin}=2\sqrt{f_c}bd/f_y$ = 30.6 200bd/fy= 40.80 or $1.333A_s$= 5.33 in^2

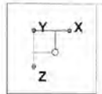
Use A_s= 5.33 in^2

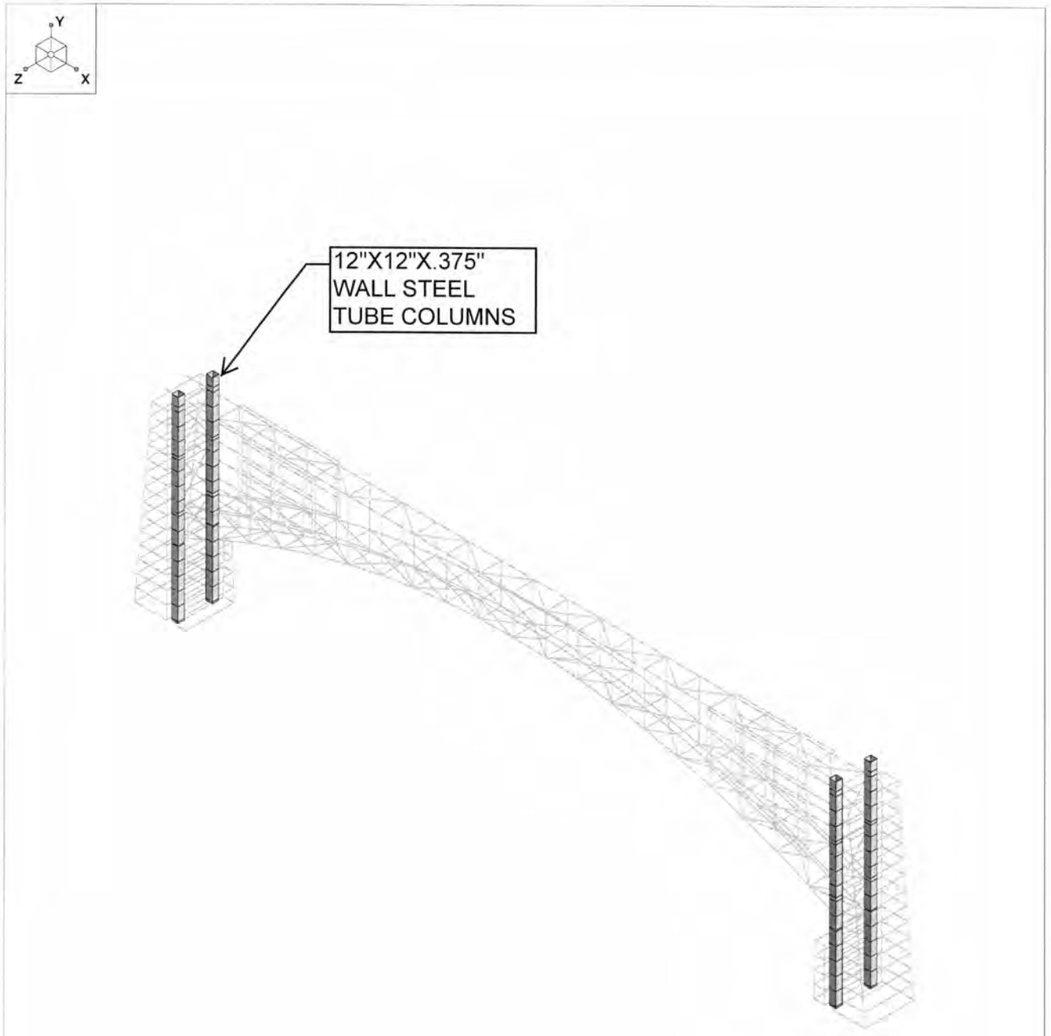
Shear; $\phi V_n=\phi 2\sqrt{f_c}bd$ ϕV_c= 918.0 ϕ= 0.75 $V_r<\phi V_n$ ok



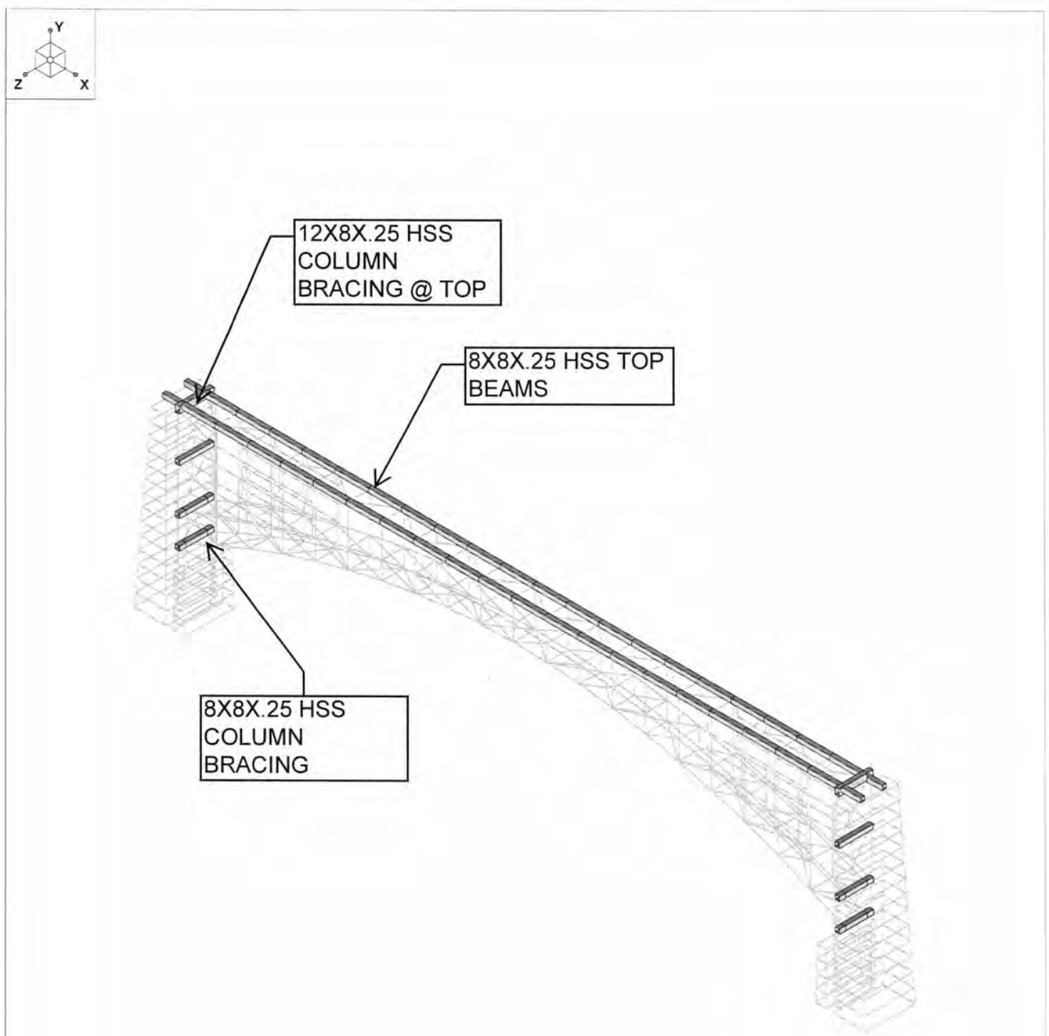
Envelope Only Solution

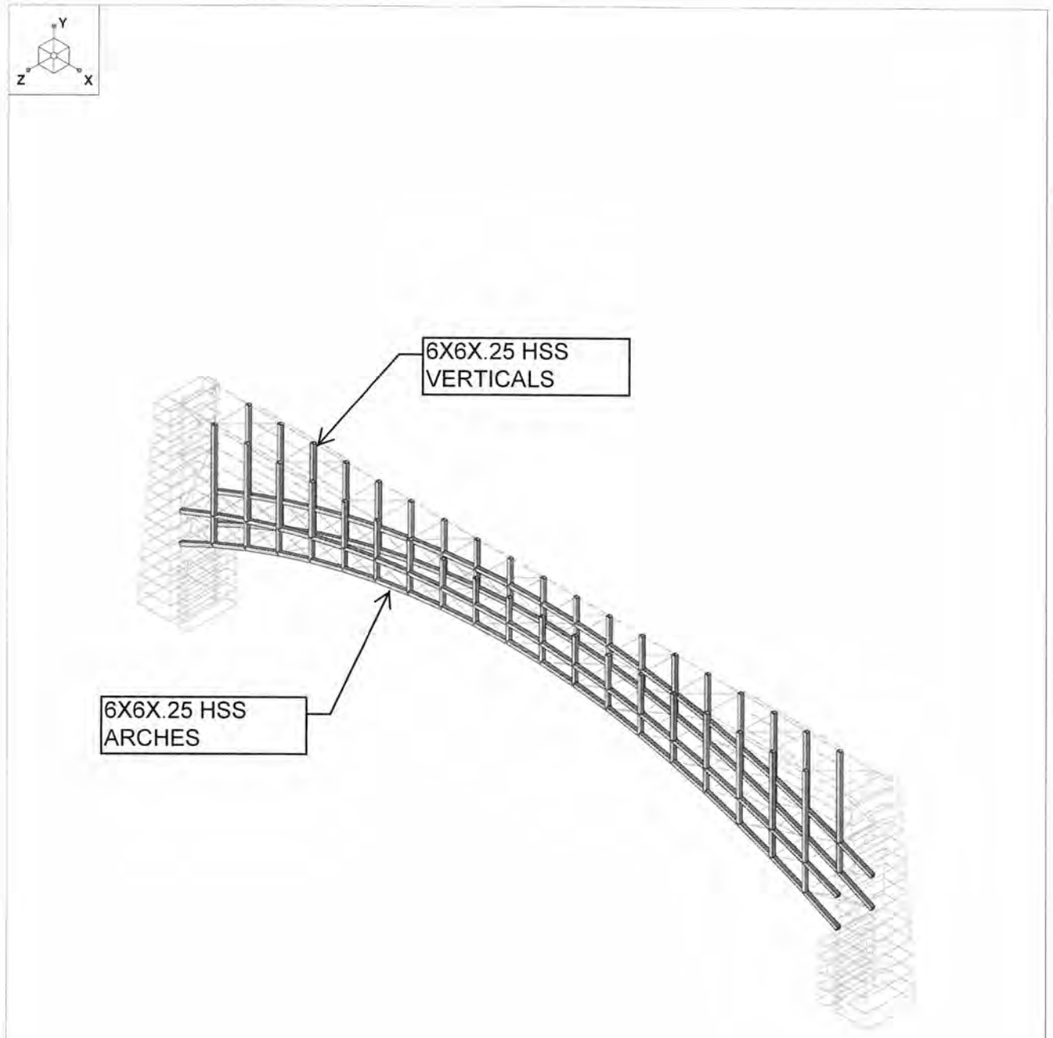
Envelope Only Solution



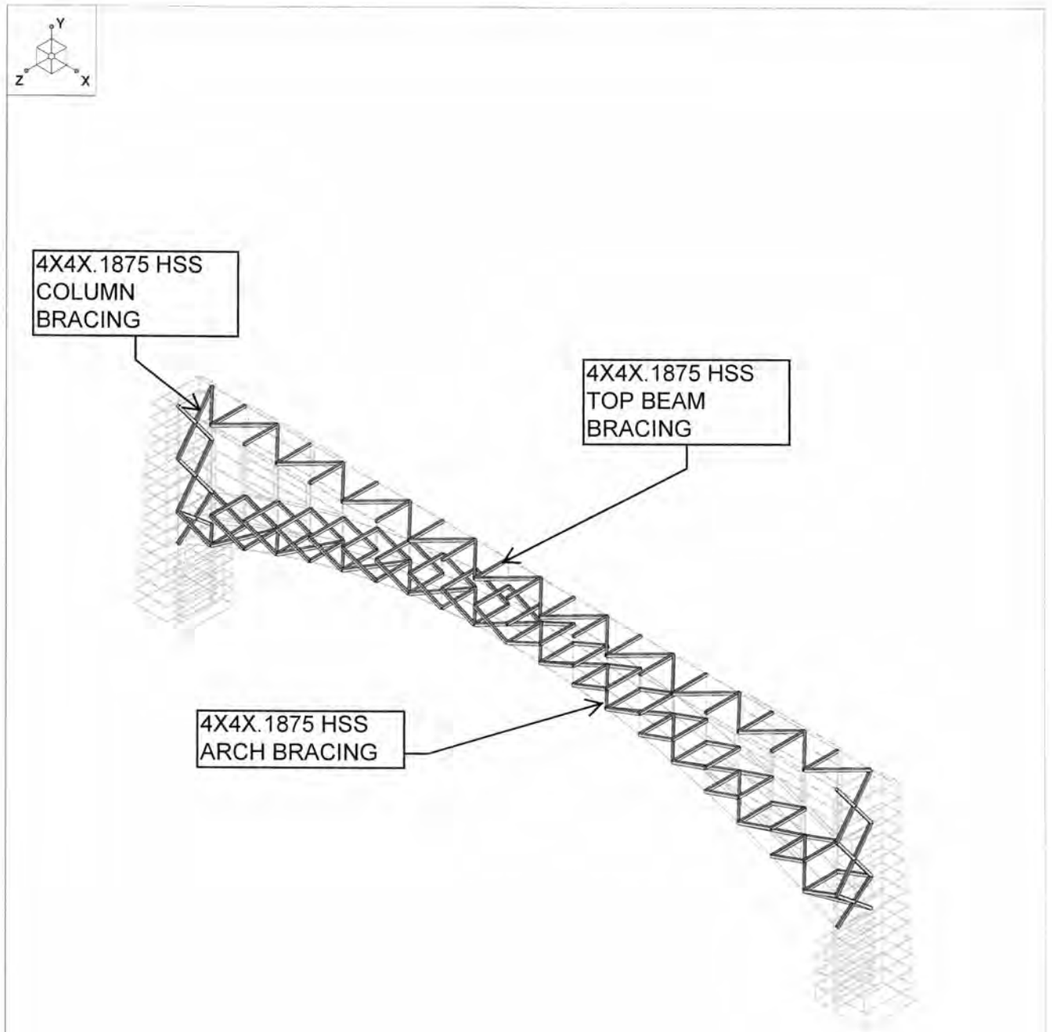


Envelope Only Solution

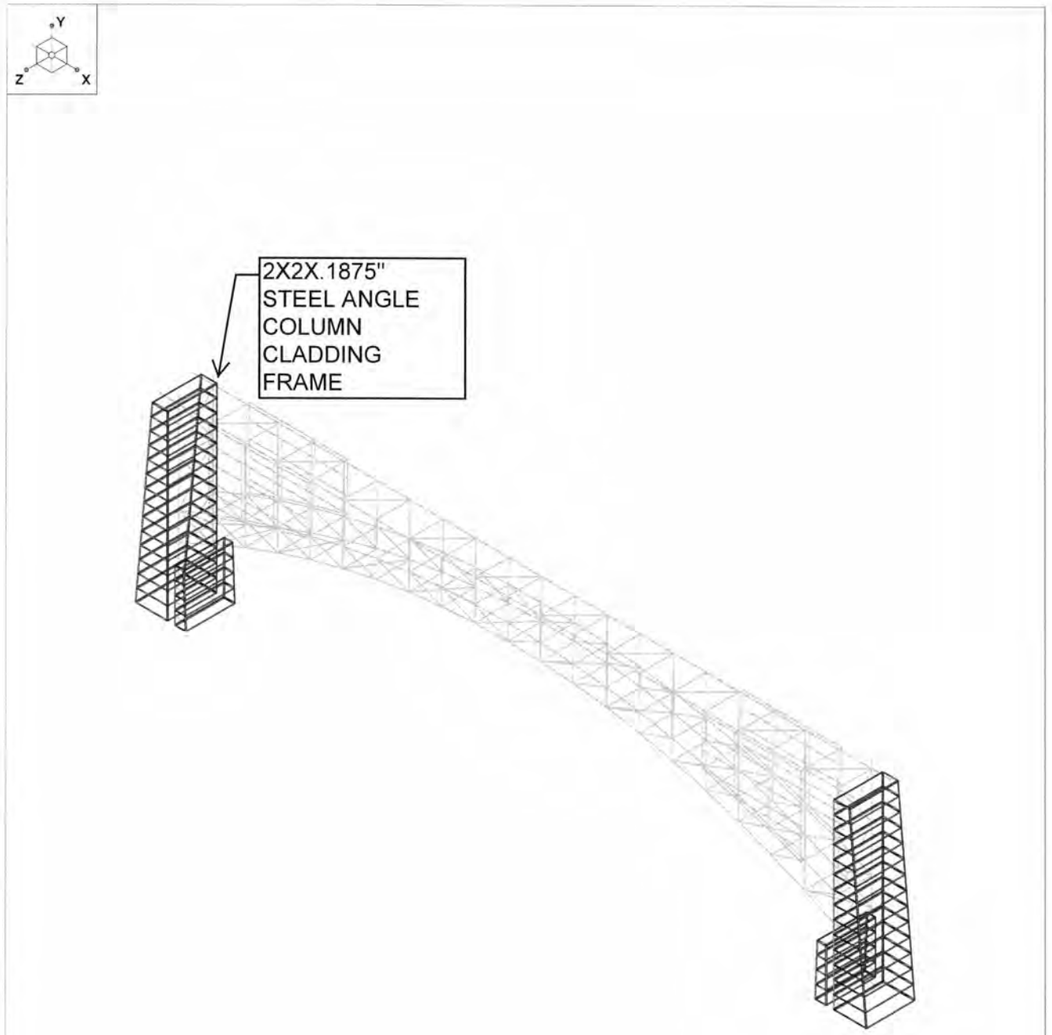




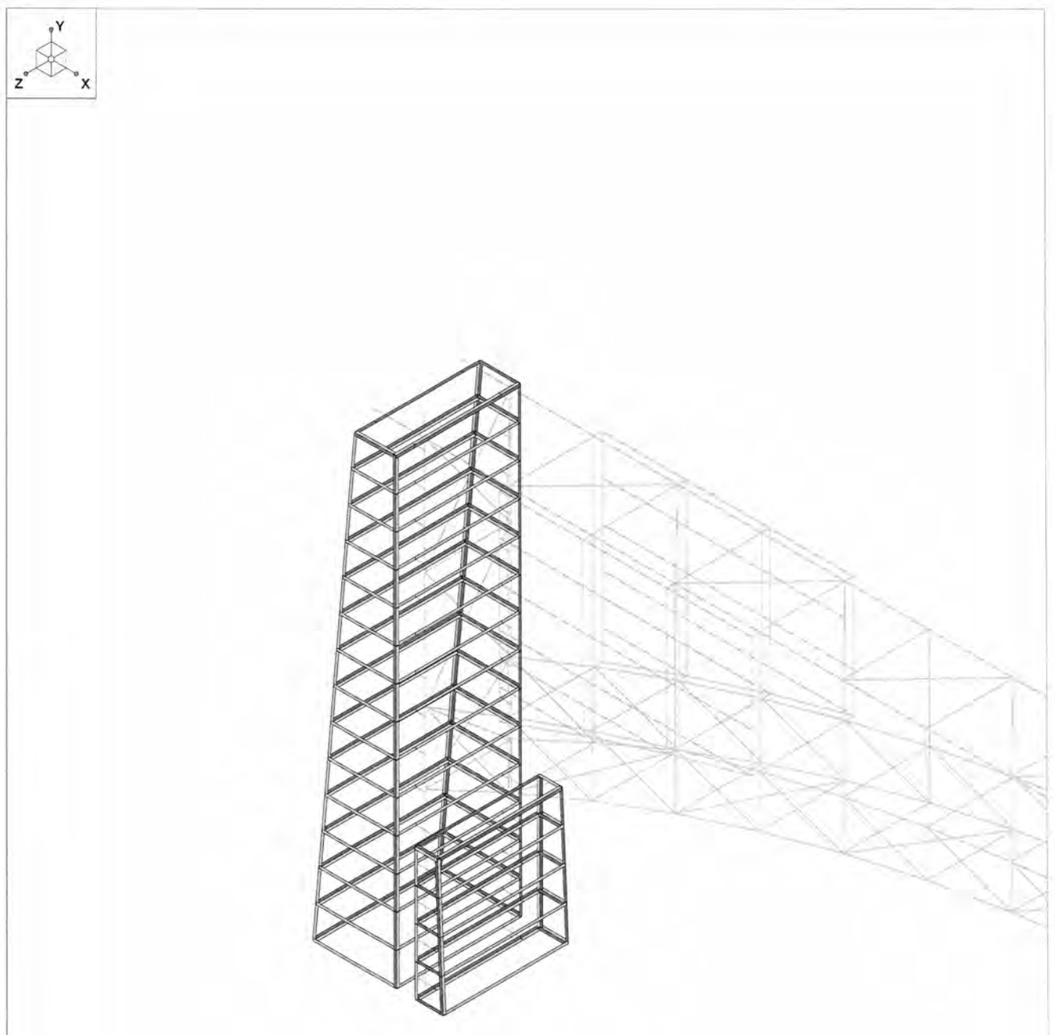
Envelope Only Solution



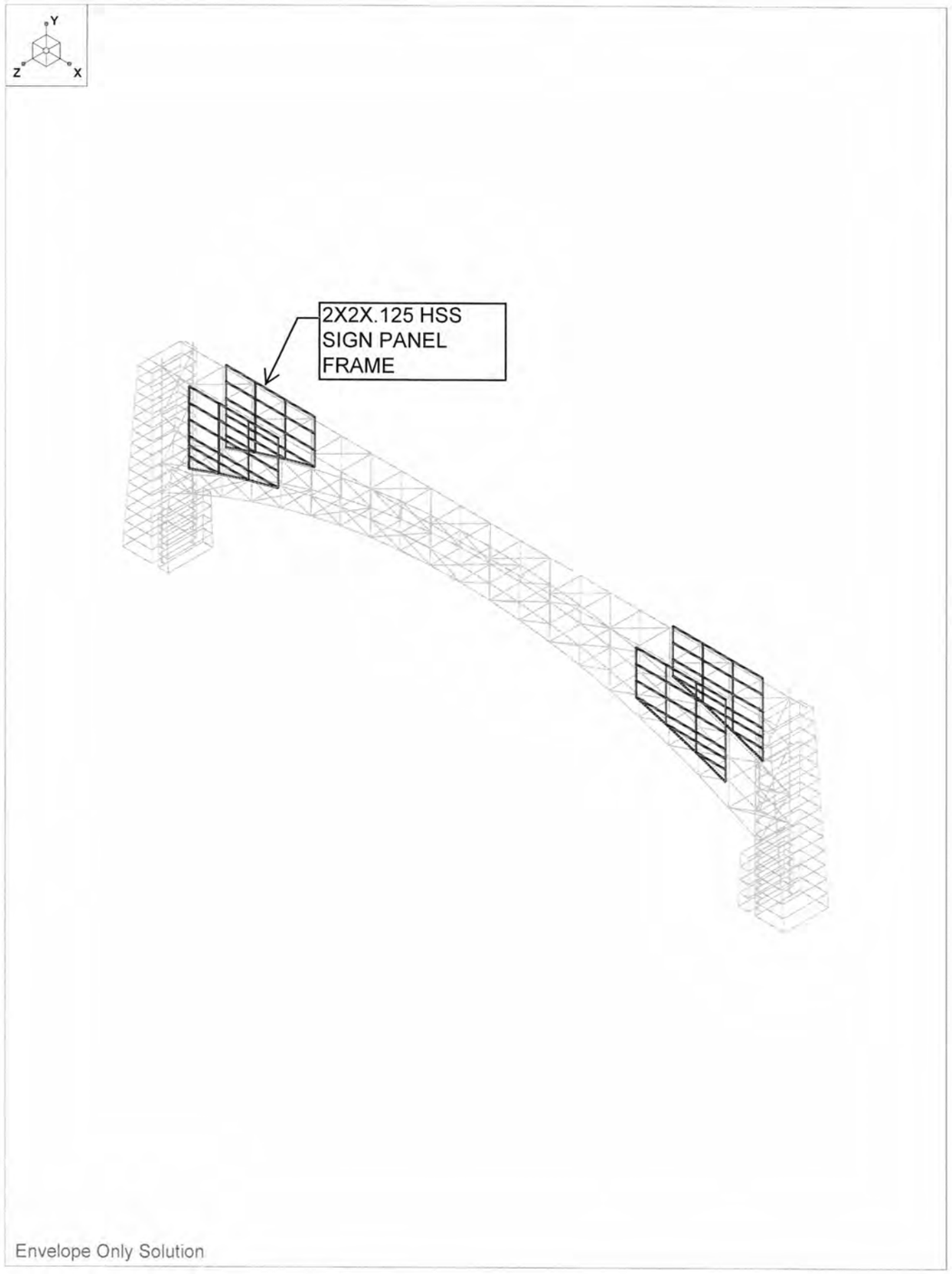
Envelope Only Solution



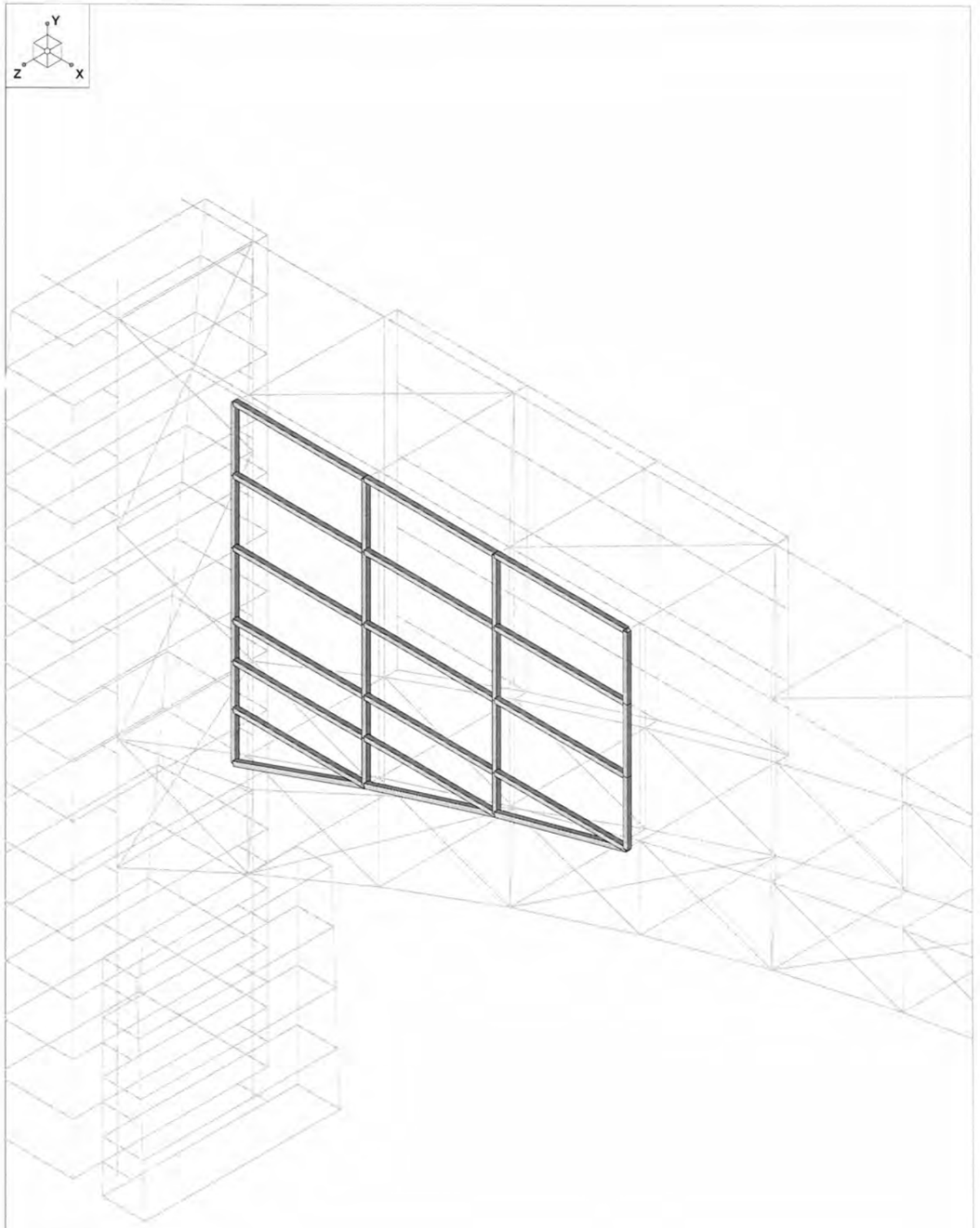
Envelope Only Solution



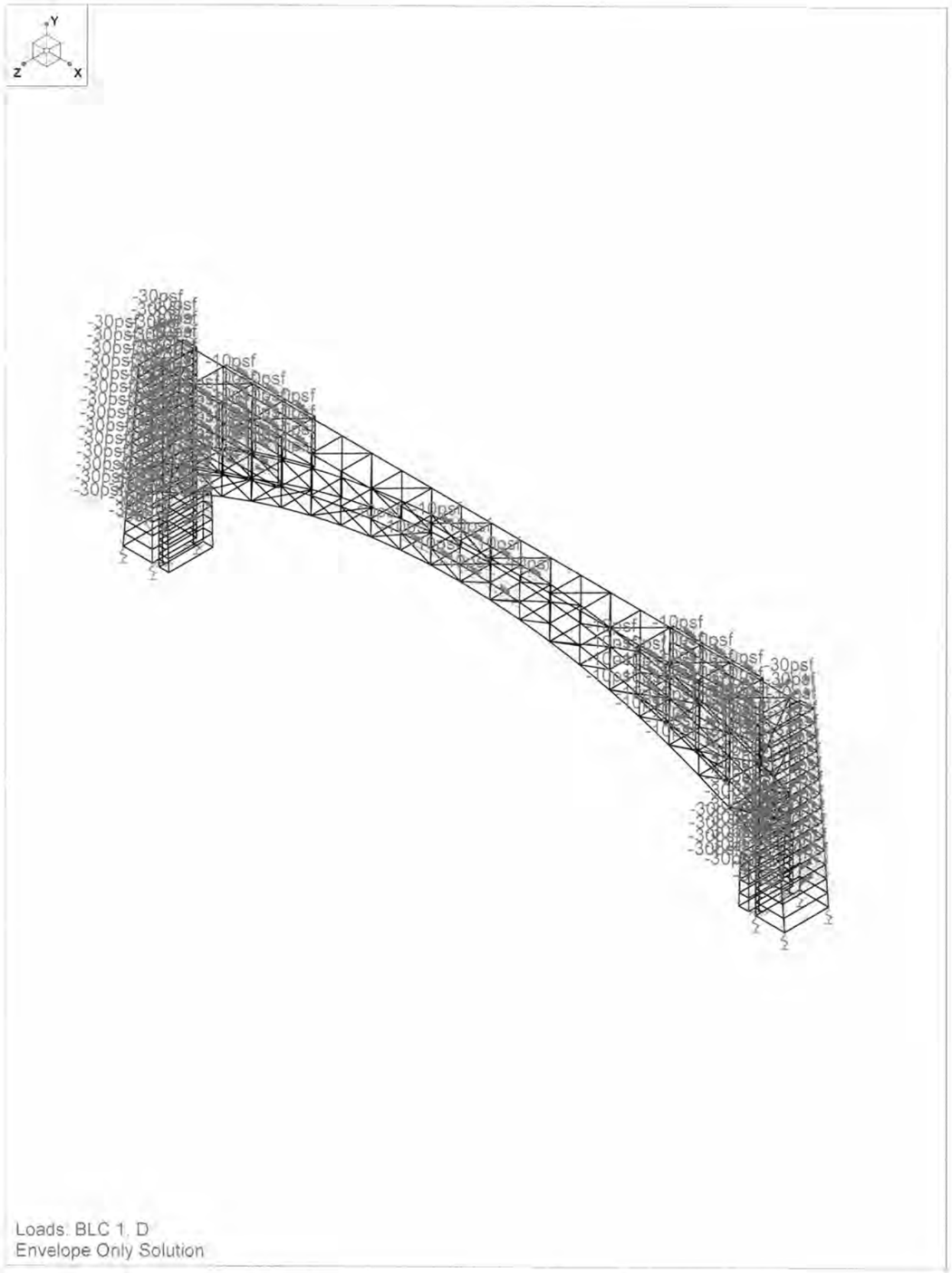
Envelope Only Solution



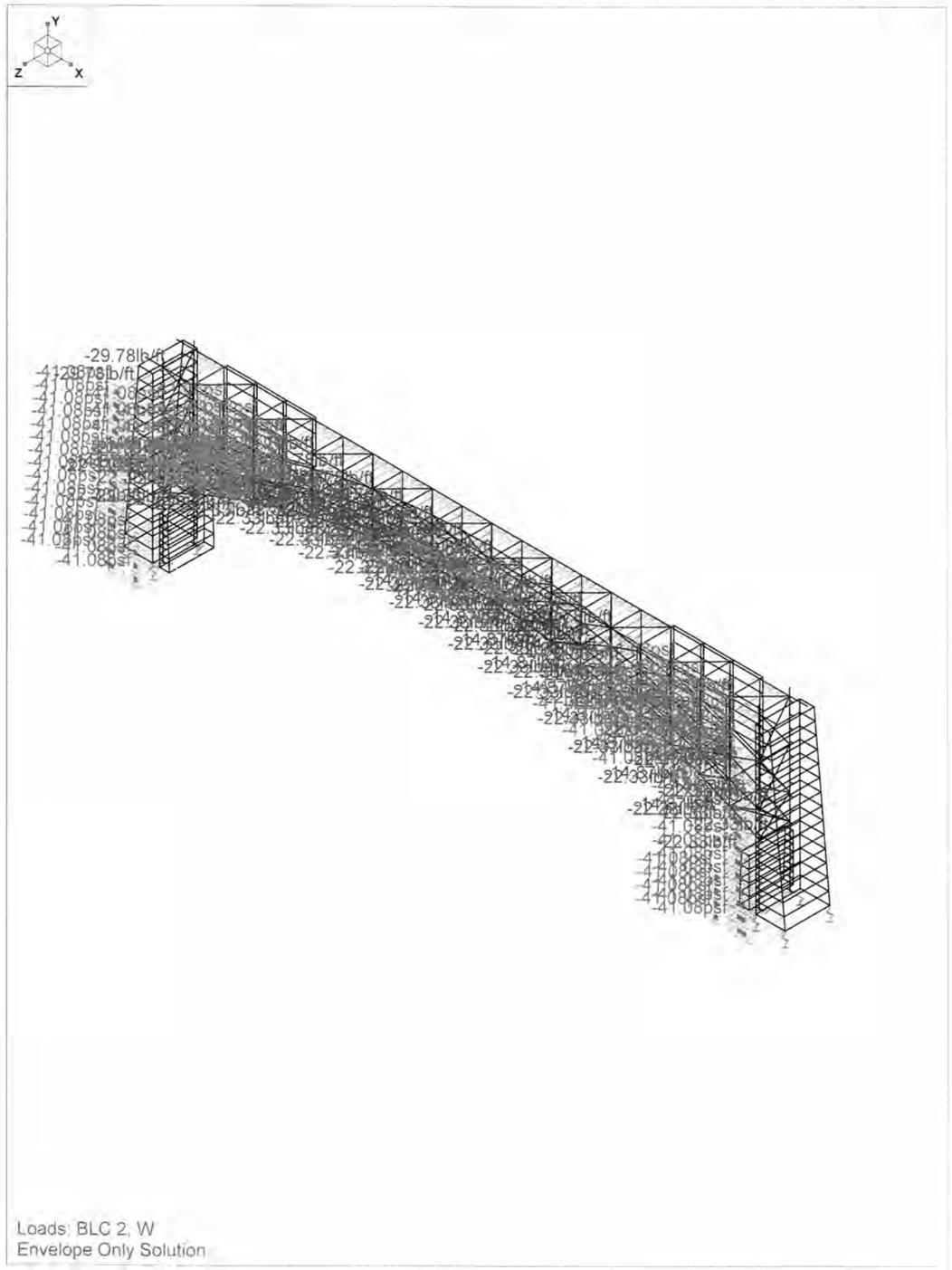
Envelope Only Solution



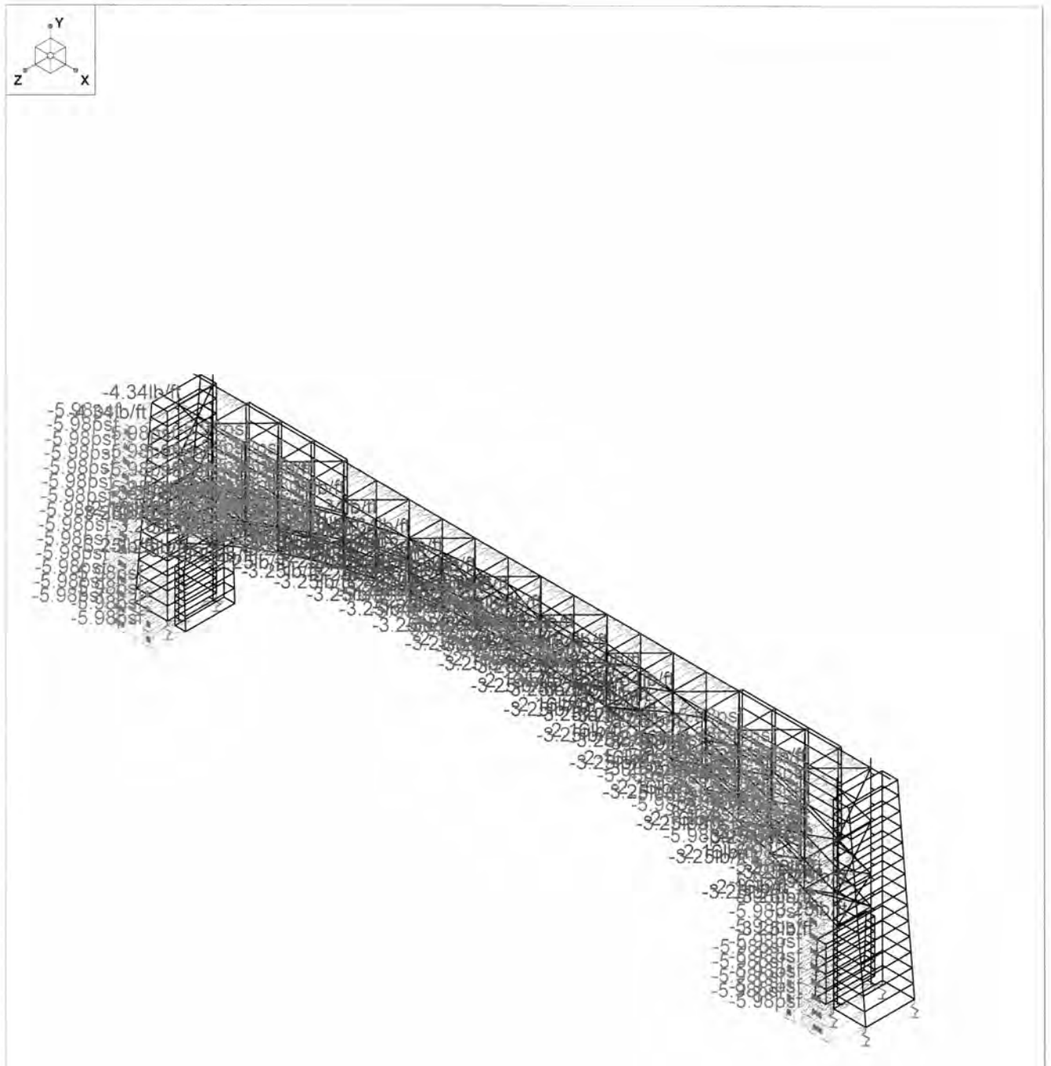
Envelope Only Solution



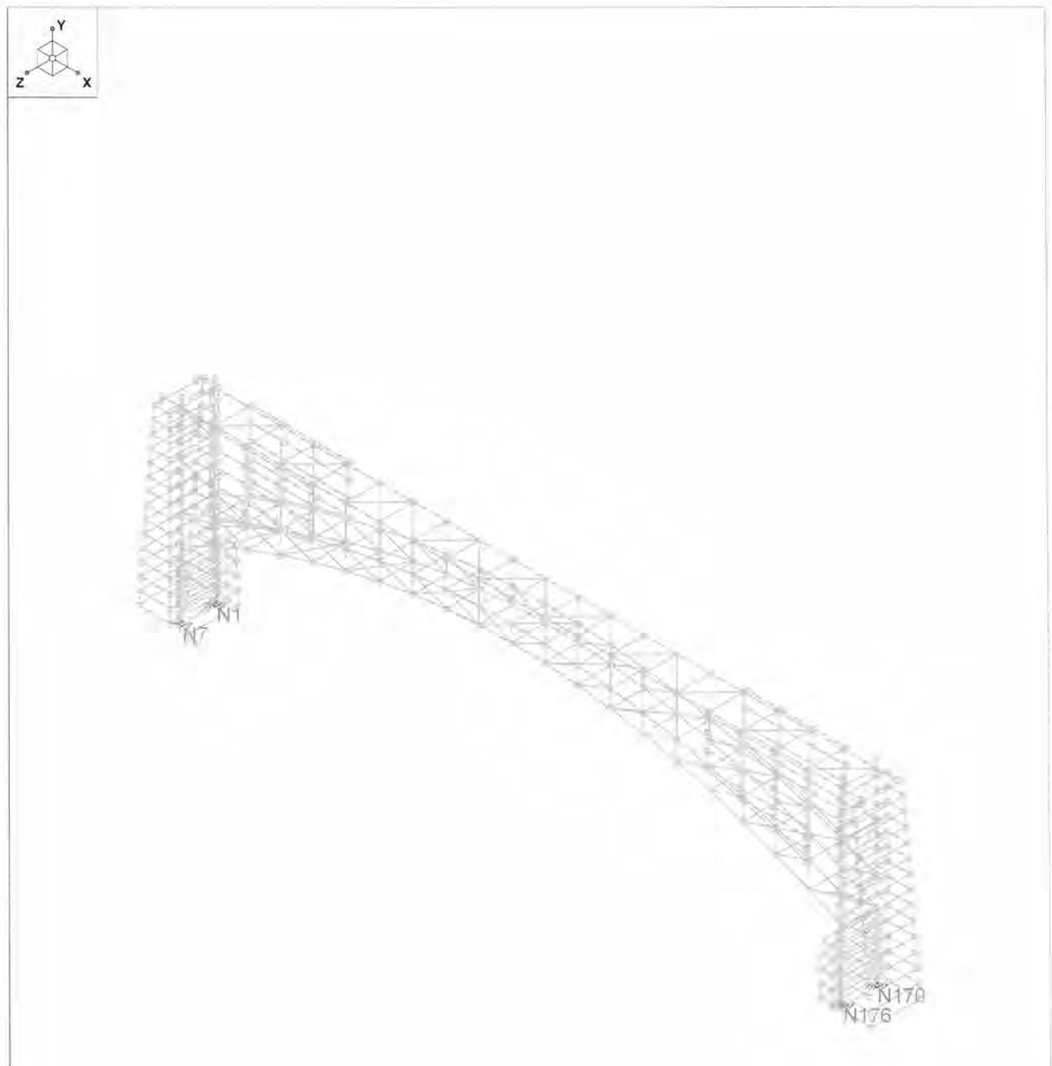
Loads: BLC 1, D
Envelope Only Solution



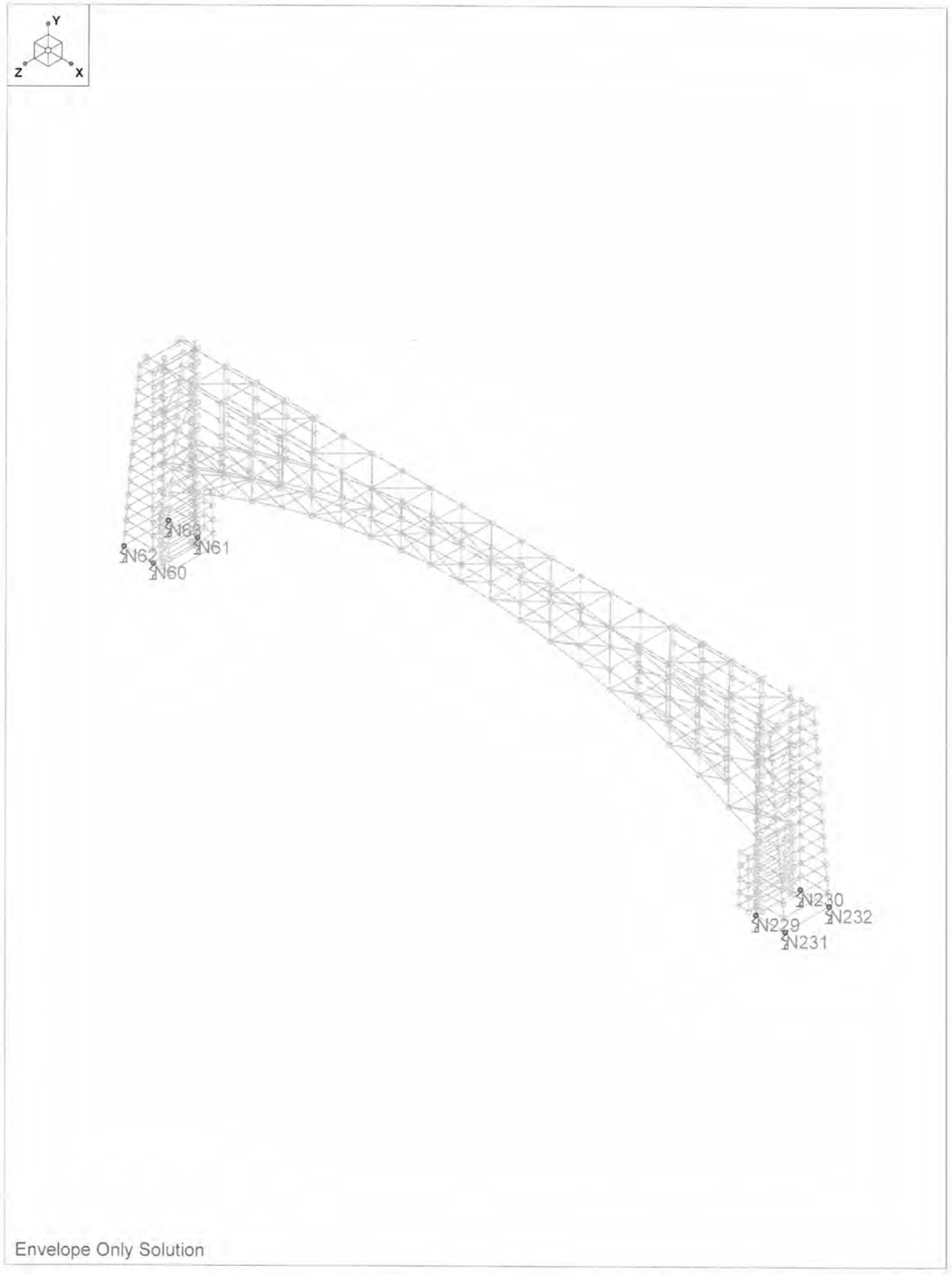
Loads: BLC 2, W
Envelope Only Solution



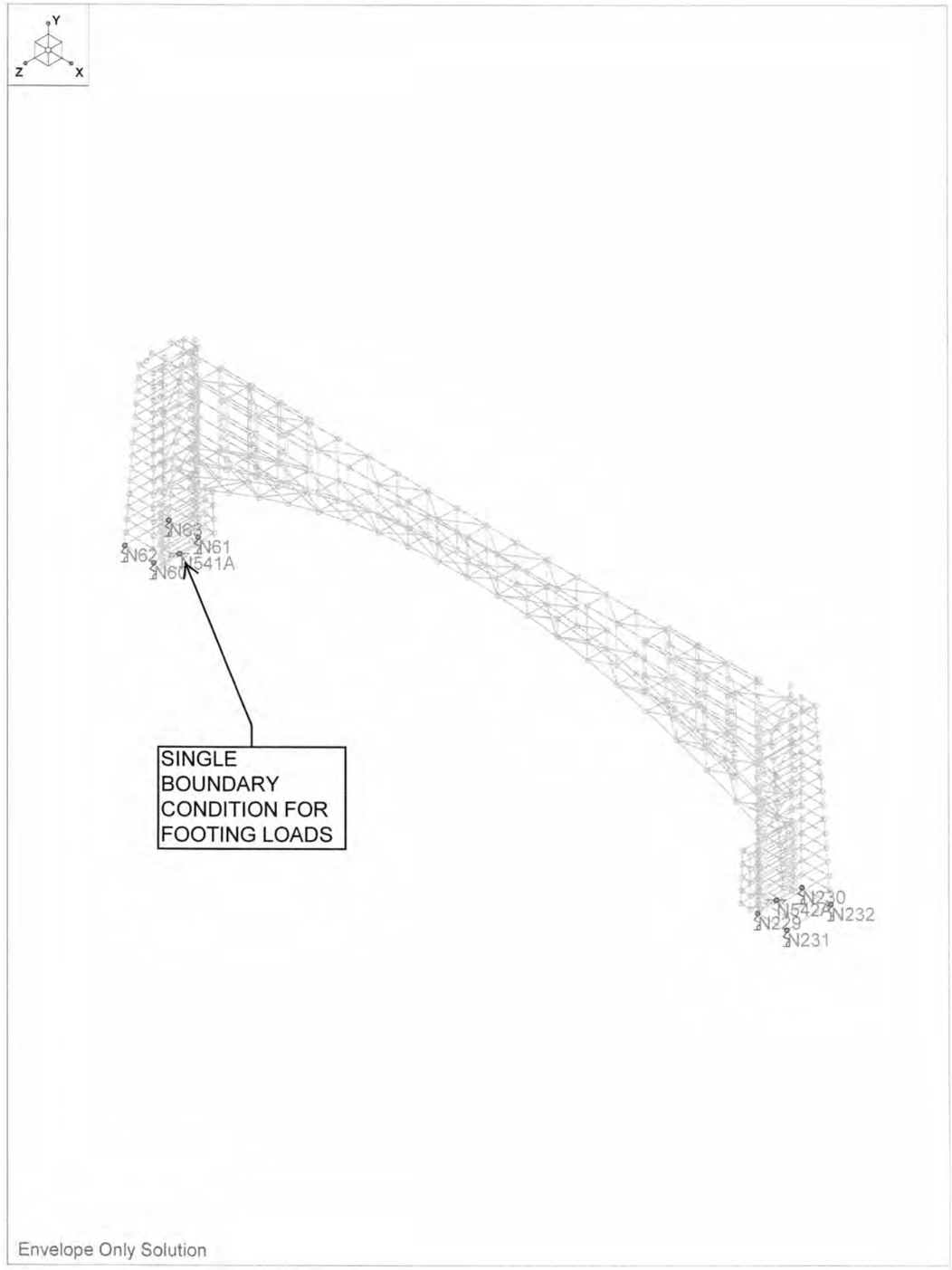
Loads: BLC 3, F
Envelope Only Solution



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...
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...	...	Eqn
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	1	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	1	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	.600	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...	...	Eqn
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-...
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-...
98	M112	HSS12x12x6	.048	0	5	.044	0	z	2	661.6...	662.4	223.27	223.27	...	H1-...
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...	...	Eqn
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	1.5...	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-...
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-...
348	M406	HSS12x12x6	.048	0	5	.044	0	z	2	661.6...	662.4	223.27	223.27	...	H1-...
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	1.22	...	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...	...	Eqn
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...	...	Eqn
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	y	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	y	5	206.1...	216.9...	38.64	38.64	...	H1-...
522	M614	HSS6x6x4	.059	0	2	.032	0	y	5	206.4...	216.9...	38.64	38.64	...	H1-...
523	M615	HSS6x6x4	.096	0	2	.031	0	y	5	206.6...	216.9...	38.64	38.64	...	H1-...
524	M616	HSS6x6x4	.102	0	2	.029	0	y	5	206.8...	216.9...	38.64	38.64	...	H1-...
525	M617	HSS6x6x4	.138	0	2	.024	0	y	5	207.0...	216.9...	38.64	38.64	...	H1-...
526	M618	HSS6x6x4	.150	0	2	.015	0	y	5	207.0...	216.9...	38.64	38.64	...	H1-...
527	M619	HSS6x6x4	.179	0	2	.009	0	y	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	y	5	206.1...	216.9...	38.64	38.64	...	H1-...
531	M623	HSS6x6x4	.059	0	2	.032	0	y	5	206.4...	216.9...	38.64	38.64	...	H1-...
532	M624	HSS6x6x4	.096	0	2	.031	0	y	5	206.6...	216.9...	38.64	38.64	...	H1-...
533	M625	HSS6x6x4	.102	0	2	.029	0	y	5	206.8...	216.9...	38.64	38.64	...	H1-...
534	M626	HSS6x6x4	.138	0	2	.024	0	y	5	207.0...	216.9...	38.64	38.64	...	H1-...
535	M627	HSS6x6x4	.150	0	2	.015	0	y	5	207.0...	216.9...	38.64	38.64	...	H1-...
536	M628	HSS6x6x4	.179	0	2	.009	0	y	5	207.1...	216.9...	38.64	38.64	...	H1-...
537	M631	HSS4x4x3	.167	0	5	.048	0	y	5	102.1...	106.8...	12.662	12.662	...	H1-1b
538	M632	HSS4x4x3	.124	40	5	.044	0	y	5	102.1...	106.8...	12.662	12.662	...	H1-1b
539	M633	HSS4x4x3	.076	0	2	.035	0	y	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	y	5	102.1...	106.8...	12.662	12.662	...	H1-1b
543	M637	HSS4x4x3	.084	0	5	.034	40	y	5	102.1...	106.8...	12.662	12.662	...	H1-1b
544	M638	HSS4x4x3	.079	40	2	.028	0	y	2	102.1...	106.8...	12.662	12.662	...	H1-1b
545	M639	HSS4x4x3	.052	40	5	.017	40	y	5	102.1...	106.8...	12.662	12.662	...	H1-1b
546	M640	HSS4x4x3	.027	0	5	.006	0	y	5	102.1...	106.8...	12.662	12.662	...	H1-1b
547	M641	HSS4x4x3	.052	40	5	.017	40	y	5	102.1...	106.8...	12.662	12.662	...	H1-1b
548	M642	HSS4x4x3	.079	40	2	.028	0	y	2	102.1...	106.8...	12.662	12.662	...	H1-1b
549	M643	HSS4x4x3	.084	0	5	.034	40	y	5	102.1...	106.8...	12.662	12.662	...	H1-1b
550	M644	HSS4x4x3	.077	40	5	.034	40	y	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	y	5	102.1...	106.8...	12.662	12.662	...	H1-1b
554	M648	HSS4x4x3	.124	40	5	.044	0	y	5	102.1...	106.8...	12.662	12.662	...	H1-1b
555	M649	HSS4x4x3	.167	0	5	.048	0	y	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	y	2	286.5...	293.94	66.288	66.288	...	H1-1b
558	M652	HSS8x8x4	.164	0	5	.050	0	y	2	286.5...	293.94	66.288	66.288	...	H1-...
559	M653	HSS8x8x4	.197	0	5	.052	0	y	2	286.5...	293.94	66.288	66.288	...	H1-...
560	M654	HSS8x8x4	.322	61.2	2	.048	0	y	2	286.5...	293.94	66.288	66.288	...	H1-1a
561	M655	HSS8x8x4	.316	61.2	2	.045	0	y	2	286.5...	293.94	66.288	66.288	...	H1-1a
562	M656	HSS8x8x4	.335	61.2	5	.033	0	y	2	286.5...	293.94	66.288	66.288	...	H1-1a
563	M657	HSS8x8x4	.325	0	5	.021	0	y	2	286.5...	293.94	66.288	66.288	...	H1-1a
564	M658	HSS8x8x4	.346	61.2	5	.008	0	y	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	y	2	286.5...	293.94	66.288	66.288	...	H1-1a
567	M661	HSS8x8x4	.335	0	5	.033	0	y	2	286.5...	293.94	66.288	66.288	...	H1-1a
568	M662	HSS8x8x4	.316	0	2	.045	0	y	2	286.5...	293.94	66.288	66.288	...	H1-1a
569	M663	HSS8x8x4	.322	0	2	.048	0	y	2	286.5...	293.94	66.288	66.288	...	H1-1a
570	M664	HSS8x8x4	.197	0	5	.052	0	y	2	286.5...	293.94	66.288	66.288	...	H1-...
571	M665	HSS8x8x4	.164	0	5	.050	0	y	2	286.5...	293.94	66.288	66.288	...	H1-...
572	M666	HSS8x8x4	.125	0	2	.047	0	y	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-...
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-...
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-...
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-...
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-...
787	M892	HSS4x4x3	.054	0	2	.009	0	z	2	94.005	106.8...	12.662	12.662	...	H1-...
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...	.....	Eqn
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-...
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-...
821	M937	HSS2x2x3	.131	0	5	.011	0	z	2	29.812	49.266	2.75	2.75	...	H1-...
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)

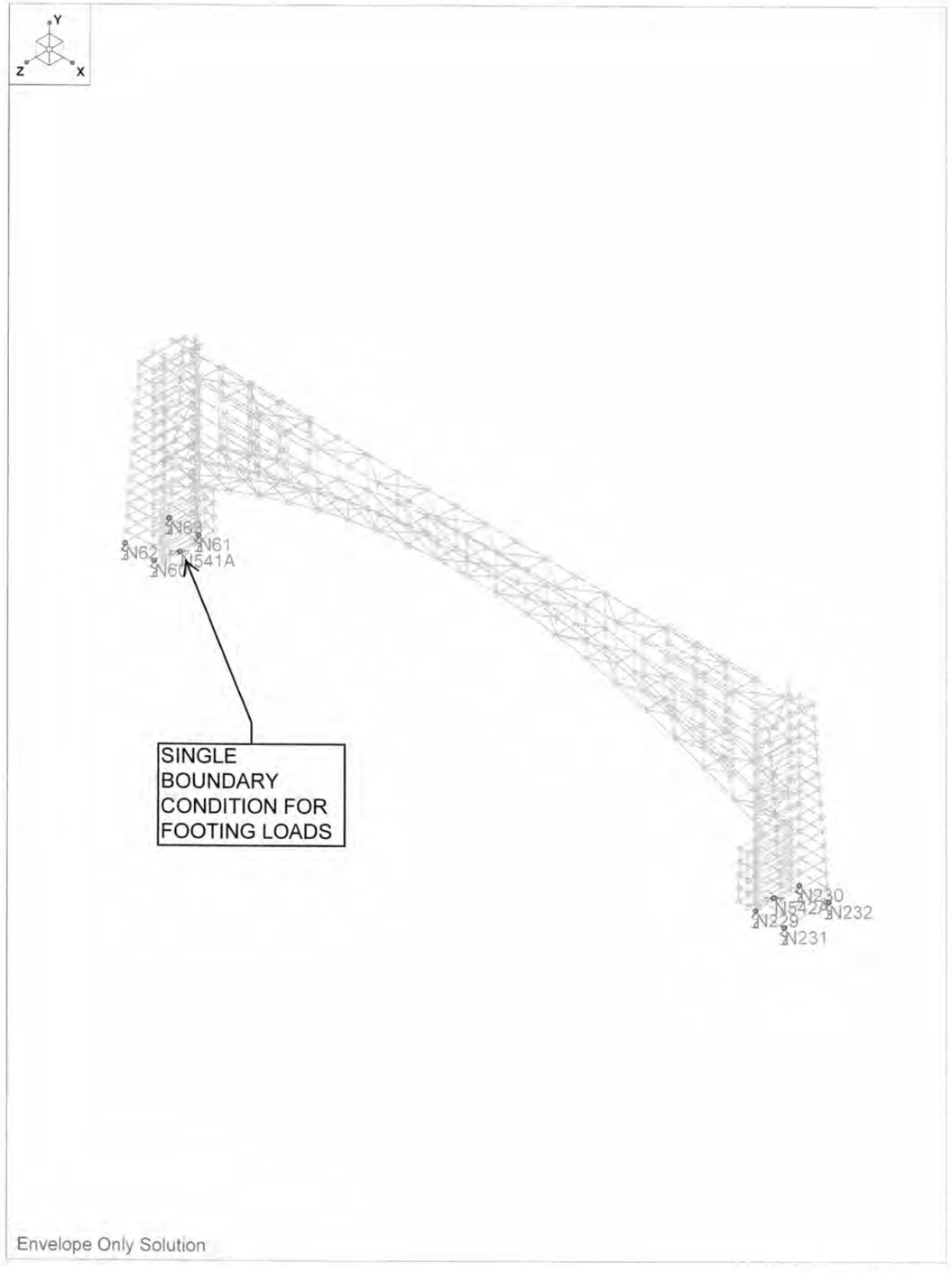
	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	...	...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	...	Eqn
869	M993	HSS2x2x3	.083	33...	5	.050	53...	z	5	30.861	49.266	2.75	2.75	...	H1-1b
870	M994	HSS2x2x3	.124	61.2	5	.026	53...	z	2	30.861	49.266	2.75	2.75	...	H1-1b
871	M995	HSS2x2x3	.108	0	5	.064	0	z	5	30.861	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-...
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-...
893	M1025	HSS2x2x3	.131	0	5	.011	0	z	2	29.812	49.266	2.75	2.75	...	H1-...
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					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...	
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

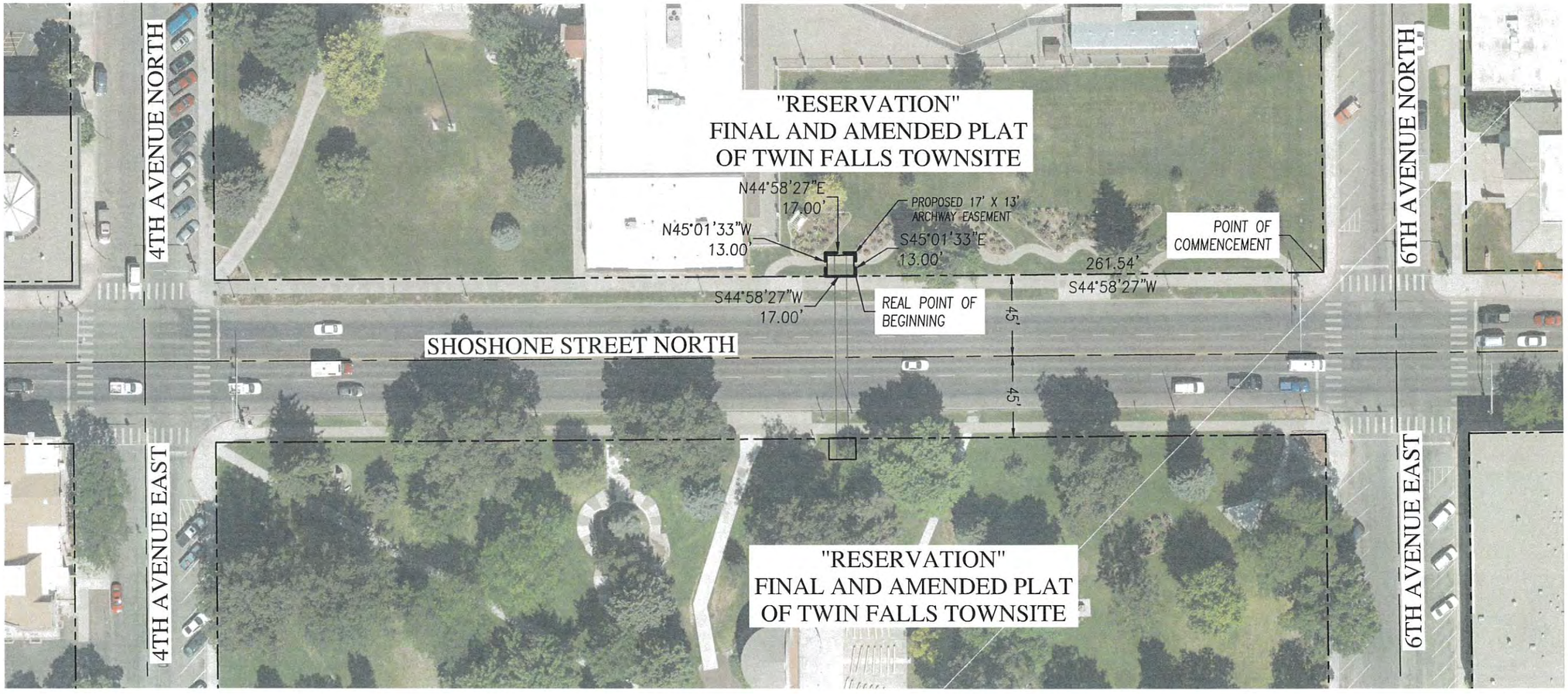
	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N62	max	0	1	5.006	4	0	1	0	1	0	1	0	1
2		min	0	1	0	2	0	1	0	1	0	1	0	1
3	N63	max	0	1	5.679	5	0	1	0	1	0	1	0	1
4		min	0	1	.176	3	0	1	0	1	0	1	0	1
5	N60	max	0	1	.612	4	0	1	0	1	0	1	0	1
6		min	0	1	0	2	0	1	0	1	0	1	0	1
7	N61	max	0	1	2.493	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						

Appendix C Site Plan

PROFESSIONAL LAND SURVEYOR
REGISTERED
10110
11-5-18
STATE OF IDAHO
CHRISTOPHER S. HARMISON

Located In
A Portion of
Block "Reservation", lying Northwesterly of
Shoshone Street North
Twin Falls Townsite
In
Section 16
Township 10 South, Range 17 East
Boise Meridian
Twin Falls County, Idaho
2018

NORTH



0 30 60 120
SCALE IN FEET

EHM Engineers, Inc.
BUILDING THE FUTURE ON A FOUNDATION OF EXCELLENCE
Engineers / Surveyors / Planners
621 North College Road, Suite 100 Twin Falls, Idaho 83301
p (208)-734-4888 fax (208)-734-6049 web: ehminc.com

EXHIBIT
CITY OF TWIN FALLS ARCHWAY
TWIN FALLS, IDAHO

JOB NUMBER:	433-18
APPROVED	
DESIGN	
DRAWN	CSH
DATE	NOVEMBER 2018
SCALE	SHOWN
	V 433-18 EXH-01

Sheet No.:
1

Appendix D Recognition Sign

SIDE VIEW

CONCEPTUAL DESIGN FOR A DONOR INTERPRETIVE PANEL

CLEAR ANODIZED FINISH ALUMINUM BACKGROUND WITH WATER-JET CUT PLATE ALUMINUM ARCHWAY AND FRAME OVERLAY

RUST COLORED POWDER COATED

FLAT CUT ALUMINUM LETTERS POWDER COATED WHITE AND FLUSH MOUNTED

DONOR INFORMATION

CIRCLES - 1/4" PLATE ALUMINUM WITH EPOXY PAINTED ELEMENTS

RECTANGLES - 1/8" PLATE ALUMINUM WITH ENGRAVED COPY

FLUSH MOUNTED

CLIENT:
Twin Falls City Archway Committee

ADDRESS:
Twin Falls, Idaho

JOB LOCATION:

DATE:
11May2017

SCALE:
1-1/2"=1'

ACCOUNT EXECUTIVE:
Rex L.

DRAWN BY:
rba

FILENAME:
...\Twin Falls City\Entry Archway\Donnor Interpretive Sign...

QUOTE #:
30876

REVISIONS:
07May2018-corrected the font on 'Archway Made..."
rba
04-02-2019 RL

Lytle Signs Inc.

Twin Falls Office
P.O. BOX 305
1925 KIMBERLY RD.
TWIN FALLS, IDAHO 83303
208.733.1739
1.800.621.6836
fax 208.736.8653

Boise/Meridian Office
2070 E. COMMERCIAL ST.
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208.388.1739
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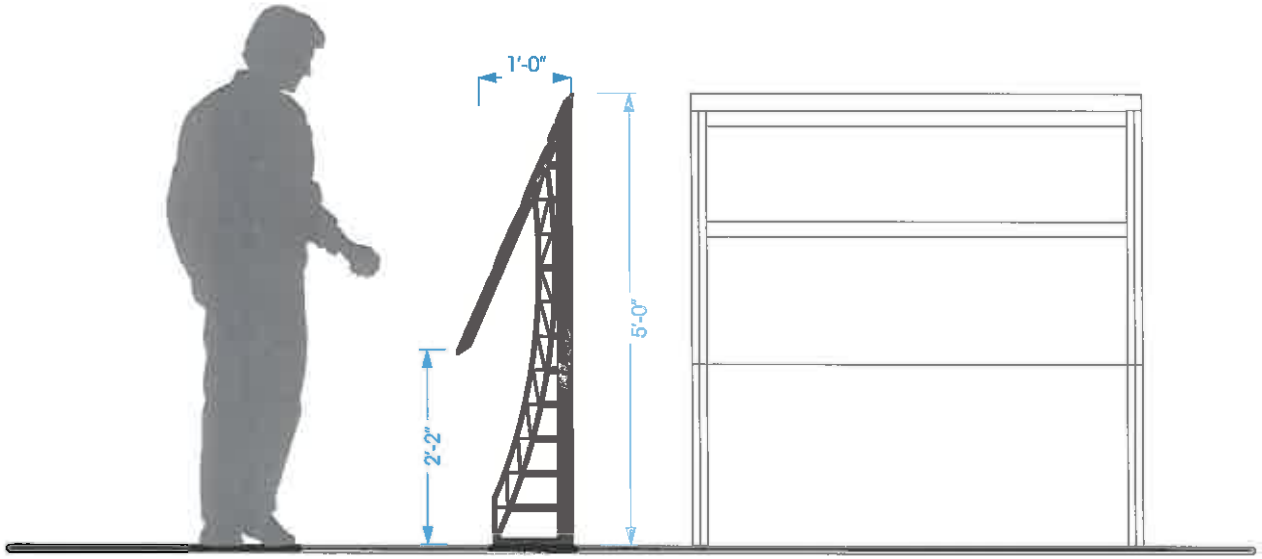
www.lytlesigns.com
sales @lytlesigns.com



INTERPRETIVE PANEL SUPPORT STRUCTURE

WATER-JET CUT SIDE DETAIL ATTACHED TO 2" SQUARE TUBE
ADDITIONAL FRAMEWORK AS NEEDED

RUST COLORED POWDER COATED

Twin Falls City Archway Committee

Twin Falls, Idaho

11May2017

3/4"=1'

Rev L

tbd

...\Twin Falls City\Entry Archway\Donnor Interpretive Sign...

30876

FACE / D

Lytle Signs Inc.

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