



Twin Falls City Council Agenda

Monday, July 15, 2019, 5:00 PM

City Council Chambers
203 Main Avenue East- Twin Falls, Idaho

Members: Shawn Barigar, Suzanne Hawkins, Nikki Boyd, Chris Talkington, Gregory Lanting, Christopher Reid, Ruth Pierce

- 1) CALL MEETING TO ORDER/CONFIRMATION OF QUORUM
- 2) PLEDGE OF ALLEGIANCE
- 3) PROCLAMATIONS: None
- 4) GENERAL PUBLIC INPUT
- 5) CONSENT CALENDAR
 - a) **ACTION ITEM:** Request to approve the Accounts Payable for June 27 thru July 10, 2019.
By: Amy Luna, Finance Administrative Assistant
 - b) **ACTION ITEM:** Request to approve the July 1, 2019, City Council Minutes.
By: Amy Luna, Finance Administrative Assistant
 - c) **ACTION ITEM:** Request to approve the July 8, 2019, City Council Minutes.
By: Amy Luna, Finance Administrative Assistant
 - d) **ACTION ITEM:** Request to approve the 8th Annual Magic Valley Beer Festival.
By: Sergeant Justin Dimond, Twin Falls Police Department
 - e) **ACTION ITEM:** Request to hold the Rim 2 Rim Event on September 14, 2019.
By: Sergeant Justin Dimond, Twin Falls Police Department
 - f) **ACTION ITEM:** Request to hold the Twin Falls Chamber Mini Masters event on August 16, 2019.
By: Sergeant Justin Dimond, Twin Falls Police Department
- 6) ITEMS OF CONSIDERATION
 - a) **ACTION ITEM:** Request to appoint nine volunteers to serve on the Source Water Protection Committee.
By: Rob Bohling, Superintendent
 - b) **ACTION ITEM:** Request to change the design of the Archway from Option 1 (lava rock veneer canyon walls) to Option 2 (weathering steel sculptured canyon walls) and request permission to begin the bid process.
By: Kathy Markus, ITC Manager

- c) **ACTION ITEM:** Request to consider allowing Contractor to execute a full closure of the intersection of Falls Avenue East and Eastland Drive North for up to 4 weeks and a closure of Falls Avenue East for an additional 4 weeks as part of the Eastland - Falls Intersection project.

By: Josh Baird, Staff Engineer

- d) **PRESENTATION:** Presentation on the finances of the City of Twin Falls for nine months of fiscal year 2018-2019. This presentation will be an overview of the tax-supported funds and the three major enterprise funds: Water, Wastewater and Sanitation.

By: Lorie Race, Chief Financial Officer

- e) **PRESENTATION:** Presentation of the City Manager's Recommended Budget for FY 2020 followed by citizen input. The presentation will focus on the Environmental Community, Prosperous Community, and Responsible Community focus areas of the Strategic Plan

By: Mitch Humble, Deputy City Manager

7) GENERAL INPUT/ADVISORY BOARD REPORT/ANNOUNCEMENTS

8) PUBLIC HEARINGS

- a) **ACTION ITEM:** Request to vacate platted easements and dedicated right of way within lots, 5, 6, 7, 9, and 10, Block 14 in the Canyon Trails Subdivision No. 5 located at 1725 Park View Drive c/o EHM Engineers, on behalf of Canyon Properties, LLC. (PZ19-0042)

By: Steve O'Connor, City Planner

9) ADJOURNMENT

- a) **ACTION ITEM:** Executive Session 74-206(1)(c) To acquire an interest in real property which is not owned by a public agency; and, Executive Session is 74-206(1)(f) To communicate with legal counsel for the public agency to discuss the legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated. The mere presence of legal counsel at an executive session does not satisfy this requirement.

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

Public Input Procedures

1. Individuals wishing to provide public input regarding matters relevant to the City of Twin Falls shall:
 - Wait to be recognized by the Mayor or Chairman
 - Approach the microphone/podium
 - State their name, and whether they are a resident or property owner in the City of Twin Falls, and proceed with their input.
2. The Mayor or Chairman may limit input to no less than two (2) minutes. Individuals are not permitted to give their time to other speakers.

Public Hearing Procedures for Zoning Requests

1. Prior to opening the first Public Hearing of the session, the Mayor or Chairman shall review the public hearing procedures.
2. Individuals wishing to testify or speak before the City Council or Planning & Zoning Commission shall wait to be recognized by the Mayor or Chairman, approach the microphone/podium, state their name, and then proceed with their comments. Following their statements, they shall write their name and address on the record sheet(s) provided by the staff. The staff shall make an audio recording of the Public Hearing.
3. A City Staff Report shall summarize the application and history of the request.
4. The Applicant, or the spokesperson for the Applicant, will make a presentation on the application/request (request). No changes to the request may be made by the applicant after the publication of the Notice of Public Hearing. The presentation should include the following:
 - A complete explanation and description of the request.
 - Why the request is being made.
 - Location of the Property.
 - Impacts on the surrounding properties and efforts to mitigate those impacts.
5. Applicant is limited to 15 minutes, unless a written request for additional time is received, at least 72 hours prior to the hearing, and granted by the Mayor or Chairman.
6. The City Council or Planning & Zoning Commission may ask questions of staff or the applicant pertaining to the request.
7. The general public will then be given the opportunity to provide their testimony regarding the request. The Mayor or Chairman may limit public testimony to no less than two (2) minutes per person.
 - Individuals are not permitted to give their time to other speakers.
 - However, five (5) or more individuals that received written notice of the public hearing may appoint, by written petition, a spokesperson. The written petition must be received at least 72 hours prior to the hearing and must be granted by the Mayor or Chairman. The spokesperson shall be limited to 15 minutes.
 - Written comments, including e-mail, received by 12:00 p.m. on the date of the hearing shall be either read into the record or displayed to the public on the overhead projector.
8. Following the Public Testimony, the applicant is permitted five (5) minutes to respond to Public Testimony.
9. Following the Public Testimony and Applicant's response, Council or Commission members, as recognized by the Mayor or Chairman, shall be allowed to question the Applicant, Staff or anyone who has testified. Responses shall be limited to answering the questions asked. The Mayor or Chairman may limit the time permitted for the answer.
10. The Mayor or Chairman shall close the Public Hearing. The City Council or Planning & Zoning Commission shall deliberate on the request. Deliberations and decisions shall be based upon the information and testimony provided during the Public Hearing. Once the Public Hearing is closed, additional testimony from the staff, applicant or public is not allowed. Legal or procedural questions may be directed to the City Attorney.

* Any person not conforming to the above rules may be prohibited from speaking. Persons refusing to comply with such prohibitions may be asked to leave the hearing and, thereafter removed from the room by order of the Mayor or Chairman.



**Twin Falls City Council
Minutes**

Monday, July 1, 2019, 5:00 PM

City Council Chambers
203 Main Avenue East- Twin Falls, Idaho

1) CALL MEETING TO ORDER/CONFIRMATION OF QUORUM

Present: Mayor Shawn Barigar, Vice Mayor Nikki Boyd, Council Member Suzanne Hawkins, Greg Lanting, Christopher Reid & Ruth Pierce.
Absent: Council Member Chris Talkington
Staff Present: City Manager Travis Rothweiler, Deputy City Managers Mitch Humble & Brian Pike, City Attorney Shayne Nope, CFO Lorie Race, Grant & Community Relations Manager Mandi Thompson, Police Chief Kingsbury, Fire Chief Kenworthy, Staff Engineer Josh Baird, Parks & Recreation Director Wendy Davis, Parks Superintendent Kevin Skelton, Aquatics Director John Pauley, Public Works Director Jon Caton, Help Desk Technician Kim Hafer, Finance Administrative Assistant Amy Luna.

Mayor Barigar called the meeting to order at 5:01 PM. A quorum was present.

2) PLEDGE OF ALLEGIANCE:

Mayor Barigar invited all present, who wished, to recite the Pledge of Allegiance to the Flag.

3) PROCLAMATIONS: None

4) GENERAL PUBLIC INPUT: None

5) CONSENT CALENDAR

Council Member Hawkins asked to have item (5a) voted on separately.

MOTION: Council Member Hawkins moved to approve the Consent Calendar as presented with the item (5a) removed. **Council Member Pierce** seconded the motion. Roll call vote showed all members present voted in favor of the motion. 6 to 0

MOTION: Council Member Pierce moved to approve June 24, 2019, City Council Minutes (5a) as presented. **Vice Mayor Boyd** seconded the motion. Roll call vote showed all members present voted. Approved 5 to 0 with **Council Member Hawkins** abstaining.

- a) **ACTION ITEM:** Request to approve the June 24, 2019, City Council Minutes.
- b) **ACTION ITEM:** Request to approve the Accounts Payable for June 20 thru 26, 2019.
- c) **ACTION ITEM:** Request to hold the Parktacular event on August 11, 2019.
- d) **ACTION ITEM:** Request to hold the Arts in the Park on July 25 to 27, 2019.
- e) **ACTION ITEM:** Request to hold the Rotary Club's 9th Annual Ice Cream Funday on Saturday, July 27, 2019.
- f) **ACTION ITEM:** Request to approve Parks and Recreation Commission acceptance of a bench donation and plaque inscription in memory of Denny and Connie Zimmerman.
- g) **ACTION ITEM:** Request to approve Parks and Recreation Commission acceptance of a donation of bench and plaque in honor of Bill Crow.
- h) **ACTION ITEM:** Request to accept the Parks in Lieu cash contribution for Cedar Park #12 Subdivision a PUD. App PZ19-0065

6) ITEMS OF CONSIDERATION

- a) **ACTION ITEM:** Request to approve the Idaho Transportation Department Idaho Child Passenger Safety grant program grant application.

Grant & Community Relations Manager Thompson made a request to approve the Idaho Transportation Department Idaho Child Passenger Safety grant program grant application for \$10,740.22.

MOTION: Council Member Lanting moved to approve the request to approve the Idaho Transportation Department Idaho Child Passenger Safety grant program grant application for \$10,740.22. **Council Member Reid** seconded the motion. Roll call vote showed all members present voted in favor of the motion. 6 to 0.

- b) **ACTION ITEM:** Request to award the Eastland - Falls Intersection Project to PMF, Inc. of Twin Falls, Idaho, in the amount of \$950,211.00.

Staff Engineer Baird made a request to award the Eastland-Falls Intersection Project to PMF, Inc. of Twin Falls, Idaho, in the amount of \$950,211.00.

Discussion ensued on the following:

Vice Mayor Boyd: Asked why this intersection was not done in conjunction with the Eastland Road project.

Public Works Director Caton: Explained the different construction type that is being used for this project.

Council Member Hawkins: Asked for an explanation of the math error that was shown on the bottom of the bid.

Council Member Reid: Asked if we should be concerned that we are only getting one bid on our projects.

Civil Science Engineer Jake: Explained that they had actually contacted 5 contractors and they were just busy.

Council Member Reid: Asked how we get on these contractors schedules sooner.

Council Member Pierce: Asked if we are going to be encountering this again, where we are at the mercy of the contractors and only have one bid to consider.

City Manager Rothweiler: Explained the process that we have right now and suggested that maybe this needs to change.

Council Member Lanting: Do we have sufficient reserves available to cover this overage?

Council Member Hawkins: Are we able to reject the bid and then proceed with other avenues.

Mayor Barigar: Commented on the additional routes that are now available in this area so that the commute times are not greatly impacted.

Public Works Director Caton: Commented on the fact that the Council has the authority to reject this bid and wait until next year.

MOTION: **Council Member Lanting** moved to approve the request to award the Eastland- Falls Intersection Project to PMF, Inc. of Twin Falls, Idaho, in the amount of \$950,211.00. **Council Member Pierce** seconded the motion. Roll call vote showed all members present voted in favor of the motion. 6 to 0.

- c) **ACTION ITEM:** Request for Council direction regarding the scope of response to Council's request to explore options for addressing individuals teaching private lessons at the Twin Falls City Pool.

Parks & Recreation Director Davis and City Attorney Nope made a request for Council direction regarding the scope of response to Council's request to explore options for addressing individuals teaching private lessons at the Twin Falls City Pool.

Questions to be considered:

Would the Council like to continue with just the pool or with all city park facilities? Would you like to charge for these facilities? i.e.: permits, rental fees, etc.

Discussion ensued on the following:

Council Member Lanting: Asked if students and instructors have to pay to enter the pool. Asked if the Golf Course had an issue with this.

Council Member Reid: Asked which facilities were in question.

Council Member Hawkins: City employs personnel to maintain these facilities at a cost to the City, and the taxpayers are subsidizing these for-profit businesses.

Council Member Pierce: Agreed with the comments of Council Member Hawkins. Is in favor of the permitting process.

Citizen Jennifer Kluff: Asked if they would have to pay for the entry fee in addition to the permitting fee by the instructor.

Council Member Hawkins: Explained her thoughts on this question.

Mayor Barigar: Explained that this is just the discussion process at this time and these are good things to be considered.

Vice Mayor Boyd: Not big on regulating everything. Is in favor of looking at the permitting fee process.

Council Member Lanting: Not planning on pricing anyone out of business.

Citizen Laura Twiss: Explained some survey results that she collected.

Council Member Reid: Does not have a problem with competition, but is in favor of the permitting fee to maintain the facilities.

Mayor Barigar: Asked how other cities are handling things. Are there any best practices in place?

P&R Director Davis: Explained what they have found to date.

Mayor Barigar: Spoke about the challenges of enforcing any codes that the City decides to implement. What are the liabilities to be looked at if permitting were to be implemented?

City Manager Rothweiler: Explained that the questions that they had, have now been answered sufficiently enough to go have additional conversations, and they will bring this item back to the Council and hold public hearings.

Mayor Barigar: Encouraged the private instructors or citizens to make comments and give ideas.

- d) **ACTION ITEM:** Request to use cash reserves to make up the difference between the budgeted project for the golf course storage shed.

Parks & Recreation Director Davis made a request to use cash reserves to make up the difference between the budgeted amount and the actual cost of the project for the Golf Course storage shed.

Discussion ensued on the following:

Vice Mayor Boyd: Asked about the cap on the project.

Council Member Hawkins: How was the \$200,000.00 amount determined?

City Manager Rothweiler: Explained the State Bidding process.

Vice Mayor Boyd: Asked for clarification of the cap.

Council member Reid: What amount of contingencies are we looking at?

Council Member Hawkins: Asked if they would still be able to say no if the new bids come in higher than they want it to be.

MOTION: Council Member Pierce moved to approve the request to entertain the use of cash reserves to make up the difference between budgeted projects and bids for golf course storage shed. **Council Member Reid** seconded the motion. Roll call vote showed all members present voted in favor of the motion. 6 to 0.

7) GENERAL INPUT/ADVISORY BOARDREPORT/ANNOUNCEMENTS

City Manager Rothweiler:

Acknowledged Council Member Suzanne Hawkins on her election as the president of the AIC. City Attorney Nope was awarded the rising star award by the Idaho Municipal Attorneys Association.

Shout out to Cliff bar and Cycle Therapy for the successful Criterion bike races that went on this last weekend.

The 4th of July fireworks display will be held at CSI at 10 pm. Budget

Hearings start next week and conclude on August 26.

State of the City is July 16th at the Stone House from 11:30 to 1:00.

8) PUBLIC HEARINGS: None

9) ADJOURNMENT

The meeting adjourned at 06:16 PM.

Amy Luna, Administrative Assistant Finance



Twin Falls City Council Minutes

Monday, July 8, 2019, 5:00 PM

City Council Chambers
203 Main Avenue East- Twin Falls, Idaho

1) CALL MEETING TO ORDER/CONFIRMATION OF QUORUM

Present: Mayor Shawn Barigar, Vice Mayor Nikki Boyd, Council Member Suzanne Hawkins, Chris Talkington, Greg Lanting & Ruth Pierce.

Absent: Council Member Christopher Reid

Staff Present: City Manager Travis Rothweiler, Deputy City Managers Mitch Humble & Brian Pike, City Attorney Shayne Nope, CFO Lorie Race, Assistant Finance Director Brent Hyatt, Budget Coordinator Mat Farnes, Accounting Specialist Janie Higgins, Finance Accountant/Supervisor Bill Baxter, Police Chief Kingsbury, Fire Chief Kenworthy, Assistant City Engineer Troy Vitek, Building Official Jarrod Bordi, Environmental Engineer Jason Brown, Staff Engineer Erin Steel, Code Enforcement Coordinator Sean Standley, Public Information Officer Josh Palmer, Human Resource Director Gretchen Scott, Network Administrator Mike Plane, Finance Administrative Assistant Amy Luna.

Mayor Barigar called the meeting to order at 5:02 PM. A quorum was present.

2) PLEDGE OF ALLEGIANCE

Mayor Barigar invited all present, who wished, to recite the Pledge of Allegiance to the Flag.

3) PROCLAMATIONS: None

4) GENERAL PUBLIC INPUT: None

5) CONSENT CALENDAR

MOTION: Vice Mayor Boyd moved to approve the consent calendar as presented. Council Member Pierce seconded the motion. Roll call vote showed all members present voted in favor of the motion. 7 to 0.

- a) Request to hold the Twin Falls Chamber Business After Hours - The United Way and Community Partners BBQ to be held on July 25, 2019.
- b) Consideration of a request to approve a Trust Agreement for multiple lots in Sunterra Subdivision No. 4.

6) ITEMS OF CONSIDERATION

- a) Request to proceed to open market negotiations for the Caswell Avenue Sidewalk Improvement Project.
Staff Engineer Steel requested to proceed to open market negotiations for the Caswell Avenue Sidewalk Improvement Project.

Deadline is December 12, 2019

Discussion ensued on the following:

Council Member Talkington: Why have the contractors not responded?

Council Member Hawkins: Are you confident that we will be able to keep on schedule with this project?

MOTION: Vice Mayor Boyd moved to approve the request to proceed to open market negotiations for the Caswell Avenue Sidewalk Improvement Project. **Council Member Talkington** seconded the motion. Roll call vote showed all members present voted in favor of the motion. 6 to 0.

- b) Presentation of the Distinguished Budget Award received by the City of Twin Falls for the 2019 Fiscal Year Budget for the year ended September 30, 2019.

City Manager Rothweiler made a presentation of the Distinguished Budget Award received by the City of Twin Falls for the 2019 Fiscal Year Budget for the year ended September 30, 2019.

- c) Appoint City Manager, Travis Rothweiler, to the CAMP Implementation Committee.

Mayor Barigar requested to appoint City Manager Rothweiler to the CAMP Implementation Committee.

MOTION: Council Member Pierce moved to approve the request to appoint City Manager Rothweiler to the CAMP Implementation Committee. **Council Member Talkington** seconded the motion. Roll call vote showed all members present voted in favor of the motion. 6 to 0.

- d) Discussion and possible action on a Fire Bond.

Deputy City Manager Pike requested possible action on a Fire Bond.

Discussion ensued on the following:

Council Member Hawkins: 1) 20-year options are what was given, would we have other options?

2) With Options 2 & 3, are you proposing that you would not remodel station 1? 3) What about using the foregone balance to lower the amount needed? 4) What about having two bonds go out to the public at the same time as the County is also looking at putting out a bond for a vote.

County Commissioner Hall: Explained their intention regarding the Counties bond.

Council Member Talkington: On any of the three proposals is the responsive time impacted that would affect property taxes.

Fire Chief Kenworthy: Explained the impact.

Mayor Barigar: Spoke about a station 5 option.

Vice Mayor Boyd: Spoke about the different options.

Council Member Lanting: Spoke about the community concerns that he has heard. What are the dates that are available for the bond to go to vote?

City Manager Rothweiler: Explained the staff's request related to this item.

Council Member Pierce: Did the committee come with a specifically recommended option that they felt would be the best?

Committee Member LeRoy: Responded that their best option would be option #2.

Mayor Barigar: Asked for clarification of the options.

Council Member Lanting: Asked for the bond options if done in multiple bonds. Very concerned about doing the City's bond at the same time as the County.

Council Member Talkington: Spoke about why the bond failed in May. I would like to have the Council eliminate one of the options to make the decision easier.

MOTION: Council Member Talkington moved to eliminate option 1 from the packet. No Council Member seconded the motion. The motion failed due to no second.

Council Member Lanting: Explained why he was unable to second the motion.

Council Member Hawkins: Echoed Council Member Lanting's concerns. Not in a position to make a decision tonight. I need to look at other options and work closely with the County.

Mayor Barigar: Spoke on the concerns of putting this off for an extended period of time.

City Manager Rothweiler: Reiterated what the Council would like to see be brought back to them before September.

Mayor Barigar requests a 5-minute break at 6:15. Reconvened at 6:26.

- e) Presentation of the City Manager's Recommended Budget for FY 2020 followed by citizen input.

City Manager Rothweiler made a presentation of the City's Manager's Recommended Budget for FY 2020.

Discussion ensued on the following:

Council Member Lanting: Thanked City Manager Rothweiler for his presentation.

Mayor Barigar: Asked if there a list of items that did not make the cut for the budget.

Citizen Input Opened at 7:06

Citizen Input Closed at 7:06

7) GENERAL INPUT/ADVISORY BOARD REPORT/ANNOUNCEMENTS

Council Member Hawkins asked for an explanation of the door to door sales persons who are working within the City of Twin Falls.

Police Chief Kingsbury explained the City's code for Door to door salespersons.

Council Member Talkington asked about the running of red lights, and if the license plate number is enough to report the incident.

City Manager Humble introduced the new City Engineer Mark Holtzen.

City Manager Rothweiler spoke about the Welcome Home Celebration that will be held on July 13, 2019, starting at 8 am.

8) PUBLIC HEARINGS: None

9) ADJOURNMENT

Executive Session request Cancelled

- a) Executive Session § 74-206(1)(f) To communicate with legal counsel for the public agency to discuss the legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated. The mere presence of legal counsel at an executive session does not satisfy this requirement.

The meeting adjourned at 07:14 PM

Amy Luna, Administrative Assistant Finance



Date: Monday, July 15, 2019
To: Honorable Mayor and City Council
From: Sergeant Justin Dimond, Twin Falls Police Department

ACTION ITEM

Request:

ACTION ITEM: Request to approve the 8th Annual Magic Valley Beer Festival.

Time Estimate:

Staff requests that this item be placed on the Consent Calendar.

Background:

Shayne Carpenter has submitted a Special Event Application requesting to hold the 8th Annual Magic Valley Beer Festival on Saturday, August 3, 2019. This event is scheduled to be held in the Twin Falls City Park from 1:00 p.m. to 6:00 p.m. The festival is a charitable event with the proceeds going to support Rotary and local charities. Multiple brewers will share 150 different beers with attendees.

The area requested for the Beer Festival will be located in the north half of the City Park. The area will be fenced in with only one entry point. Identification will be checked and wristbands will be provided to those purchasing and consuming beer. The event organizers have requested two (2) Twin Falls Police Officers to provide security for the event. The Officers will begin security at 2:00 p.m. and will stay for one (1) hour after beer sales cease (7:00 p.m.). The event organizers will pay the security fee.

There will be live music in the park band shell from 12:00 p.m. to 6:00 p.m.

The Rotary Club has purchased a Benevolent Catering Permit through the State of Idaho, which will cover all vendors. Additionally, they have secured the required insurance for this event.

Approval Process:

Consent of the City Council

Budget Impact:

There will be two (2) Twin Falls Police Officers working the event from 2:00 p.m. to 7:00 p.m. The total cost for security will be \$603.00, which will be paid by the Rotary Club. The Rotary Club will have 60 days from the conclusion of the event to pay the security invoice.

Regulatory Impact:

N/A

History:

N/A

Analysis:

N/A

Conclusion:

The Twin Falls Police Department Staff and several relevant City Staff Members have approved this Special Event Application. Based on this request and the information provided, Staff recommends this event be approved as presented.

The Twin Falls Police Department Staff recommends that the on-duty Patrol Supervisor be given the authority to order the event organizers to mitigate the sound of amplified music. If there are continued noise complaints, disturbances by those attending the event, and non-compliance, the on-duty Patrol Supervisor shall terminate the event.

Attachments:

None



Date: Monday, July 15, 2019
To: Honorable Mayor and City Council
From: Sergeant Justin Dimond, Twin Falls Police Department

ACTION ITEM

Request:

ACTION ITEM: Request to hold the Rim 2 Rim Event on September 14, 2019.

Time Estimate:

Staff requests that this item be placed on the Consent Calendar.

Background:

Linda Fleming, on behalf of Habitat for Humanity, has submitted a Special Event Application requesting to hold the Rim 2 Rim Event on September 14, 2019. This event will be held from 9:00 a.m. to 2:00 p.m.

The Rim 2 Rim race has been an annual event for the Twin Falls community for 42 years. This race was started by the College of Southern Idaho Track Team to raise monies for area charities. In 2006, the Habitat for Humanity of the Magic Valley took over the event as an annual fundraiser. The Rim 2 Rim race has consistently attracted runners from around the Magic Valley, the State of Idaho, as well as other parts of the country. The Rim 2 Rim race has grown in recent years to include approximately 500 participants.

Preparation for the main event will begin at 7:00 a.m. on Saturday, September 14, 2019, with the race beginning at 9:00 a.m. Runners will start near the Blue Lakes Country Club Clubhouse and proceed out of the north canyon. From there, runners will cross the Perrine Bridge heading south and meet up with the City's Canyon Rim Trail System. The runners will then descend the Canyon Springs Grade to Canyon Springs Golf Course. Runners will cross the footbridge over the Snake River and the race will end back at the Blue Lakes Country Club.

A second race, the Half Rim to Rim, will depart the Sportsman's Warehouse parking lot at 10:00 a.m. Runners will follow the Canyon Rim Trail to Canyon Springs Grade where runners will descend into the south canyon and head to the Canyon Springs Golf Course. These runners will also cross the Snake River footbridge and end at the Blue Lakes Country Club. Both races should conclude no later than 2:00 p.m.

There will be two first aid stations placed on the Jerome County side of the race, and water stations will be strategically placed throughout the events.

The majority of the race activities, booths, vendors, tents, etc., will be held at the Blue Lakes Country Club.

Approval Process:

Consent of the Council

Budget Impact:

N/A

Regulatory Impact:

N/A

History:

N/A

Analysis:

N/A

Conclusion:

Staff recommends that the City Council approve the Special Event Application submitted for the Rim 2 Rim Event based on the information provided.

Attachments:

None



Date: Monday, July 15, 2019
To: Honorable Mayor and City Council
From: Sergeant Justin Dimond, Twin Falls Police Department

ACTION ITEM

Request:

ACTION ITEM: Request to hold the Twin Falls Chamber Mini Masters event on August 16, 2019.

Time Estimate:

Staff requests that this item be placed on the Consent Calendar.

Background:

The Twin Falls Chamber of Commerce has submitted a Special Event Application requesting to hold the Twin Falls Chamber Mini Masters event on Friday, August 16, 2019.

The Mini Masters will feature two-person mini golf teams competing to be the mini golf champions of Twin Falls. There will be different start times for different flights of competitors. The event will start at 12:00 p.m. and end at 8:00 p.m.

This event will have mobile food vendors set up in the parking lot of Putters and a no-host catered bar. Buster's Restaurant will be catering this event, and they have agreed to secure the proper catering permit.

The event will have a live DJ for announcements and the playing of pre-recorded music.

Approval Process:

Consent of the City Council

Budget Impact:

Alcohol will be served at this event. There were no calls for service to the Police Department in 2017 or 2018. Twin Falls Police Department staff does not feel security will be necessary. Therefore, there is no budgetary impact.

Regulatory Impact:

N/A

History:

N/A

Analysis:

N/A

Conclusion:

The Twin Falls Police Department Staff and several relevant City Staff Members have approved this Special Event Application. Based on this request and the information provided, Staff recommends this event be approved as presented.

Attachments:

None



Date: Monday, July 15, 2019
To: Honorable Mayor and City Council
From: Rob Bohling, Superintendent, Chris Johnson

ACTION ITEM

Request:

ACTION ITEM: Request to appoint nine volunteers to serve on the Source Water Protection Committee.

Time Estimate:

10-15 Minutes for a brief presentation from Chris Johnson (Idaho Rural Water Assoc.), introduce candidates and answer Council questions.

Background:

On April 15th, Staff notified Council of the need to update our City's Source Water Protection Plan and requested permission to solicit candidates to form a committee to guide the update. Council approved this request. Staff has found several capable candidates that are willing to serve on the Committee and is requesting Council's approval and appointment of committee membership. The following people have volunteered to serve on the committee:

Chris Talkington-Council Member
Jonathan Spendlove-City P&Z
Jon Laux-County P&Z
Brian Ahrens-Jerome City Water
Mark Holtzen-City of Twin Falls Engineer
Robert Bohling-Twin Falls City Water
Drew Foster-Twin Falls City Water
Chris Johnson-IRWA Source Water Specialist
John Kapeleris-Citizen of Twin Falls

Approval Process:

Requires Council Approval

Budget Impact:

NA

Regulatory Impact:

Having a Drinking Water Source Protection Plan is a voluntary program; however, it is highly recommended. Benefits of having a Source Water Protection Plan are having an idea of potential risks to the system from hazards or contamination, and eliminating or reducing them before contamination occurs. Furthermore, in the future, this plan will be required in order to participate in State Grants and/or the State Revolving Fund.

History:

N/A

Analysis:

N/A

Conclusion:

Staff recommends approval and appointment of all 9 volunteers to serve on the Source Water Protection Committee.

Attachments:

None



Date: Monday, July 15, 2019
To: Honorable Mayor and City Council
From: Kathy Markus, Information Services, ITC Manager

ACTION ITEM

Request:

ACTION ITEM: Request to change the design of the Archway from Option 1 (lava rock veneer canyon walls) to Option 2 (weathering steel sculptured canyon walls) and request permission to begin the bid process.

Time Estimate:

15 Minutes

Background:

The City Council requested that a Citizens Advisory Committee be created to design and raise funds for an archway with an electronic sign. The archway would span Shoshone street by the city park and have two message electronic message boards. The electronic message boards will be used to present city events, community events, and emergency messages. Several messages will be able to be displayed at the same time.

The Archway Project Citizens Advisory Committee invited the public, local artists, and schoolchildren to submit design concepts for the Archway. The committee reviewed the plans and created a concept incorporating the submitted designs and the committees input.

On April 3, 2017, the design concept was approved. The approved archway included two electronic signs. One facing each direction of traffic. The frame will be a rust finish and the letters will have a blue LED Halo illumination. The fabricated canyon walls of the structure was designed be created with lava rock veneer to match the local Twin Falls canyon walls.

The citizens advisory committee has re-evaluated the canyon wall fabrication. The group believes that steel simulated canyon walls would be a better solution. The steel would have a natural rust finish, random etching to create color variation, and be sculptured or shaped in three dimension and welded together. The advantages of the steel are it will be harder to climb than the rock and it will also be easier to clean in the event of graffiti.

Core10 Steel was used to create the overlook at Elevation 486 and Canyon Crest. A photo is attached which demonstrates how the Core10 Steel looks when it is rusted.

The attachment labeled Option 1 is the initial design and the attachment labeled Option 2 is the requested modification. Demo 1 and Demo 2 are samples of the proposed solution. Core10Steel attachment displays rusting of the steel.

The Archway Project committee has collected \$62,735.82 in cash, \$104,650 in pledges, and in-kind pledges valued at approximately \$15,803. The current total raised is \$183,188.82. Engineering fees and other miscellaneous fees totaled \$6,378.64. The current balance is \$176,810.18. In early 2018, the project was estimated to cost \$300,000 to complete.

The committee has worked diligently to raise funds and will continue to do so until the project is complete. The proposed 2019/2020 budget includes funds to complete the project. These funds will be available October 1, 2019. The Twin Falls Community Foundation is managing the funds collected for this project. If you are interested in donating, please visit <https://twinfallscommunityfoundation.org/current-projects>.

In order to expedite the project, so that it is complete before next spring, today's request is for permission to begin the bid process by publishing the RFP on July 18. The proposals will be evaluated and the request to enter into contract negotiations will be presented to the City Council in September. If all goes well, the contract award should be signed in early October.

Approval Process:

Majority Vote

Budget Impact:

Included in Proposed Budget

Regulatory Impact:

N/A

History:

N/A

Analysis:

N/A

Conclusion:

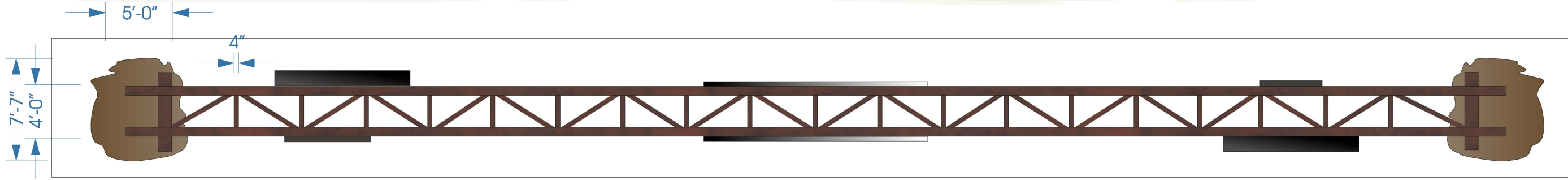
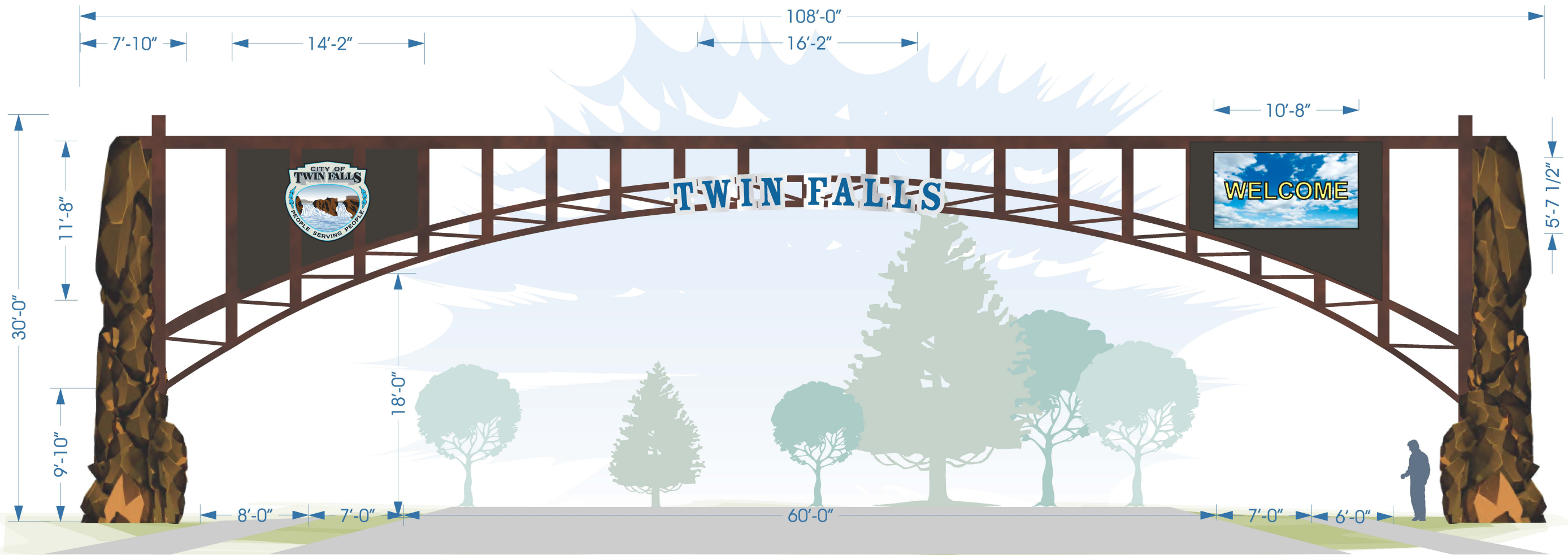
The Archway Project Citizens Advisory Committee recommends the approval of this modification.

City staff recommends the approval to begin the bid process for the archway and message boards on Shoshone Street between 4th and 6th Avenue North in Twin Falls. 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.

Attachments:

1. Option1
2. Option2
3. Demo1
4. Demo2
5. Core10Steel
6. ArchwayOption1RFP

7. ArchwayOption2RFP
8. DonationsOver1000



AERIAL VIEW TO DEMONSTRATE COLUMN LAYOUT



(1) D/F ENTRY WAY ARCH

Unauthorized use, reproduction and or display shall render the infringer liable for up to \$150,000 in statutory damages, plus attorney fees and costs for each infringement under the U.S. Copyright Act (17 U.S.C. 412 & 504)
THIS RENDERING IS CONCEPTUAL---COLORS MAY NOT REPRESENT ACTUAL FINISH---ILLUMINATED AND DAYLIGHT COLORS WILL VARY

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 7
QUOTE #:	29971
REVISIONS:	03-26-2019

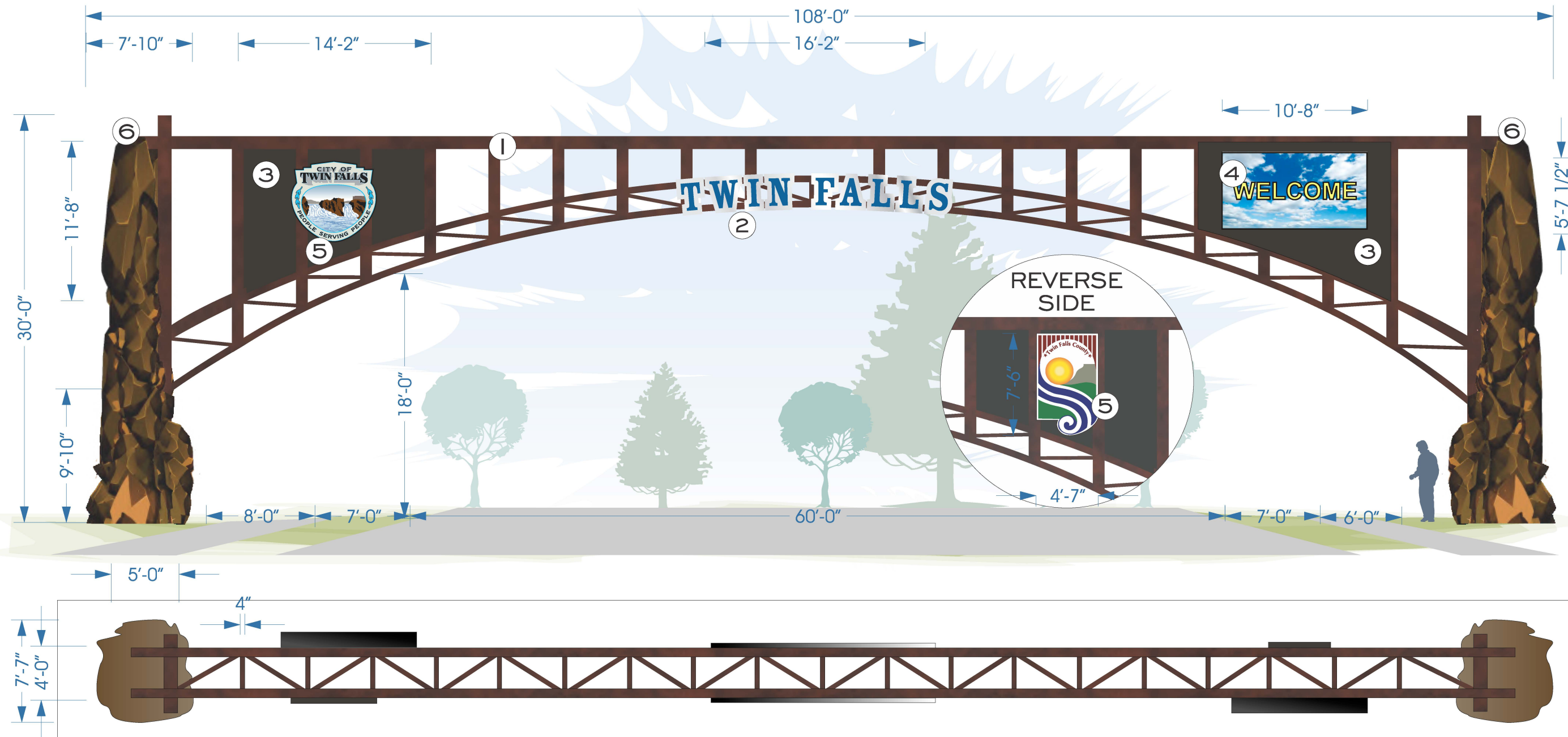


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fax 208.736.8653

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AERIAL VIEW TO DEMONSTRATE COLUMN LAYOUT

(1) D/F ENTRY WAY ARCH

1. 2-8" STEEL SQ. TUBE FRAME AND 4" CROSS MEMBERS WITH NATURAL RUST FINISH
2. REVERSE PAN CHANNEL LETTER SET
3" RETURNS PAINTED BLUE (PMS 3015C)
BLUE L.E.D HALO ILLUMINATION
.080 ALUMINUM ROUTED BACKER PANEL, BRUSHED FINISH
3. .080 ALUMINUM BLADE BACKERS FOR EMCs
PAINTED DURANODIC BRONZE (PMS 412C)
4. (2X) 15.85MM 100 X 200 MATRIX COLOR EMCs
MOUNTED ON EACH SIDE OF ARCH ABOVE ONCOMING TRAFFIC
MOUNTED TO FRAME THROUGH ALUMINUM BACKERS

5. ILLUMINATED CITY & COUNTY LOGOS
5" BRONZE ALUMINUM RETURNS INTERNAL WHITE L.E.D. ILLUMINATION
WHITE POLYCARBONATE FACES WITH BRONZE TRIM CAP
DIGITALLY PRINTED LOGOS ON CLEAR VINYL
FLUSH MOUNTED TO FRAME
6. 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



SIMULATED NIGHT VIEW TO DEMONSTRATE ILLUMINATION

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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 7

QUOTE #:
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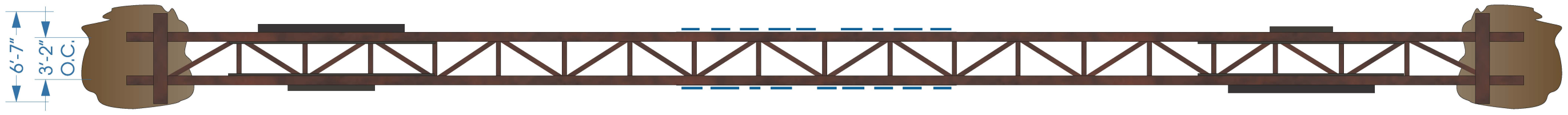
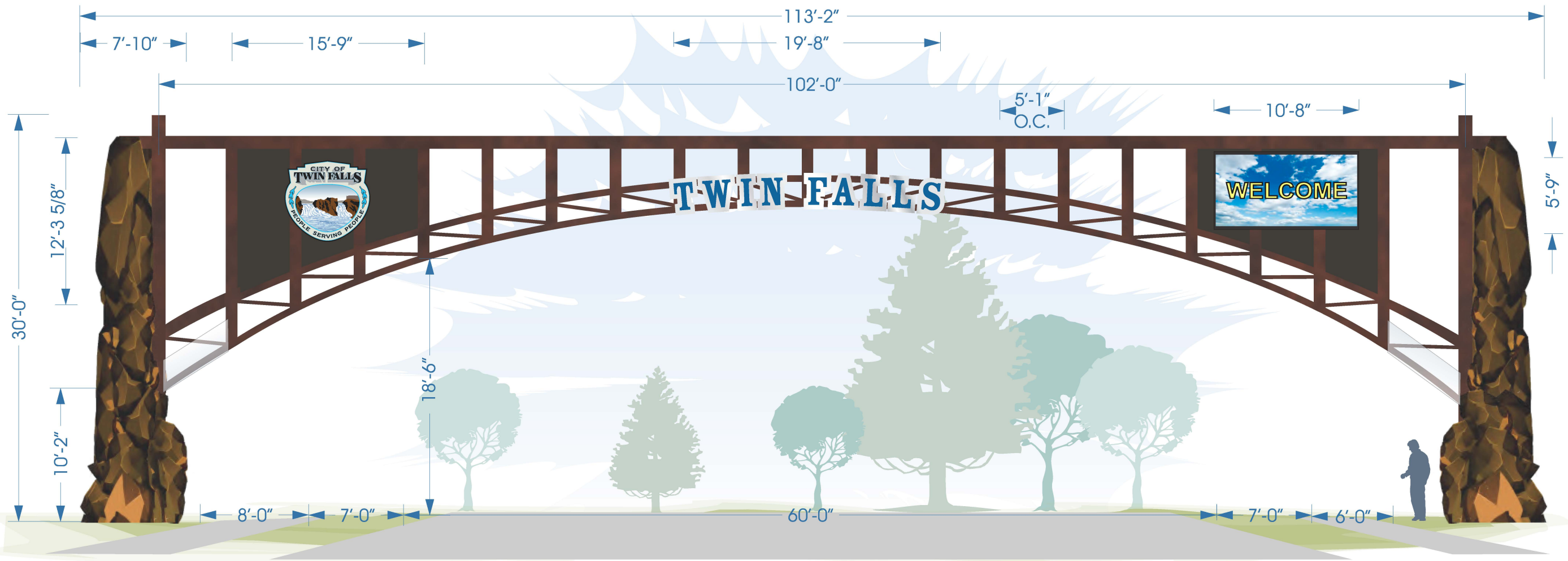
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AERIAL VIEW TO DEMONSTRATE COLUMN LAYOUT



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JOB LOCATION:
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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 #:
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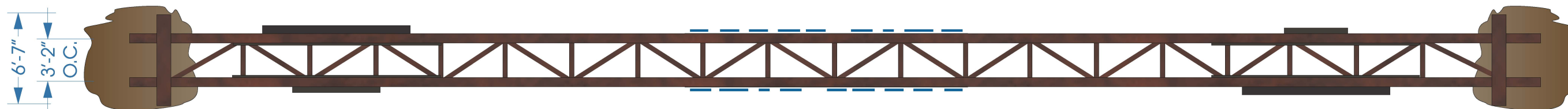
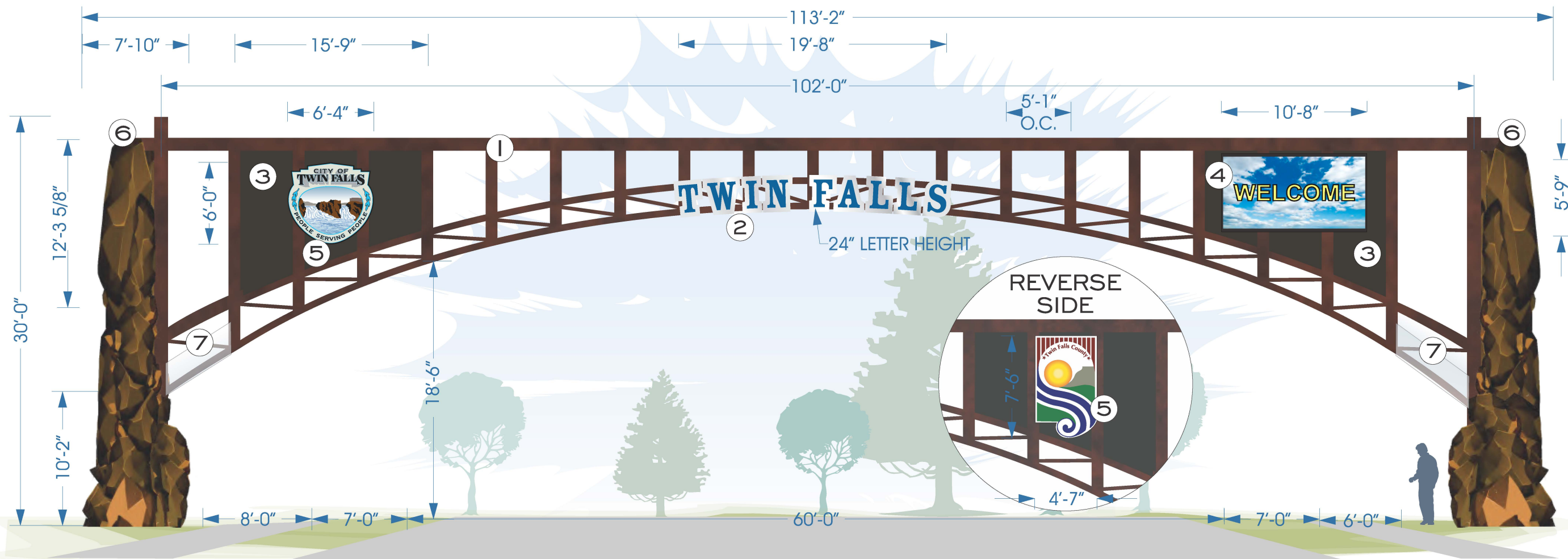
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WSA
WORLD SIGN ASSOCIATES



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
DAKTRONICS GS6 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 SIMULATED CANYON WALLS
INTERNAL STEEL FRAMEWORK (SEE STAMPED ENGINEERED PLANS)
3/16" WEATHERING STEEL PLATE COVERS CUT & WELDED TOGETHER
WITH NATURAL RUST FINISH & RANDOM ETCHING TO CREATE COLOR VARIATION
NOTE: ELEMENTS TO BE DESIGNED TO DETER CLIMBING STRUCTURE

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

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03-26-2019
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04-08-2019
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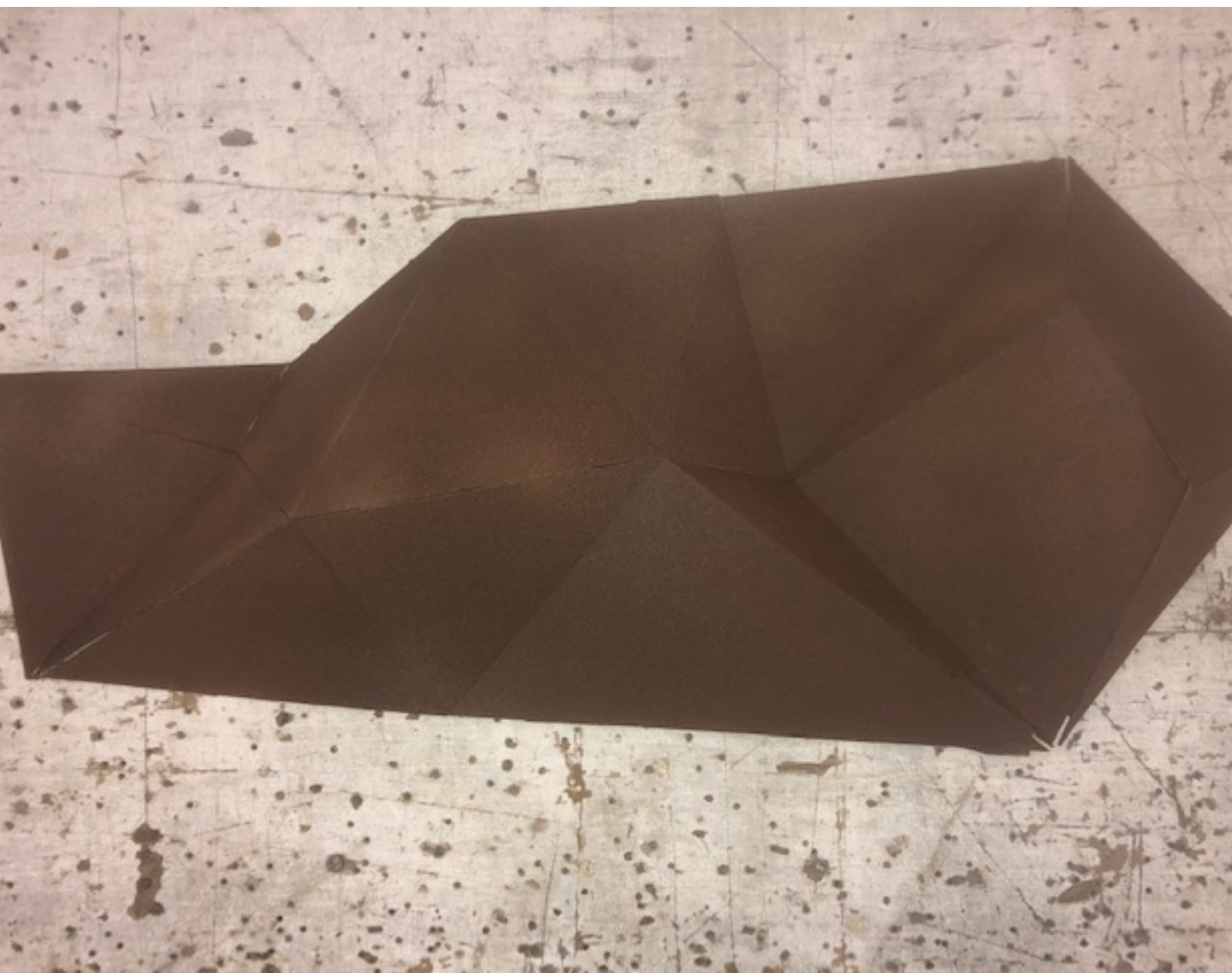
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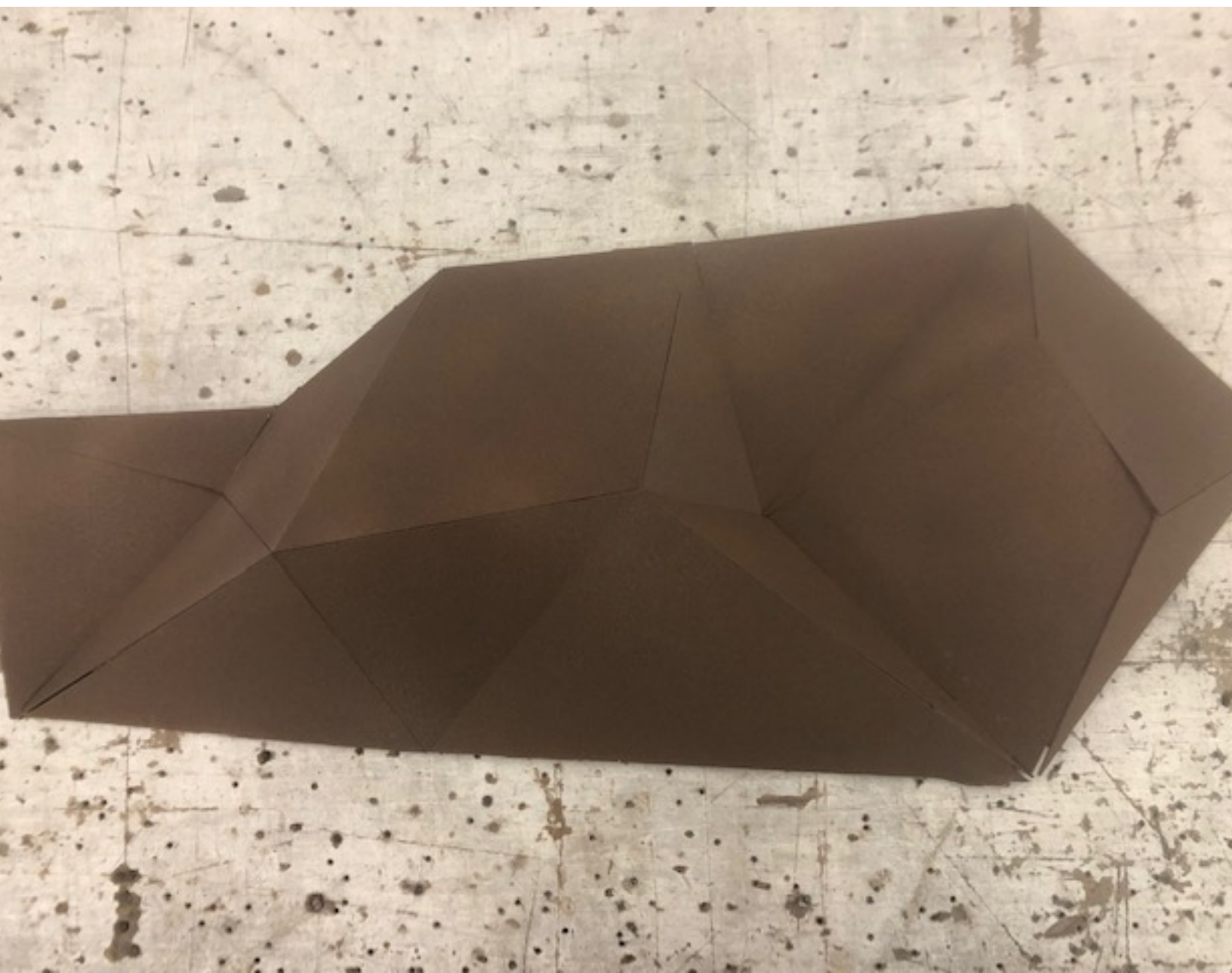
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City of Twin Falls, Idaho

**Request for Proposal #IT201901
for
Archway with Message Boards**

July 18, 2019

Proposal Due:

August 19, 2019

12 PM Mountain Time

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

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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 or proposed changes will be welcomed and evaluated and must go through the City Council approval process.

1.4 RFP Response Submission

One original proposal document, two (2) hard copies (a total of three (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
July 18, 2019		RFP Distribution
August 8, 2019	5:00 p.m. (MT)	Intent to Respond to RFP
August 8, 2019	5:00 p.m. (MT)	RFP Questions Due
August 15, 2019		Response to RFP Questions Issued
August 29, 2019	5:00 p.m. (MT)	Proposal Due Date
September 18, 2019		Bidder Selection
October 7, 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.
- 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 4 - 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 5 – 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 are 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 of 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 Navori device is required to communicate back to the City network using a Wi-Fi device (provided by the City) that must be placed by the bidder 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, and sidewalk construction.

One side of the archway's base 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.

- Building and electrical permits are required to be obtained before work begins. All work to be done by Idaho licensed contractors.
- All shop welding to be done by certified welders and in compliance with AWS D1.1. Certifications of welders to be submitted to owner and Engineer of Record before project begins.
- All field welding to be done by certified welders and in compliance with AWS D1.1. Certifications of welders to be submitted to owner and Engineer of Record before project begins.
- All shop and field welding to be in accordance with approved welding procedures as outlined in AWS D1.1. Shop and field welding procedures to be submitted to owner and Engineer of Record before project begins.
- Tube steel framing members to be ASTM A500 GR.B or CORTEN. Mill certifications showing compliance with these grades of steel need to be submitted to owner and Engineer of Record before project begins.
- Special inspection by a certified third party inspection firm is required for all concrete/rebar placement and field welding. Concrete test cylinders to be taken by special inspector and tested for compression strength as indicated on the engineered foundation design.

2.7.11 Tree Removal

The archway install will require the removal of one tree. This removal must be coordinated with Parks and Recreation and any necessary permits should be completed.

2.7.12 Donation Recognition and Services

The bid project includes coordination and installation of the donation recognition bricks and the donation sign. Twin Falls Community Foundation will order the donation bricks. 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

Anonymous
Construction Assistance (Value \$10,000)
Information Will Be Available to the Awarded Bidder

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.

2.7.13 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.

2.7.14 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.

2.7.15 Documentation

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

2.8 Section 6 – Product Features

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

2.9 Section 7 - 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 8 – 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
 - Navari system integration
 - Final inspection and punch list resolution
 - As-built documentation
 - Maintenance recommendations
 - Training and maintenance Recommendations

2.11 Section 9 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 10 – Sample Agreements/Contracts

This section should include all applicable sample 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 11 - 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 12 – Additional Information

This section should include any additional information Bidder deems necessary.

2.15 Section 13 - 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	Quantity	Price Each	Extended Price
	Total 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 14 – Statement of Compliance

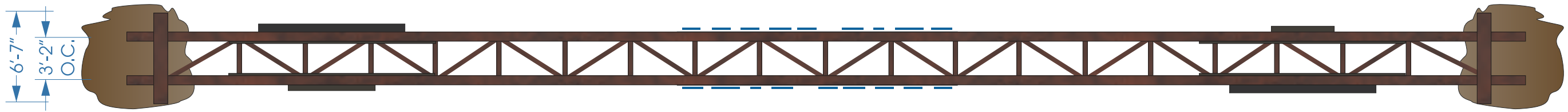
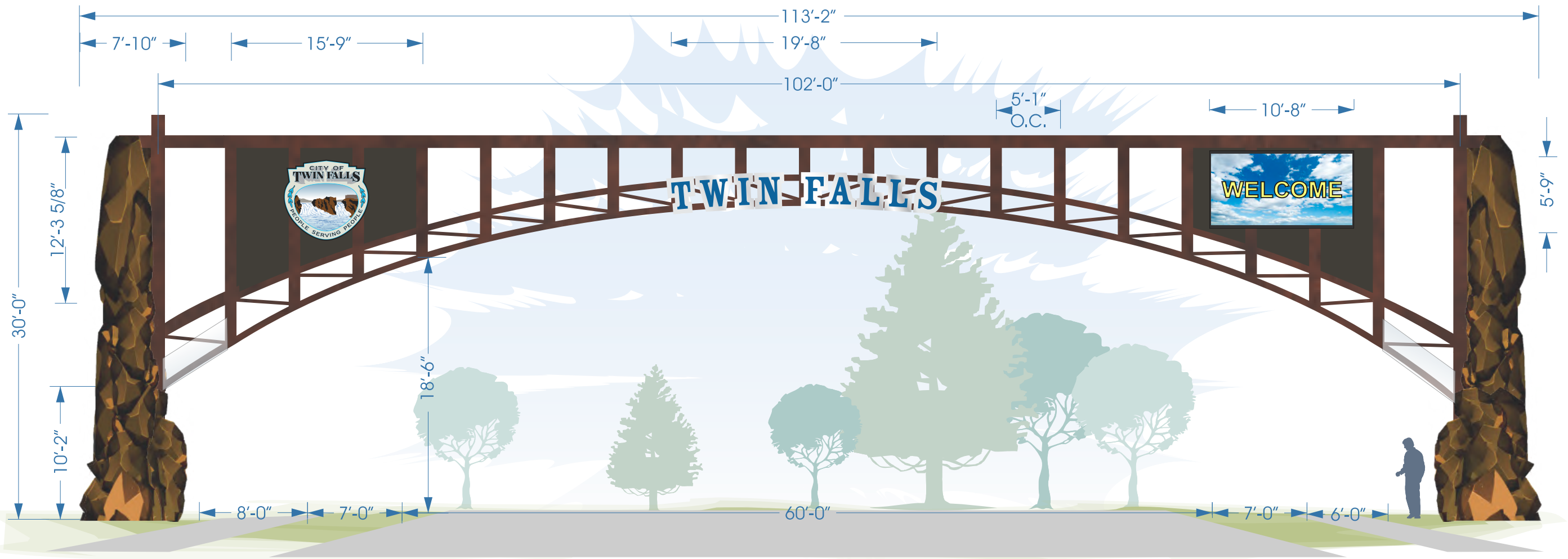
The Bidder shall complete the statement of compliance, which clearly indicates compliance, non-compliance, or partial compliance with clarification for each requirement in this RFP.

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
				Volunteer Services - Anonymous
				Sprinkler Systems, Grass Sidewalks
				Cleaning
				Documentation/As Built, Operational, Maintenance
				Product Features
				Implementation
				Acceptance Testing
				Warranty/Maintenance
				Sample License Agreements/Contracts
				Workers Compensation
				Exceptions
				Additional Information
				Pricing
				Statement of Compliance

Appendix A – Graphic Design



AERIAL VIEW TO DEMONSTRATE COLUMN LAYOUT



(1) D/F ENTRY WAY ARCH



SIMULATED NIGHT VIEW TO DEMONSTRATE ILLUMINATION

Unauthorized use, reproduction and/or display shall render the infringer liable for up to \$150,000 in statutory damages, plus attorney fees and costs for each infringement under the U.S. Copyright Act (17 U.S.C. 412 & 504). THIS RENDERING IS CONCEPTUAL---COLORS MAY NOT REPRESENT ACTUAL FINISH---ILLUMINATED AND DAYLIGHT COLORS WILL VARY

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

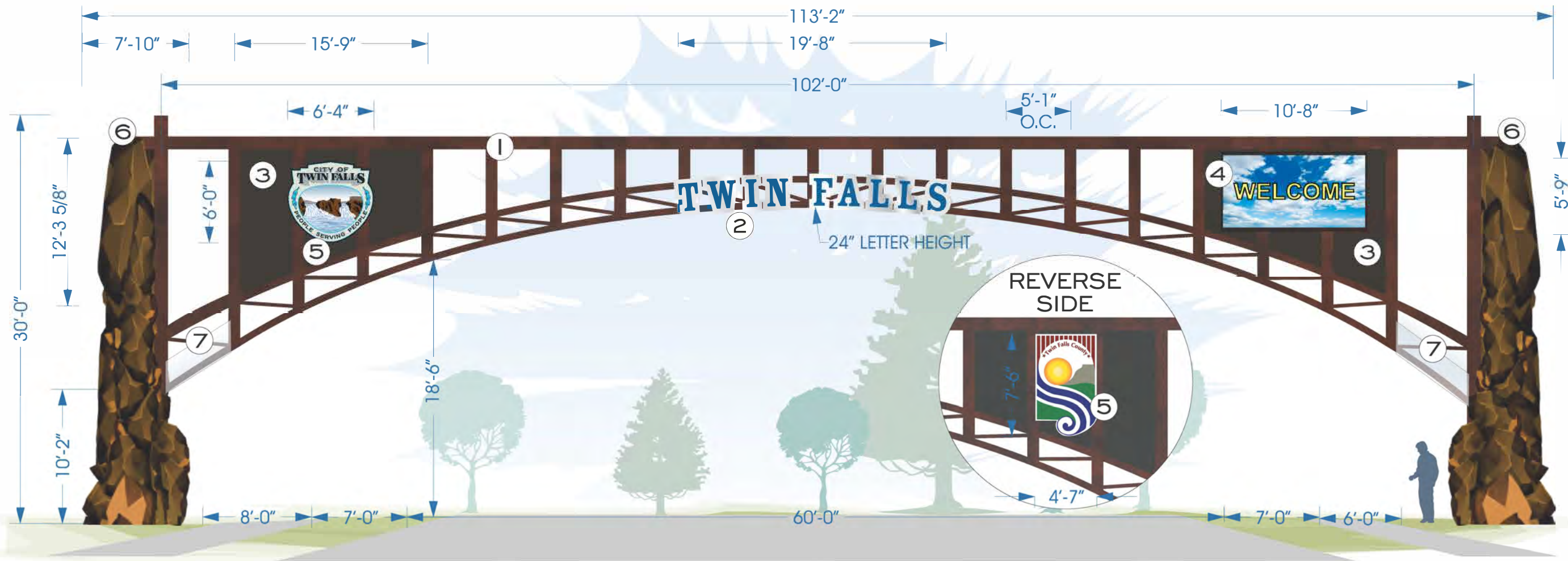


Lytle Signs Inc.

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

Unauthorized use, reproduction and/or display shall render the infringer liable for up to \$150,000 in statutory damages, plus attorney fees and costs for each infringement under the U.S. Copyright Act (17 U.S.C. 412 & 504)
THIS RENDERING IS CONCEPTUAL---COLORS MAY NOT REPRESENT ACTUAL FINISH---ILLUMINATED AND DAYLIGHT COLORS WILL VARY

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
PAGE 2 OF 2	LYTLE SIGNS © 2017 ALL RIGHTS RESERVED



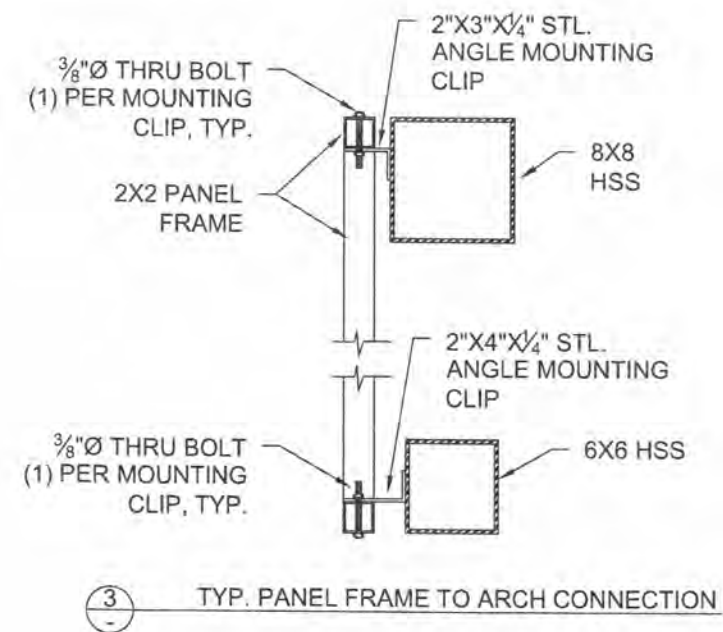
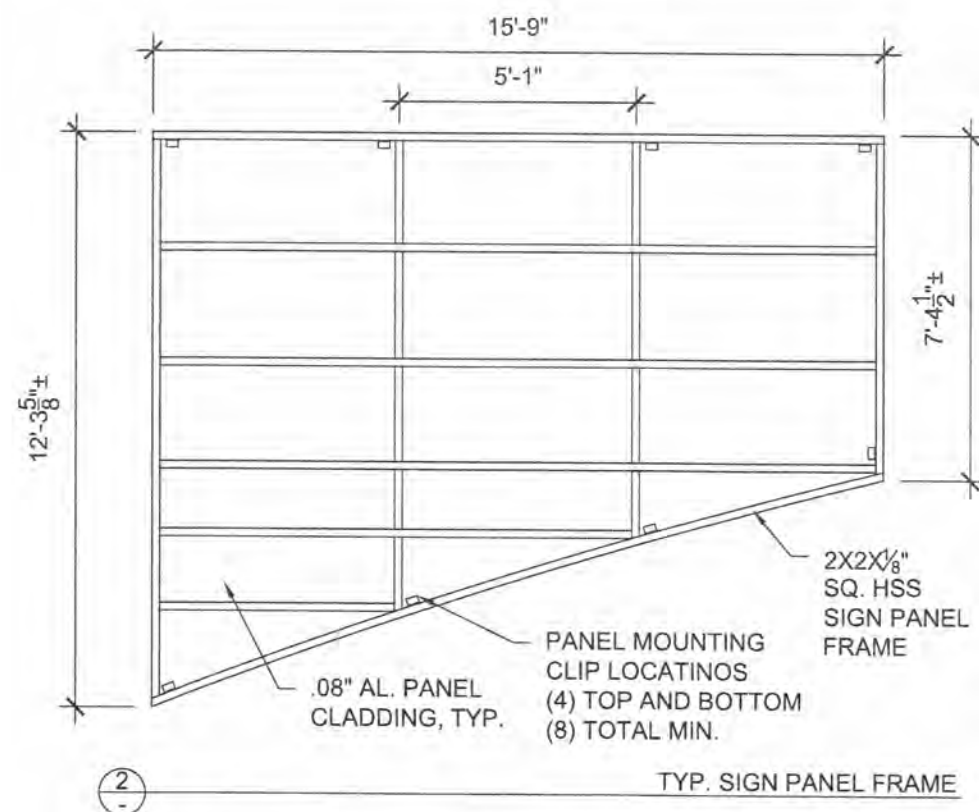
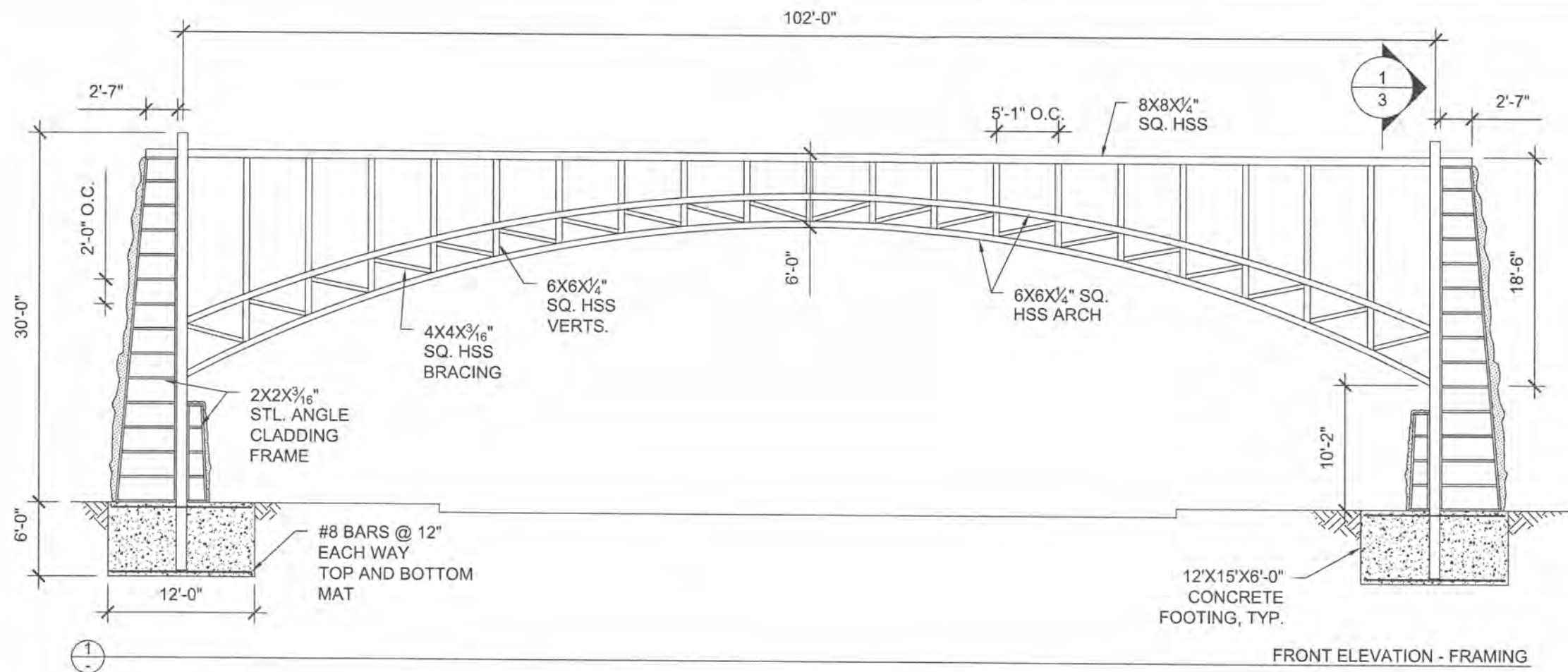
Lytle Signs Inc.

Twin Falls Office
P.O. BOX 305
1925 KIMBERLY RD.
TWIN FALLS, IDAHO 83303
208.733.1739
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2070 E. COMMERCIAL ST.
MERIDIAN, IDAHO 83642
208.388.1739
fax 208.388.3966
www.lytlesigns.com
sales @lytlesigns.com



Appendix B Engineering Plans



SULLAWAY
ENGINEERING

10815 RANCHO BERNARDO
ROAD, SUITE 250
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

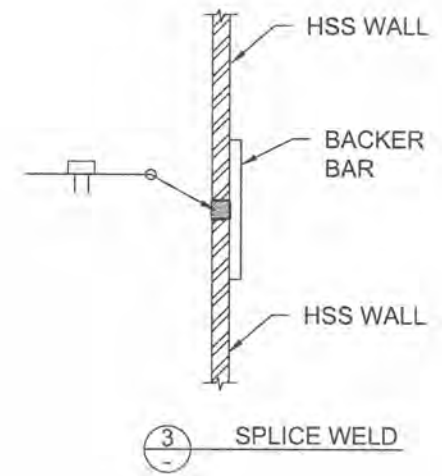
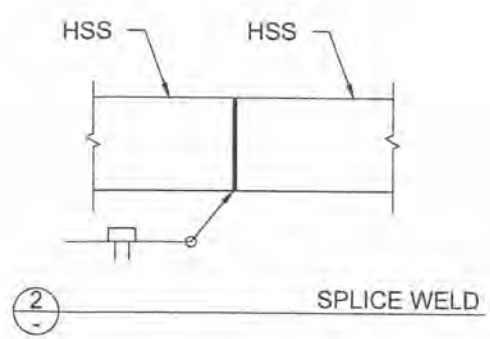
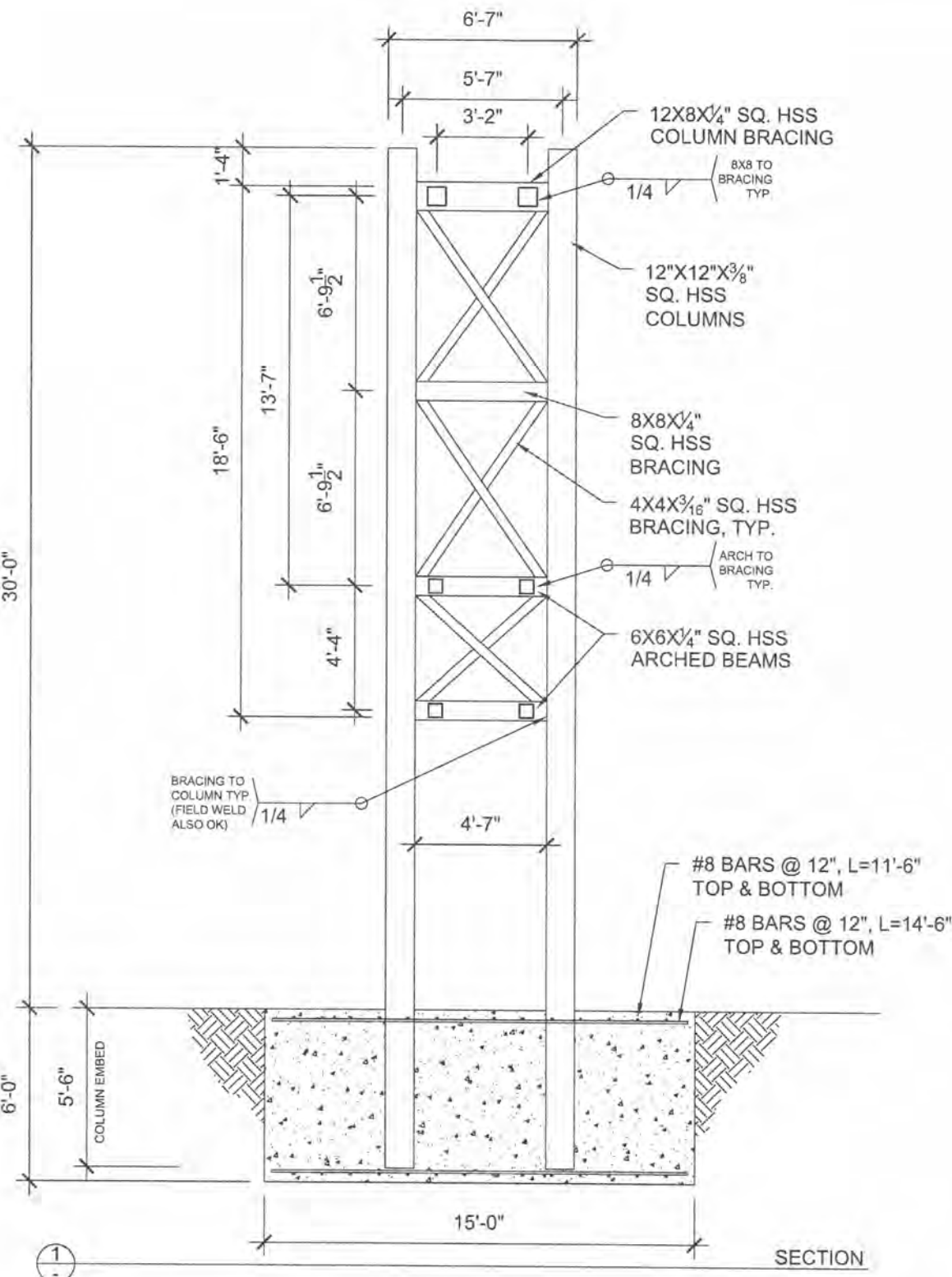
3

4

5



SHEET:
2 of 25



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	



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

DATE: 3/9/2018
ENGINEER: JS

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

$P_z = 0.00256 \cdot K_z \cdot K_d \cdot G \cdot V^2 \cdot C_d$ eq. 3.8.1-1
 $K_z = 1.0$ (Sec. 3.8.4)
 $K_d = 0.85$ (Table 3.8.5.1)
 $G = 1.14$ (Sec. 3.8.6)
 $V = 120$ mph
 $C_d \text{ truss} = 1.25$ (Table 3.8.7-1)
 $P_z \text{ truss} = 44.65$ PSF
 $C_d \text{ panel} = 1.15$ (Table 3.8.7-1)
 $P_z \text{ panel} = 41.08$ PSF

Fatigue Loading (Ch. 11)

Galloping: N/A
 Natural Wind Gust: $P_{nw} = 5.2 \cdot C_d \cdot I_f$ (eq. 11.7.1.2-1)
 Importance factor $I_f = 1.00$ (sec. 11.6)
 $P_{nw} \text{ truss} = 6.50$ PSF
 $P_{nw} \text{ Panel} = 5.98$ PSF
 Truck Induced Gust: $P_{tg} = 18.8 \cdot C_d \cdot (V/65 \text{ mph})^2 \cdot I_f$ (eq. C11.7.1.3-1)
 Importance factor $I_f = 1.00$ (sec. 11.6) $V_t = 25$ mph
 $P_{tg} \text{ truss} = 3.48$ PSF
 $P_{tg} \text{ Panel} = 3.20$ PSF

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

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

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

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

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

Bolt Bearing= 1.31 k
 $\Phi R_n = 2.4 \cdot D \cdot t \cdot F_u = 2.4(.375 \text{ in})(.25 \text{ in})(60 \text{ ksi}) = 13.5 \text{ k}$ OK
 Angle Leg Mu= $(.400 \text{ k})(3 \text{ in}) = 1.20 \text{ k-in}$
 $Z = .25(3 \text{ in})(.25 \text{ in})^2 = .047 \text{ in}^3$
 $\phi M = \phi f_y Z = (.9)(36 \text{ ksi})(.047 \text{ in}^3) = 1.52 \text{ k-in}$ OK

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

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

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

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

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

Area per letter= (2.50 ft)(2.50 ft) = 6.25 ft²
wind force= (6.25 ft²)(41 psf)= 256 lbs
dead load= 1.25(10 psf)(6.25 ft²)= 78 lbs

T per anchor= .078 k/3 = .026 k
T capacity= .75(45 ksi)(.11 in²)= 3.71 k OK
V per anchor= .256 k/3 = .085 k
V capacity= .75(27 ksi)(.11 in²)= 2.22 k OK

Fatigue load= (6.25 ft²)(6 psf)/3= 13 lbs
A bolt= .11 in²
Bolt Stress= .013 k/.11 in² = 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
PROJ. NO.: 15975-1
CLIENT: Lytle Signs

DATE: 7/24/18
ENGINEER: JS

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
φM_n=φA_sf_y(d-a/2)= 25445 k-in = 2120 k-ft M_r<φM_n ok
a=A_sf_y/0.85f_cb= 1.373 in

Check minimum A_{smin}=2sqrt(f_c)bd/f_y= 24.5 200bd/f_y= 32.64 or 1.33A_s= 9.33 in²
Use A_s= 9.33 in²

Shear; φV_n=φ2sqrt(f_c)bd φV_c= 734.4 φ= 0.75 V_r<φV_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

DATE: 7/24/18

PROJ. NO.: 15975-1

ENGINEER: JS

CLIENT: Lytle Signs

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

φM_n=φA_sf_y(d-a/2)= 14620 k-in

= 1218 k-ft

M_r<φM_n ok

a=A_sf_y/0.85f_cb= 0.627 in

Check minimum

A_{smin}=2sqrt(f_c)bd/f_y= 30.6

200bd/f_y= 40.80

or 1.333A_s= 5.33 in²

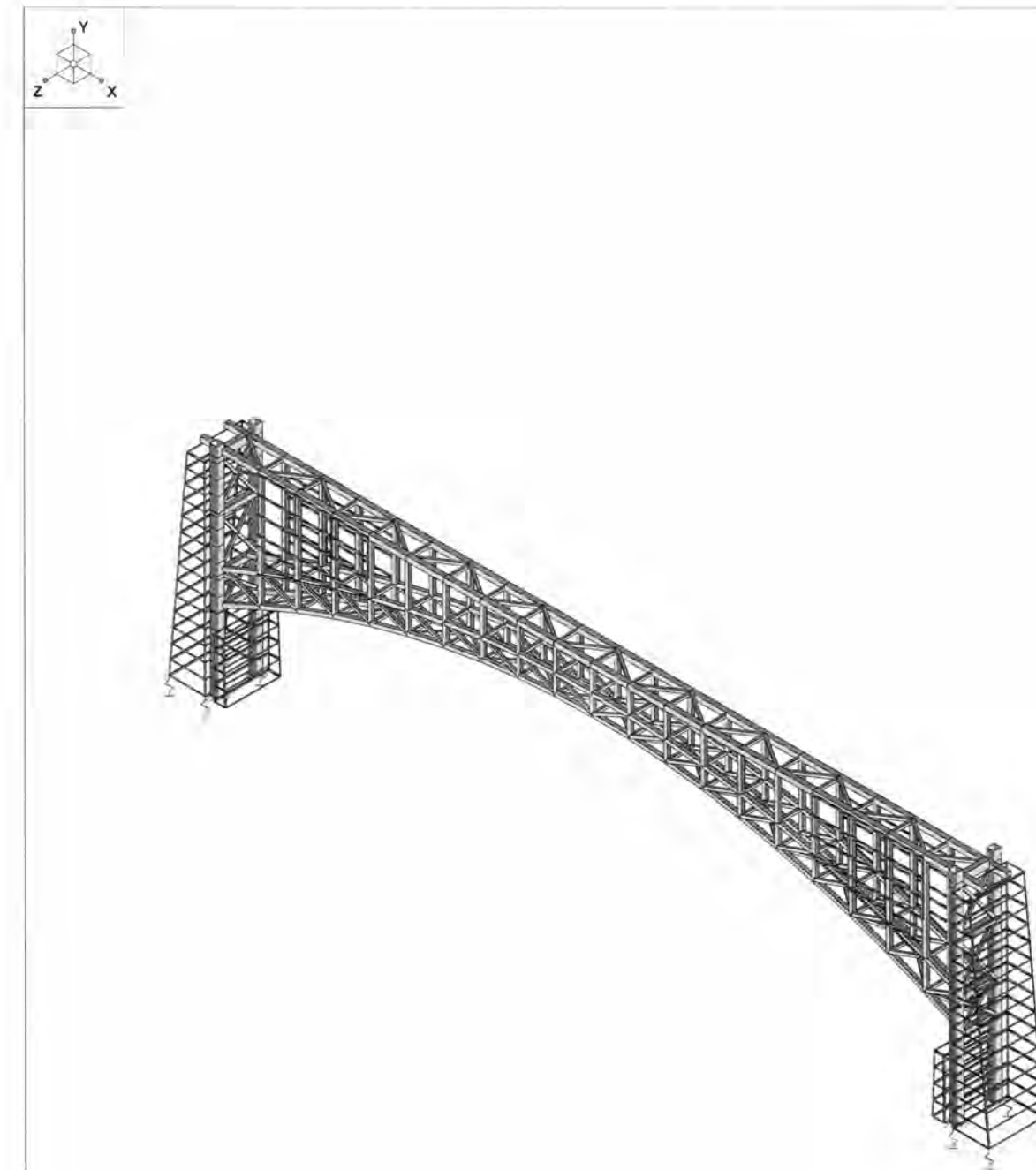
Use A_s= 5.33 in²

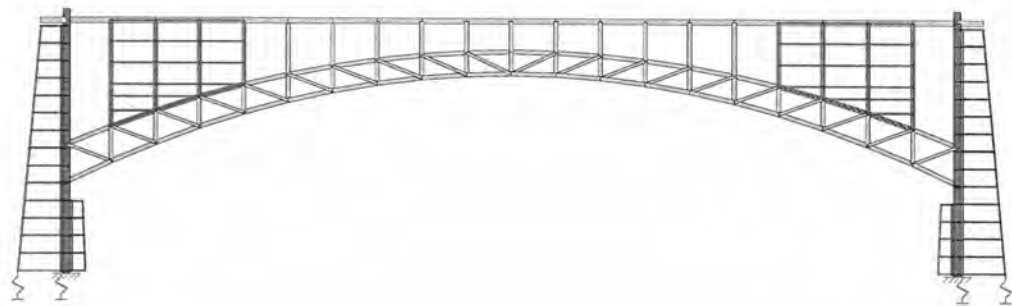
Shear; φV_n=φ2sqrt(f_c)bd

φV_c= 918.0

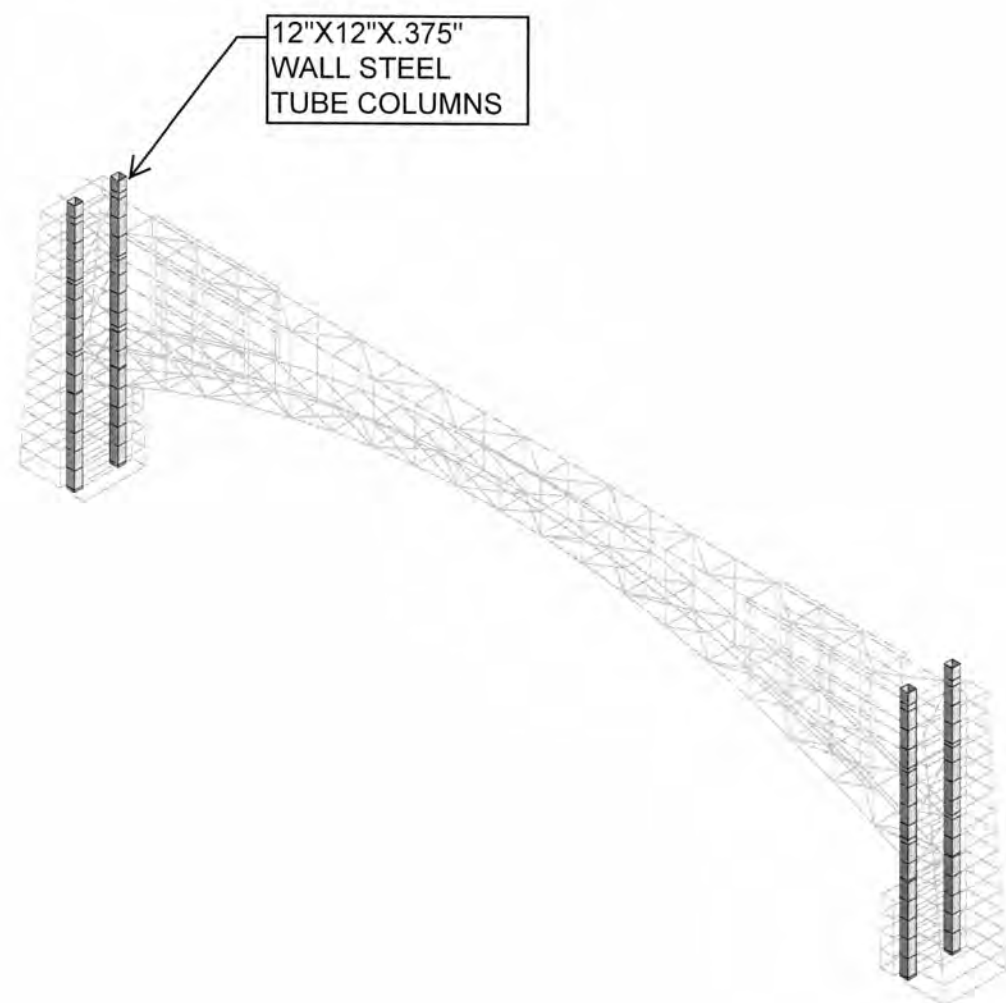
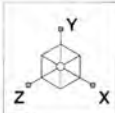
φ= 0.75

V_r<φV_n ok

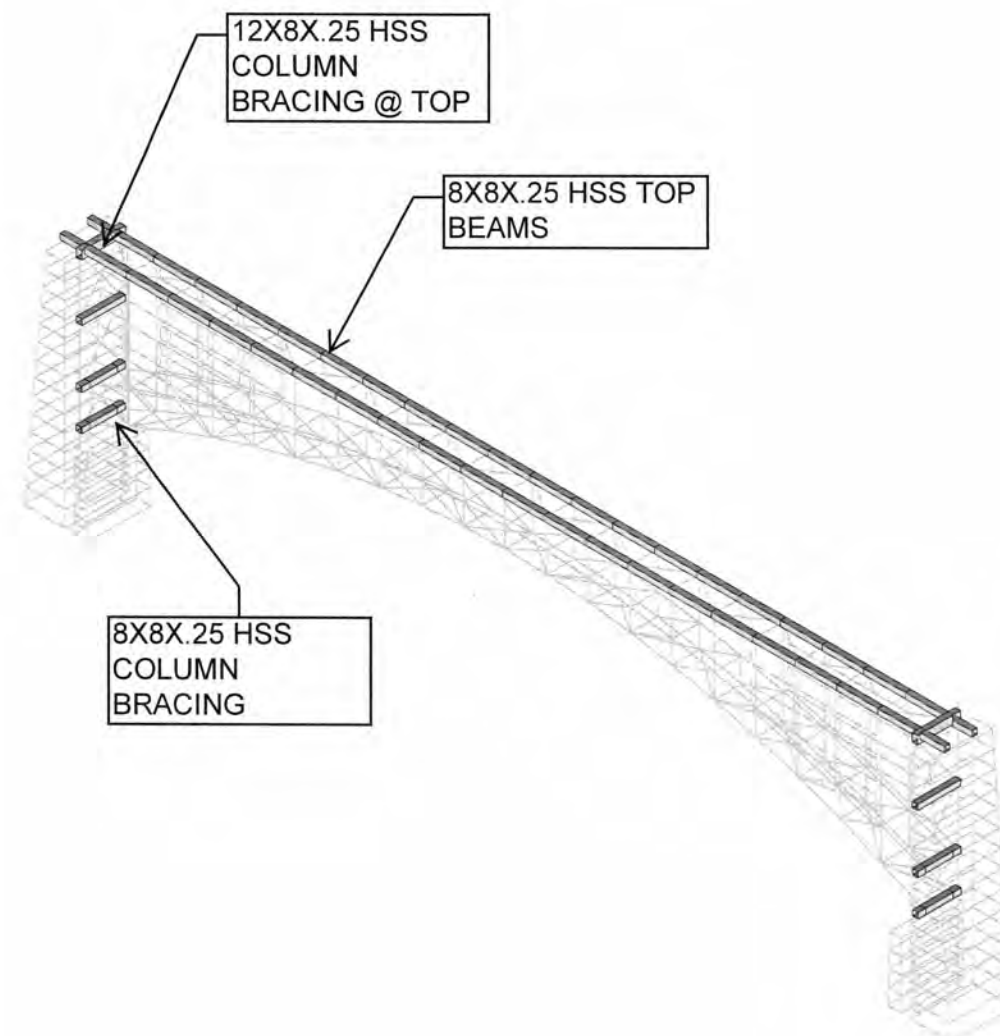
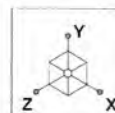


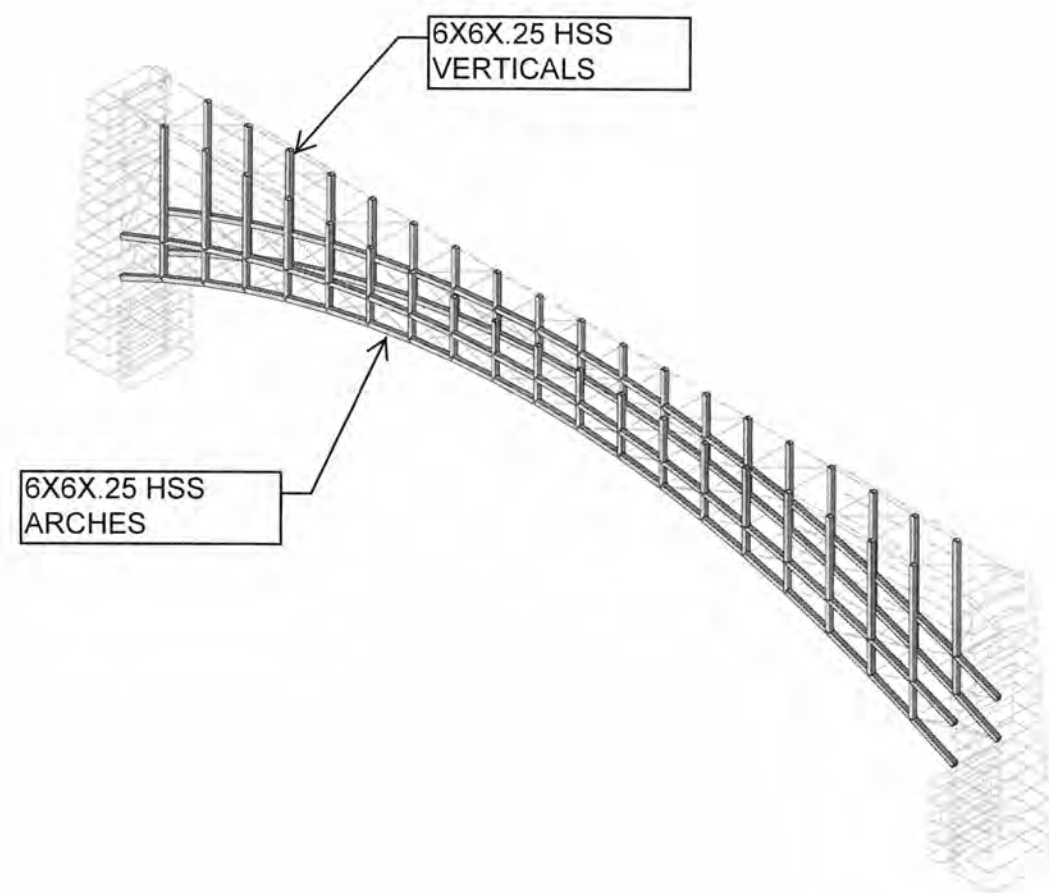
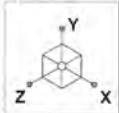


Envelope Only Solution

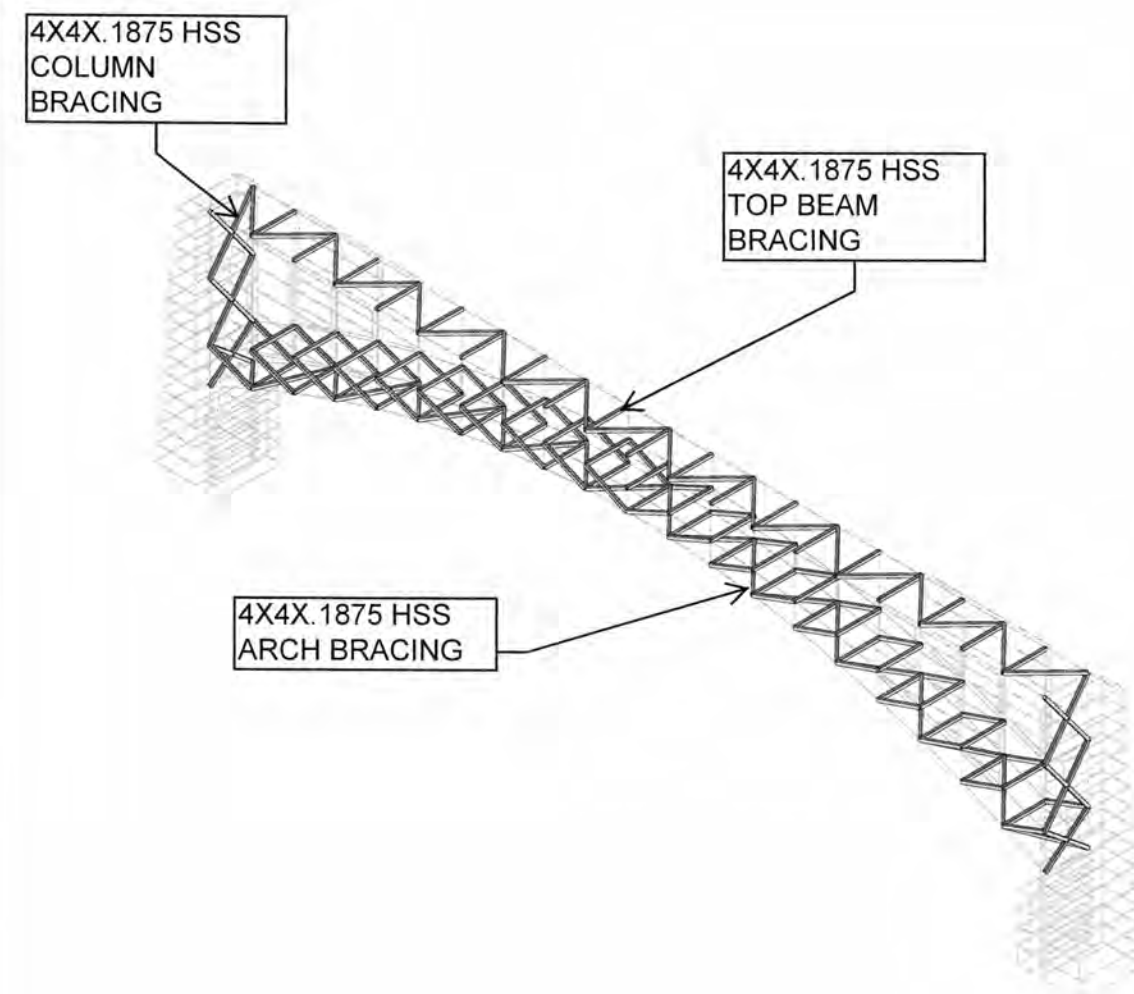
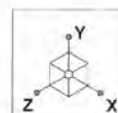


Envelope Only Solution

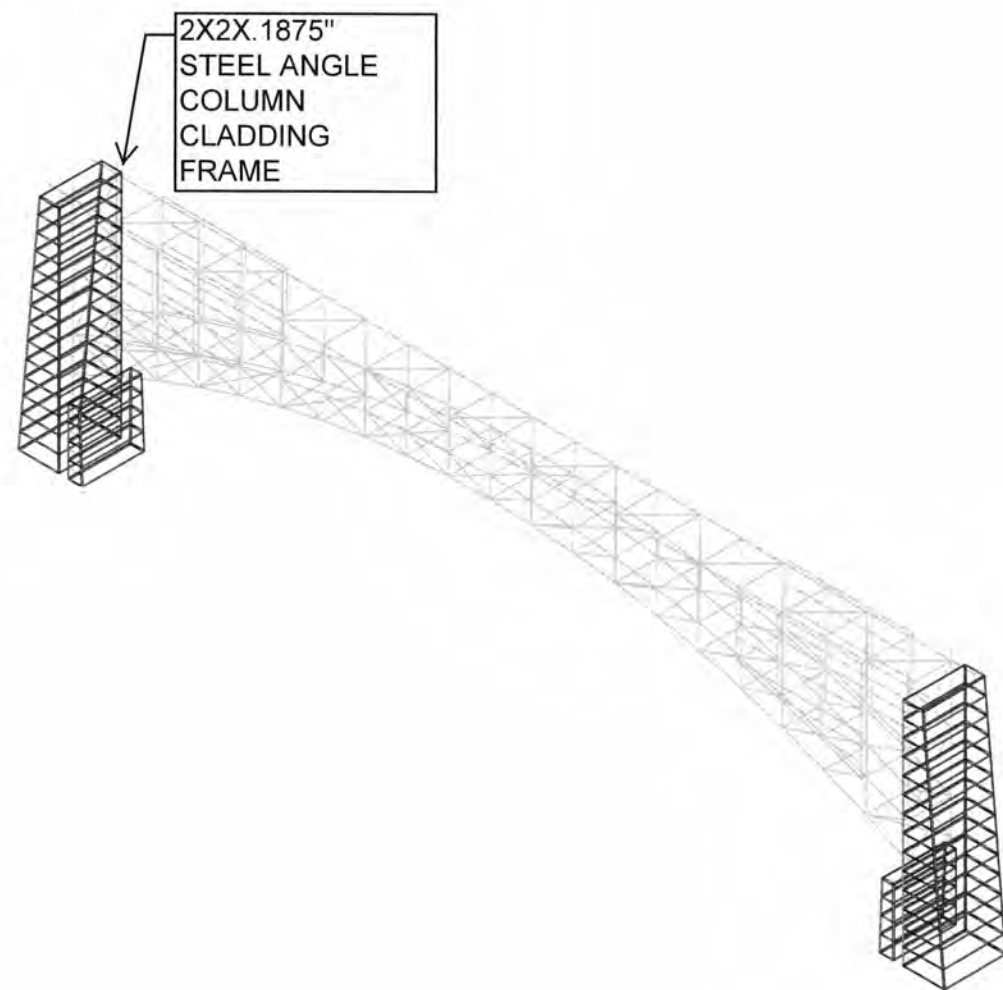




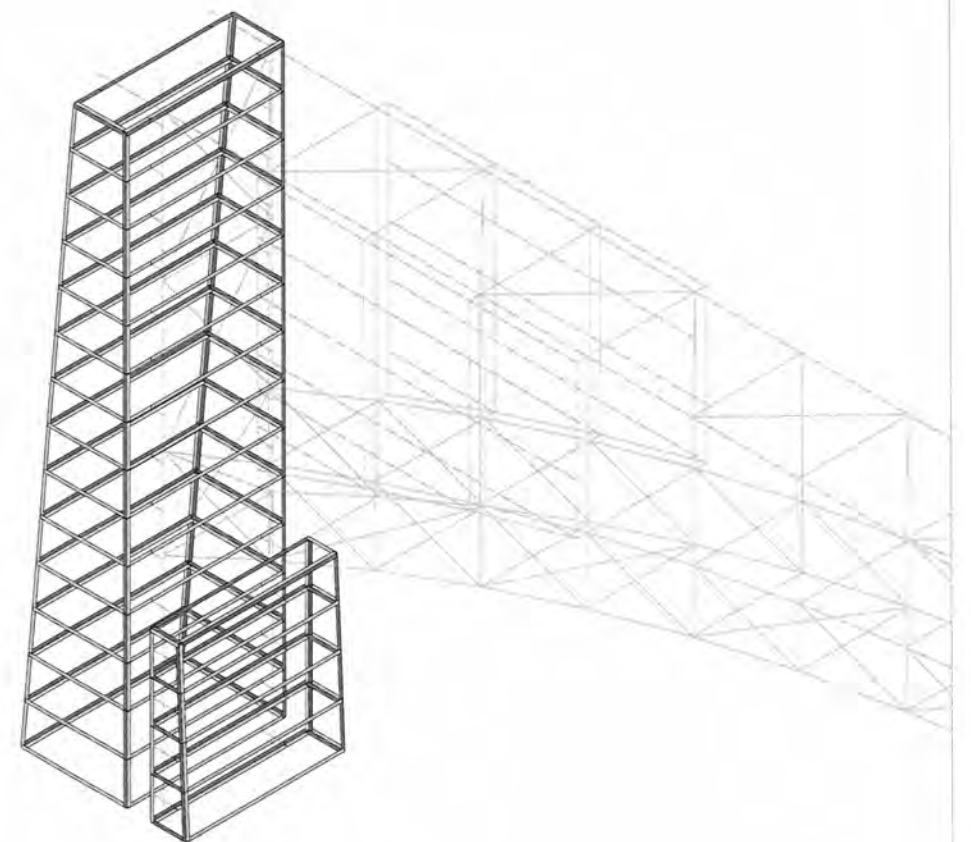
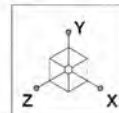
Envelope Only Solution



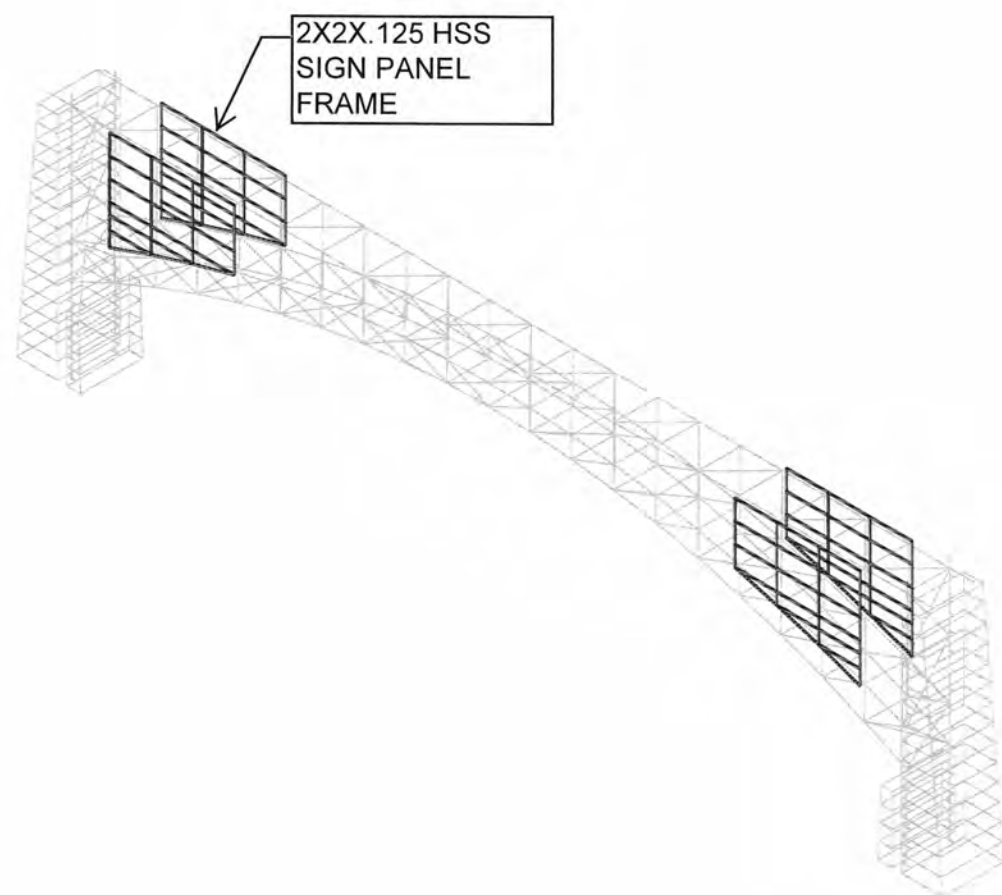
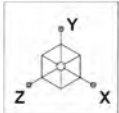
Envelope Only Solution



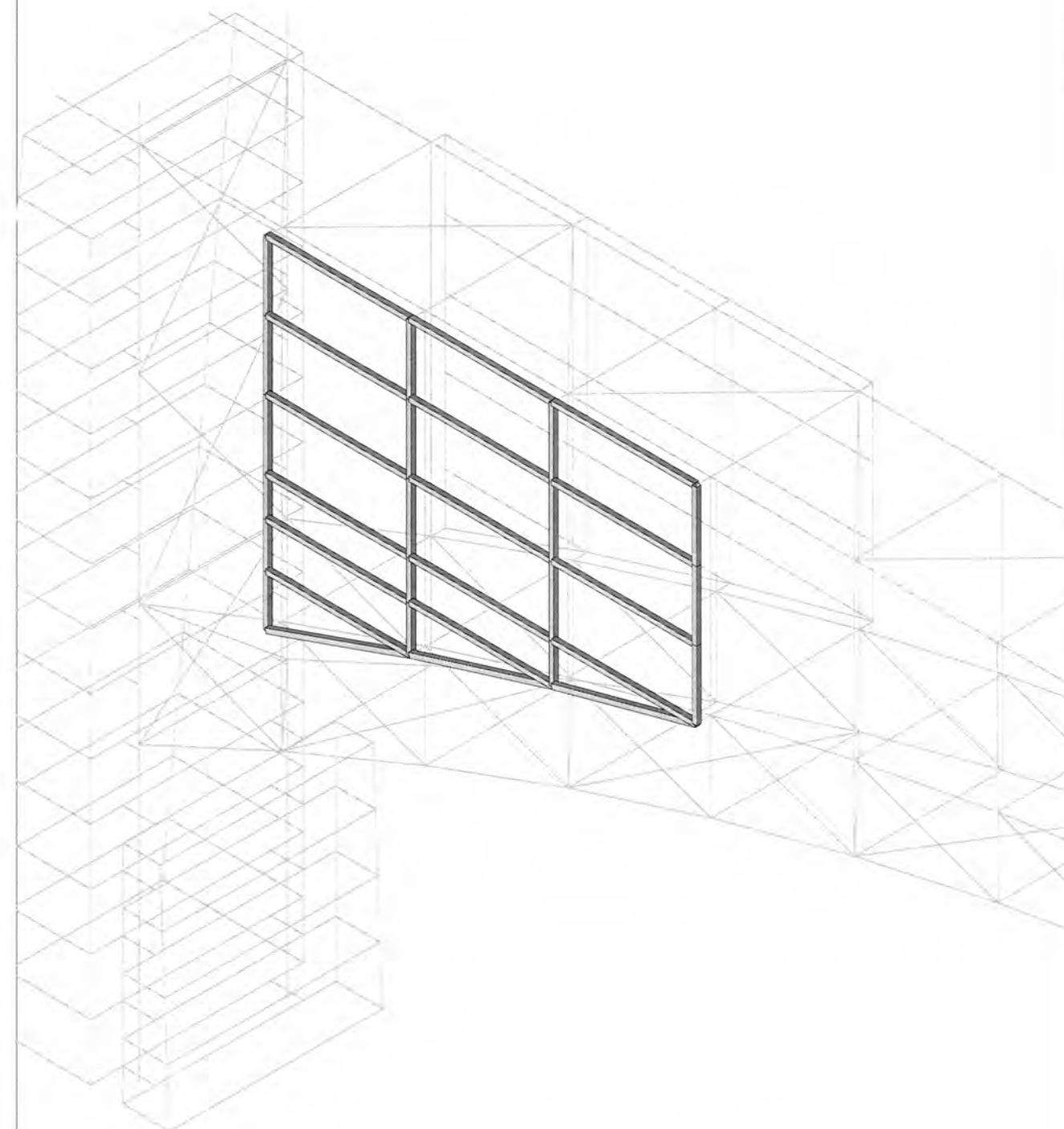
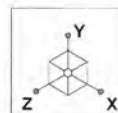
Envelope Only Solution



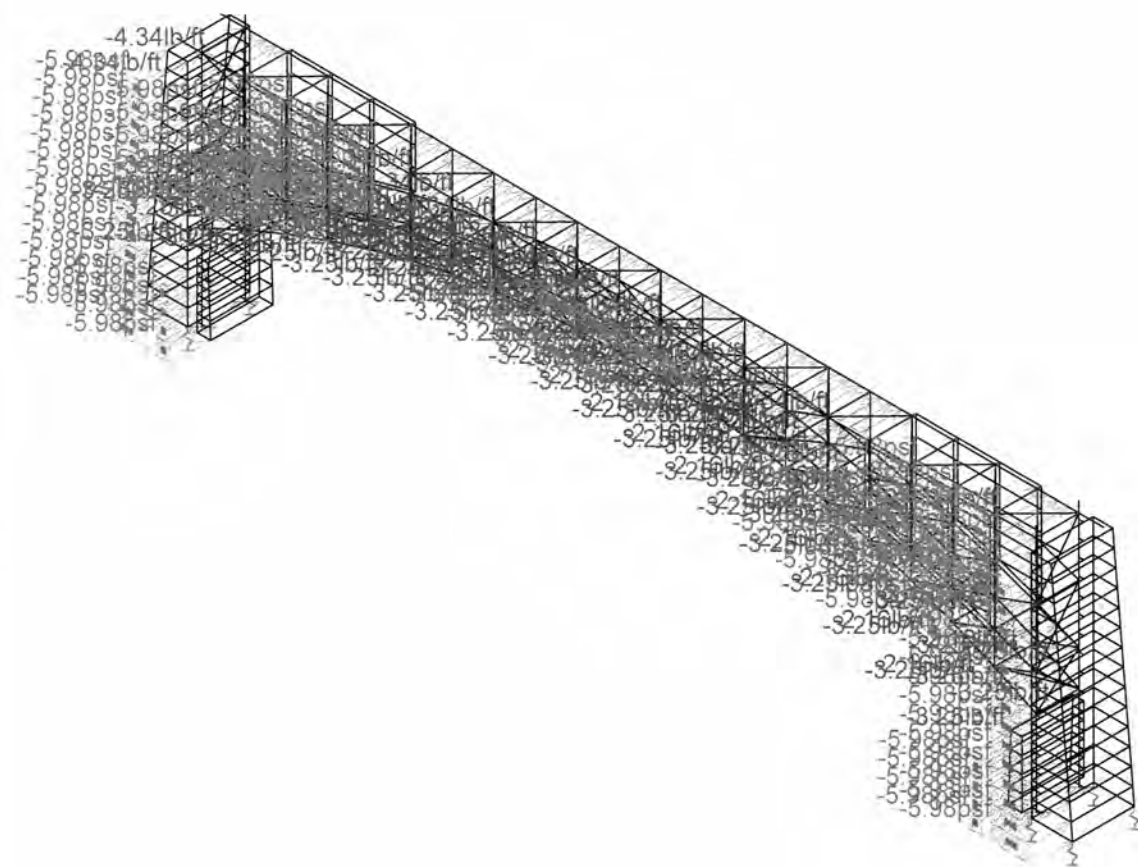
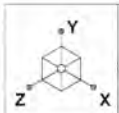
Envelope Only Solution



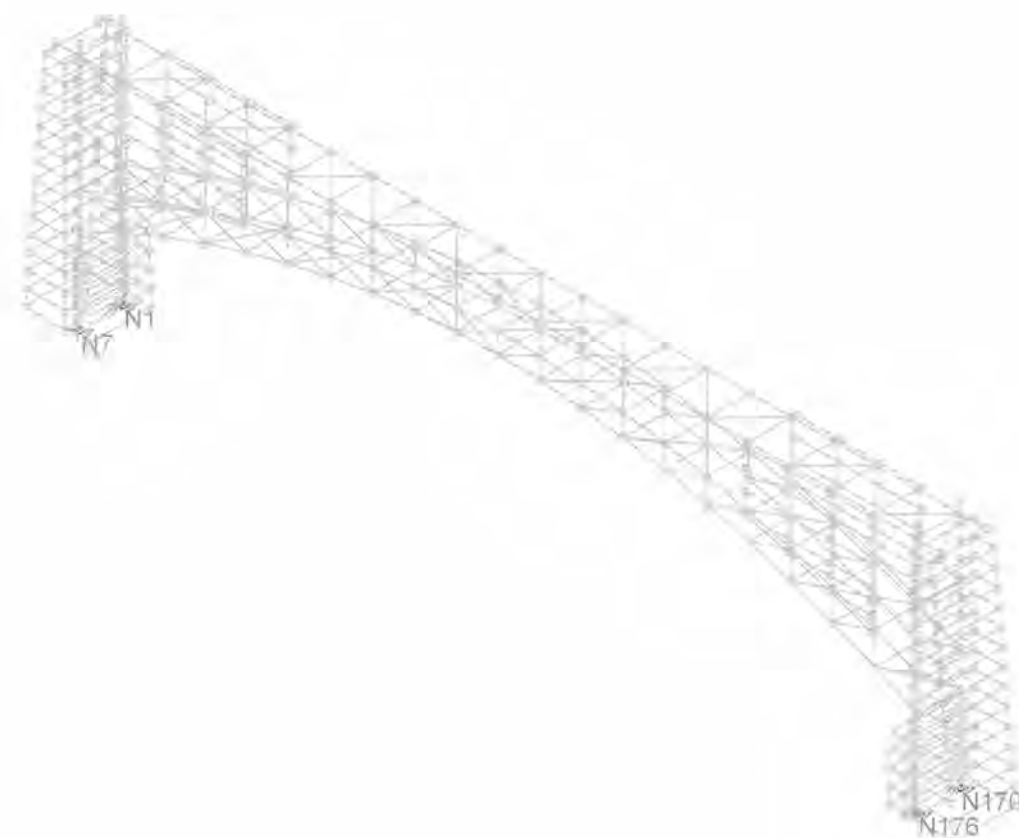
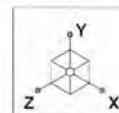
Envelope Only Solution



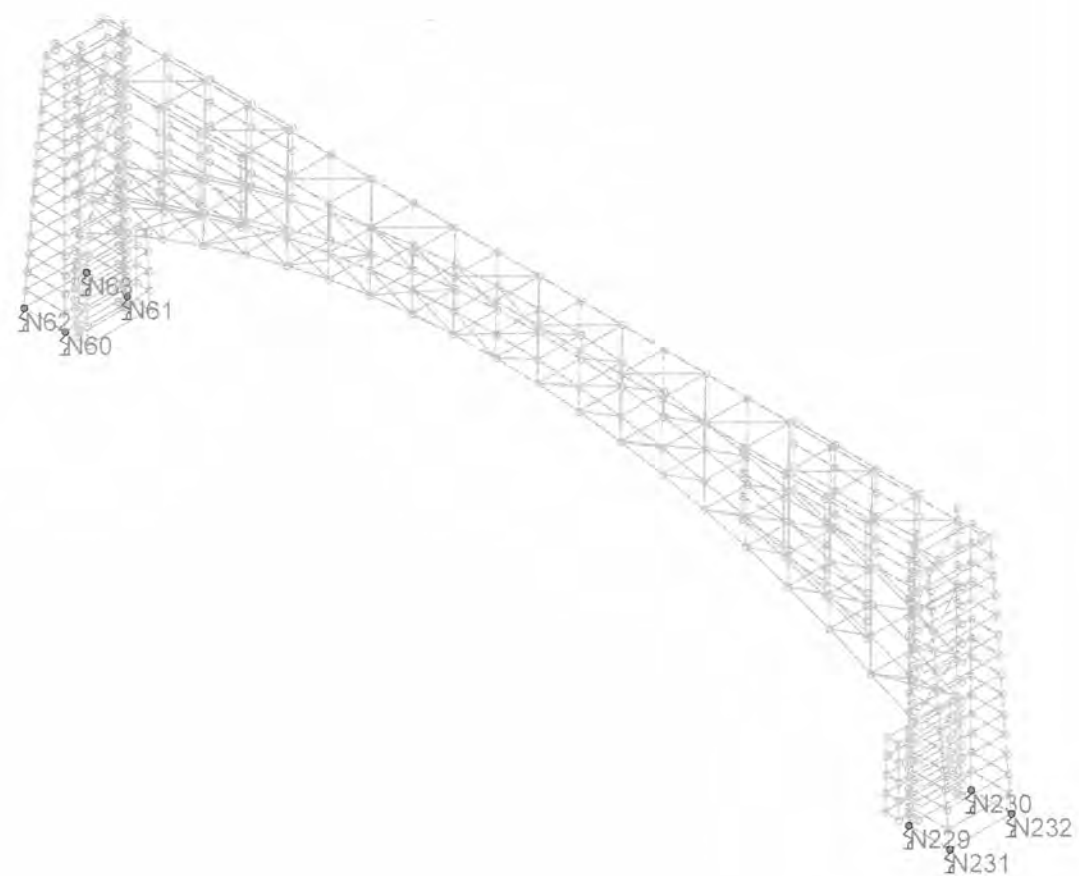
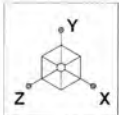
Envelope Only Solution



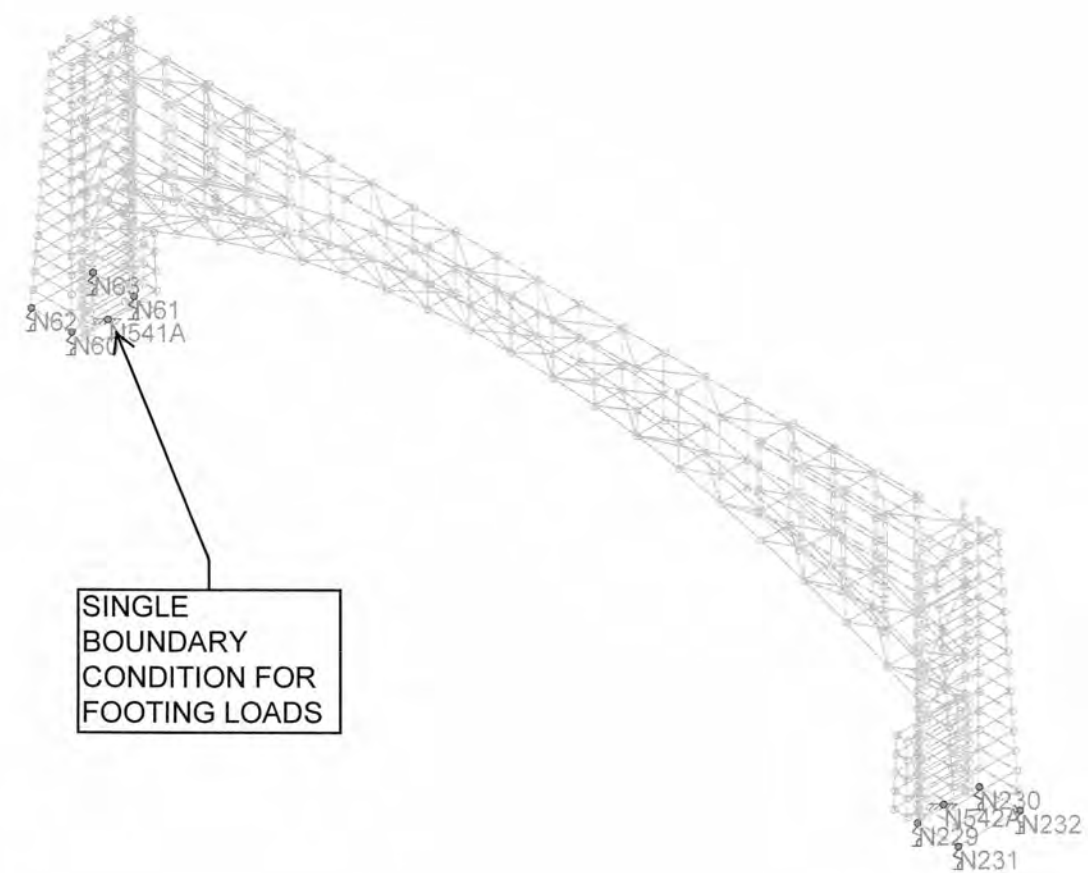
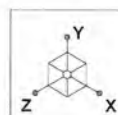
Loads: BLC 3, F
Envelope Only Solution



Envelope Only Solution



Envelope Only Solution



Envelope Only Solution

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1/E...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	DistributedArea(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	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	H1-1b
3	M3	HSS12x12x6	.428	0	5	.177	0	z 5.661.4...	.662.4	223.27	223.27	H1-1b
4	M4	HSS12x12x6	.072	0	5	.041	0	y 2.661.7...	.662.4	223.27	223.27	H1-1b
5	M5	HSS12x12x6	.041	0	5	.043	0	y 5.662.35	.662.4	223.27	223.27	H1-1b
6	M6	HSS12x12x6	.628	0	2	.180	0	y 5.662.3...	.662.4	223.27	223.27	H1-1b
7	M7	HSS12x12x6	.000	0	4	.000	0	y 5.661.8...	.662.4	223.27	223.27	H1-1b
8	M8	HSS12x12x6	.274	0	2	.111	0	y 2.661.4...	.662.4	223.27	223.27	H1-1b
9	M9	HSS12x12x6	.062	0	2	.043	0	y 5.661.7...	.662.4	223.27	223.27	H1-1b
10	M10	HSS12x12x6	.036	0	2	.043	0	y 2.662.35	.662.4	223.27	223.27	H1-1b
11	M11	HSS12x8x4	.153	0	5	.097	0	y 5.326.7...	.370.9...	73.797	116.951	H1-1b
12	M12	HSS8x8x4	.261	0	5	.218	0	z 5.293.6...	.293.94	66.288	66.288	H1-1b
13	M13	HSS8x8x4	.532	0	5	.492	0	z 5.293.6...	.293.94	66.288	66.288	H1-1b
14	M14	HSS8x8x4	.078	63.5	5	.048	0	y 5.286.0...	.293.94	66.288	66.288	H1-1b
15	M15	HSS4x4x3	.082	53...	5	.004	0	z 2.98.733	106.8...	12.662	12.662	H1-1b
16	M16	HSS4x4x3	.078	53...	5	.003	53...	y 5.98.733	106.8...	12.662	12.662	H1-1b
17	M17	HSS4x4x3	.243	41...	2	.015	0	y 2.101.9...	106.8...	12.662	12.662	H1-1a
18	M18	HSS4x4x3	.410	41...	2	.045	0	y 5.101.9...	106.8...	12.662	12.662	H1-1a
19	M19	HSS4x4x3	.079	53...	2	.010	0	y 5.98.733	106.8...	12.662	12.662	H1-1b
20	M20	HSS4x4x3	.076	53...	2	.009	0	y 5.98.733	106.8...	12.662	12.662	H1-1b
21	M21	HSS4x4x3	.105	0	5	.008	0	y 2.98.733	106.8...	12.662	12.662	H1-...
22	M22	HSS4x4x3	.103	0	5	.006	0	z 5.98.733	106.8...	12.662	12.662	H1-...
23	M23	HSS4x4x3	.125	0	5	.009	0	y 5.98.733	106.8...	12.662	12.662	H1-...
24	M24	HSS4x4x3	.123	0	5	.003	53...	y 5.98.733	106.8...	12.662	12.662	H1-...
25	M25	HSS4x4x3	.456	0	5	.029	0	y 2.101.9...	106.8...	12.662	12.662	H1-1a
26	M26	HSS4x4x3	.257	0	5	.019	41...	y 5.101.9...	106.8...	12.662	12.662	H1-1a
27	M29	HSS12x12x6	.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	... H1-1b
93	M107	HSS12x12x6	.168	0	2	.113	0	y	2	661.2...662.4 223.27 223.27	... H1-1b
94	M108	HSS12x12x6	.065	0	5	.116	0	y	2	662.3...662.4 223.27 223.27	... H1-1b
95	M109	HSS12x12x6	.060	0	5	.042	0	y	2	661.2...662.4 223.27 223.27	... H1-1b
96	M110	HSS12x12x6	.052	0	2	.044	0	y	5	661.2...662.4 223.27 223.27	... H1-1b
97	M111	HSS12x12x6	.049	0	5	.043	0	y	2	661.2...662.4 223.27 223.27	... H1-1b
98	M112	HSS12x12x6	.048	0	5	.044	0	z	2	661.6...662.4 223.27 223.27	... H1-1b
99	M113	HSS12x12x6	.041	0	2	.045	0	y	5	661.2...662.4 223.27 223.27	... H1-1b
100	M114	HSS12x12x6	.031	0	2	.046	0	y	5	661.6...662.4 223.27 223.27	... H1-1b
101	M115	HSS12x12x6	.036	0	5	.043	0	y	5	661.2...662.4 223.27 223.27	... H1-1b

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

	Member	Shape	Code Check	Lo...	LC	Shear	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	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	6	8.669	23.393	.558	1.2	...	H2-1
249	M293	L2x2x3	.536	0	2	.048	0	z	6	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	118.951	...	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	51...	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	20.364	23.393	558	1.239	H2-1
309	M365	L2x2x3	219	0	5	036	0 z 5	20.364	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	66.3z	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	66.3z	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	H1-1b
649	M750	HSS4x4x3	.129	0	5	.018	0 y 5	91.99	106.8...	12.662	12.662	H1-1b
650	M751	HSS4x4x3	.124	0	2	.015	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
651	M752	HSS4x4x3	.096	0	5	.018	0 y 5	91.99	106.8...	12.662	12.662	H1-1b
652	M753	HSS4x4x3	.085	0	2	.013	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
653	M754	HSS4x4x3	.073	0	5	.015	0 y 5	91.99	106.8...	12.662	12.662	H1-1b
654	M755	HSS4x4x3	.060	0	5	.009	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
655	M756	HSS4x4x3	.035	73...	5	.006	0 y 5	91.99	106.8...	12.662	12.662	H1-1b
656	M757	HSS4x4x3	.035	0	5	.006	73... y 5	91.99	106.8...	12.662	12.662	H1-1b
657	M758	HSS4x4x3	.060	73...	5	.009	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
658	M759	HSS4x4x3	.073	73...	5	.015	73... y 5	91.99	106.8...	12.662	12.662	H1-1b
659	M760	HSS4x4x3	.085	73...	2	.013	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
660	M761	HSS4x4x3	.096	73...	5	.018	73... y 5	91.99	106.8...	12.662	12.662	H1-1b
661	M762	HSS4x4x3	.124	73...	2	.015	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
662	M763	HSS4x4x3	.129	73...	5	.018	73... y 5	91.99	106.8...	12.662	12.662	H1-1b
663	M764	HSS4x4x3	.176	0	5	.012	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
664	M765	HSS4x4x3	.136	73...	5	.009	73... y 5	91.99	106.8...	12.662	12.662	H1-1b
665	M768	HSS4x4x3	.102	77...	2	.012	0 y 2	90.334	106.8...	12.662	12.662	H1-1b
666	M769	HSS4x4x3	.105	0	5	.012	0 y 5	90.698	106.8...	12.662	12.662	H1-1b
667	M770	HSS4x4x3	.056	0	5	.008	75... y 5	91.018	106.8...	12.662	12.662	H1-1b
668	M771	HSS4x4x3	.063	0	2	.007	0 z 2	91.293	106.8...	12.662	12.662	H1-1b
669	M772	HSS4x4x3	.066	0	5	.010	0 y 5	91.523	106.8...	12.662	12.662	H1-1b
670	M773	HSS4x4x3	.069	0	2	.008	0 y 2	91.707	106.8...	12.662	12.662	H1-1b
671	M774	HSS4x4x3	.073	0	5	.010	0 y 5	91.846	106.8...	12.662	12.662	H1-1b
672	M775	HSS4x4x3	.059	0	2	.005	73... y 5	91.938	106.8...	12.662	12.662	H1-1b
673	M776	HSS4x4x3	.037	0	5	.004	73... y 4	91.984	106.8...	12.662	12.662	H1-1b
674	M777	HSS4x4x3	.037	73...	5	.004	0 y 4	91.984	106.8...	12.662	12.662	H1-1b
675	M778	HSS4x4x3	.059	73...	2	.005	0 y 5	91.938	106.8...	12.662	12.662	H1-1b
676	M779	HSS4x4x3	.073	73...	5	.010	73... y 5	91.846	106.8...	12.662	12.662	H1-1b
677	M780	HSS4x4x3	.069	73...	2	.008	0 y 2	91.707	106.8...	12.662	12.662	H1-1b
678	M781	HSS4x4x3	.066	74...	5	.010	74... y 5	91.523	106.8...	12.662	12.662	H1-1b
679	M782	HSS4x4x3	.063	74...	2	.007	0 z 2	91.293	106.8...	12.662	12.662	H1-1b
680	M783	HSS4x4x3	.056	75...	5	.008	0 y 5	91.018	106.8...	12.662	12.662	H1-1b
681	M784	HSS4x4x3	.105	76...	5	.012	76... y 5	90.698	106.8...	12.662	12.662	H1-1b
682	M785	HSS4x4x3	.102	0	2	.012	0 y 2	90.334	106.8...	12.662	12.662	H1-1b
683	M787	HSS4x4x3	.379	0	5	.074	0 z 2	102.1...	106.8...	12.662	12.662	H1-1b
684	M788	HSS4x4x3	.353	0	5	.077	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
685	M789	HSS4x4x3	.271	0	5	.072	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
686	M790	HSS4x4x3	.273	40	5	.075	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
687	M791	HSS4x4x3	.264	40	5	.066	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
688	M792	HSS4x4x3	.265	40	5	.060	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
689	M793	HSS4x4x3	.249	40	5	.050	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
690	M794	HSS4x4x3	.208	0	2	.037	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
691	M795	HSS4x4x3	.134	40	5	.020	0 z 2	102.1...	106.8...	12.662	12.662	H1-1b

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

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

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

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

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

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

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

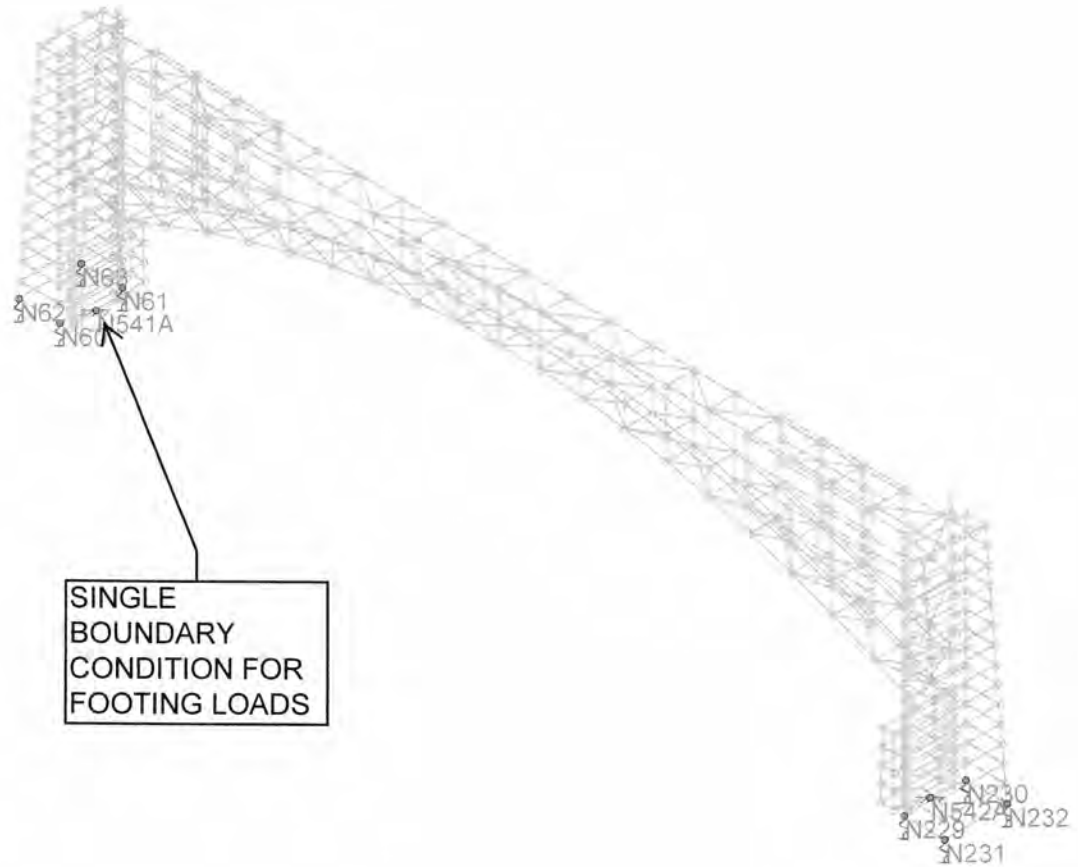
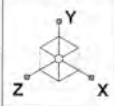
Member	Shape	Code Check	Lo...	LC	Shear	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Egn
869	M993	HSS2x2x3	.083	33...	5	.050	53...	z	5	30.861 49.266	2.75 2.75 ...H1-1b
870	M994	HSS2x2x3	.124	61.2	5	.026	53...	z	2	30.861 49.266	2.75 2.75 ...H1-1b
871	M995	HSS2x2x3	.108	0	5	.064	0	z	5	30.861 49.266	2.75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

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

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Egn
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



Envelope Only Solution

Basic Load Cases

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

Load Combinations

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

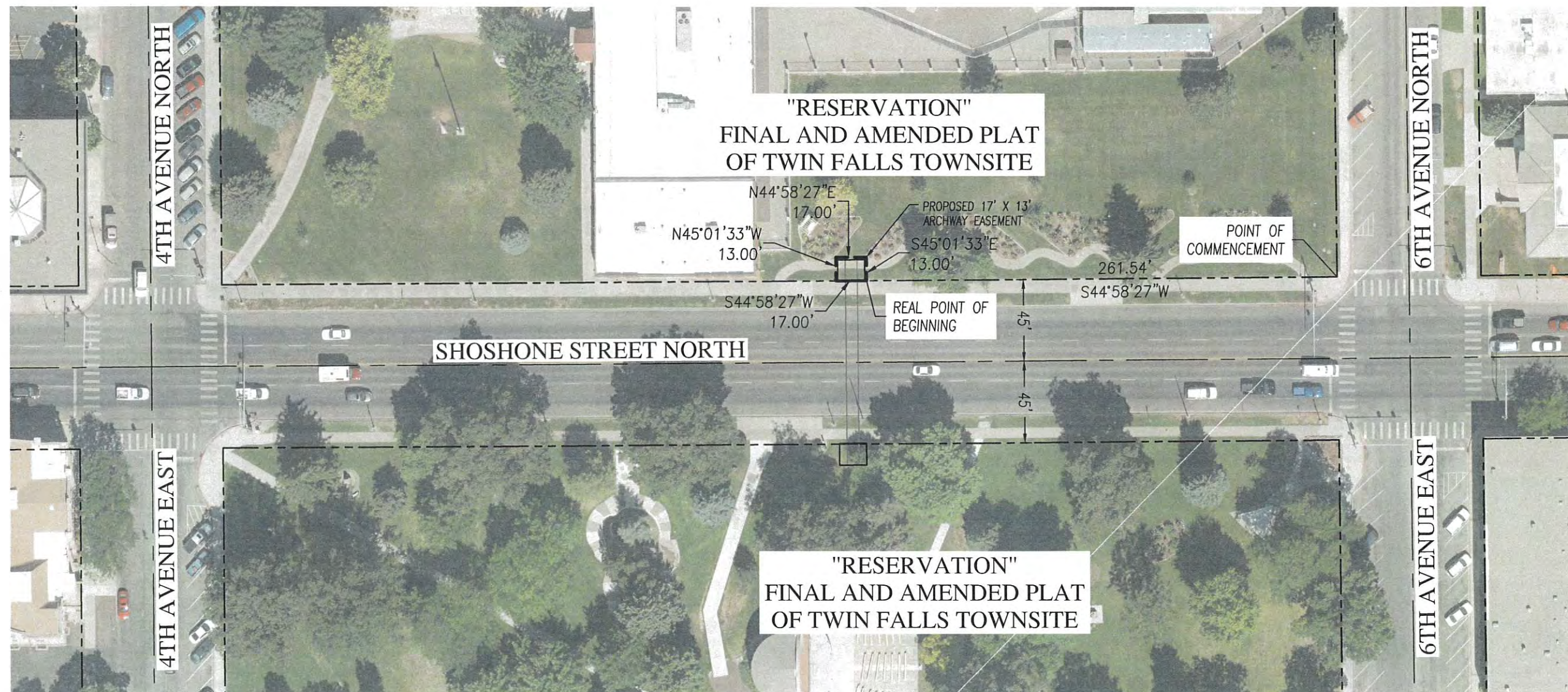
Envelope Joint Reactions

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

Appendix C Site Plan



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



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

Sheet No.:
1

EXHIBIT
CITY OF TWIN FALLS ARCHWAY
TWIN FALLS, IDAHO

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) 734-0449 web: ehminc.com

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

Unauthorized use, reproduction and or display shall render the infringer liable for up to \$150,000 in statutory damages, plus attorney fees and costs for each infringement under the U.S. Copyright Act (17 U.S.C. 412 & 504)
THIS RENDERING IS CONCEPTUAL---COLORS MAY NOT REPRESENT ACTUAL FINISH---ILLUMINATED AND DAYLIGHT COLORS WILL VARY

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

PAGE 1 OF 2

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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



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Twin Falls City-Archway Committee

Twin Falls, Idaho

11/09/2017

3/4"x1"

See L

See

Twin Falls City Entry Archway-Dance Interpretation Sign

20076

PAUL D'S

LITTLE 2006S © 2017

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Twin Falls Office

PO BOX 365

1925 KIMBERLY RD.

TWIN FALLS, IDAHO 83308

208.733.1739

1.800.621.6836

for 208.734.8653

Boise/Meridian Office

2070 E. COMMERCIAL ST.

MERIDIAN, IDAHO 83642

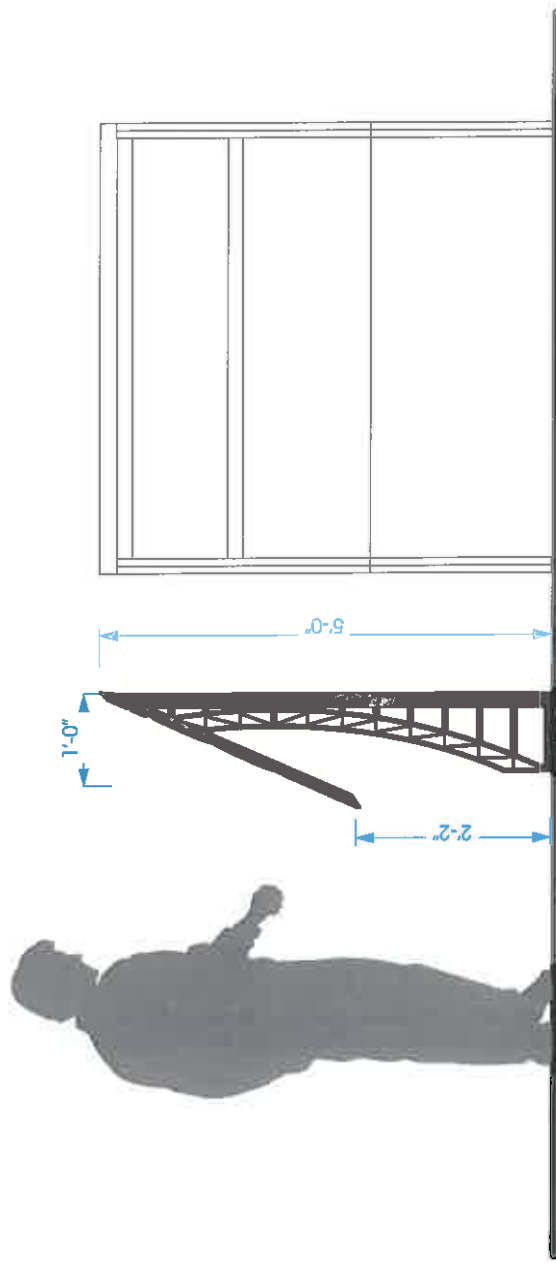
208.388.1739

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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



City of Twin Falls, Idaho

**Request for Proposal #IT201901
for
Archway with Message Boards**

July 18, 2019

Proposal Due:

August 19, 2019

12 PM Mountain Time

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

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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 or proposed changes will be welcomed and evaluated and must go through the City Council approval process.

1.4 RFP Response Submission

One original proposal document, two (2) hard copies (a total of three (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
July 18, 2019		RFP Distribution
August 8, 2019	5:00 p.m. (MT)	Intent to Respond to RFP
August 8, 2019	5:00 p.m. (MT)	RFP Questions Due
August 15, 2019		Response to RFP Questions Issued
August 29, 2019	5:00 p.m. (MT)	Proposal Due Date
September 18, 2019		Bidder Selection
October 7, 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.
- 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 4 - 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 5 – 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 are 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. The design element shall be steel simulated canyon walls with 3/16" weathering steel that will rust to match the local Twin Falls canyon walls. The weathering steel shall have a natural rust finish, random etching to create color variation, and be sculptured or shaped in three dimension and welded together. Any part of the frame that is visible must be weathering steel with natural rust finish. The structure shall be made to deter climbing.

2.7.4 Climbing Deterrent

Four "U" shaped clear polycarbonate panels are required to be installed over the steel beams of 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 Navori device is required to communicate back to the City network using a Wi-Fi device (provided by the City) that must be placed by the bidder 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, and sidewalk construction.

One side of the archway's base 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@tiffd.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.

- Building and electrical permits are required to be obtained before work begins. All work to be done by Idaho licensed contractors.
- All shop welding to be done by certified welders and in compliance with AWS D1.1 Certifications of welders to be submitted to owner and Engineer of Record before project begins.
- All field welding to be done by certified welders and in compliance with AWS D1.1 Certifications of welders to be submitted to owner and Engineer of Record before project begins.
- All shop and field welding to be in accordance with approved welding procedures as outlined in AWS D1.1. Shop and field welding procedures to submitted to owner and Engineer of Record before project begins.
- Tube steel framing members to be ASTM A500 GR.B or CORTEN. Mill certifications showing compliance with these grades of steel need to be submitted to owner and Engineer of Record before project begins.
- Special inspection by a certified third party inspection firm is required for all concrete/rebar placement and field welding. Concrete test cylinders to be taken by special inspector and tested for compression strength as indicated on the engineered foundation design.

2.7.11 Tree Removal

The archway install will require the removal of one tree. This removal must be coordinated with Parks and Recreation and any necessary permits should be completed.

2.7.12 Donation Recognition and Services

The bid project includes coordination and installation of the donation recognition bricks and the donation sign. Twin Falls Community Foundation will order the donation bricks.

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

Anonymous

Construction Assistance (Value \$10,000)

Information Will Be Available to the Awarded Bidder

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.

2.7.13 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.

2.7.14 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.

2.7.15 Documentation

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

2.8 Section 6 – Product Features

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

2.9 Section 7 - 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 8 – 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.

- o Construction completed according to plans
- o Navori system integration
- o Final inspection and punch list resolution
- o As-built documentation
- o Maintenance recommendations
- o Training and maintenance Recommendations

2.11 Section 9 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 10 – Sample Agreements/Contracts

This section should include all applicable sample 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 11 - 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 12 – Additional Information

This section should include any additional information Bidder deems necessary.

2.15 Section 13 - 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	Quantity	Price Each	Extended Price
	Total 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 14 – Statement of Compliance

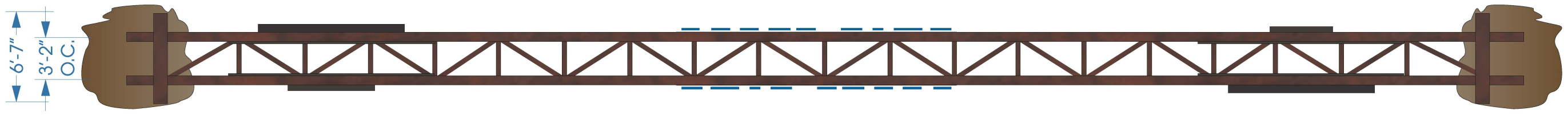
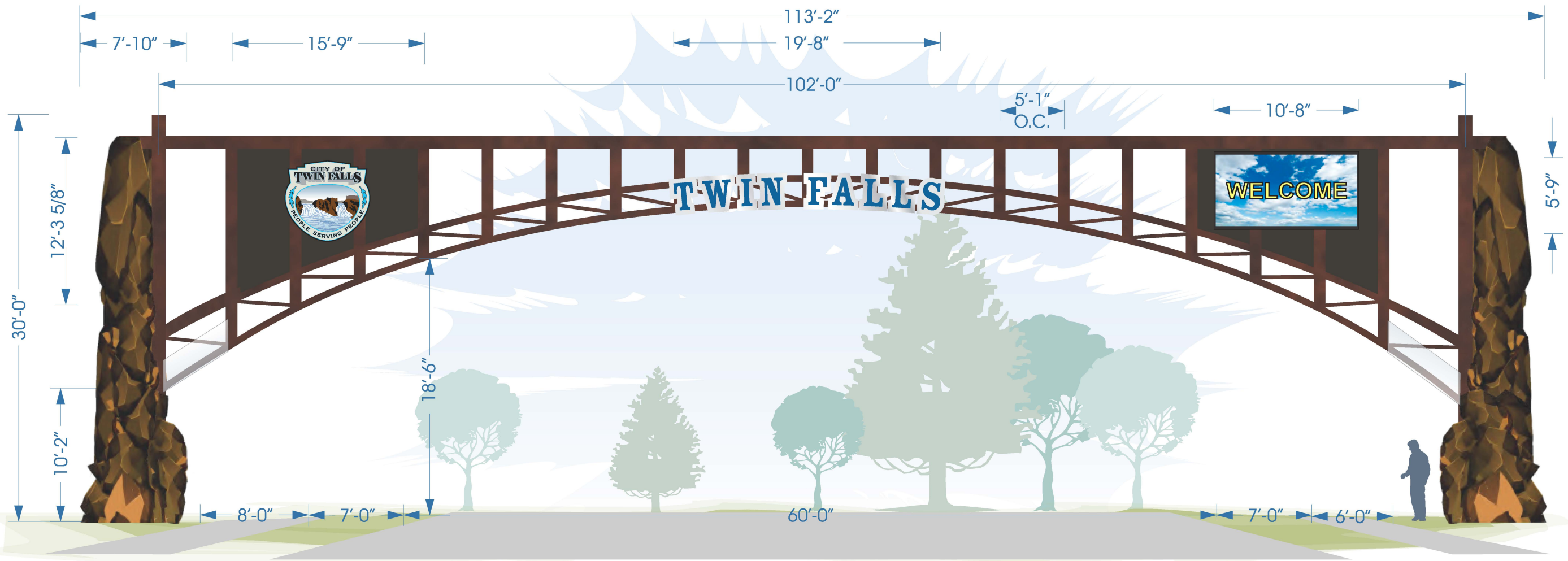
The Bidder shall complete the statement of compliance, which clearly indicates compliance, non-compliance, or partial compliance with clarification for each requirement in this RFP.

Statement of Compliance

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

	Compliant			Compliant Category
Page	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
				Volunteer Services - Anonymous
				Sprinkler Systems, Grass Sidewalks
				Cleaning
				Documentation/As Built, Operational, Maintenance
				Product Features
				Implementation
				Acceptance Testing
				Warranty/Maintenance
				Sample License Agreements/Contracts
				Workers Compensation
				Exceptions
				Additional Information
				Pricing
				Statement of Compliance

Appendix A – Graphic Design



AERIAL VIEW TO DEMONSTRATE COLUMN LAYOUT



SIMULATED NIGHT VIEW TO DEMONSTRATE ILLUMINATION

(1) D/F ENTRY WAY ARCH

Unauthorized use, reproduction and/or display shall render the infringer liable for up to \$150,000 in statutory damages, plus attorney fees and costs for each infringement under the U.S. Copyright Act (17 U.S.C. 412 & 504). THIS RENDERING IS CONCEPTUAL---COLORS MAY NOT REPRESENT ACTUAL FINISH---ILLUMINATED AND DAYLIGHT COLORS WILL VARY

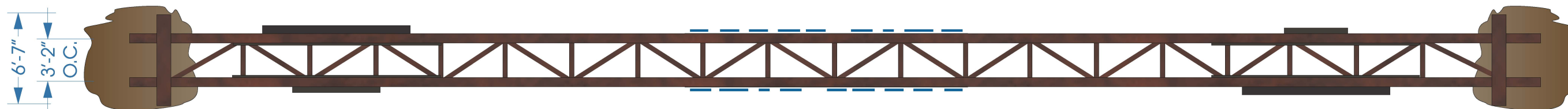
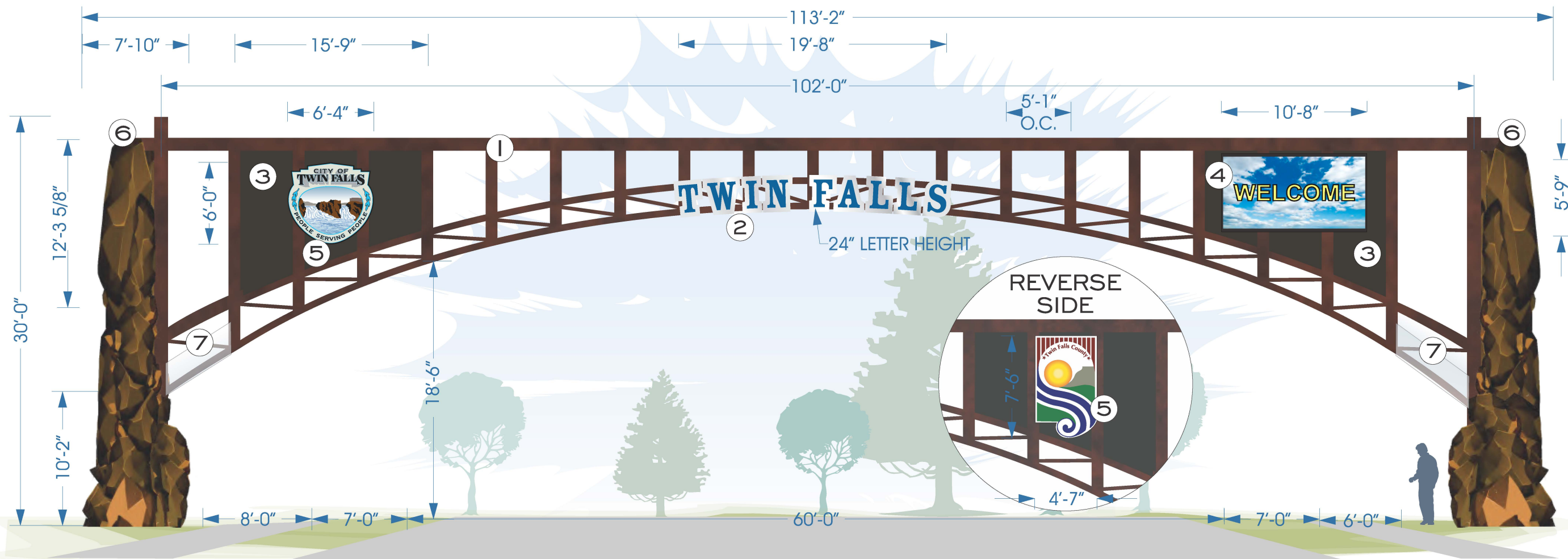
CLIENT:	Twin Falls Archway Committee
ADDRESS:	Twin Falls, ID 83303
JOB LOCATION:	Twin Falls, Idaho
DATE:	3/6/2017
SCALE:	1/8" = 1'
ACCOUNT EXECUTIVE:	RL
DRAWN BY:	AS
FILENAME:	TWIN FALLS CITY\Entry Archway\Entry Archway - 29971 REV 8
QUOTE #:	29971
REVISIONS:	03-26-2019 04-11-2019

PAGE 1 OF 2
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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

WSA
 WORLD SIGN ASSOCIATION



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
DAKTRONICS GS6 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 SIMULATED CANYON WALLS
INTERNAL STEEL FRAMEWORK (SEE STAMPED ENGINEERED PLANS)
3/16" WEATHERING STEEL PLATE COVERS CUT & WELDED TOGETHER
WITH NATURAL RUST FINISH & RANDOM ETCHING TO CREATE COLOR VARIATION
NOTE: ELEMENTS TO BE DESIGNED TO DETER CLIMBING STRUCTURE

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

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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

PAGE 2 OF 2
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Lytle Signs Inc.

Twin Falls Office

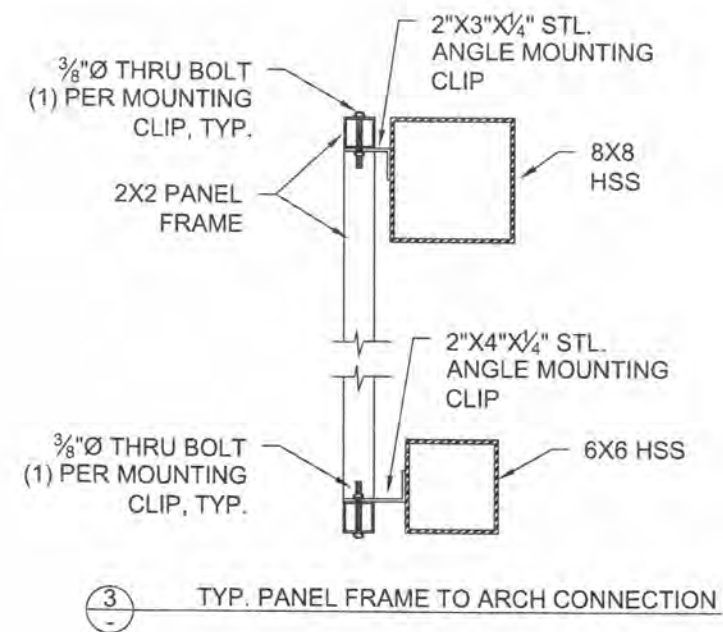
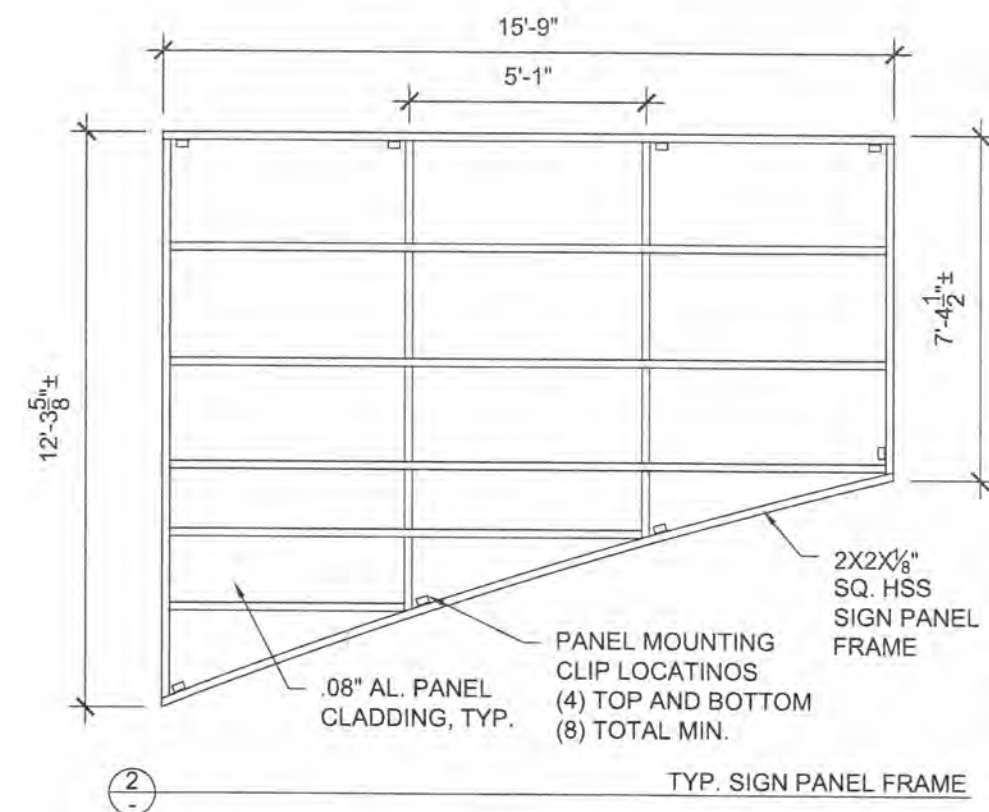
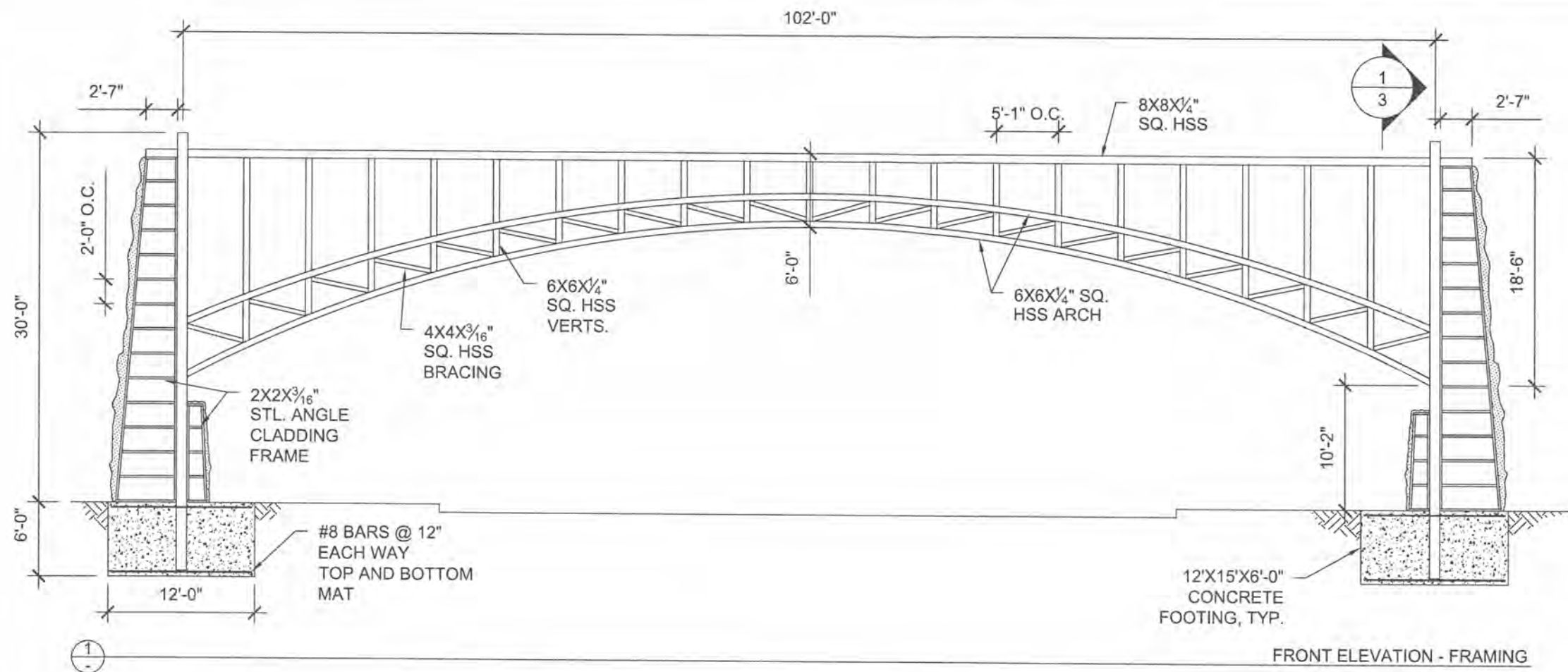
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1925 KIMBERLY RD.
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208.733.1739
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MERIDIAN, IDAHO 83642
208.388.1739
fax 208.388.3966
www.lytlesigns.com
sales @lytlesigns.com



Appendix B Engineering Plans



SULLAWAY
ENGINEERING

10815 RANCHO BERNARDO
ROAD, SUITE 250
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

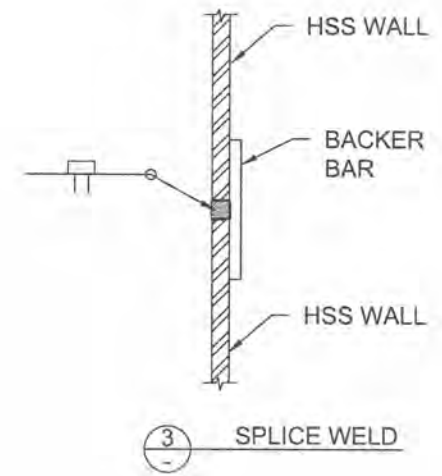
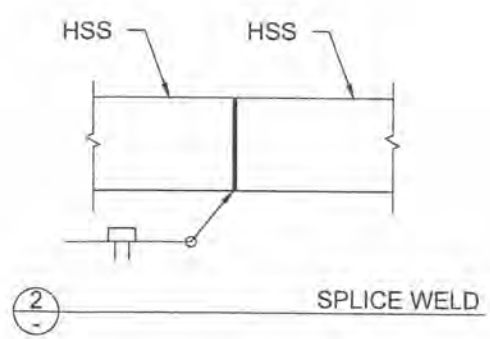
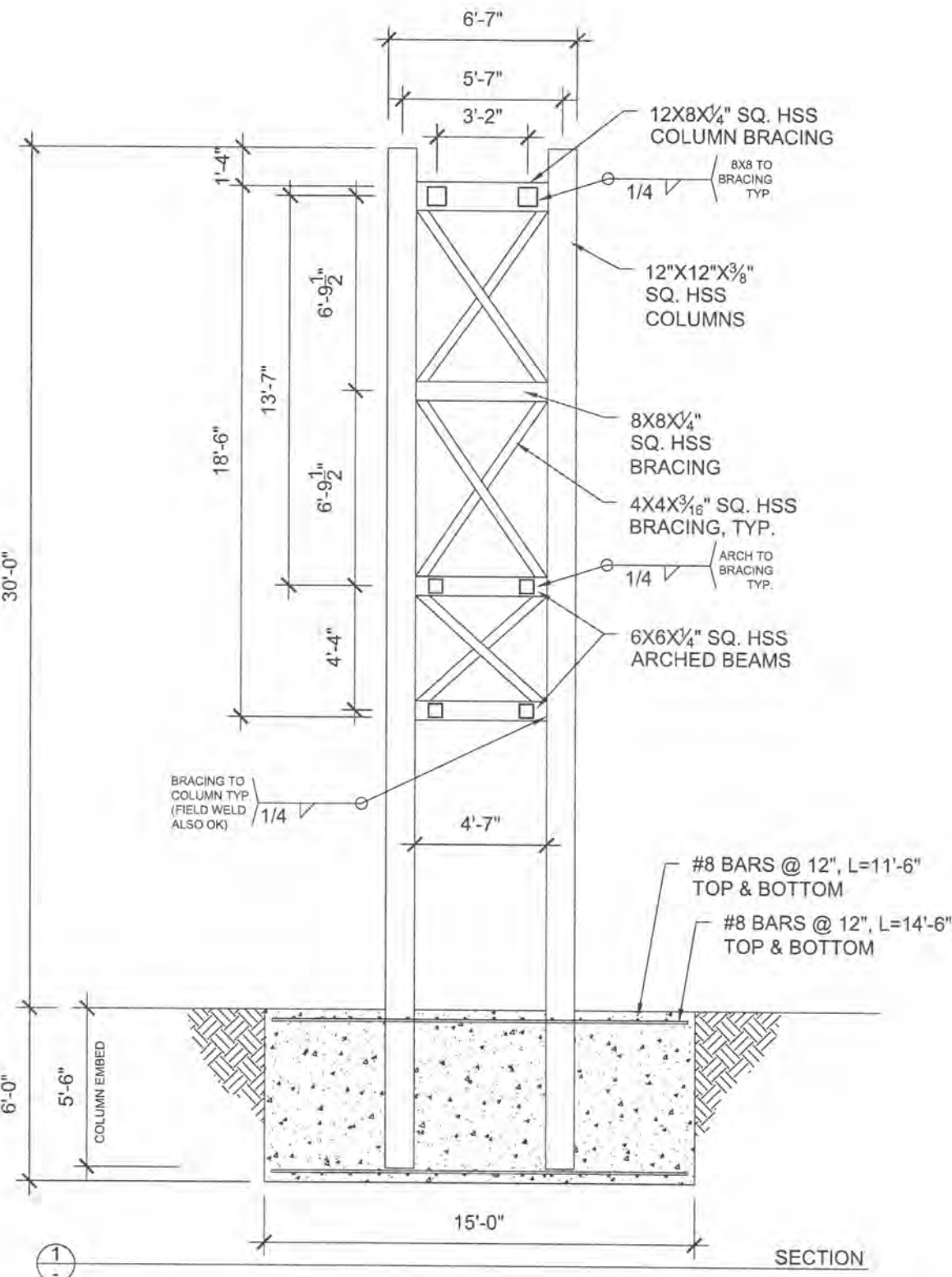
3

4

5



SHEET:
2 of 25



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	



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

DATE: 3/9/2018
ENGINEER: JS

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

$P_z = 0.00256 \cdot K_z \cdot K_d \cdot G \cdot V^2 \cdot C_d$ eq. 3.8.1-1
 $K_z = 1.0$ (Sec. 3.8.4)
 $K_d = 0.85$ (Table 3.8.5.1)
 $G = 1.14$ (Sec. 3.8.6)
 $V = 120$ mph
 $C_d \text{ truss} = 1.25$ (Table 3.8.7-1)
 $P_z \text{ truss} = 44.65$ PSF
 $C_d \text{ panel} = 1.15$ (Table 3.8.7-1)
 $P_z \text{ panel} = 41.08$ PSF

Fatigue Loading (Ch. 11)

Galloping: N/A
 Natural Wind Gust: $P_{nw} = 5.2 \cdot C_d \cdot I_f$ (eq. 11.7.1.2-1)
 Importance factor $I_f = 1.00$ (sec. 11.6)
 $P_{nw} \text{ truss} = 6.50$ PSF
 $P_{nw} \text{ Panel} = 5.98$ PSF
 Truck Induced Gust: $P_{tg} = 18.8 \cdot C_d \cdot (V/65 \text{ mph})^2 \cdot I_f$ (eq. C11.7.1.3-1)
 Importance factor $I_f = 1.00$ (sec. 11.6) $V_t = 25$ mph
 $P_{tg} \text{ truss} = 3.48$ PSF
 $P_{tg} \text{ Panel} = 3.20$ PSF

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

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

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

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

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

Bolt Bearing= 1.31 k
 $\Phi R_n = 2.4 \cdot D \cdot t \cdot F_u = 2.4(.375 \text{ in})(.25 \text{ in})(60 \text{ ksi}) = 13.5 \text{ k}$ OK
 Angle Leg Mu= $(.400 \text{ k})(3 \text{ in}) = 1.20 \text{ k-in}$
 $Z = .25(3 \text{ in})(.25 \text{ in})^2 = .047 \text{ in}^3$
 $\phi M = \phi f_y Z = (.9)(36 \text{ ksi})(.047 \text{ in}^3) = 1.52 \text{ k-in}$ OK

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

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

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

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

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

Area per letter= (2.50 ft)(2.50 ft) = 6.25 ft²
wind force= (6.25 ft²)(41 psf)= 256 lbs
dead load= 1.25(10 psf)(6.25 ft²)= 78 lbs

T per anchor= .078 k/3 = .026 k
T capacity= .75(45 ksi)(.11 in²)= 3.71 k OK
V per anchor= .256 k/3 = .085 k
V capacity= .75(27 ksi)(.11 in²)= 2.22 k OK

Fatigue load= (6.25 ft²)(6 psf)/3= 13 lbs
A bolt= .11 in²
Bolt Stress= .013 k/.11 in² = 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
PROJ. NO.: 15975-1
CLIENT: Lytle Signs

DATE: 7/24/18
ENGINEER: JS

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
φM_n=φA_sf_y(d-a/2)= 25445 k-in = 2120 k-ft M_r<φM_n ok
a=A_sf_y/0.85f_cb= 1.373 in
Check minimum A_{smin}=2sqrt(f_c)bd/f_y= 24.5 200bd/f_y= 32.64 or 1.333A_s= 9.33 in²
 Use A_s= 9.33 in²

Shear; φV_n=φ2sqrt(f_c)bd φV_c= 734.4 φ= 0.75 V_r<φV_n ok

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;

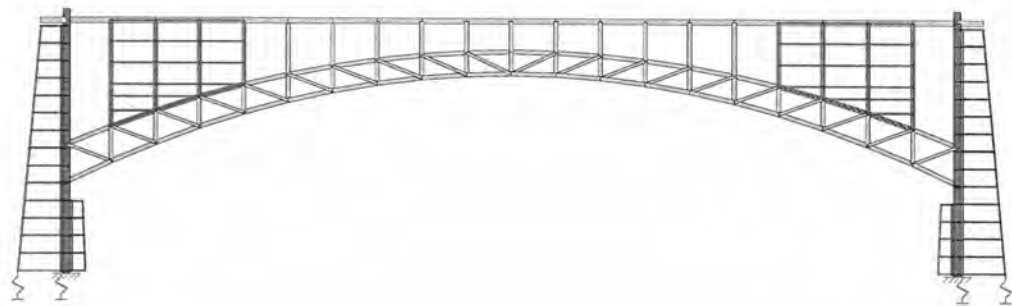
$\phi = 0.9$ $f_y = 60$ ksi $f_c = 2.5$ ksi 150 lbs/ft³
Flexure $A_s = 4.00$ $d = 68.0$ in
 $\phi M_n = \phi A_s f_y (d - a/2) = 14620$ k-in = 1218 k-ft $M_r < \phi M_n$ ok
 $a = A_s f_y / 0.85 f_c b = 0.627$ in

Check minimum $A_{smin} = 2 \sqrt{f_c} b d / f_y = 30.6$ $200 b d / f_y = 40.80$ or $1.333 A_s = 5.33$ in²
Use $A_s = 5.33$ in²

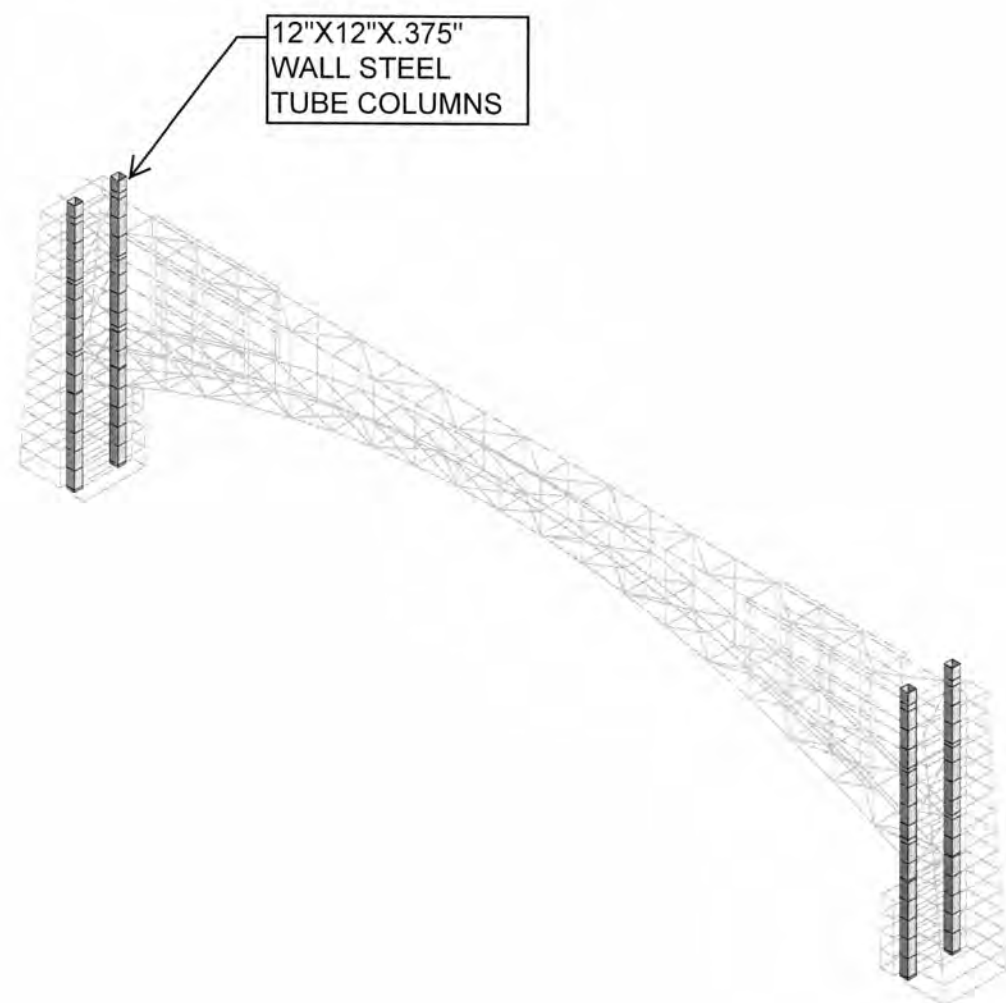
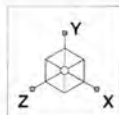
Shear; $\phi V_n = \phi 2 \sqrt{f_c} b d$ $\phi V_c = 918.0$ $\phi = 0.75$ $V_r < \phi V_n$ ok



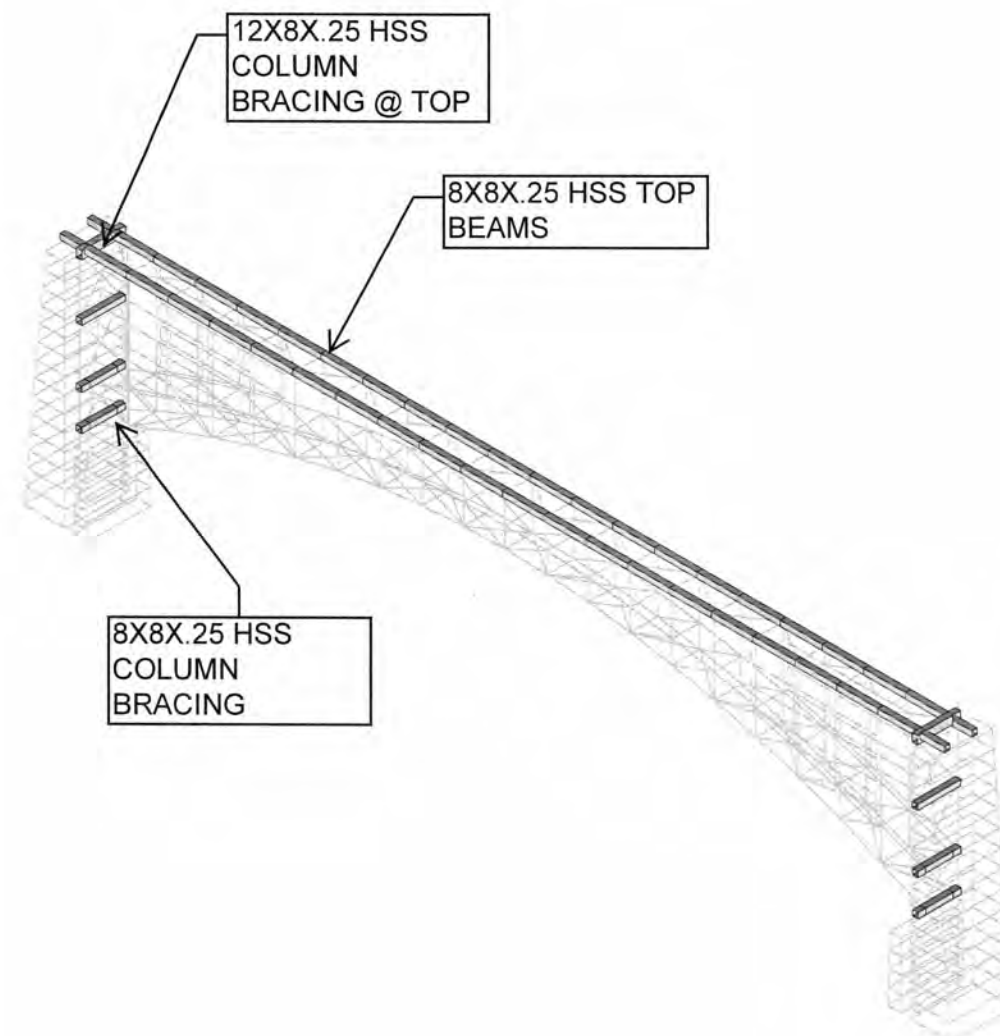
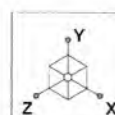
Envelope Only Solution

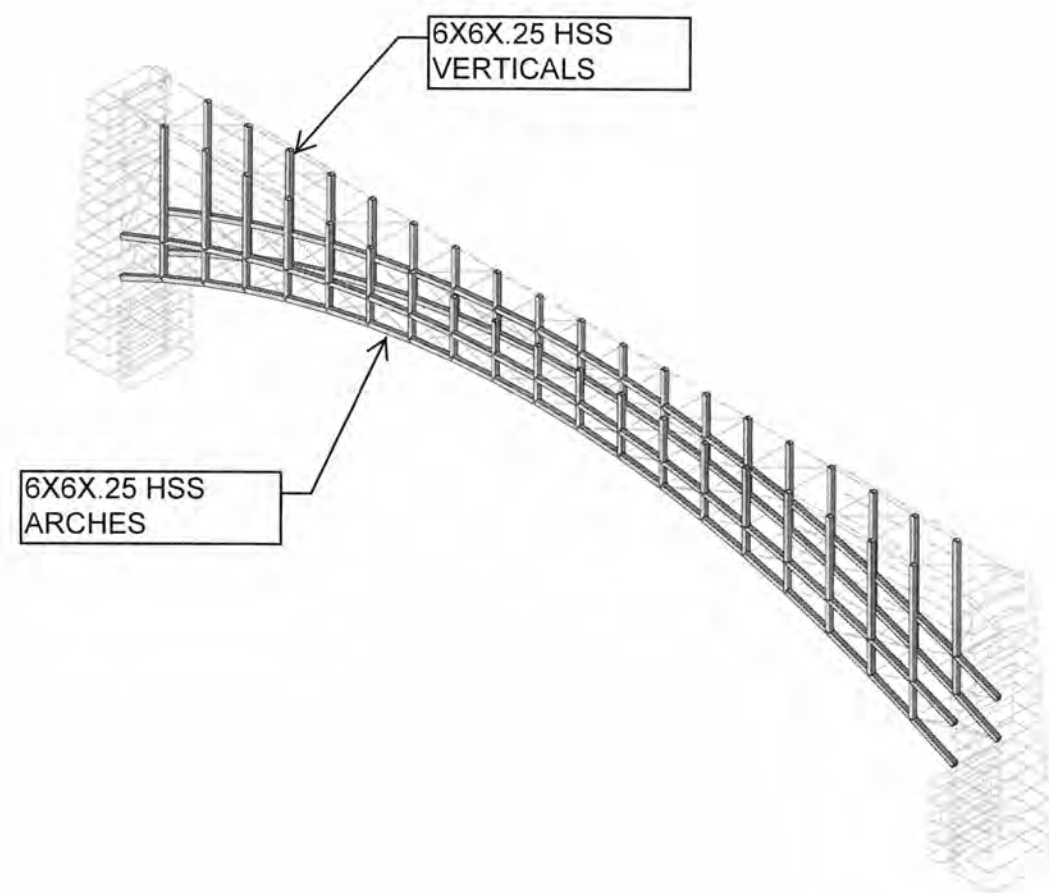
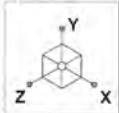


Envelope Only Solution

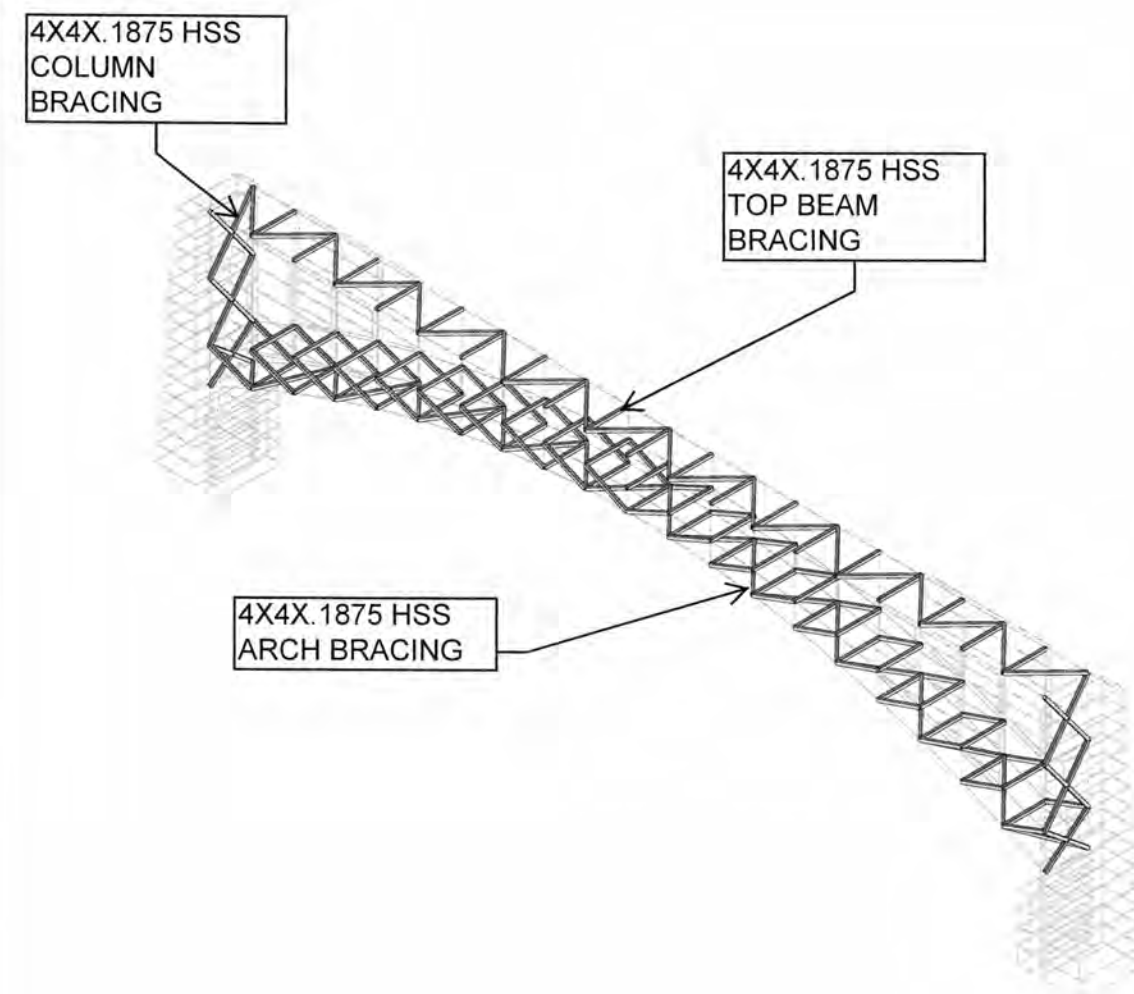
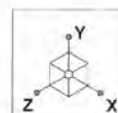


Envelope Only Solution

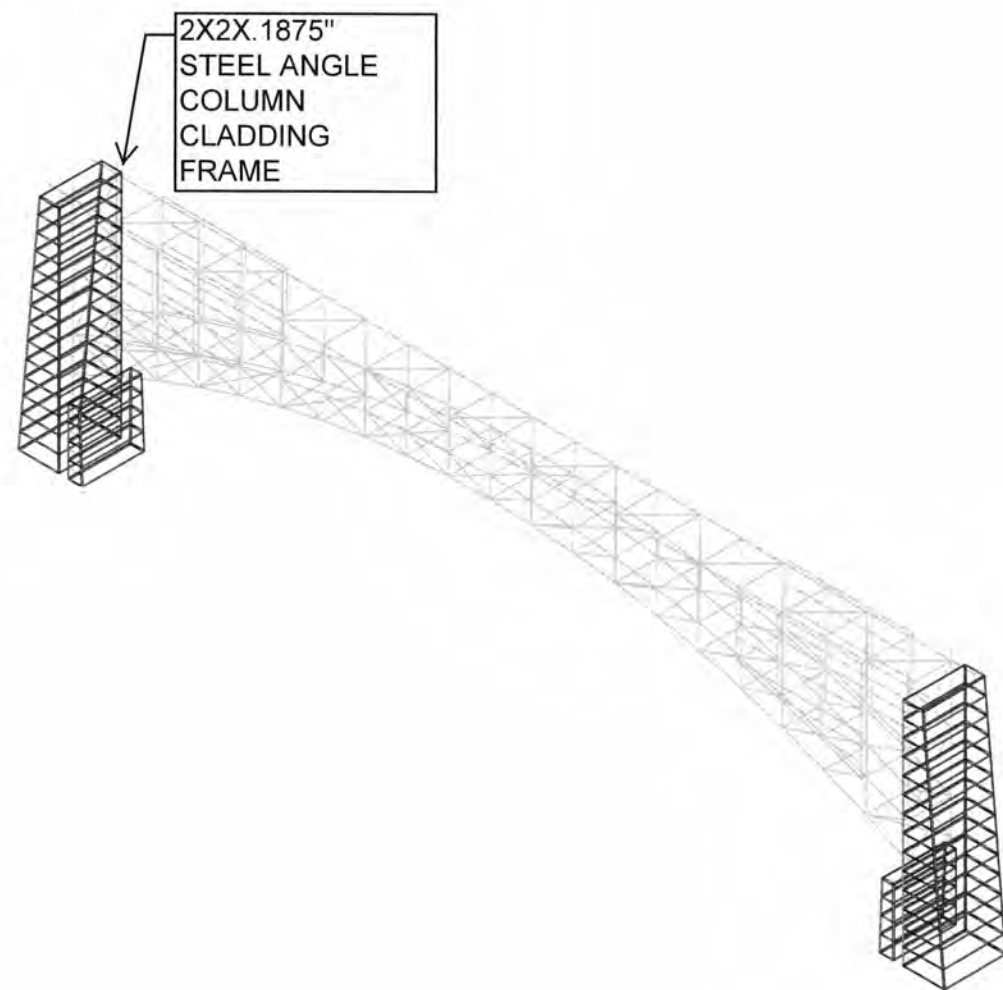




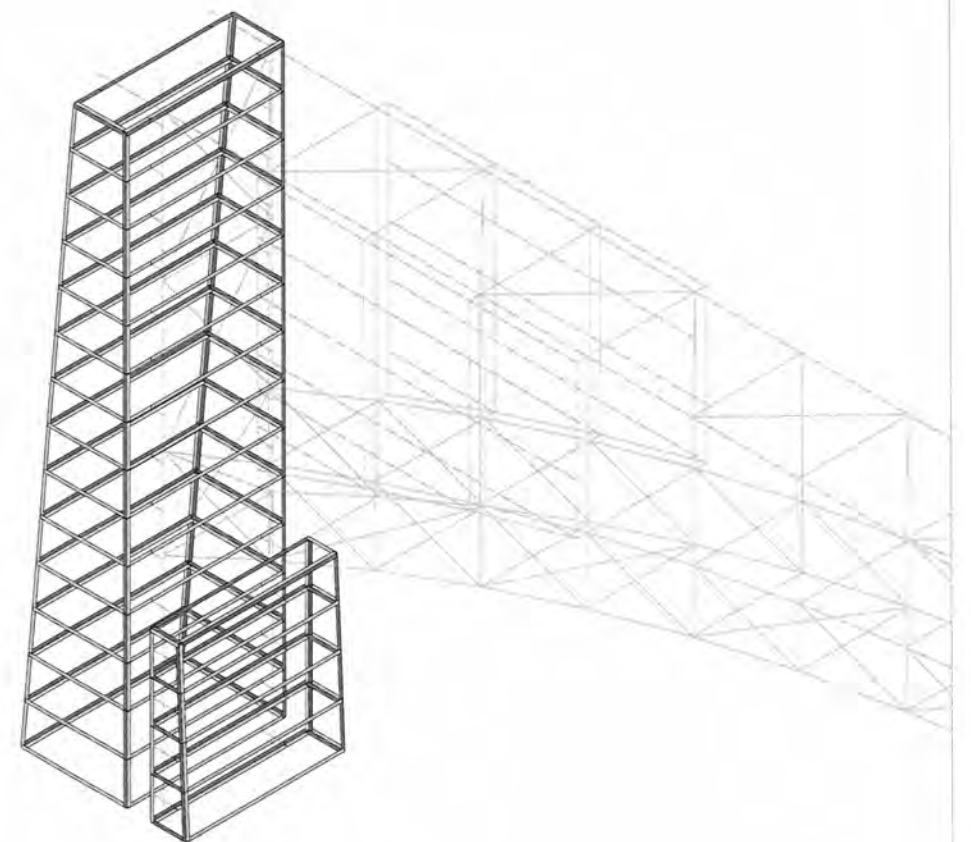
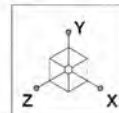
Envelope Only Solution



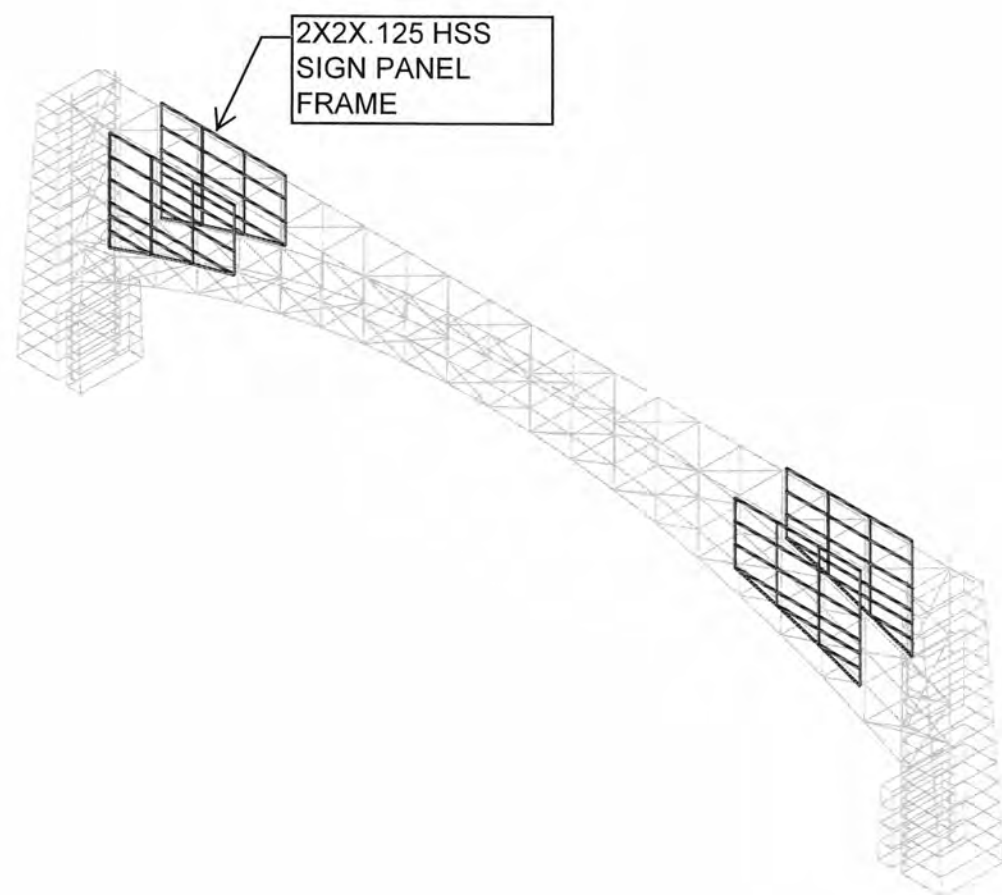
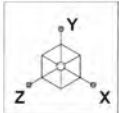
Envelope Only Solution



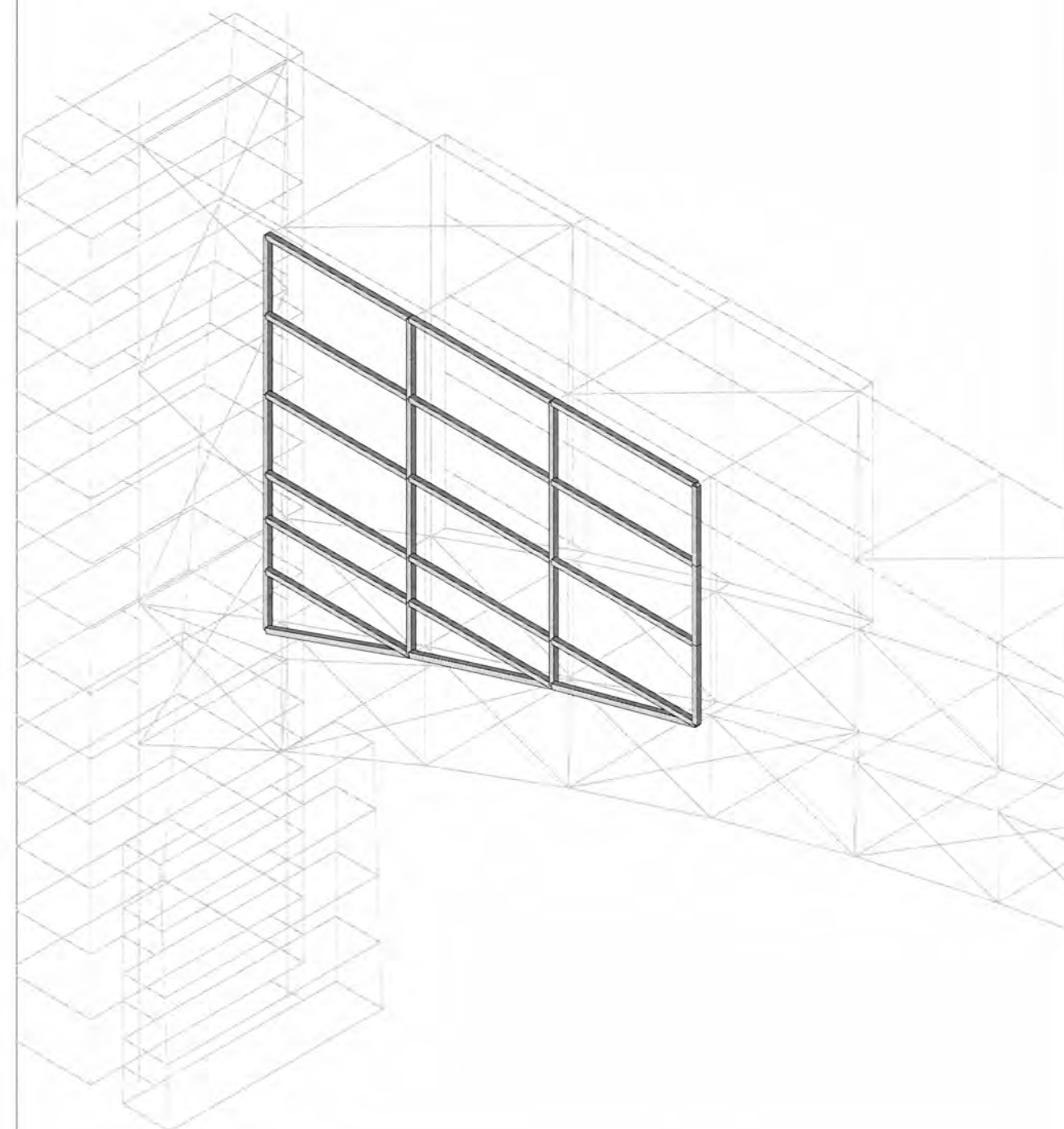
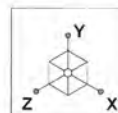
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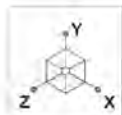
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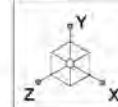
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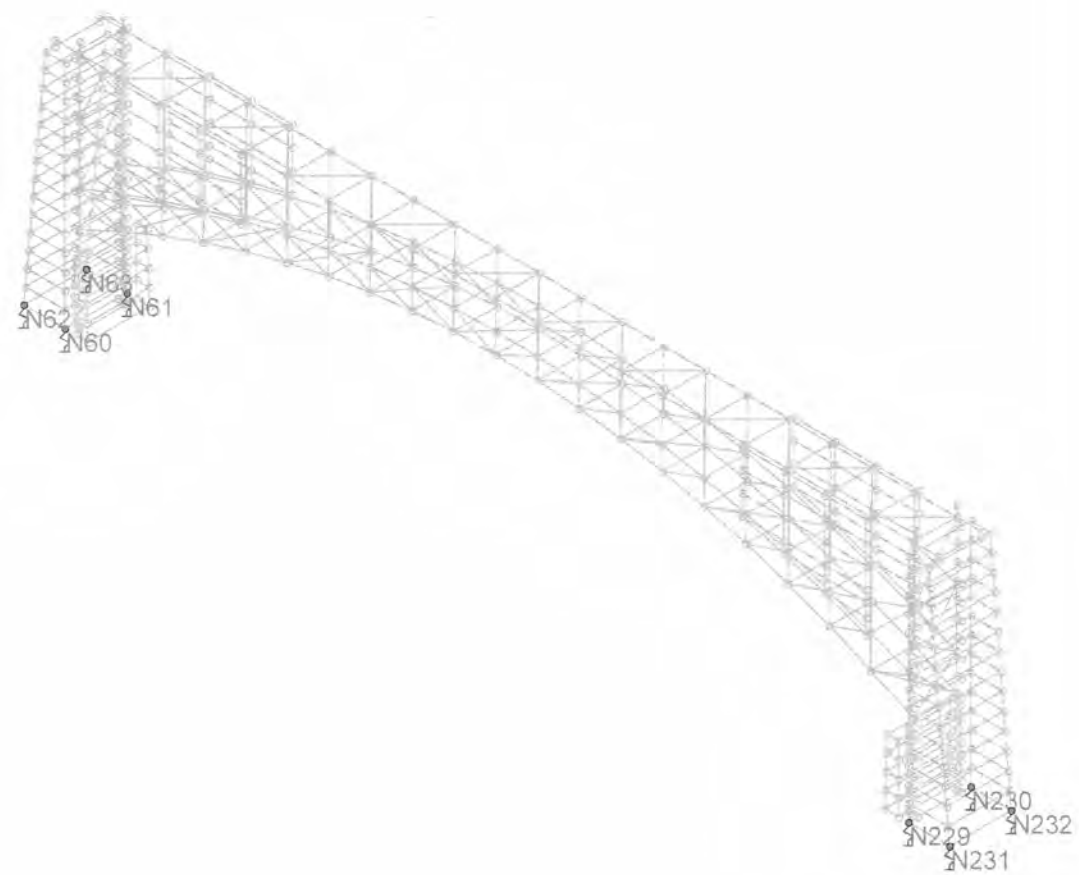
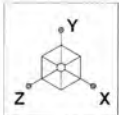
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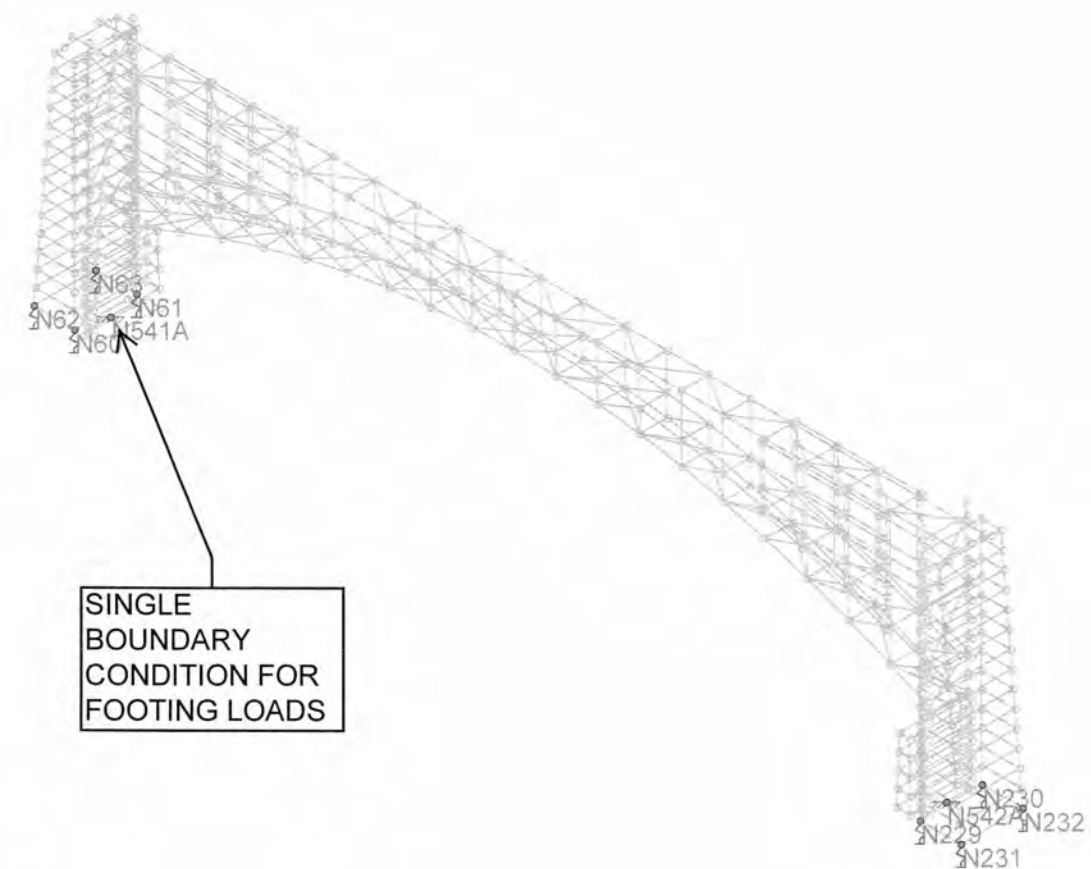
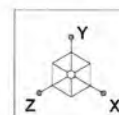
Loads: BLC 1, D
Envelope Only Solution



Loads: BLC 2, W
Envelope Only Solution



Envelope Only Solution



Envelope Only Solution

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1/E...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	DistributedArea(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	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	H1-1b
3	M3	HSS12x12x6	.428	0	5	.177	0	z 5.661.4...	.662.4	223.27	223.27	H1-1b
4	M4	HSS12x12x6	.072	0	5	.041	0	y 2.661.7...	.662.4	223.27	223.27	H1-1b
5	M5	HSS12x12x6	.041	0	5	.043	0	y 5.662.35	.662.4	223.27	223.27	H1-1b
6	M6	HSS12x12x6	.628	0	2	.180	0	y 5.662.3...	.662.4	223.27	223.27	H1-1b
7	M7	HSS12x12x6	.000	0	4	.000	0	y 5.661.8...	.662.4	223.27	223.27	H1-1b
8	M8	HSS12x12x6	.274	0	2	.111	0	y 2.661.4...	.662.4	223.27	223.27	H1-1b
9	M9	HSS12x12x6	.062	0	2	.043	0	y 5.661.7...	.662.4	223.27	223.27	H1-1b
10	M10	HSS12x12x6	.036	0	2	.043	0	y 2.662.35	.662.4	223.27	223.27	H1-1b
11	M11	HSS12x8x4	.153	0	5	.097	0	y 5.326.7...	.370.9...	73.797	116.951	H1-1b
12	M12	HSS8x8x4	.261	0	5	.218	0	z 5.293.6...	.293.94	66.288	66.288	H1-1b
13	M13	HSS8x8x4	.532	0	5	.492	0	z 5.293.6...	.293.94	66.288	66.288	H1-1b
14	M14	HSS8x8x4	.078	63.5	5	.048	0	y 5.286.0...	.293.94	66.288	66.288	H1-1b
15	M15	HSS4x4x3	.082	53...	5	.004	0	z 2.98.733	106.8...	12.662	12.662	H1-1b
16	M16	HSS4x4x3	.078	53...	5	.003	53...	y 5.98.733	106.8...	12.662	12.662	H1-1b
17	M17	HSS4x4x3	.243	41...	2	.015	0	y 2.101.9...	106.8...	12.662	12.662	H1-1a
18	M18	HSS4x4x3	.410	41...	2	.045	0	y 5.101.9...	106.8...	12.662	12.662	H1-1a
19	M19	HSS4x4x3	.079	53...	2	.010	0	y 5.98.733	106.8...	12.662	12.662	H1-1b
20	M20	HSS4x4x3	.076	53...	2	.009	0	y 5.98.733	106.8...	12.662	12.662	H1-1b
21	M21	HSS4x4x3	.105	0	5	.008	0	y 2.98.733	106.8...	12.662	12.662	H1-...
22	M22	HSS4x4x3	.103	0	5	.006	0	z 5.98.733	106.8...	12.662	12.662	H1-...
23	M23	HSS4x4x3	.125	0	5	.009	0	y 5.98.733	106.8...	12.662	12.662	H1-...
24	M24	HSS4x4x3	.123	0	5	.003	53...	y 5.98.733	106.8...	12.662	12.662	H1-...
25	M25	HSS4x4x3	.456	0	5	.029	0	y 2.101.9...	106.8...	12.662	12.662	H1-1a
26	M26	HSS4x4x3	.257	0	5	.019	41...	y 5.101.9...	106.8...	12.662	12.662	H1-1a
27	M29	HSS12x12x6	.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 ... H1-1b
93	M107	HSS12x12x6	.168	0	2	.113	0	y 2	661.2...	662.4	223.27	223.27 ... H1-1b
94	M108	HSS12x12x6	.065	0	5	.116	0	y 2	662.3...	662.4	223.27	223.27 ... H1-1b
95	M109	HSS12x12x6	.060	0	5	.042	0	y 2	661.2...	662.4	223.27	223.27 ... H1-1b
96	M110	HSS12x12x6	.052	0	2	.044	0	y 5	661.2...	662.4	223.27	223.27 ... H1-1b
97	M111	HSS12x12x6	.049	0	5	.043	0	y 2	661.2...	662.4	223.27	223.27 ... H1-1b
98	M112	HSS12x12x6	.048	0	5	.044	0	z 2	661.6...	662.4	223.27	223.27 ... H1-1b
99	M113	HSS12x12x6	.041	0	2	.045	0	y 5	661.2...	662.4	223.27	223.27 ... H1-1b
100	M114	HSS12x12x6	.031	0	2	.046	0	y 5	661.6...	662.4	223.27	223.27 ... H1-1b
101	M115	HSS12x12x6	.036	0	5	.043	0	y 5	661.2...	662.4	223.27	223.27 ... H1-1b

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

	Member	Shape	Code Check	Lo...	LC	Shear	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	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 6	8.669	23.393	.558	1.2	H2-1
249	M293	L2x2x3	.536	0	2	.048	0 z 6	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	118.951	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	51...	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	20.364	23.393	558	1.239	H2-1
309	M365	L2x2x3	219	0	5	036	0 z 5	20.364	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	66.3z	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	66.3z	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	H1-1b
649	M750	HSS4x4x3	.129	0	5	.018	0 y 5	91.99	106.8...	12.662	12.662	H1-1b
650	M751	HSS4x4x3	.124	0	2	.015	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
651	M752	HSS4x4x3	.096	0	5	.018	0 y 5	91.99	106.8...	12.662	12.662	H1-1b
652	M753	HSS4x4x3	.085	0	2	.013	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
653	M754	HSS4x4x3	.073	0	5	.015	0 y 5	91.99	106.8...	12.662	12.662	H1-1b
654	M755	HSS4x4x3	.060	0	5	.009	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
655	M756	HSS4x4x3	.035	73...	5	.006	0 y 5	91.99	106.8...	12.662	12.662	H1-1b
656	M757	HSS4x4x3	.035	0	5	.006	73... y 5	91.99	106.8...	12.662	12.662	H1-1b
657	M758	HSS4x4x3	.060	73...	5	.009	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
658	M759	HSS4x4x3	.073	73...	5	.015	73... y 5	91.99	106.8...	12.662	12.662	H1-1b
659	M760	HSS4x4x3	.085	73...	2	.013	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
660	M761	HSS4x4x3	.096	73...	5	.018	73... y 5	91.99	106.8...	12.662	12.662	H1-1b
661	M762	HSS4x4x3	.124	73...	2	.015	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
662	M763	HSS4x4x3	.129	73...	5	.018	73... y 5	91.99	106.8...	12.662	12.662	H1-1b
663	M764	HSS4x4x3	.176	0	5	.012	0 y 2	91.99	106.8...	12.662	12.662	H1-1b
664	M765	HSS4x4x3	.136	73...	5	.009	73... y 5	91.99	106.8...	12.662	12.662	H1-1b
665	M768	HSS4x4x3	.102	77...	2	.012	0 y 2	90.334	106.8...	12.662	12.662	H1-1b
666	M769	HSS4x4x3	.105	0	5	.012	0 y 5	90.698	106.8...	12.662	12.662	H1-1b
667	M770	HSS4x4x3	.056	0	5	.008	75... y 5	91.018	106.8...	12.662	12.662	H1-1b
668	M771	HSS4x4x3	.063	0	2	.007	0 z 2	91.293	106.8...	12.662	12.662	H1-1b
669	M772	HSS4x4x3	.066	0	5	.010	0 y 5	91.523	106.8...	12.662	12.662	H1-1b
670	M773	HSS4x4x3	.069	0	2	.008	0 y 2	91.707	106.8...	12.662	12.662	H1-1b
671	M774	HSS4x4x3	.073	0	5	.010	0 y 5	91.846	106.8...	12.662	12.662	H1-1b
672	M775	HSS4x4x3	.059	0	2	.005	73... y 5	91.938	106.8...	12.662	12.662	H1-1b
673	M776	HSS4x4x3	.037	0	5	.004	73... y 4	91.984	106.8...	12.662	12.662	H1-1b
674	M777	HSS4x4x3	.037	73...	5	.004	0 y 4	91.984	106.8...	12.662	12.662	H1-1b
675	M778	HSS4x4x3	.059	73...	2	.005	0 y 5	91.938	106.8...	12.662	12.662	H1-1b
676	M779	HSS4x4x3	.073	73...	5	.010	73... y 5	91.846	106.8...	12.662	12.662	H1-1b
677	M780	HSS4x4x3	.069	73...	2	.008	0 y 2	91.707	106.8...	12.662	12.662	H1-1b
678	M781	HSS4x4x3	.066	74...	5	.010	74... y 5	91.523	106.8...	12.662	12.662	H1-1b
679	M782	HSS4x4x3	.063	74...	2	.007	0 z 2	91.293	106.8...	12.662	12.662	H1-1b
680	M783	HSS4x4x3	.056	75...	5	.008	0 y 5	91.018	106.8...	12.662	12.662	H1-1b
681	M784	HSS4x4x3	.105	76...	5	.012	76... y 5	90.698	106.8...	12.662	12.662	H1-1b
682	M785	HSS4x4x3	.102	0	2	.012	0 y 2	90.334	106.8...	12.662	12.662	H1-1b
683	M787	HSS4x4x3	.379	0	5	.074	0 z 2	102.1...	106.8...	12.662	12.662	H1-1b
684	M788	HSS4x4x3	.353	0	5	.077	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
685	M789	HSS4x4x3	.271	0	5	.072	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
686	M790	HSS4x4x3	.273	40	5	.075	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
687	M791	HSS4x4x3	.264	40	5	.066	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
688	M792	HSS4x4x3	.265	40	5	.060	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
689	M793	HSS4x4x3	.249	40	5	.050	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
690	M794	HSS4x4x3	.208	0	2	.037	0 z 5	102.1...	106.8...	12.662	12.662	H1-1b
691	M795	HSS4x4x3	.134	40	5	.020	0 z 2	102.1...	106.8...	12.662	12.662	H1-1b

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

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

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

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

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

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

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

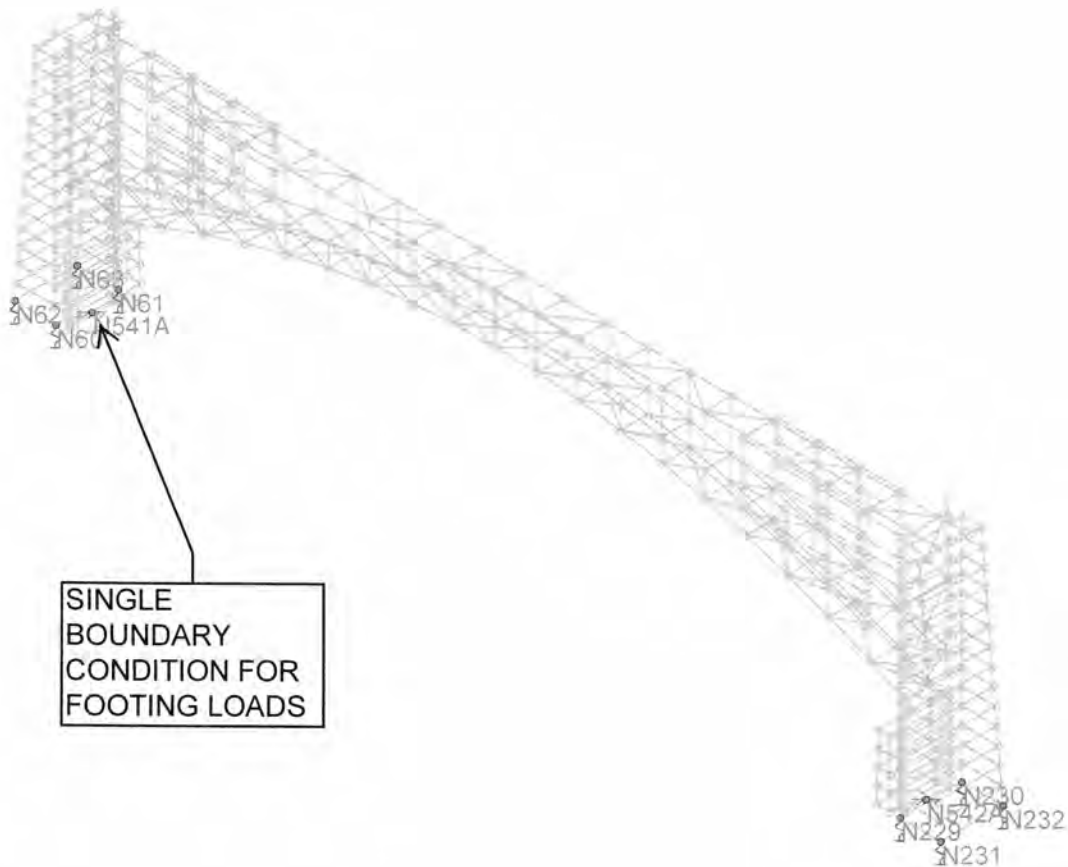
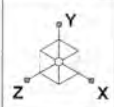
Member	Shape	Code Check	Lo...	LC	Shear	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Egn
869	M993	HSS2x2x3	.083	33...	5	.050	53...	z	5	30.861 49.266	2.75 2.75 ...H1-1b
870	M994	HSS2x2x3	.124	61.2	5	.026	53...	z	2	30.861 49.266	2.75 2.75 ...H1-1b
871	M995	HSS2x2x3	.108	0	5	.064	0	z	5	30.861 49.266	2.75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

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

	Member	Shape	Code Check	Lo...	LC	Shear ...	Lo...	phi*P...	phi*P...	phi*Mn...	phi*Mn...	Egn
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



Envelope Only Solution

Basic Load Cases

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

Load Combinations

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

Envelope Joint Reactions

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

Appendix C Site Plan



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

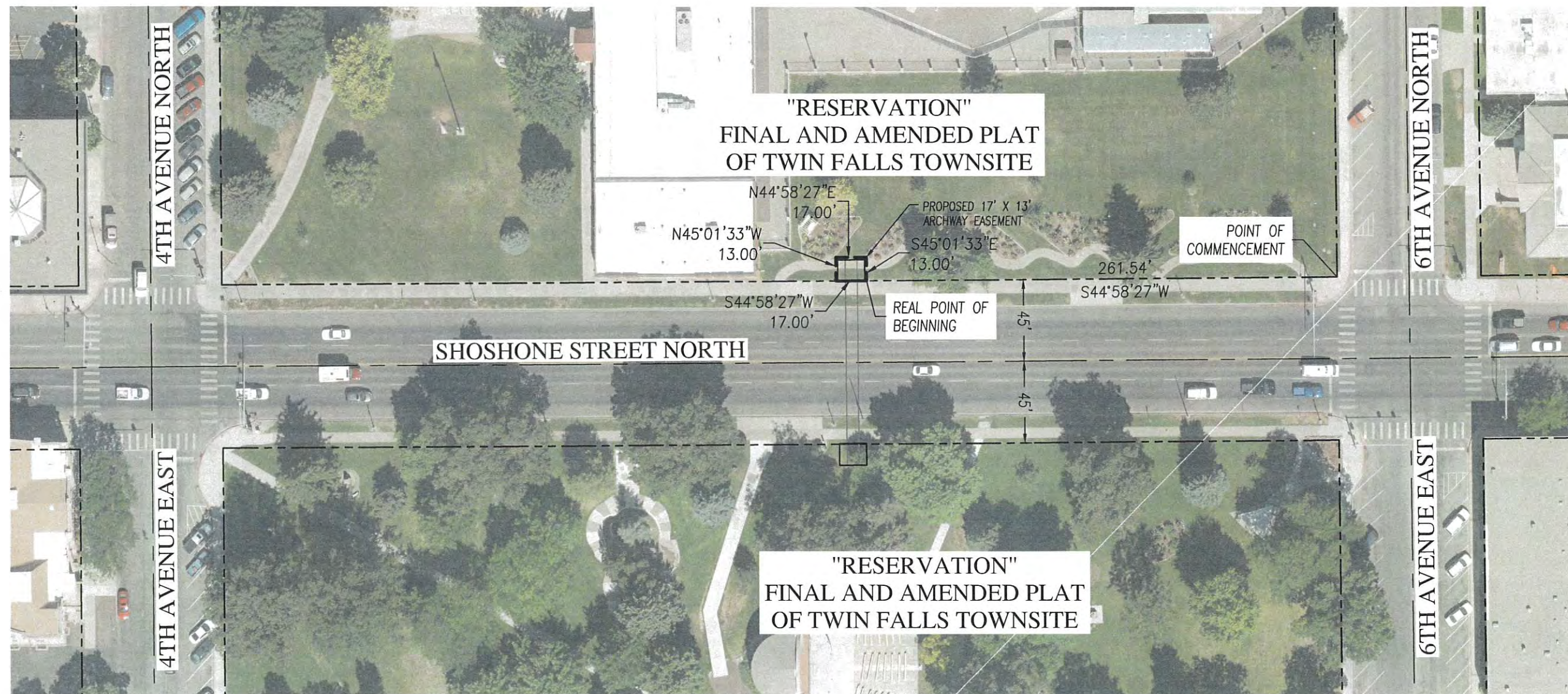


EXHIBIT
CITY OF TWIN FALLS ARCHWAY
TWIN FALLS, IDAHO

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

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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

PAGE 1 OF 2

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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
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Twin Falls City-Archway Committee

Twin Falls, Idaho

11/09/2017

3/4"x1"

See L

See

Twin Falls City Entry Archway-Dance Interpretation Sign

20076

PAUL D'S

LITTLE 2006S © 2017

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Twin Falls Office

PO BOX 365

1925 KIMBERLY RD.

TWIN FALLS, IDAHO 83308

208.733.1739

1.800.621.6836

for 208.734.8653

Boise/Meridian Office

2070 E. COMMERCIAL ST.

MERIDIAN, IDAHO 83642

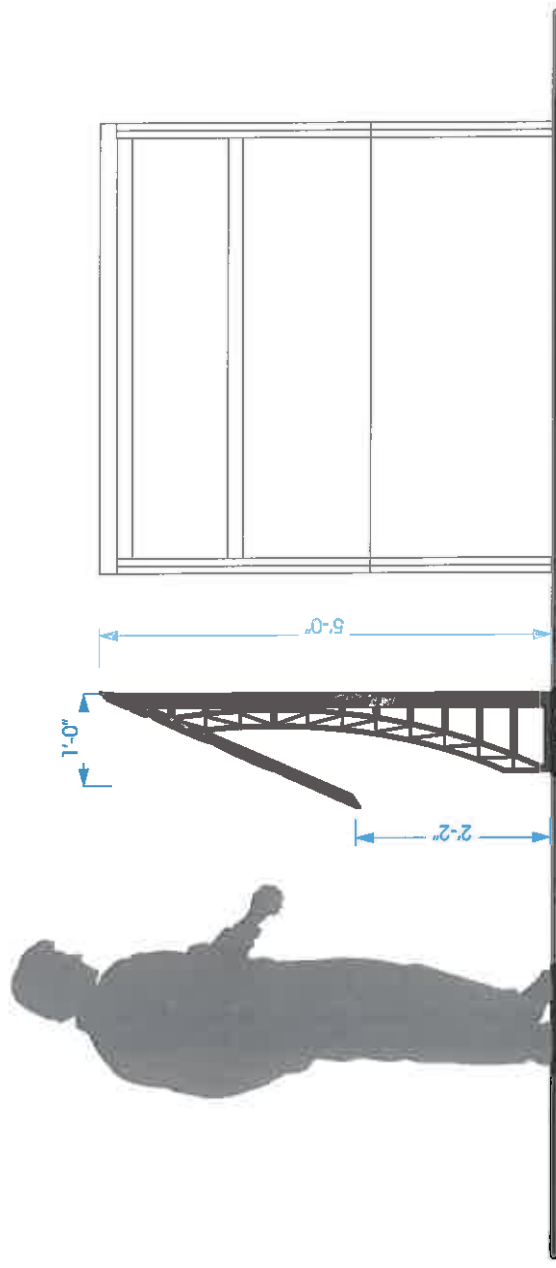
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INTERPRETIVE PANEL SUPPORT STRUCTURE

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

RUST COLORED POWDER COATED

Generous Donators - Thank You!!!

City of Twin Falls	43000
Seagraves Foundation	30000
Twin Falls County	20000
Plant Therapy	10000
Plant Therapy	1000
First Federal	10000
Falls Brand	1000
Twin Falls County Democratic Central Committee	1000
K&T Steel Corp.	1000
Premier Auto Group	1000
Idaho Central Credit Union	10000
Twin Falls Western Days	10000
Sinclair, Paula Brown	4872
Jensen Jewelers	2000
"In Memory Of Hank SGK LLC" - Wills	1500
Aamco Transmissions	1000
Agri-Stor Company/Eric Evans	1000
Boyd, Jim & Nikki	1000
Brizee Family	1000
Jane Munro	1000
Middlekauff Ford	1000
Newberry, Dave & Donna	1000
Stotz Equipment	1000
Title One, Corp	1000
Twin Falls Kiwanis	1000
	In Kind
Canal Company - Groundwork John Kaperleris	2100
Complete Crane - Service	1703
Lytle Signs - Service	
Petruzzelli Electric - Electrical	2000
Anonymous	10000

7/2/2019



Date: Monday, July 15, 2019
To: Honorable Mayor and City Council
From: Josh Baird, Staff Engineer

ACTION ITEM

Request:

ACTION ITEM: Request to consider allowing Contractor to execute a full closure of the intersection of Falls Avenue East and Eastland Drive North for up to 4 weeks and a closure of Falls Avenue East for an additional 4 weeks as part of the Eastland - Falls Intersection project.

Time Estimate:

The staff presentation will take approximately 10 minutes.

Background:

The Eastland - Falls Intersection project was awarded to PMF, Inc. on July 1, 2019. The original design anticipates approximately 15 weeks to complete the project in four separate phases. One of those phases lasting 3-4 weeks eliminates eastbound traffic coming through the intersection with a detour.

The Contractor has proposed an alternative traffic control plan which would close the intersection in its entirety with detours all the way around for up to 4 weeks. After the first four weeks, Eastland Drive North would be reopened for through travel but Falls Avenue East would remain closed for an additional four weeks. After those 8 weeks, the intersection would be reopened. If approved, adjacent collectors and arterials will be used to detour traffic and the contractor will have to work with local traffic to provide them access.

There will still need to be a few single lane closures prior to the full closure.

Some of the advantages of a full intersection closure would be a shorter duration of construction, enhanced safety for the construction workers, shortened impact to the traveling public including school buses and upcoming beet haul trucks.

However, a full intersection closure would be substantially more inconvenient to the public.

Approval Process:

A majority vote of the Council to approve the request.

Budget Impact:

N/A

Regulatory Impact:

N/A

History:

N/A

Analysis:

N/A

Conclusion:

Given the high volume of use of the intersection, City staff feels the decision to completely close the intersection should be made by the City Council.

Attachments:

None



Date: Monday, July 15, 2019
To: Honorable Mayor and City Council
From: Lorie Race, Chief Financial Officer

PRESENTATION

Request:

PRESENTATION: Presentation on the finances of the City of Twin Falls for nine months of fiscal year 2018-2019. This presentation will be an overview of the tax-supported funds and the three major enterprise funds: Water, Wastewater and Sanitation.

Time Estimate:

I will give a presentation, followed by any questions Council may have. I would estimate this item taking approximately 10-15 minutes.

Background:

The information I will be presenting includes a comparison of budget to actual information for revenues and expenditures in the tax supported funds, and in the three major enterprise funds. I will be sharing what I am seeing and projecting for these funds.

Approval Process:

N/A

Budget Impact:

There is no budget impact.

Regulatory Impact:

N/A

History:

N/A

Analysis:

N/A

Conclusion:

There is no action required by the City Council.

Attachments:

1. TSF - June 2019
2. Enterprise Funds - June 2019

City of Twin Falls			
Summary of Tax-Supported Funds			
June 30, 2019			
		9 of 12 months	75.000%
			% Received
	Budgeted Rev	Actual Rev	to Date
Property Taxes	\$ 22,134,866	\$ 14,158,441	64.0%
Franchise Taxes	1,995,000	1,502,866	75.3%
Permits	1,255,236	1,007,996	80.3%
Revenue Sharing-County, State, Liquor	4,205,673	3,301,808	78.5%
State Liquor Apportionment	700,000	574,156	82.0%
Street Fund-Highway Monies	3,290,000	2,521,101	76.6%
Court Revenues	200,000	123,063	61.5%
Street Sweeping	-	(198)	
Contributions	-	12,543	#DIV/0!
Grants	185,000	1,894,505	1024.1%
Misc	584,786	653,461	111.7%
E-911	487,700	359,931	73.8%
Recreation Fees	560,715	485,239	86.5%
Airport Revenues	1,107,781	942,089	85.0%
Investment Interest	578,000	491,505	85.0%
Fire District	525,030	299,819	57.1%
Transfers	3,397,250	2,547,937	75.0%
Surplus Reserves	454,645	-	0.0%
Revenue Totals	\$ 41,661,682	\$ 30,876,262	74.1%
	Budgeted Exp	Actual Exp	
Personnel	\$ 25,449,848	\$ 19,435,826	76.4%
M & O	7,943,845	5,115,016	64.4%
Capital	6,268,170	4,028,834	64.3%
Transfers	1,999,818	1,499,863	75.0%
Expenditure Totals	\$ 41,661,681	\$ 30,079,539	72.2%

City of Twin Falls					
Water Fund					
Fiscal Year 2018-2019					
	9 of 12 months	75.00%			
		2018-2019	2018-2019		
		Budget	Actuals		Difference
Revenues					
	Water revenue	\$ 7,675,597	\$ 4,445,406	57.9%	\$ (3,230,191)
	Flat rate-Arsenic compliance	\$ 2,100,000	\$ 1,649,425	78.5%	\$ (450,575)
	Tap fees	\$ 125,000	\$ 135,603	108.5%	\$ 10,603
	Irrigation revenue	\$ 778,711	\$ 636,921	81.8%	\$ (141,790)
	Investment income	\$ 118,000	\$ 141,959	120.3%	\$ 23,959
	Other	\$ 312,910	\$ 367,756	117.5%	\$ 54,846
	Transfers	\$ 583,692	\$ 437,769	75.0%	\$ (145,923)
	Reserves	\$ -	\$ -		\$ -
		<u>\$ 11,693,910</u>	<u>\$ 7,814,839</u>	66.8%	
Expenditures					
	Personnel	\$ 2,288,890	\$ 1,768,837	77.3%	\$ (520,053)
	M&O	\$ 2,989,646	\$ 1,260,204	42.2%	\$ (1,729,442)
	Capital	\$ 2,252,000	\$ 1,120,707	49.8%	\$ (1,131,293)
	Debt	\$ 2,911,206	\$ 303,222	10.4%	\$ (2,607,983)
	Transfers	<u>\$ 1,252,169</u>	<u>\$ 939,127</u>	75.0%	\$ (313,042)
		<u>\$ 11,693,910</u>	<u>\$ 5,392,097</u>	46.1%	

City of Twin Falls					
Wastewater Fund					
Fiscal Year 2018-2019					
	9 of 12 months	75.00%			
		2018-2019	2018-2019		
Revenues		<u>Budget</u>	<u>Actuals</u>		<u>Difference</u>
	Residential & commercial	\$ 6,783,702	\$ 5,055,138	74.5%	\$ (1,728,563)
	Industrial	\$ 2,503,615	\$ 1,503,145	60.0%	\$ (1,000,470)
	Municipal	\$ 238,562	\$ 154,379	64.7%	\$ (84,183)
	Capacity fees	\$ -	\$ 182,171		\$ 182,171
	Investment income	\$ 240,000	\$ 183,893	76.6%	\$ (56,107)
	Other	\$ 128,000	\$ 582,871	455.4%	\$ 454,871
	Reserves	\$ 48,000	\$ -	0.0%	\$ 48,000
		\$ 9,941,879	\$ 7,661,597	77.1%	\$ (2,184,282)
Expenditures			\$ -		
		Budget	Actual		
	Personnel	\$ 809,414	\$ 583,041	72.0%	\$ (226,373)
	M&O	\$ 3,517,469	\$ 2,560,386	72.8%	\$ (957,083)
	Capital	\$ 1,265,000	\$ 475,455	37.6%	\$ (789,545)
	Debt	\$ 3,481,781	\$ 773,257	22.2%	\$ (2,708,524)
	Transfers	\$ 868,215	\$ 651,161	75.0%	\$ (217,054)
	Totals	\$ 9,941,879	\$ 5,043,299	50.7%	\$ (4,898,579)

City of Twin Falls					
Sanitation Fund					
Fiscal Year 2018-2019					
	9 of 12 months	75.00%			
		2018-2019	2018-2019		
Revenues		<u>Budget</u>	<u>Actuals</u>		<u>Difference</u>
	Garbage & Refuse Collection	\$ 2,031,084	\$ 1,601,259	78.8%	\$ (429,825)
	Extra Garbage Collection	\$ -	\$ 21,183		
	Sanitation Admin Fee	\$ 466,891	\$ 352,042	75.4%	\$ (114,848)
	Refuse & Weed Removal	\$ -	\$ -		\$ -
	Landfill Fees	\$ 807,000	\$ 536,020	66.4%	\$ (270,980)
	Recycle Revenue	\$ -	\$ -		\$ -
	Code Violations	\$ -	\$ -		\$ -
	Penalties & Interest	\$ -	\$ -		\$ -
	Interest Income	\$ 3,500	\$ 7,005	200.2%	\$ 3,505
	Miscellaneous Revenues	\$ -	\$ 336		\$ (336)
	Surplus Reserves	\$ -	\$ -		\$ -
		<u>\$ 3,308,475</u>	<u>\$ 2,517,846</u>	76.1%	<u>\$ (812,483)</u>
Expenditures					
		<u>Budget</u>	<u>Actual</u>		
	Personnel	\$ -	\$ -		\$ -
	M&O	\$ 2,838,084	\$ 1,894,956	66.8%	\$ (943,128)
	Capital	\$ -	\$ -		\$ -
	Debt	\$ -	\$ -		\$ -
	Transfers	\$ 470,391	\$ 352,793	75.0%	\$ (117,598)
	Totals	<u>\$ 3,308,475</u>	<u>\$ 2,247,749</u>	67.9%	<u>\$ (1,060,725)</u>



Date: Monday, July 8, 2019
To: Mayor and City Council
From: Travis Rothweiler, City Manager

Request

A presentation of the City Manager's Recommended Budget for FY 2020 followed by citizen input.

Time Estimate

The estimated amount of time this item will take is 45 minutes plus time to answer questions.

Background

The State of Idaho defines city government as a municipal corporation. It is with that mindset this budget has been developed. We are pleased to present to you the recommended Budget for Fiscal Year 2019-2020 (FY2020). This budget represents hundreds of hours of thoughtful work by dozens of people in developing the spending plan for our organization for the coming fiscal year.

The City of Twin Falls has nearly 50,000 shareholders, 311 full-time employees and a taxable value of nearly \$3.2 billion. Our proposal has been carefully developed with full consideration given to critical issues such as public safety, capital financing, economic development, and placemaking. The decisions that we make today will not only affect our work this year, but also impact future years and even future generations.

The City of Twin Falls is committed to the efficient delivery of quality services to its citizens. This commitment is the foundation behind policy decisions and priorities that ensures constructive and well-formulated plans for the growth and prosperity. This document contains a balanced, sustainable budget that provides the desired services our citizens expect. The budget was developed in partnership with both our internal and external partners. It incorporates the goals and objectives articulated in the City's 2030 Strategic Plan, the guidelines described in the Financial Management Policies, department-specific facility plans, the results of our citizen survey, and the technical expertise provided by our employees.

The FY 2020 budget has been created with following philosophies in mind:

- Providing high-quality governmental services consistent with citizen expectations;
- Taking steps towards realizing the 2030 Strategic Plan, Vision, Goals and Objectives;
- Careful stewardship of city resources, emphasizing affordability and long-term sustainability;
- Using data to begin the process of incorporating performance measures to help achieve greater efficiencies, effectiveness, and responsiveness;
- Placing a high level of value on our employees.

A budget is developed to sustain and achieve the outcomes that the community has identified as most important. Each department determines what it does to support these common goals and the budget communicates to the public how the allocation of resources reflects community priorities and its vision for the future. We relied on information provided in the City's 2030 Strategic Plan and the results of citizen surveys to provide guidance regarding community priorities.

Public Input and Transparency

The City of Twin Falls strives to communicate, operate, function, and conduct the business of the people in an open and transparent manner. Equally, we recognize the value and importance of honoring and upholding our fiduciary duties and responsibilities. Because openness and transparency are part of our

organizational culture and values, we have taken several steps designed to afford our citizens and stakeholders several opportunities to actively participate and contribute to the budgeting process.

The City of Twin Falls has taken additional steps designed to illustrate our commitment to effective community involvement in the annual budget process. The Council provided an opportunity for our citizens and stakeholders to communicate their thoughts about specific programs, strategic initiatives and priorities for the upcoming fiscal year prior to the more customary, internal staff conversations.

A summary presentation of the proposed budget has been placed on the City's website. On August 6, 2018, the City Council will adopt the preliminary budget for FY 2019, with a public hearing and final adoption scheduled to occur on August 20th.

Connection to the City's 2030 Strategic Plan

Twin Falls is a vital, growing, and changing city. We have constructed processes and policies that help us in shaping growth and taking advantage of opportunities as they are presented. We continue to focus on the focus area contained in the City's 2030 Strategic Plan, just as we have for the past seven budget cycles. The current Strategic Plan was updated in March 2018 after an extensive open, citizen-driven process. The City's FY2020 budget allocates funds for needed projects and critical services collectively designed to help the City take the "next step" in realizing the community's 2030 vision of Twin Falls.

The City views its planning and operations in a strategic manner, utilizing the Strategic Plan to guide budgetary and policy-making decisions and recommendations. With the adoption of the 2030 City of Twin Falls' Strategic Plan in 2013, the Council established and set a course to follow. Following a similar process from 2012, the City began updating the strategic plan in February 2017. That process was completed in March 2018. For almost a year, members of the City's team spent quality time listening to our citizen's needs, dreams, and expectations, while reviewing statistical data about our state, region, and city. We compared those conversations to the information and data that was collected in 2012. In both the original plan, as well as the update, we had many external conversations with our citizens and shareholders and internal conversations with employees serving at various levels of the organization. From these conversations, we were able to reaffirm the goals and objectives of the original strategic plan.

We affirmed the vision statements that were generated in the 2012 process. These statements, when viewed collectively, will allow us to create and maintain an accessible, healthy, learning, environmental, responsible, prosperous, and secure community with a strong internal organization designed to be able meet the needs of our citizens, businesses, and visitors. They will assist the City in plotting a course that will enable it to grow, develop, and improve in a manner that honors and respects its history and unique characteristics. Realizing our vision will allow the City of Twin Falls to continue to be recognized as a world-class community.

Economic Indicators Considered in the Recommended Budget

The City of Twin Falls closely monitors and examines international, national, state, and local economic indicators when developing and tracking its annual appropriation measures. Over the course of the last several years, economic conditions on all levels seem to have improved.

National

- U.S. house prices rose 1.1% in the first quarter of 2019 according to the Federal Housing Finance Agency (FHFA) House Price Index (HPI). House prices rose 5.1% from the first quarter of 2018 to the first quarter of 2019.
- Unemployment rates remain low nationwide. According to the Bureau of Labor Statistics, the national unemployment rate in May 2019 was 3.6%, down from 3.8% in May 2018.
- From June 2018 to June 2019, the Dow Jones Industrial Average has shown a total increase of 8.7% (+2,310 points).

- Consumer confidence is up from last year. The University of Michigan compiles a consumer sentiment rating. The rating for May 2018 was 98 compared to the May 2019 rating of 100, which shows a 2% increase in consumer confidence. Consumer sentiment has remained relatively consistent following Trump's election, remaining in a tight eight-point range from 93.4 to 101.4. The two percent change from May 2018 suggests that consumers are anticipating smaller income gains in relation to increasing interest rates and inflation. The partisan divide between Democrats and Republicans is expected to remain vast, with the first expecting a recession and the other more robust economic growth.

State of Idaho

- Home prices rose in all 50 states and the District of Columbia between the first quarter of 2018 and the first quarter of 2019. Idaho realized the highest level of annual appreciation in the nation at 13.4%.
- Home prices rose in 95 of the 100 largest metropolitan areas in the U.S over that four quarters. Annual price increases were the greatest in Boise, Idaho.
- The median home value in Idaho is \$266,400. Idaho home values are predicted to rise 9.2% within the next year. The median list price per square foot in Idaho is \$170. The median price of homes currently listed in Idaho is \$325,000. The median rent price in Idaho is \$1,399.
- Statewide unemployment was 2.8% in May 2019.
- Non-farm employment, which is one of the key metrics of the state's economic health, continued to experience strong increases. In May 2019, Idaho had 757,700 non-farm jobs, a 2.9% increase from May 2018. The projected increase in non-farm jobs for 2019 was 2.0% over 2018. May 2019 numbers surpassed 2019 total projections.
- Per capita personal income (PCPI) continues to grow, but at a slower pace than in previous years. PCPI in Idaho in 2018 was 3.15% higher than in 2017, at \$41,826. This PCPI continues to rank 44th in the United States and was 78 percent of the national average of \$53,658.
- Idaho was sixth in the nation for real personal income growth, which takes into account the cost of living, measured by regional price parity (the average price paid by consumers for the mix of goods and services in each region). Idaho's real personal income growth was 5.4% for 2017-18.
- According to the June 2019 Idaho General Fund Revenue Report, tax collections in Idaho are coming in slightly above the forecasted levels. Receipts for May 2019 were \$246.7 million, which exceeded forecasts by \$17.6 million and represented a 7.1% gain over projections. It also represented a 12.8% increase over May 2018 receipts. General Fund receipts for FY2018 year-to-date were \$3,373.4 million, which is -0.7% lower than predicted and -0.3% under the same period last year. Individual income taxes collected to-date are \$1,543 million, -5.7% less than anticipated. Sales tax receipts to-date came in at \$1,455.8 million in May 2019, which was only 1.1% above the projected amount

City of Twin Falls

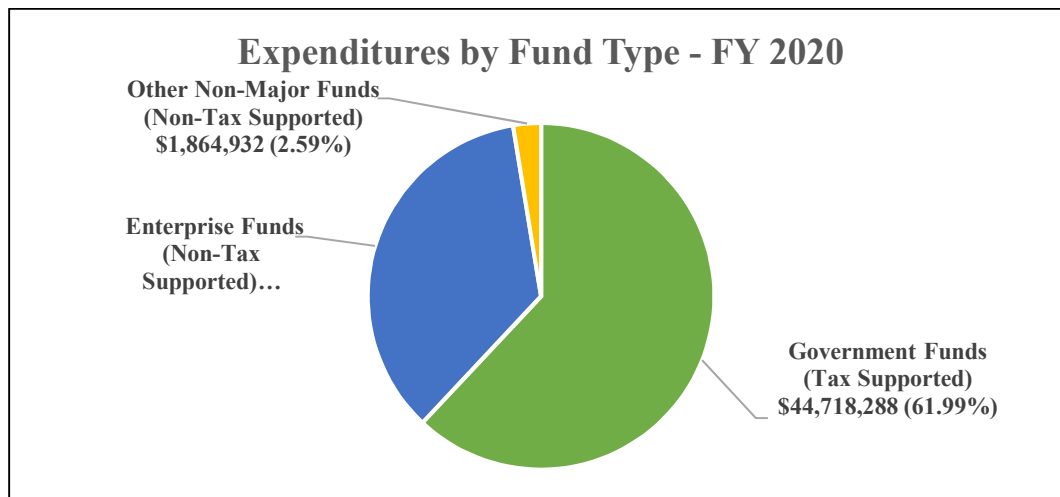
- According to the Idaho Department of Labor's May 2019 Twin Falls County Workforce Trends report, Twin Falls County had an unemployment rate of 2.4% in April 2019. This compares to the State of Idaho unemployment rate of 2.8% and a national unemployment rate of 3.6%. The unemployment rate for Twin Falls County has dropped continuously for several years: 5.6% in 2013 to 4.3% in 2014 to 3.7 in 2015 to 3.4 in 2016 to 3.0 in 2017 to 2.5 in 2018.
- Construction activity in Twin Falls continued on a similar pace in 2018 in terms of single-family building permits issued. There were 243 single family permits issued in 2018, which was the highest level since 2007. There have been 211 permits issued to- date in FY 2019, which exceeds the same period in 2018 by 40 permits to-date. If the current pace of single housing starts continues, permits will be near 2007 levels.
- There were 59 new commercial building permits issued in 2018, nearing the high of 61 in 2008, after declining significantly in 2016 and 2017. If new commercial building continues for the remainder of 2019 at a similar rate to past years, over 50 new commercial building permits will be issued in 2019.

Municipal Cost Index

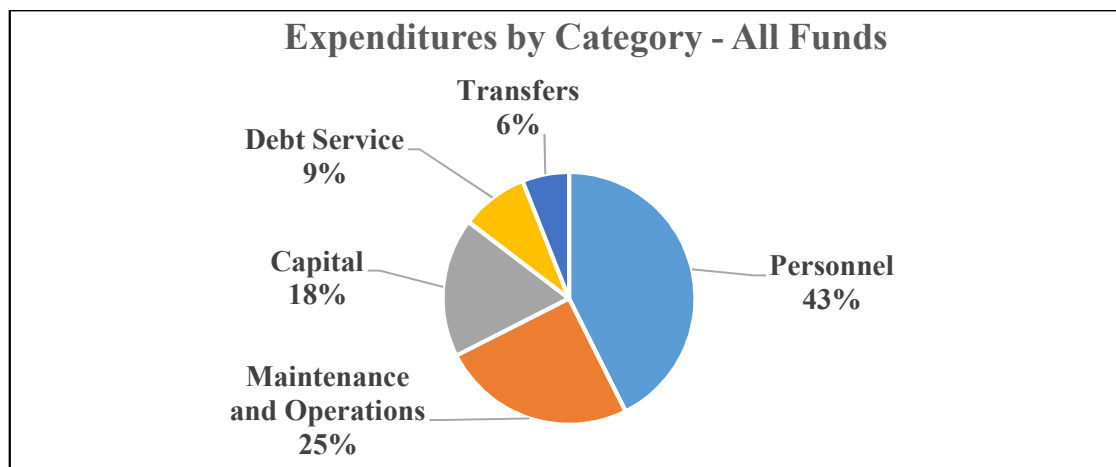
- State and local government officials rely on American City & County's Municipal Cost Index to stay on top of price trends, help control price increases for commodities, make informed government contract decisions and intelligent budget planning. The MCI draws on the monthly statistical data collected by the U.S. Departments of Commerce and Labor as well as independently compiled data to project a composite cost picture. From March 2018 to March 2018, the most recent data available, the MCI has increased 4.99 points or 2% to 252.78. The Consumer Price Index increased 1.85% during the same period.

2018 Fiscal Year Budget Summary

The combined expenditures and transfers total \$72,131,423, which is \$2,350,955 (3.37%) more than the FY 2019 budget of \$69,780,467. We are recommending Government Fund-Type expenditures, or expenditures from funds that receive property tax or shared revenue, in the amount of \$44,718,288 (increase of \$2,991,107, or 7.17%). Of this amount, \$1,934,247 is funded with cash reserves, which will be used to fund one-time capital initiatives. We are recommending Enterprise and Other Non-Major Fund-Type expenditures totaling \$27,413,135 (decrease of \$640,152, or 2.28%), which includes \$678,820 from cash reserves. The “net budget,” or total budget less transfers is \$67,806,508 for FY 2020. This is \$2,630,979 (4.04%) more than the FY 2019 total of \$65,175,529.



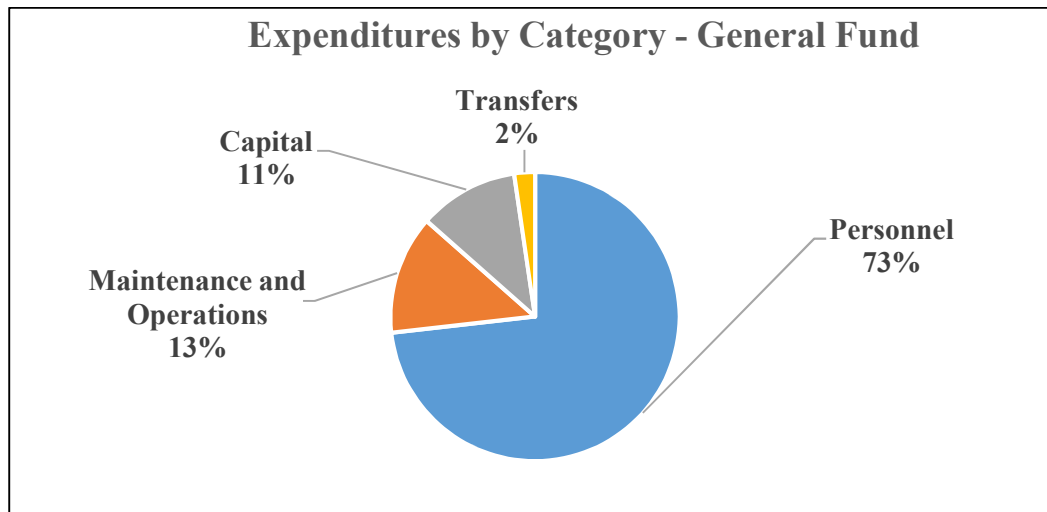
Expenditures in this budget are classified under one of five major categories – Personnel, Maintenance and Operations, Capital, Debt Service and Transfers. The graph below shows the relative percentage of FY 2020 budget expenditures for the five major categories in all funds combined.



In most government agencies, personnel costs (salaries, wages and benefits) normally represent the largest of the expenditure categories. While municipal governments also devote a large amount of their resources to personnel, the significant investment in infrastructure drives the percentage of the budget devoted to operating and capital costs higher than most other government agencies.

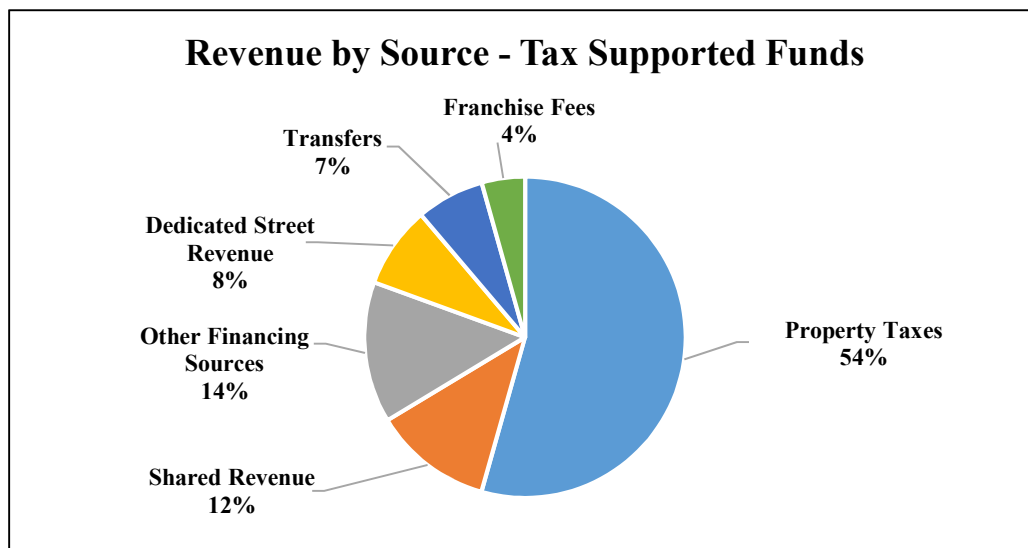
General Fund Expenditures

Using the same classification of expenditure types (less Debt Service), the relative percentages of budgeted expenditures for the General Fund are shown below. When analyzing General Fund expenses by category, Personnel costs are a much higher percentage than compared to all funds as a whole. The General Fund supports very little capital improvement when compared to all funds as a whole.



Revenues

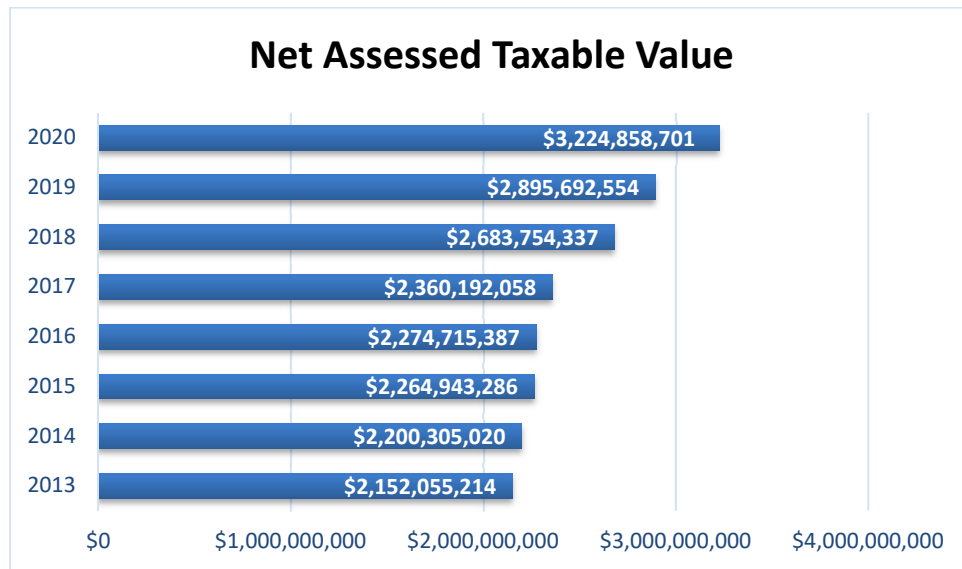
Most commonly recognized government activities are conducted through Government Funds. The Government Fund umbrella includes the following funds: General, Street, Street Light, Airport, Library, Capital Improvement, Pool, Golf, Insurance, and Fireworks. Revenues in these funds are derived from property taxes, licenses and permits, intergovernmental grants, shared revenues from the state of Idaho (sales tax, gas tax, etc.), and federal entitlements. The government funds include funding to support personnel, maintenance and operations, contractual services, equipment acquisitions, and capital construction projects.



Total Assessed Valuation

According to the Twin Falls County Assessor's Office, the City of Twin Falls' overall preliminary total taxable valuation is expected to increase by \$329,166,147, or 11.37%, from \$2,895,692,554 to \$3,224,858,701. This growth is on top of the \$211,938,217 that was realized in the prior fiscal year.

As illustrated in the table below, the taxable value used to calculate the FY 2020 tax rate for the City of Twin Falls is the largest in its history.



It is important to note the City's taxable value excludes the taxable value of the properties located in the Twin Falls Urban Renewal Agency revenue allocation areas. The entirety of the URA's properties are located in the City and have a value of \$561,553,248. Collectively, the taxable values for both the City of Twin Falls and Twin Falls Urban Renewal Agency total \$3,786,411,949. There are many factors that influence the City's total taxable value. Some of the larger factors include an increase in the base value from reappraisals performed by the Twin Falls County Assessor's Office, growth from new construction, and an increase in the State homeowner's exemption maximum allowance.

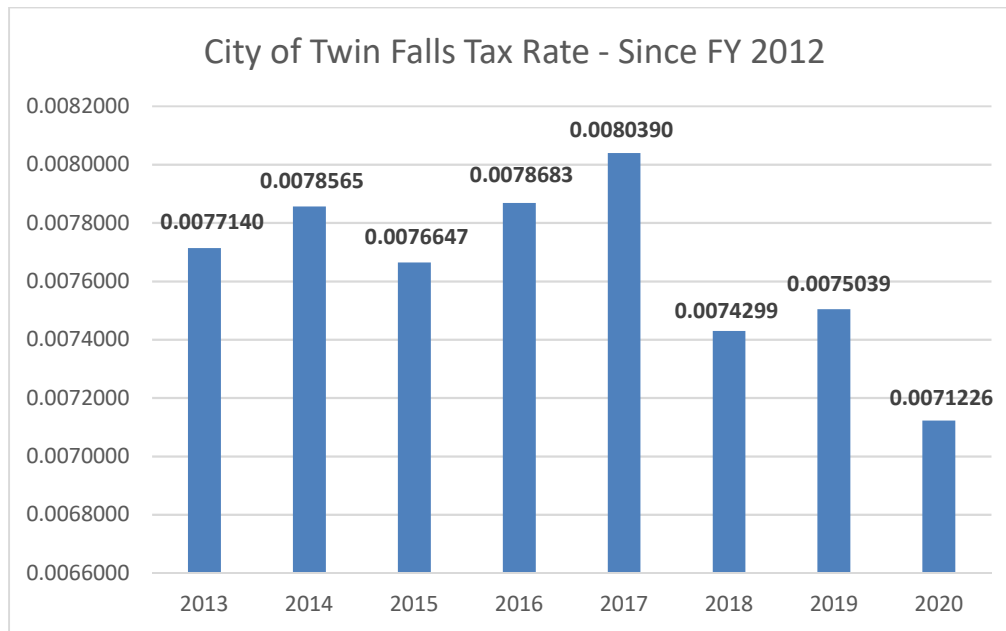
Property Tax

For FY 2020, the City of Twin Falls has a total taxable value of \$3,224,858,701, or an increase of \$329,166,147 compared to the FY 2019 value of \$2,895,692,554. The New Construction Roll for FY 2020 is \$69,771,796, which will yield \$523,559 in new property tax revenue. The Annexation Roll is \$6,069,724, which will yield an additional \$45,546. Property tax revenue derived from the New Construction and Annexation Roll is commonly referred to as the "growth formula."

The FY 2020 budget relies on property taxes to raise 52% of the funds needed to support municipal operations in the Government and Tax Supported Funds. The budget includes a 3% statutory increase and an estimate for growth. We anticipate total property tax collections for FY 2020 to be \$23,265,170, an increase of \$1,230,154 compared to FY 2019 collections of \$22,035,016.

Over the last ten fiscal years, the City's tax rate fluctuated significantly, ranging from a high of \$7.86 per \$1,000 (FY 2014 and 2016) of taxable value to a low of \$6.59/\$1,000 (FY 2010) of taxable value. The average of the tax rate assessed over the course of the last seven fiscal years (2013-2019) is \$7.72/\$1,000 in taxable value. It is important to recognize the tax rate does not necessarily indicate an individual's tax burdens. The tax rate is simply a multiplier used to determine a property owner's proportionate share of

property tax liability. It is a fraction of a local government's total property tax collections divided by the total taxable value of that local government unit.

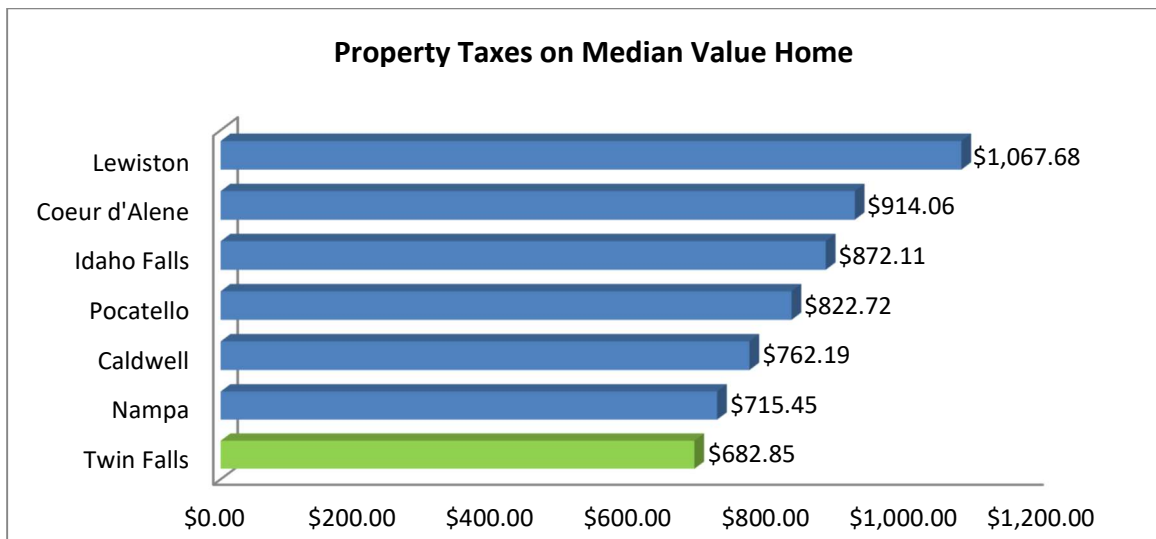


How does our Tax Rate compare to the other, large full-service Idaho cities?

We are often asked the question, “how does our tax rate compare?” The table and graph provided below are intended to provide an approximate answer to that question. Although only intended to be a rough illustration, the table and graph represent the amount of property tax paid on a median-valued, owner occupied home in each of the larger, full-service cities in Idaho. The information used in the table was collected from the Associated Taxpayers of Idaho’s 2018 Levy Book (tax rate) and Zillow.

	Total Taxes	2018 Median Property Value	FY 2019 TR
<i>Lewiston</i>	\$1,067.68	\$209,000	0.0097952
<i>Coeur d'Alene</i>	\$914.06	\$284,000	0.0049677
<i>Idaho Falls</i>	\$872.11	\$182,000	0.0095836
<i>Pocatello</i>	\$822.72	\$144,000	0.0114267
<i>Caldwell</i>	\$762.19	\$185,000	0.0082398
<i>Nampa</i>	\$715.45	\$196,000	0.0073005
<i>Twin Falls</i>	\$682.85	\$182,000	0.0075039

Note: Idaho’s median value of an owner occupied home for this same period of time was \$266,400.

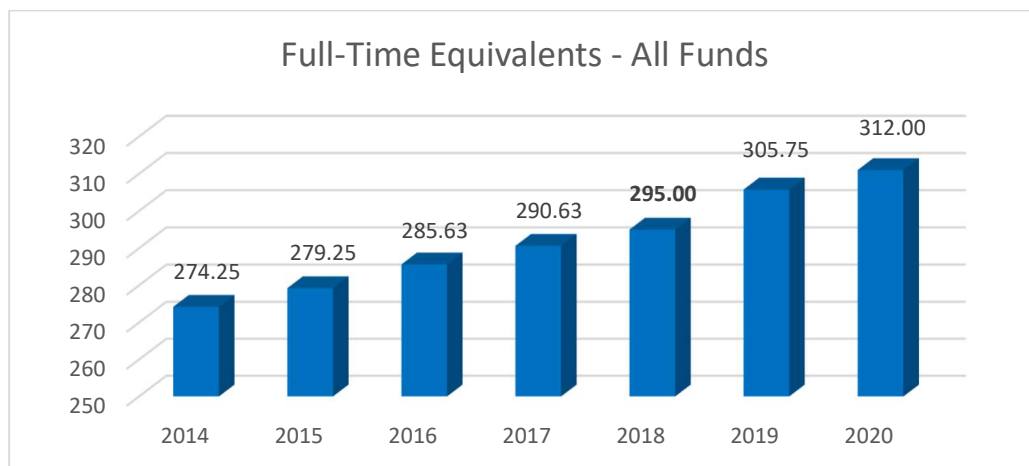


For the purposes of this analysis, the cities of Boise and Meridian were intentionally excluded because they are not directly responsible for the transportation systems in their communities; that responsibility lies primarily with the Ada County Highway District (ACHD). ACHD is an independent taxing authority specifically created for the purpose of maintaining the transportation system in these communities. For FY 2020, the Street Fund budget for the City of Twin Falls is \$5,874,240, or approximately 13% of the total tax supported funds.

Personnel

The City of Twin Falls has a philosophy of adding full-time employees only when “need” and “sustainability” can be demonstrated. Based on updated US Census data for 2018, the City of Twin Falls has a population of 49,764. Based on that estimate, the City of Twin Falls has six employees per 1,000 of population. However, as the regional and urban center for a geographic area having a population of approximately 250,000, the City’s daily census population grows to an estimated population of 85,000. This causes the number of City employees per 1,000 of population to drop to less four.

The City of Twin Falls currently has a total of 311.75 full-time professionals working to deliver services to the citizens of Twin Falls. The FY 2020 budget adds a net total of 0.25 full-time equivalent (FTE) positions to assist with increased workloads and to meet the service delivery demands of our citizens and partners.



In some cases, funds for new positions in the FY 2020 budget are a result of modifying existing contracts for service with external/private partners or a reallocation of project or operating funds. In these instances,

the positions do not represent new costs to the organization. The total number of positions allocated in the FY 2020 recommended budget bring the City of Twin Falls total FTE count to 312.

The other expenditures associated with personnel in the FY 2020 budget:

- Provides for performance-based adjustment for all employees (3%)
- Moves the City's compensation table (3%)
- Increased funding for health care insurance (5%)

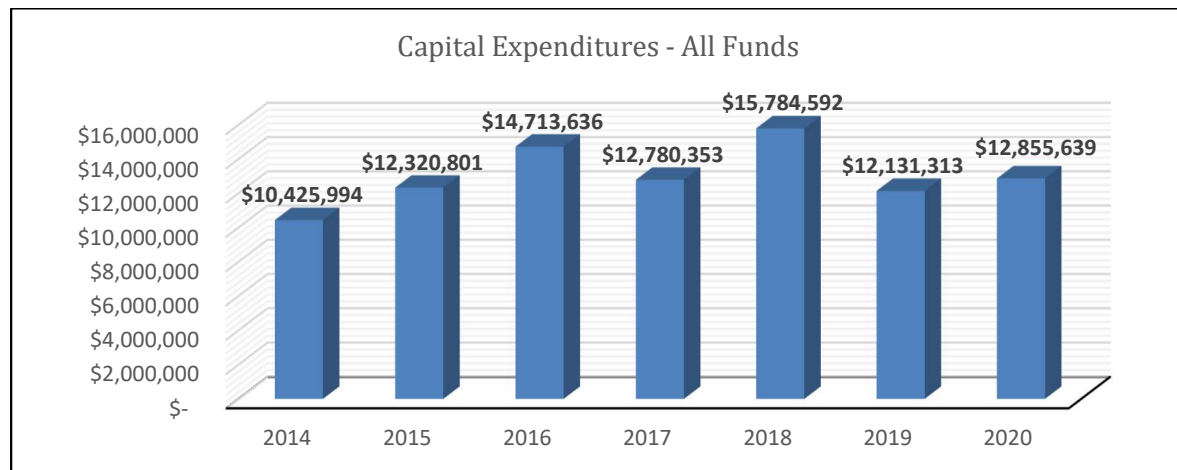
Capital Fund and Total Capital Investment

The City of Twin Falls owns and maintains a diverse collection of assets and facilities, which include:

- 103 buildings and structures throughout Twin Falls, ranging from the Magic Valley Regional Airport to administrative buildings; from police and fire stations to water delivery and treatment structures;
- 1,476 acres of open spaces and developed park lands, including world-class amenities such as Auger Falls, Shoshone Falls and Dierkes Lake;
- 640 lane miles to maintain.

A small sampling of the capital initiatives that have been funded in this budget include: making improvements to our water, wastewater and transportation systems; improving our trail systems; making miscellaneous park improvements; rotating our fleet, vehicles, machinery and equipment; improvements to the city's golf course; and repair and replacement of sidewalks.

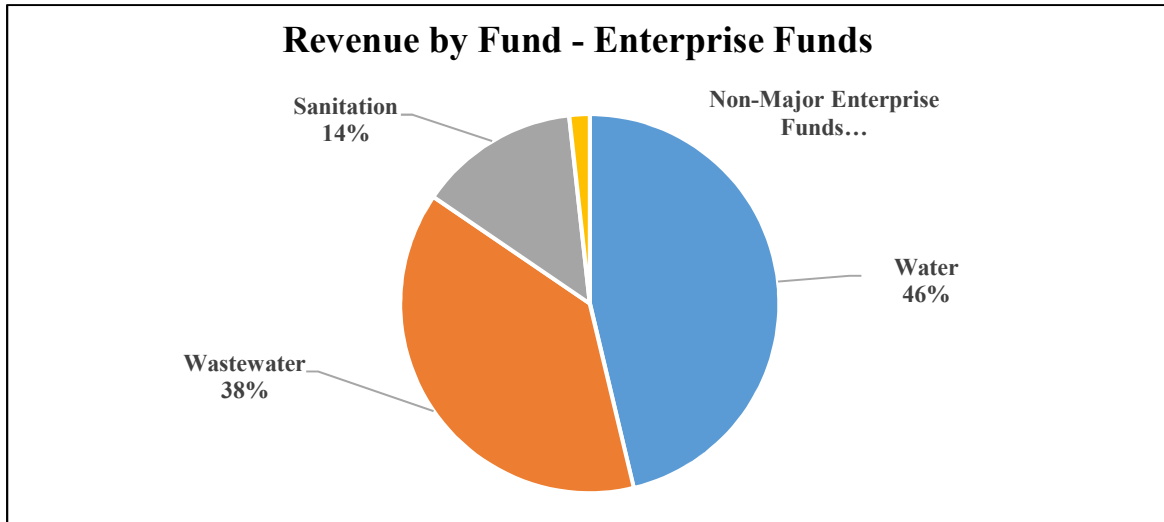
As demonstrated by the partial list above, the ongoing development, expansion, maintenance, and repair of these capital assets is necessary, recognizing the critical value of civil infrastructure to the economic, aesthetic, and functional viability of the City. For accounting purposes and based on best practices recommendations of the Government Finance Officers Association (GFOA), the City of Twin Falls capitalizes acquisitions and improvements that are durable and in excess of \$5,000. In total, the FY 2020 budget allocates \$12,855,639 to fund needed, critical and desired capital improvements and community amenities. In FY 2019, the City of Twin Falls budgeted a total of \$12,131,313 for capital improvements. The FY 2020 allocation is an increase of \$724,326, or 5.97%.



As illustrated in the graph above, the City of Twin Falls has budgeted \$91,012,328 for capital improvements since 2014. In addition (not included in graph), since 2012, \$57,302,056 has been spent on the Wastewater Treatment Plant Improvement (\$45,570,000), City Hall (\$7,575,948), and Public Safety Complex (\$4,156,108) projects.

Major Enterprise Fund Revenues

Enterprise Funds account for \$25.36 million (36.2%) of the \$70.06 million total revenues budgeted in the FY 2020 budget. Enterprise Fund reserves equal \$.64 million of the \$2.6 million total for all funds, which brings total funding for Enterprise Funds to \$26 million (35.8%) of the \$72.68 million total. The majority of revenues, or almost 92.5%, are from user fees. The remaining revenue sources include investment earnings, inter-fund transfers, and miscellaneous income.



Water Fund

The Water Fund supports the following water-related activities: water supply, water distribution, pressurized irrigation, and utility billing. For FY 2020, water rates increased by 1%. The average water user (18,000 gallons) will see an increase of \$.41 per month and \$4.93 per year. Revenue projections estimate \$11,733,738 in the Water Fund, which represents an increase of \$39,827 (.34%) compared to the FY 2019 total of \$11,693,910.

Wastewater Fund

The Wastewater Fund is used to support all wastewater services provided by the City of Twin Falls, namely wastewater collection and wastewater treatment. For FY 2020, wastewater rates increased by 1%. The average residential customer who sends up to the maximum cap 12,000 gallons will see an increase of \$.30 per month and \$3.58 per year. Revenue projections estimate \$9,704,742 in the Wastewater fund, which combined with reserves of \$200,000, equals \$9,904,742 in total funding. This represents a decrease of \$37,137 (.37%) compared to the FY 2019 total of \$9,941,879.

Sanitation

The City's Sanitation Fund supports the City's sanitation and recycling programs. For FY 2020, sanitation rates increased by 4.9%. The average monthly bill paid by the City's residential customers will increase by \$.90 from \$18.44 to \$19.34, or \$10.80 for the year. Revenue projections estimate \$3,479,201 in the Sanitation Fund, which represents an increase of \$170,726 (5.16%) compared to the FY 2019 total of \$3,308,475.

Incorporation of the City's Foregone Balance

Over the past several years, considerable time has been spent illustrating the cost-benefit analysis of using the City's foregone balance. Section 63-802 (e) of the Idaho Code states, "...In the case of a non-school district for which less than the maximum allowable increase in the dollar amount of property taxes is certified for annual budget purposes in any one (1) year, such a district may, in any following year, recover the forgone increase by certifying, in addition to any increase otherwise allowed, an amount

not to exceed one hundred percent (100%) of the increase originally forgone.” Each year the City has elected not to take the statutory maximum increase has impacted the amount of revenue available in the following fiscal year. Simply, the base by which the three percent is calculated is smaller.

The City’s forgone balance is only permitted for as long as the laws on this topic remain unchanged. State legislators have discussed the need to change foregone balance laws in each of the last several legislative sessions. For now, recovering past foregone increases is still an option for cities in Idaho. The decision to incorporate all, or a portion, of the City’s forgone balance remains with the City Council.

The City of Twin Falls has had a forgone balance since the adoption of the 2009-2010 fiscal year budget. The forgone balance grew to a high of \$2,186,253 in FY 2017 and FY 2018. Each year the Council elected not to take the statutory allowed increase, the forgone balance increased. The table below illustrates the changes to the City’s forgone balance since FY 2010.

	Amount/year	Cumulative Amt.
FY 2010	\$539,902.00	\$539,902.00
FY 2011	\$476,376.00	\$1,016,278.00
FY 2012	\$463,422.00	\$1,479,700.00
FY 2013	-\$1,123.00	\$1,478,577.00
FY 2014	\$8,630.00	\$1,487,207.00
FY 2015	\$395,464.00	\$1,882,671.00
FY 2016	\$266,548.00	\$2,149,219.00
FY 2017	\$37,034.00	\$2,186,253.00
FY 2018	\$0.00	\$2,186,253.00
FY 2019	-\$770,000.00	\$1,416,284.00
FY 2020	\$0.00	\$1,416,284.00

During the creation of the FY 2019 budget, the Council had extensive discussions about funding Council priority capital projects with foregone revenue. At the conclusion of these discussions, the Council elected to incorporate a portion of the foregone balance into the FY 2019 budget. That budget included \$770,000 for the completion of three sidewalk construction projects and two street overlay projects. Those projects are currently underway.

The proposed FY 2020 budget does not include the recovery of any additional foregone balance. However, the \$770,000 that was recovered in FY 2019 has been set aside in the proposed FY 2020 budget to fund additional Council priority capital projects. During the creation of the proposed FY 2020 budget, the Council discussed various capital projects and provided direction regarding their priorities for the \$770,000. The proposed FY 2020 budget includes the following Council priority capital projects:

- The purchase of pedestrian barricades for use during parades and special events - \$70,000
- Finalization of the funding for the Downtown Archway project - \$150,000
- Planning and Engineering contract services funding to redesign the Shoshone Falls/Dierkes Lake Park access road - \$300,000
- Sidewalk projects to improve routes to schools (we’ll work with the School District to identify the specific projects) - \$250,000

How much more will City Services Cost?

Over the last ten fiscal years, the City's tax rate fluctuated significantly, ranging from a high of \$7.86 per \$1,000 (FY 2014 and 2016) of taxable value to a low of \$6.59/\$1,000 (FY 2010) of taxable value. The average of the tax rate assessed over the course of the last seven fiscal years (2013-2019) is \$7.72/\$1,000 in taxable value. It is important to recognize the tax rate does not necessarily indicate an individual's tax burdens. The tax rate is simply a multiplier used to determine a property owner's proportionate share of property tax liability. It is a fraction of a local government's total property tax collections divided by the total taxable value of that local government unit.

	FY 2019 Adopted Budget	FY 2020 Proposed Budget	Variance
Property Tax	Tax Rate of: \$7.50/\$1,000	Tax Rate of: \$7.12/\$1,000	Tax Rate of: -\$.38/\$1,000
Median Valued Home of an owner-occupied home: \$182,000 in FY 2019 \$205,000 in FY 2020	\$682.85 <i>(annual)</i> \$56.90 <i>(monthly)</i>	\$747.87 <i>(annual)</i> \$62.32 <i>(monthly)</i>	\$65.02 <i>(annual)</i> \$5.42 <i>(monthly)</i>
Utility Bills			
Average Residential Customer Consumption of:			
<i>Water - 18,000 gallons</i>	\$51.85	\$52.26	\$0.41
<i>Sewer - 12,000 gallons</i>	\$29.84	\$30.14	\$0.30
<i>Sanitation & Recycling</i>	\$18.44	\$19.34	\$0.90
Monthly Total of Property Tax and Utility Bills	\$157.03 <i>monthly</i>	\$164.06 <i>monthly</i>	\$7.03 <i>monthly</i>

Approval

There is no approval at this point in the process.

Budget Impact:

There are no current budgetary or financial impacts from the conversation. From this process, we will establish the budget for FY 2019.

Regulatory Impact:

There is no regulatory impact.

Attachments

Recommended Budget for FY 2020 can be found online.



Date: Monday, July 15, 2019
To: Planning and Zoning Commission
From: Steve O'Connor, City Planner

ACTION ITEM

Request:

ACTION ITEM: Request to vacate platted easements and dedicated right of way within lots, 5, 6, 7, 9, and 10, Block 14 in the Canyon Trails Subdivision No. 5 located at 1725 Park View Drive c/o EHM Engineers, on behalf of Canyon Properties, LLC. (PZ19-0042)

Time Estimate:

10-15 minutes between staff and the applicant.

Background:

On Tuesday June 11th, 2019, the Planning & Zoning Commission unanimously recommended approval to the City Council.

Approval Process:

All procedures will follow the process as described in TF City Code: 10-16-1

Vacations & Dedications require a public hearing before the Planning Commission where the public and the applicant will have the opportunity to make a presentation, ask questions, or voice their concerns. The Planning & Zoning Commission will make a recommendation to the City Council that the vacation be granted or it may recommend a modification to the vacation, or it may recommend that the vacation be denied.

Budget Impact:

N/A

Regulatory Impact:

Approval of this request will remove the limitation, or entitlement, for the specific area, as described on the Plat. This area will become private property, and subject to current rules and regulations for taxes, zoning code compliance, and development.

History:

The Canyon Trails No. 5 subdivision was recorded in September 2006, and the subject property was granted a SUP for a car dealership in January of this year.

Analysis:

This is a request to vacate two sections of vehicular access and utility easements in the Canyon Trails Subdivision #5. The purpose is to facilitate the construction of an Auto Dealership which the commission approved a SUP for in January. The vacated easements will be replaced by another access and utility easement as shown in Attachment #3.

The applicant has provided approval letters from all appropriate utility providers, with no objections.

Conclusion:

Should the Council approve this request as presented, staff recommends approval be subject to the following conditions:

1. Subject to continued compliance with all local, state, and federal code requirements and other standards as applicable.

Attachments:

1. PZ19-0042 VAC Staff Report
2. 1 - Vicinity
3. 2 - Narrative
4. 3 - Exhibit
5. 4 - Photos



Comprehensive Staff Report

To: Planning & Zoning Commission
Presenter: Steve O'Connor, City Planner
Request: To **Vacate** platted easements and dedicated right of way within lots, 5, 6, 7, 9, and 10, Block 14 in the Canyon Trails Subdivision No. 5 located at 1725 Park View Drive.

Application: PZ19-0042

Applicant & Representative:

Canyon Properties LLC,
c/o EHM Engineers, INC
621 North College Rd.
Twin Falls, ID 83301
208.734.4888

Public Hearing: Monday, July 15th, 2019

Analysis

This is a request to vacate two sections of vehicular access and utility easements in the Canyon Trails Subdivision #5. The purpose is to facilitate the construction of an Auto Dealership which the commission approved a SUP for in January. The vacated easements will be replaced by another access and utility easement as shown in Attachment #3.

The applicant has provided approval letters from all appropriate utility providers, with no objections.

On Tuesday, June 11th, 2019, the Planning & Zoning Commission unanimously recommended approval to City Council.

Approval Process

All procedures will follow the process as described in TF City Code: 10-16-1

Vacations & Dedications require a public hearing before the Planning Commission, where the public and the applicant will have the opportunity to make a presentation, ask questions, or voice their concerns. The Planning & Zoning Commission will make a recommendation to the City Council that the vacation be granted or it may recommend a modification to the

vacation, or it may recommend that the vacation be denied.

Comprehensive Plan Compliance

The 2016 Comprehensive Plan "Grow With Us" designates this area as Commercial. The request complies with the comprehensive plan and the Transportation Master Plan.

Regulatory Impacts

Approval of this request will remove the limitation, or entitlement, for the specific area, as described on the Plat. This area will become private property, and subject to current rules and regulations for taxes, zoning code compliance, and development.

Conclusion

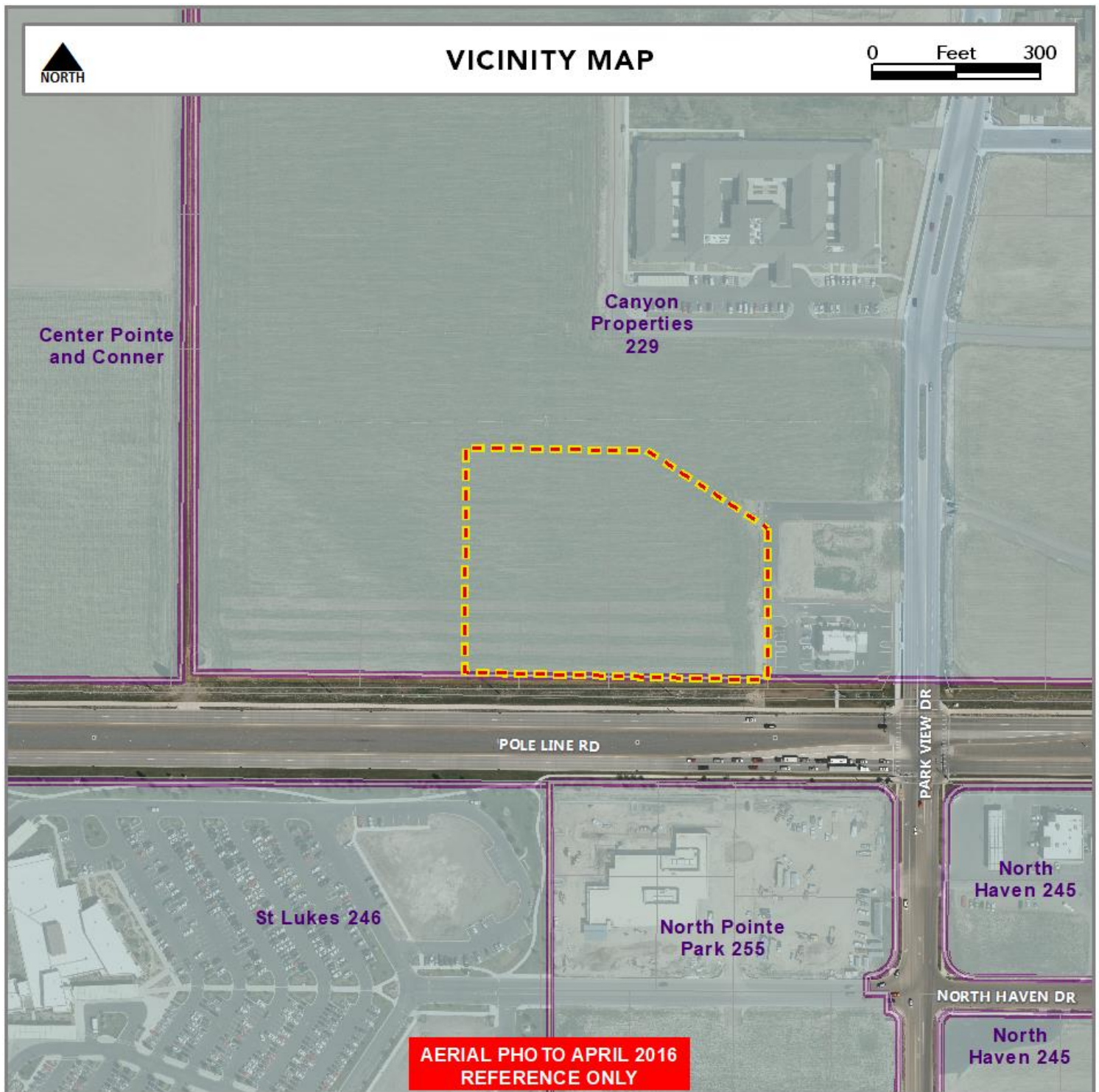
Should the Council approve the request as presented, staff recommends approval be subject to the following conditions:

1. Subject to continued compliance with all local, state, and federal code requirements and other standards as applicable.

Attachments

1. Vicinity Map
2. Narrative
3. Vacation Exhibit
4. Photos

Public Hearing: Monday, July 15th, 2019



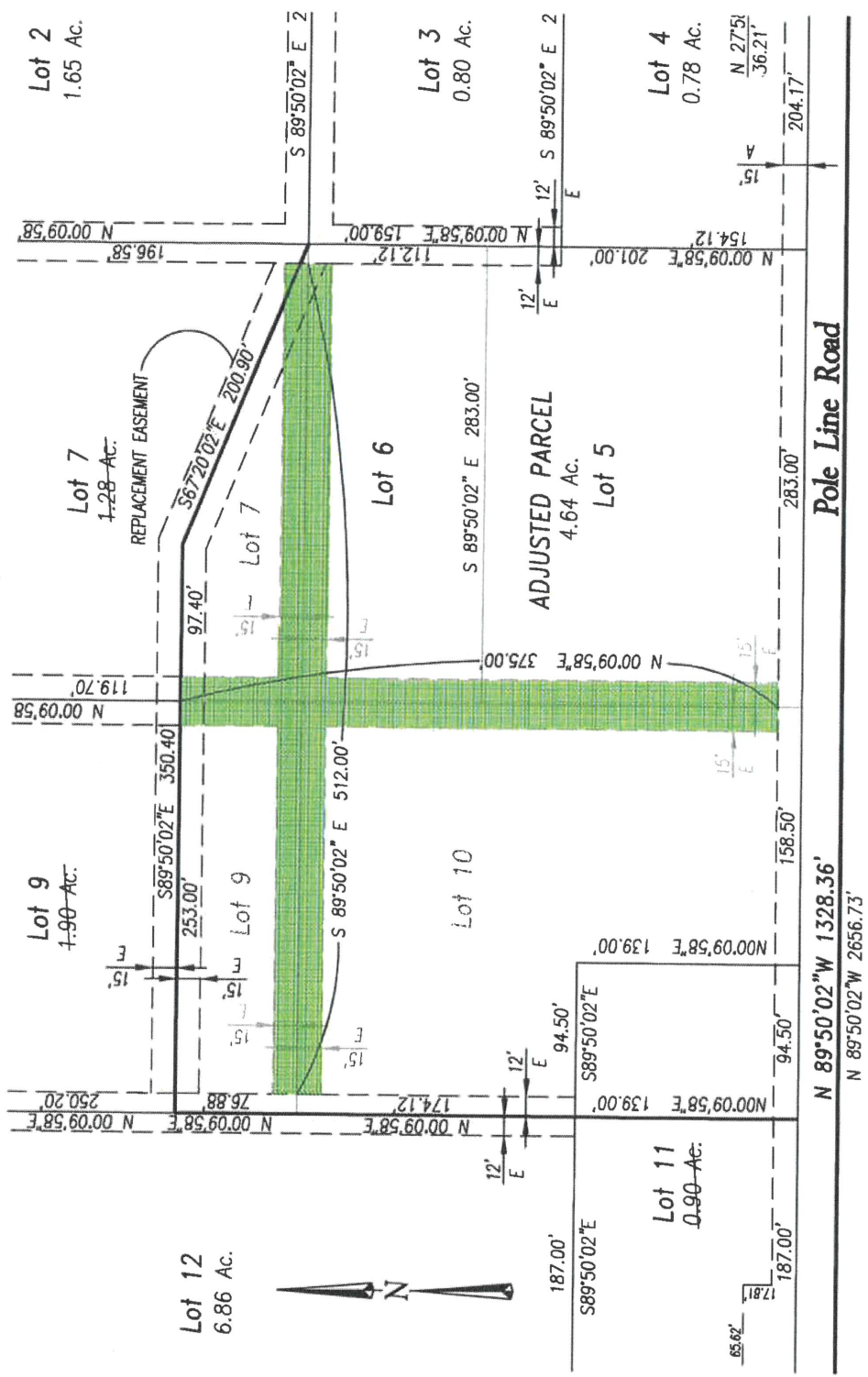
	PUD	Current Zoning: C-1 PUD	Existing Land Use: Vacant
	C-1	Comprehensive Plan: Commercial	Proposed Land Use: Retail Auto Sales
Surrounding Zoning Designations & Land Use(s)			
North: C-1 & R-4 PUD, Commercial & Residential,		East: C-1 PUD; Bank	
South: Pole Line Rd W; C-1, Medical (St. Lukes)		West: C-1 PUD, Vacant	
Applicable Regulations			
10-1-4, 10-1-5, 10-16-1			

Canyon Properties, LLC

Vacation Request

Canyon Properties, LLC is requesting the vacation of easements as noted on the accompanying exhibit and land description within Lots 5, 6, 7, 9, and 10, Block 14 of Canyon Trails Subdivision No. 5. The reason for the request is to provide a larger parcel of land than was originally platted to accommodate a site sufficient in size to be utilized as an automobile dealership for Paul Wareing with Subaru of Twin Falls.

The property is located adjacent to Pole Line Road. Westmark Credit Union exists to the east of this property and all surrounding properties are owned by the applicant. No negative effects are anticipated for adjacent properties. This property was platted for commercial development and this use is one of which that was an intended use and possibility for development on the site. The private driveway to the east will be maintained and additionally extended along the north boundary of the proposed site with easements granted in the relocated roadway alignment. This will allow continuance of a portion of the future loop road originally intended for the overall development.



Easement Vacation Exhibit For Canyon Trails Subdivision No. 5



SE Corner Looking NW



SE Corner Looking N