# Rigging/Banner Hanging Guide

This guide provides information to assist in managing the risks associated with Rigging/Banner Hanging work conducted in the Austin Convention Center Department (ACCD) facilities. This guide is intended to be used by Rigging /Banner Hanging professionals with experience in safe rigging in Entertainment and Convention Center venues. Onsite qualified rigging/banner personnel must be present during all rigging/banner hanging activities; ETCP preferred.

The contents of this guide are for general information only and not intended to be all inclusive and should not be regarded as a replacement of Federal, State, and Local government regulations, statutes, manufactures recommendations or to the Industry safety best practices and procedures.

This guide, to the best of our knowledge, current at the time of printing, though, ACCD does not accept any liability for the use of this guide or the accuracy, completeness, or sufficiency of the contents.

All rigging work in ACCD facilities must comply with Federal, State, and Local government regulations, statutes, manufactures recommendations or to the Industry safety best practices and procedures. No facility equipment shall be moved or adjusted without ACCD rigging coordinator and/or facility management authorization.

## ACCD reserves the right to make the final decisions in all rigging matters

**REQUIREMENTS**
Outside Decorator, Production or Audio Visual Company (Outside Contractor) may work in Department facility under the following circumstances:

**Note**: The Austin Convention Center (ACC) has an exclusive rigging contractor to handle all rigging at ACC. The same contractor is the preferred rigging contractor at the Palmer Events Center (PEC).

1. Current CERTIFICATE OF INSURANCE AND LICENSE TO OPERATE is on file with the Austin Convention Center Department. Must be submitted to the Department sixty (60) days prior to the first contract event day.

2. Commercial general liability insurance with minimum combined single limit of $1,000,000 per occurrence and a minimum $1,000,000 including aggregate including products and completed operations and contractual liability coverage is required.

3. Fire legal liability must be included with limits of $50,000.

4. Comprehensive automobile liability insurance with a minimum combined single limit of $500,000 including owned, non-owned and hired coverage.

5. City of Austin must be listed as additional insured by the Certificate Holder.

*Date: March 2019*

6. The certificate must provide coverage for all risks including workers compensation.

7. Contractor must provide a Certificate of Insurance from a company with an A.M. Best rating of no less than a B+ and in good standing with the State Board of Insurance.

8. A signed copy of the Production and Audio Visual Regulations on file with the Department.

9. All Local, State, Federal, and Department codes, law, rules and regulations must be followed by Outside Contractor.

10. All connections to the building's power sources and sound system are handled by Department personnel only. The Outside Contractor is responsible for all such charges for connecting to and usage of the Department's power. UTILITY SERVICE (POWER AND SOUND) IS NOT A COMPLIMENTARY SERVICE OF THE AUSTIN CONVENTION CENTER DEPARTMENT. See Utility Order form for current rates.

11. The Department does not store equipment. Storage is the responsibility of the Outside Contractor. All Equipment (empty road cases, crates, etc.) must be loaded back onto the Outside Contractor trucks or stored off Department property.

12. The Outside Contractor must provide radio and wireless microphone frequencies to the Department prior to using equipment in or around the Department frequencies. If there is a conflict with the Departments frequencies, the Outside Contractor must make arrangements to utilize other frequencies.

13. The Outside Contractor is encouraged to provide a walkie-talkie to the Event Coordinator to establish direct link communication.

14. The Outside Contractor is responsible for all costs assessed to inspect or replace sprinkler heads or smoke sensors discharged prior to or during an event.

## 1. Rigging Specifics

1. The name and phone number of the single point of contact for all rigging/Banner hanging concerns must be provided to the ACCD Rigging Coordinator and ACCD Event Coordinator.

2. All rigging hang point locations must be approved by the Exclusive Rigging Company (at ACC only) and ACCD Rigging Coordinator and meet the requirements below. All rigging/banner hanging connections to the ceiling or roof supporting structure must meet Facility requirements and hung in authorized locations.

a. No bridles are permitted.
b. Only vertical dead hangs are permitted
c. Rigging, banners or guide wires hanging is not permitted from the following

i. Fire sprinkler piping
ii. Natural gas piping
iii. Electrical conduits
iv. Water piping
v. Air wall tracks
vi. Vents, duct or lighting fixtures/tracks

*Date: March 2019*

vii. Wall sconces
viii. Wall paneling
ix. Open ended or un-terminated trusses
x. Handrails
xi. Support hangers for any of the above

3. Certification of annual inspection is required for all hoists and chain motors.

4. ONLY steel wire rope or Steel Flex/Gac or its equivalent will be used above the suspended ceiling in Ballrooms A, B, & C at the Convention Center. Span sets are not allowed above the suspended ceiling.

5. A steel "safety" is required on each individual item suspended. When attaching truss to motors, span sets in combination with steel wire rope safety or SteelFlex or its equivalent are necessary.

6. Equipment once hung may not be adjusted or moved to another position unless prior approval from Exclusive Rigging Contractor (at ACC only) and ACCD Rigging Coordinator is obtained. This includes adjusting/moving of truss, motors, set pieces, video walls or any other equipment during performances/events.

7. Items attached to the permanent ceiling structure must be a minimum of eight (8) feet above the floor or have obtained a variance from ACCD prior to rigging.

8. Overhead cable bridges or floor cable coverings are required when cables cross rest rooms, emergency exits or entrances/exits. Bridges/covers must be provided by contractor.

9. All steel slings around building beams or any other facility structure must have burlap, carpet or a soft material to aid as a buffer to avoid damage to building.

10. Any damage occurring or noted while rigging or banner hanging must be reported to the ACCD Rigging Coordinator and Security Operations Center immediately.

11. No work shall be performed outside of the aerial lift, such as focusing lights/speakers or equipment. No walking of truss or beams unless a variance is granted by the Department.

12. Any Utility/Electrical/Internet requirements must be preordered.

13. All rigging equipment, banners or materials used must be removed at end of the event from the structure. (Padding, slings, guy wires, ropes, clamps, etc.) Charges for removal of any rigging equipment or materials may incur.

*Date: March 2019*

## 2. Rigging Plan Requirements

Rigging plans are required when an item weighs over 100 pounds or a chain hoist is used. Rigging plans shall be sent to the Exclusive rigging contractor (at ACC only), ACCD Rigging Coordinator and the ACCD Event Coordinator for the Event. Plans should include a PDF version. Rigging plans must be received thirty (30) days prior to the first contracted day. Complex rigging events may require additional review time.

a. All Event rigging must be coordinated through a single point of contact via a General Service contractor or Audio Visual contractor.

b. The name and phone number of the single point of contact for all rigging concerns must be provided with the plan.

c. Move in and out dates and times must be submitted with plan.

d. Point of Contact must be present during move-in and move-out, or while any rigging activities are being performed.

e. A "to scale" rigging plot plan, blue prints or engineer's certification is required (when requested). Plan must show booth outline with aisles marked for reference or stage location.

f. A "to scale" rigging plan must indicate

1. The location of all hang points to reflective ceiling
2. Weight per hang point
3. Size of the motors

g. Pre-event meetings may be required to review and coordinate complex rigging plans.

h. Any changes to reviewed plans must be resubmitted for review prior to implementation.

i. The Department is not responsible for lost time or additional costs resulting from rigging modifications, adjustments or changes required on site.

Onsite qualified rigging/banner personnel must be present during all rigging/banner hanging activities. ETCP preferred.

## 3. Interior Banner/Sign Hanging Requirements

a. Contractors may hang signs not to exceed 250 pounds (per item).

*Date: March 2019*

b. All other rigging requires a plan and must be reviewed by Exclusive Rigging Company (at ACC only) and Department Rigging Coordinator. (Additionally, anything weighing over 100 pounds must be approved by the Department Rigging Coordinator).

c. Single point hanging signs must have a tie off line to prevent spinning and twisting.

d. The total weight of all banner/signs within Exhibit Hall 4 and Ballrooms D-G must be reviewed by Exclusive Rigging Company (at ACC only) and Department Rigging Coordinator. This requirement applies when there is additional rigging within these areas.

**4. Exterior Banner Hanging Requirements**

a. Banners must be made of lightweight, water-resistant wind passable material.

b. Where a banner is made exclusively of vinyl, wind pockets must be built into the banners to allow wind to flow through easily.

c. Banners must be monitored and inspected by a competent rigger (a minimum of twice daily). Generally, prior to the show opening and at the end of the day after the show closes.

d. In the event of severe weather, a safety plan of action must be in place for removal of banners/signs. Copy of the safety plan is to be provided to the Department Rigging coordinator and the ACCD Event Coordinator for the Event.

e. Exterior rigging and hanging signs must have multiple points and tie off lines to prevent spinning and twisting of the sign.

f. Padding is required for any part of the sign/banner that MAY come in contact with facility interior/exterior, glass, easily damaged items or sharp edges.

g. Extreme care should be exercised with using guidewires that may become trip hazards or hazards to pedestrians/attendees. Flagging and/or padding may be required.

**5. Ground Rigger**

The Ground Rigger will:

a. In Coordination with up-rigger maintain a safe travel pathway and establish and maintain the controlled access safety zone around the aerial work platforms perimeter.

b. Warn all individuals to keep away from controlled access safety zone
c. Follow all OSHA rules for overhead work and safety zone
d. Will place signage at entrances warning personnel that overhead rigging is taking
place as needed/requested.
e. All rigging personnel must use appropriate safety equipment.

**6. Aerial Platform Rigger**

Aerial Platform Rigger must have all the skills and responsibilities included in the ground rigger. Other requirements include:

a. Trained and authorized to operate an aerial work platform

b. The ability to identify suitable structures/attachments for rigging

c. Knowledge of different types of rigging systems (i.e. manufacturing methods, materials, and proper applications)

d. Comply with ACCD Aerial lift safe practices.

e. All rigging personnel must use appropriate safety equipment, properly, including full body harnesses or approved Fall Protection devices and lanyards.

**7. High Rigger (only allowed in BR ABC)**

a. Perform rigging duties while standing, sitting on or hanging from an exposed structural member with proper fall protection **not** from an aerial work platform.

b. Must have all the skills, knowledge and responsibilities of the Aerial Platform Rigger.

c. All rigging personnel must use appropriate safety equipment, properly, including full body harnesses or approved Fall Protection devices and lanyards.

d. All high rigging must be pre-approved by Department Rigging Coordinator.

**8. Definitions:**

a. Banner/Sign Hanging
   i. Banner hanging consists of a complete exhibit component/item weighing less than 250 Lbs. suspended above an aisle, or booth display, for the purpose of displaying graphics or directional information. (Additionally, anything weighing over 100 pounds must be approved by the Department Rigging Coordinator) department equipment is strictly prohibited.

*Date: March 2019*

ii. Single point hanging signs must have a tie off line to prevent spinning and twisting of the cable.

iii. The use of nails, staples, tacks, tape, etc. on walls, ceilings, or other department equipment is strictly prohibited.

b. Motor/Heavy Rigging – Certification of annual inspection is required for all chain motors

i. Use of any hoists for lifting signs, trusses or equipment,
ii. Chain Hoists or Chain motor,
iii. Any loads over 100 Lbs.

If any one of the above three conditions are met, a rigging plan shall be submitted.

c. High Rigging - rigging duties performed while standing, sitting on or hanging from an exposed structural member with proper fall protection, **not** from an aerial work platform

i. High rigging is not allowed except in specified areas with ACCD Rigging Coordinator approval. **(only allowed in BR ABC w/ pre-approval)**
ii. Extreme care for safety must be utilized during high rigging.

## 9. Rigging/Banner hanging Personnel

a. The outside Contractor is responsible for:

i. Hiring qualified and competent personnel to set-up operate and remove all equipment.
ii. The actions of any personnel hired by, retained, or associated with their staff.

b. Personnel working at ACCD must have the necessary training as required by Federal, State and Local regulations including OSHA. Training may include, but is not limited to scaffold training, fall protection and aerial work platform safety. Verifiable documentation of training shall be available on request.

c. Personnel employed by the outside Contractor should preferably wear a uniform shirt identifying the company they are working for. Outside contractor employee's clothing will be neat, reflecting an overall tidy appearance that conforms to the Department image.

d. ACCD reserves the right to implement badging/identification requirements for all individuals. Individuals without proper identification may be asked to obtain ID or leave the facility.

e. All Contractor employees must enter the facility thru the approved Contractor entrance.

*Date: March 2019*

f. The ACCD facility is a non-smoking facility.

g. All breaks/lunches/dinners must be taken in approved back of house areas.

h. Food and beverage staged or stored in the public areas or service corridors of ACCD is not available for outside Contractor personnel unless specifically ordered for such. Crew meals may be ordered through ACCD Catering. This is not a complimentary service of the department.

i. The possession or use of intoxicants on ACCD property is prohibited, including, but not limited to, drinking alcoholic beverages. Possession or use of drugs is prohibited, other than medication prescribed by the employee's physician. Violation will result in immediate removal of the individual from the premises and possible legal action.

j. Fighting, physical violence, creating a disturbance, horseplay, disorderly conduct, or the use of abusive language is a violation of ACCD policy and may result in immediate removal of the individual from the premises and possible legal action.

k. Theft, attempted theft, misappropriation of ACCD property or the aiding of such act(s) will result in immediate removal and possible criminal prosecution.

l. Contractors are not allowed in the public or pre-function areas unless required for duties. When job responsibilities require outside Contractor employee's access to the public/pre-function areas of ACCD, they are to remain in that permitted area only. Wandering through ACCD facilities is not permitted.

m. ACCD reserves the right to request riggers to be reassigned or removed from the premises if Safety & Security or Rigging policies not followed.

n. A minimum of two (2) individuals are required for each rigging crew.
   a. Aerial Platform/High/Heavy Rigger
   b. Ground Rigger

**10. Load-in/out**

1. All outside Contractor personnel must follow the ACCD Operational Policies. (Copy on website www.austinconventioncenter.com)

2. Ninety (90) days prior to the first contracted day, the outside contractor must contact the Event Coordinator to coordinate all load-in/out activity.

3. All equipment delivered to meeting rooms must be transported through service corridors and freight elevators unless prior approval from Event Coordinator.

*Date: March 2019*

4. Platform dollies of the four-wheel type are permitted for material movement. Platform trucks may also be used provided they are **not** equipped with metal wheels. Two-wheel hand trucks are acceptable, but must be equipped with rubber wheels at least 8" in diameter.

5. Department equipment is reserved for Department use.

6. Equipment such as backstage production/projection, risers/tables is the responsibility of the outside contractor. Department equipment may be requested. The request must accompany the plot plan.

## 11. Equipment

1. Any material handling or set-up equipment required (including forklifts, ladders, scissor lifts, man lifts and LP Cages) must be supplied by the outside Contractor.

2. Forklift, Boom lift, Scissor lift, and Aerial Lift operators must have verifiable documentation of training available on request.

3. When any aerial lifts (Scissor lift, Boom lifts, 1-man motorized lift) are operated on permanently carpeted areas such as meeting rooms, ballrooms or pre-function spaces or decorative flooring areas must meet certain requirements and conditions:

   a. Masonite, approved wheel protectors (no shrink wrap or tape on tires) and floor coverings such as carpet or plywood must be used when operating any lifts or other equipment.

   b. It is the contractor's responsibility to provide its own floor covering or wheel protectors.

4. LP Gas or electric powered equipment is required inside of facility.

5. Diesel or gasoline powered equipment require prior authorization and cannot be used inside of facility during show/event hours.

6. All Decorator or Rental equipment (Forklifts, Boom lifts, Scissor lifts, Tugs, Pallet Jacks) must be identified with a tag indicating responsible party contact information.

7. All equipment shall be removed from the facility unless authorization is given.

8. All LP gas cylinders should be stored in fuel cages when not in use.

9. Fuel cages shall be supplied by Contractor.

10. Fuel cages should be identified with a tag indicating responsible party contact information.

*Date: March 2019*

**Approved and Rated Equipment**
**All equipment and materials flown must pass American Society for Testing and Materials (ASTM) guidelines and meet all regulatory requirements.**
**All hardware used to rig must be stamped, rated, and approved/designed for that purpose.**

Care must be taken to use the appropriate approved RATED RIGGING HARDWARE. The manufacturer of rigging hardware used for overhead suspension must be legally liable for its products within the Continental United States.

**12. Safety Regulations**

1. All Rigging/Banner hanging will cease if any safety regulation(s) are violated or any incident or accident occur.

a. Incidents/accidents must be reported to ACCD Rigging **AND** Security & Safety Division immediately.

b. No equipment shall be moved or re-positioned until investigation documented and deemed safe by Department. With the exception to address immediate life safety concerns.

c. Continue only when all Safety and Departmental requirements are met.

2. All rigging and safety equipment must be in good working order and inspected prior to use by operator and contractor as stated in Federal, State, Local, Industry, and Facility Regulations.

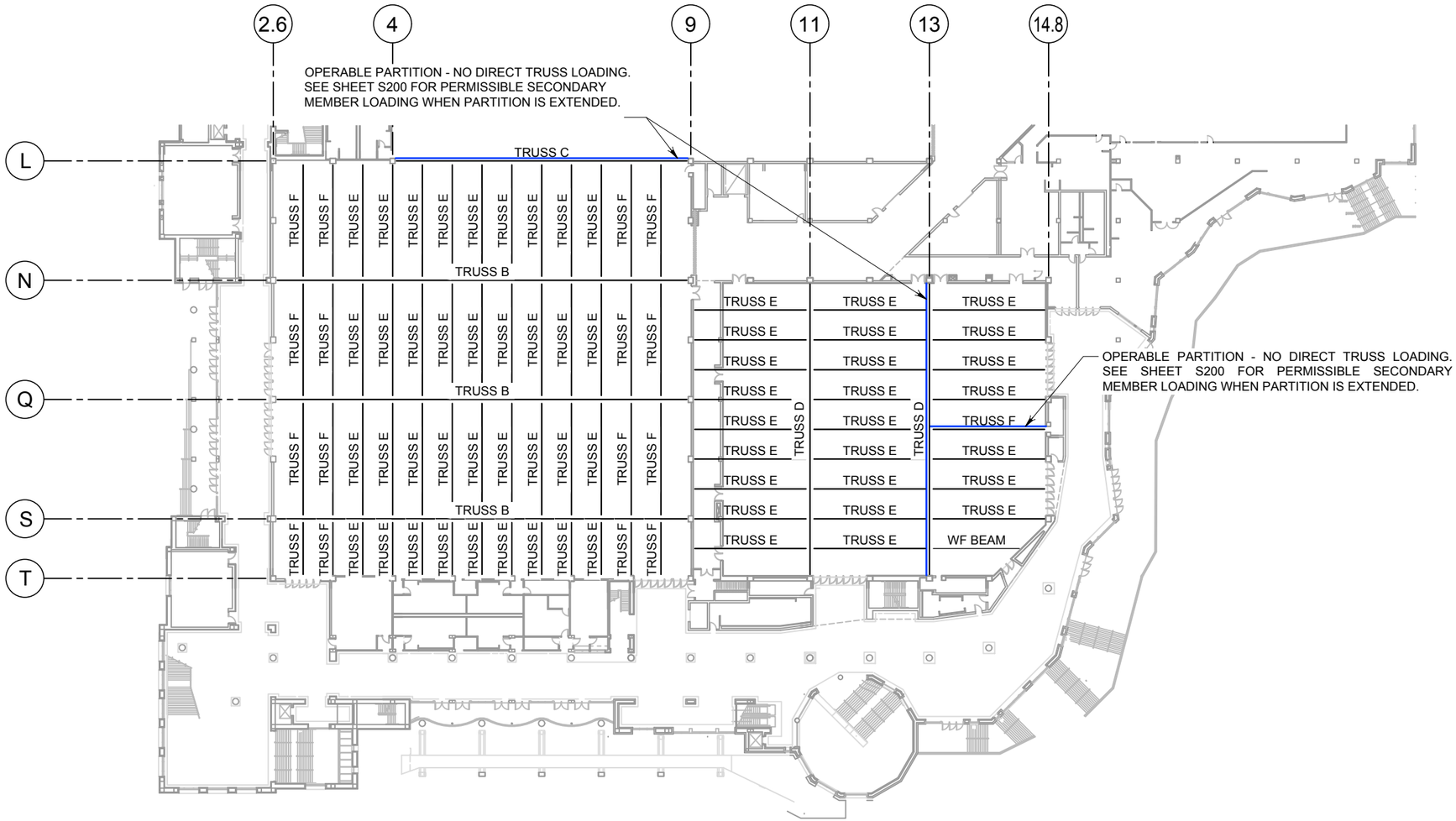
3. All rigging equipment and associated safety devices must be appropriately sized to safely handle anticipated loads and safety factors.

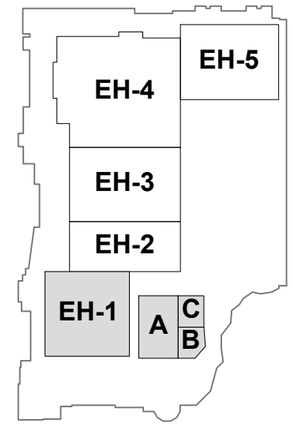
4. Suspending of animals or humans is not allowed without prior written authorization.

**13. See attached documentation for rigging loads, hang points and other information.**

*Date: March 2019*

PLAN NOTES:
1. TRUSSES SHOWN ON THIS PLAN ARE CAPABLE OF SUPPORTING RIGGING LOADS AS SHOWN ON SHEETS S200 & S201.




**KEY PLAN**

EH-1 AND BALLROOMS A-C TRUSS PLAN

PLAN NORTH

CITY OF AUSTIN FOUNDED 1839

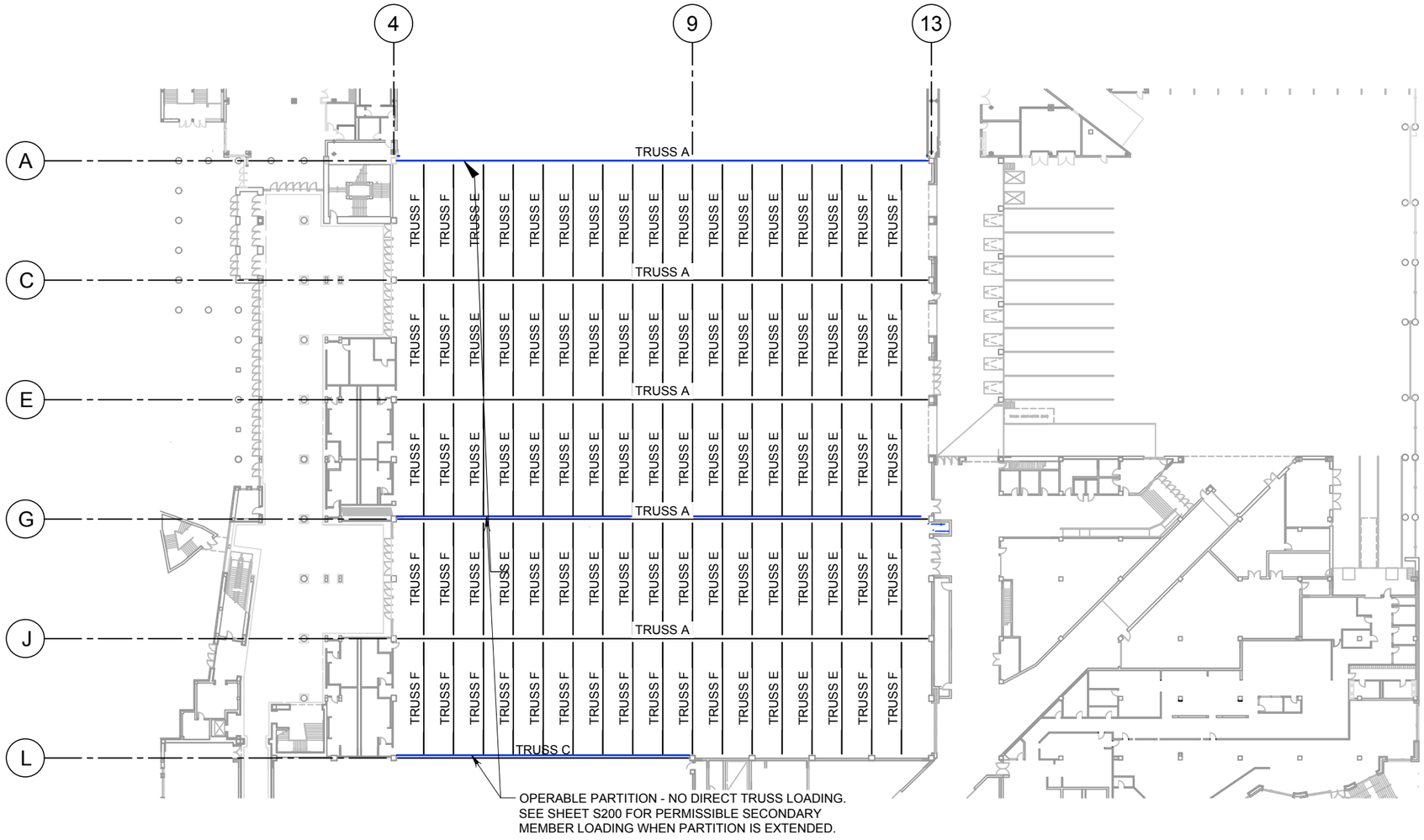
AUSTIN CONVENTION CENTER

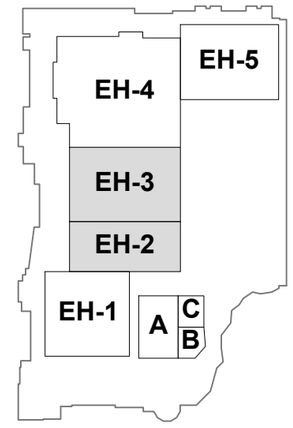
RIGGING

| DRAWN BY: | CHECKED BY: | DATE: | SHEET NUMBER: |
|---|---|---|---|
| CEJ | | 02/20/2018 | S-100 |

SHEET NAME: EH-1 AND BALLROOM A-C TRUSS PLAN

PLAN NOTES:
1. TRUSSES SHOWN ON THIS PLAN ARE CAPABLE OF SUPPORTING RIGGING LOADS AS SHOWN ON SHEETS S200 & S201.




**KEY PLAN**

## EH-2 AND EH-3 TRUSS PLAN

PLAN NORTH

AUSTIN CONVENTION CENTER

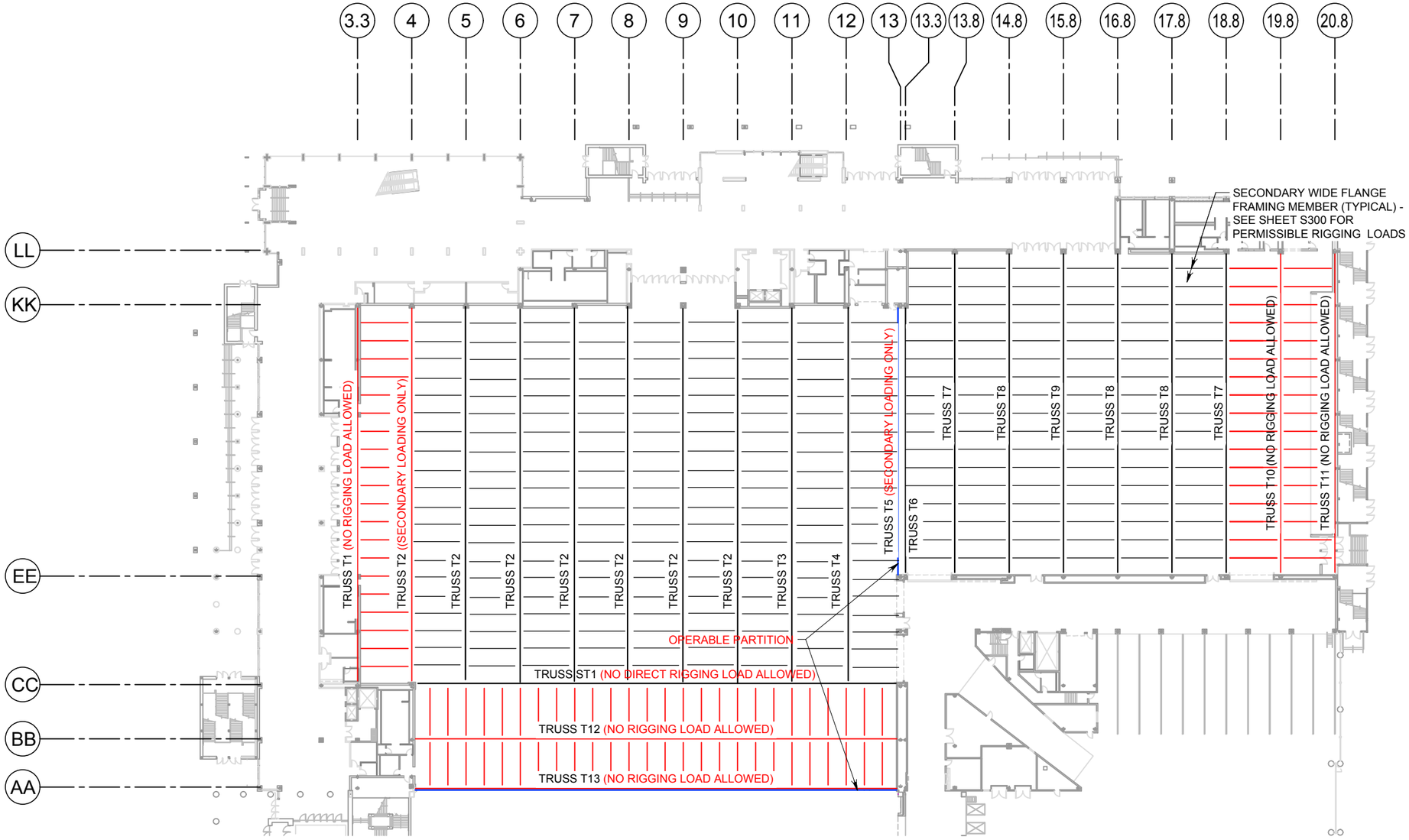
RIGGING

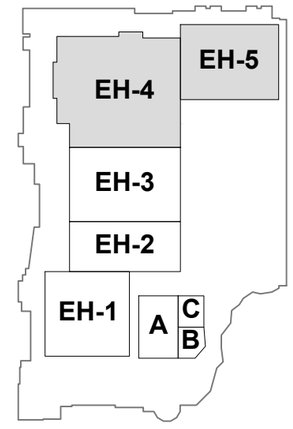
| DRAWN BY: | CHECKED BY: | DATE: | SHEET NUMBER: |
|---|---|---|---|
| CEJ | | 02/20/2018 | S-101 |

SHEET NAME: EH-2 AND EH-3 TRUSS PLAN

PLAN NOTES:

1. TRUSSES AND SECONDARY MEMBERS, SHOWN HERE IN RED, ARE NOT CAPABLE OF SUPPORTING RIGGING LOADS, NEITHER DIRECT NOR INDIRECT.
2. UNLESS NOTED OTHERWISE, TRUSSES SHOWN ON THIS PLAN ARE CAPABLE OF SUPPORTING RIGGING LOADS AS SHOWN ON SHEET S300.
3. DIRECT LOADING OF TRUSS T5 IS NOT POSSIBLE DUE TO ARCHITECTURAL VENEER. SEE S300 FOR PERMISSIBLE SECONDARY MEMBER RIGGING LOADS.




**KEY PLAN**

## EH-4 AND EH-5 TRUSS PLAN

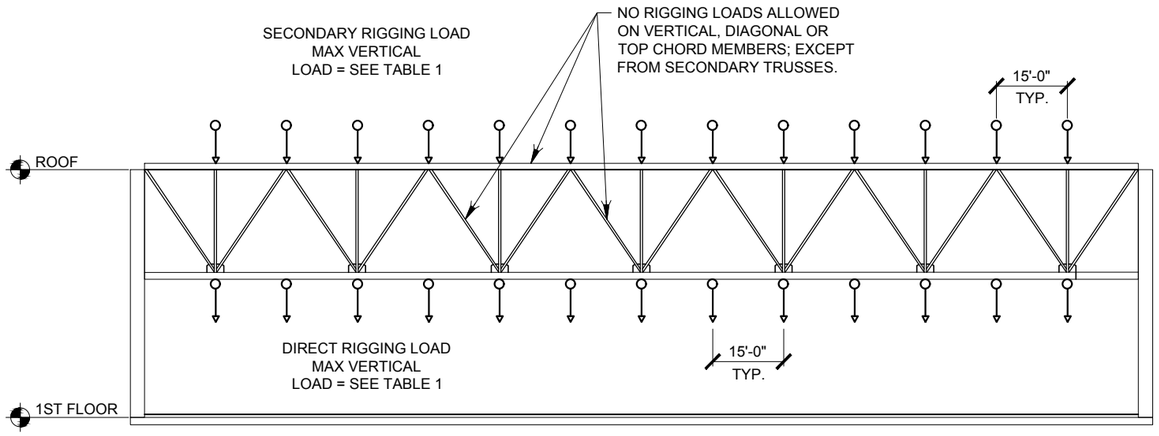
PLAN NORTH

AUSTIN CONVENTION CENTER

RIGGING

| DRAWN BY: | CHECKED BY: | DATE: | SHEET NUMBER: |
|---|---|---|---|
| CEJ | | 02/20/2018 | S-102 |

SHEET NAME: EH-4 AND EH-5 TRUSS PLAN




## PRIMARY TRUSS (TRUSSES A, B, C & D) ELEVATION

**PRIMARY TRUSS A, B, C, AND D RIGGING NOTES:**

**DEFINITIONS:**

DIRECT RIGGING LOAD: COMPRISED OF HANGING POINT LOADS SPACED AT 15'-0" ON CENTER ON THE BOTTOM OF CHORD OVER THE ENTIRE TRUSS SPAN. SEE SHEET S-201.

SECONDARY RIGGING LOAD : DIRECT RIGGING LOAD ON SECONDARY TRUSS DISTRIBUTED TO THE PRIMARY TRUSS. SEE SHEET S-201.

MAXIMUM TOTAL LOAD ON PRIMARY TRUSS AS PER TRUSS RIGGING LOAD TABLE 1 SUBJECTED TO THE FOLLOWING LIMITATIONS.

A) THE FOLLOWING CASE SHALL CONTROL THE RIGGING LOAD ALLOWED ON THE TRUSSES; **NO COMBINATION OF CASES BELOW IS ALLOWED**.

CASE 1:
ONLY DIRECT RIGGING LOAD ALLOWED ON THE PRIMARY TRUSS. **NO RIGGING LOADS ALLOWED ON ANY SUPPORTED SECONDARY TRUSSES.** THE VALUES IN THE "MAXIMUM TOTAL DIRECT RIGGING LOAD" COLUMN CAN BE USED ON THE PRIMARY TRUSSES.

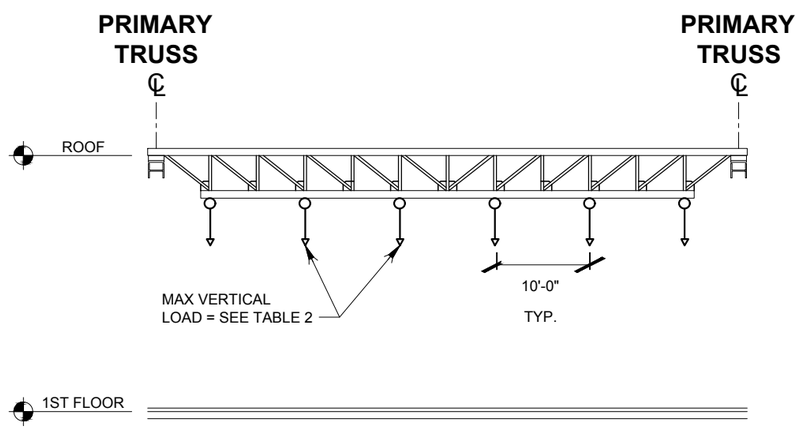
CASE 2:
ONLY SECONDARY RIGGING APPLIED TO THE PRIMARY TRUSS. **NO CONCURRENT DIRECT RIGGING LOADS ALLOWED ON THE PRIMARY TRUSS.** THE VALUES IN THE "MAXIMUM TOTAL SECONDARY RIGGING LOAD" COLUMN CAN BE USED FOR THE SECONDARY TRUSSES SUPPORTED BY THE PRIMARY TRUSS. SEE SHEET S-201 FOR ADDITIONAL INFORMATION REGARDING THE SUMMATION OF SECONDARY RIGGING LOADS.

CASE 3:
IF THE TOTAL RIGGING LOAD IN THE SECONDARY TRUSSES SUPPORTED BY THE PRIMARY TRUSS IS LESS THAN THE FIRST VALUE IN THE "MAXIMUM TOTAL SECONDARY RIGGING LOAD" COLUMN, THE PRIMARY TRUSS CAN CARRY THE REMAINING PERCENTAGE OF THE DIRECT RIGGING LOAD AT THE LOCATION DIRECTLY UNDER THE SECONDARY RIGGING LOAD.

EXAMPLE: TRUSS A CARRYING SECONDARY TRUSSES E ON EACH SIDE.
SECONDARY TRUSS E ON BOTH SIDES CARRYING A TOTAL RIGGING LOAD OF 6,000 lbs EACH.
REMAINING CAPACITY FROM THE SECONDARY TRUSS = (9000-6000)/9000
= 0.33
THE MAXIMUM DIRECT RIGGING LOAD DIRECTLY BELOW THE SECONDARY RIGGING LOAD = 6000 * 0.33 = 1,980 lbs.

B) LOADS CAN BE HUNG FROM BOTTOM CHORD OR BUILT IN HANGING POINTS ON THE BOTTOM CHORD OF THE TRUSS.

C) LOADS ARE TO BE DEAD HUNG ONLY. BRIDLING IS NOT ALLOWED ON ANY PORTION OF THE PRIMARY TRUSS OR SECONDARY TRUSS.




## SECONDARY TRUSS (TRUSSES E & F) ELEVATION

**SECONDARY TRUSS E AND F RIGGING NOTES:**

MAXIMUM TOTAL LOAD ON TRUSS PER TRUSS RIGGING LOAD TABLE 2 SUBJECTED TO THE FOLLOWING LIMITATIONS.

A) COMPRISED OF HANGING POINTS AT 10'-0" ON CENTER OVER THE ENTIRE SPAN.

B) LOADS CAN BE HUNG FROM BOTTOM CHORD OR BUILT-IN HANGING POINTS ON THE BOTTOM CHORD ADJACENT TO THE VERTICAL MEMBERS OF THE TRUSS.

C) LOADS ARE TO BE DEAD HUNG ONLY. BRIDLING IS NOT ALLOWED ON ANY PORTION OF THE TRUSS.

| TABLE 1: PRIMARY TRUSS RIGGING LOAD TABLE | | |
|---|---|---|
| TRUSS | MAXIMUM TOTAL DIRECT RIGGING LOAD | MAXIMUM TOTAL SECONDARY RIGGING LOAD |
| A | 6,000 lbs. AT 15'-0" O.C. =102,000 lbs. | 9,000 lbs. AT 15'-0" O.C =153,000 lbs. |
| B | 3,000 lbs. AT 15'-0" O.C. =42,000 lbs. | 3,000 lbs. AT 15'-0" O.C. =42,000 lbs. |
| C | 6,000 lbs. AT 15'-0" O.C. =54,000 lbs. | 6,000 lbs. AT 15'-0" O.C. =54,000 lbs. |
| D | 8,000 lbs. AT 15'-0" O.C. =72,000 lbs. | 9,000 lbs. AT 15'-0" O.C. =81,000 lbs. |

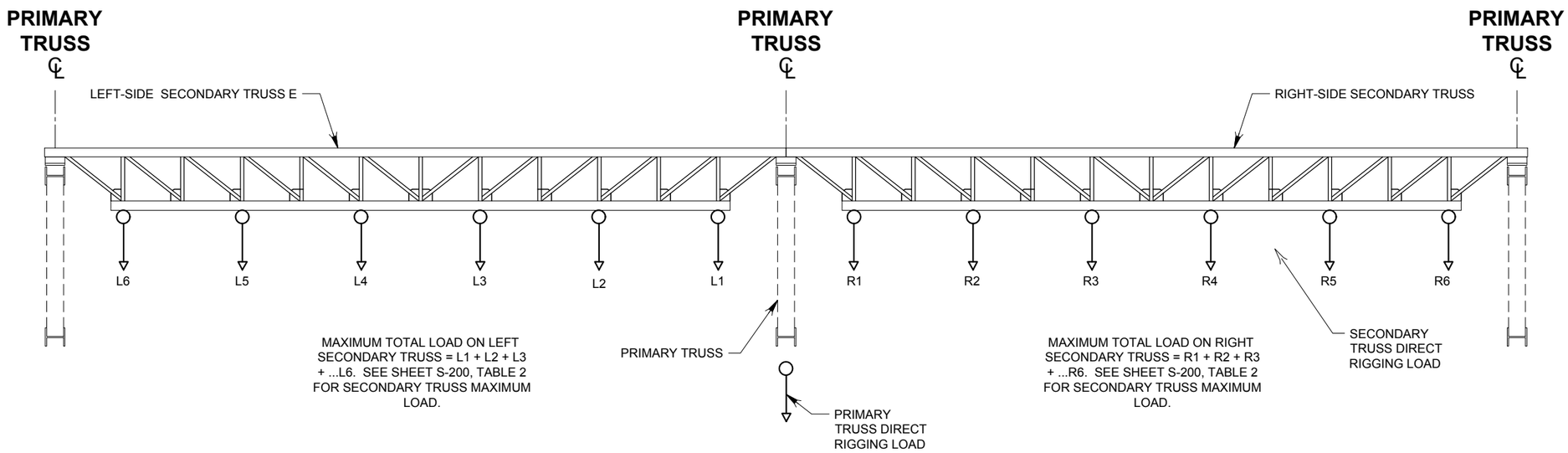
| TABLE 2: SECONDARY TRUSS RIGGING LOAD TABLE | |
|---|---|
| TRUSS | MAXIMUM TOTAL LOAD |
| E | 1,500 lbs. MAX. AT 10'-0" O.C. =9,000 lbs. MAX. |
| F | 2,000 lbs. MAX. AT 10'-0" O.C. =12,000 lbs. MAX. |

AUSTIN CONVENTION CENTER

RIGGING

| DRAWN BY: | CHECKED BY: | DATE: | SHEET NUMBER: |
|---|---|---|---|
| | CEJ | 02/20/2018 | S-200 |

SHEET NAME: EH-1 THRU EH-3 AND BALLROOM A-C RIGGING LOADS




TOTAL SECONDARY RIGGING LOAD APPLIED TO PRIMARY TRUSS = 55/60*(L1 + R1) + 45/60*(L2 + R2) + 35/60 * (L3 + R3) + ...5/60*(L6+R6). SEE SHEET S-200, TABLE 1 FOR PRIMARY TRUSS MAXIMUM TOTAL SECONDARY RIGGING LOAD.

**CASE 3 (EXAMPLE):**

EXAMPLE: TRUSS A SUPPORTING TRUSS E ON BOTH LEFT AND RIGHT SIDES.

| LEFT SECONDARY TRUSS LOAD SUMMARY | |
|---|---|
| LOCATION | LOAD |
| L1 | 0 |
| L2 | 1,000 lbs. |
| L3 | 1,000 lbs. |
| L4 | 1,000 lbs. |
| L5 | 1,500 lbs. |
| L6 | 1,500 lbs. |

| TOTAL LOAD ON LEFT SECONDARY TRUSS | 6,000 lbs. |
|---|---|

| RIGHT SECONDARY TRUSS LOAD SUMMARY | |
|---|---|
| LOCATION | LOAD |
| R1 | 550 lbs. |
| R2 | 550 lbs. |
| R3 | 550 lbs. |
| R4 | 500 lbs. |
| R5 | 500 lbs. |
| R6 | 1,450 lbs. |

| TOTAL LOAD ON RIGHT SECONDARY TRUSS | 4,200 lbs. |
|---|---|

| CALCULATION OF TOTAL SECONDARY RIGGING LOAD APPLIED TO PRIMARY TRUSS | | | |
|---|---|---|---|
| LOCATION | LOAD SUM | MULTIPLIER | LOAD SUM * MULTIPLIER |
| L1 + R1 | 550 lbs. | 55/60 | 504.17 lbs. |
| L2 + R2 | 1,550 lbs. | 45/60 | 1,162.50 lbs. |
| L3 + R3 | 1,550 lbs. | 35/60 | 899.00 lbs. |
| L4 + R4 | 1,500 lbs. | 25/60 | 651.00 lbs. |
| L5 + R5 | 2,000 lbs. | 15/60 | 500.00 lbs. |
| L6 + R6 | 2,950 lbs. | 5/60 | 236.00 lbs. |

| TOTAL SECONDARY RIGGING LOAD APPLIED TO PRIMARY TRUSS | 3,952.67.00 lbs. |
|---|---|

MAXIMUM INDIVIDUAL LOAD ON SECONDARY TRUSS (LOCATIONS L5 & L6) = 1,500 lbs. PER SHEET S-200, TABLE 2, MAXIMUM PERMISSIBLE LOAD ON TRUSS E = 1,500 lbs. (OK)

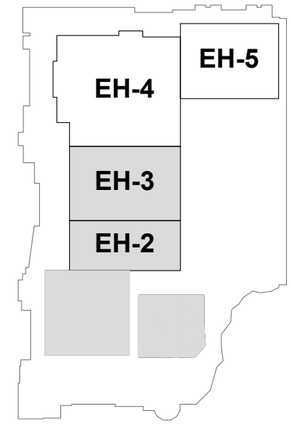
TOTAL LOAD ON LEFT SECONDARY TRUSS E = 6,000 lbs. TOTAL LOAD ON RIGHT SECONDARY TRUSS E = 4,200 lbs. PER SHEET S-200, TABLE 2, MAXIMUM TOTAL PERMISSIBLE LOAD ON TRUSS E = 9,000 lbs. (OK)

TOTAL SECONDARY RIGGING LOAD APPLIED TO PRIMARY TRUSS = 9,000 lbs. PER SHEET S-200, TABLE 1, MAXIMUM PERMISSIBLE SECONDARY RIGGING LOAD ON TRUSS A = 9,000 lbs. (OK)

REMAINING CAPACITY FROM UNUSED SECONDARY RIGGING LOAD = (9,000-3,953)/9,000 = 0.56

PER SHEET S-200, TABLE 1, MAXIMUM DIRECT RIGGING LOAD FOR TRUSS A = 6,000 lbs.

THE MAXIMUM DIRECT RIGGING DIRECTLY BELOW THE SECONDARY RIGGING LOAD = 6,000 * 0.56
= 3,180 lbs.



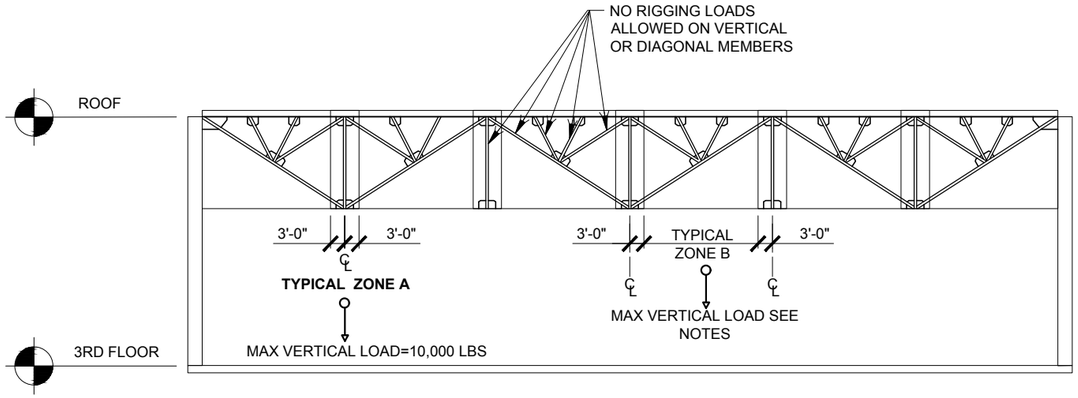

**KEY PLAN**

AUSTIN CONVENTION CENTER

RIGGING

| DRAWN BY: | CHECKED BY: | DATE: | SHEET NUMBER: |
|---|---|---|---|
| CEJ | | 02/20/2018 | S-201 |

SHEET NAME: EH-1 THRU EH-3 AND BALLROOM A-C RIGGING LOADS




## TYPICAL TRUSS ELEVATION

NOT TO SCALE

**PRIMARY TRUSSES (T2, T3, T4, T7, T8, T9) RIGGING NOTES:**

MAXIMUM TOTAL LOAD ON ONE TRUSS = 25,000 lbs.
MAXIMUM TOTAL RIGING LOAD FOR THE CIELING IN EH-4 IS 90,000 lbs. THIS MAXIMUM IS A COMBINE TOTAL LOAD FOR EH-4 CIELING PLUS RIGGING LOADS IN BALLROOMS D-G.
SEE TABLE "A" FOR TRUSS RIGGING LOAD, SUBJECT TO THE FOLLOWING LIMITATIONS:

A) TOTAL LOAD COMPRISED OF HANGING POINT LOADS EQUIVALENT TO 500 lbs/ft OVER A COMBINED LENGTH NO GREATER THAN 60'-0".

B) MAXIMUM SINGLE HANGING POINT LOAD IN ZONE A = 6,000 lbs.

C) MAXIMUM SINGLE HANGING POINT LOAD IN ZONE B = 4,000 lbs.

D) TOTAL LOAD TO INCLUDE RIGGING LOADS FROM BEAMS.

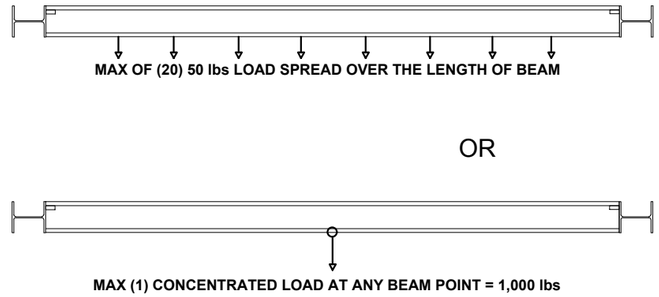
E) LOADS CAN BE HUNG FROM BOTTOM CHORD OR BUILT-IN HANGING POINT LOADS ON THE BOTTOM CHORD OF TRUSS.

F) LOADS ARE TO BE DEAD HUNG ONLY, BRIDLING IS NOT ALLOWED ON ANY PORTION OF THE PRIMARY TRUSS OR BEAM.

**TRUSS RIGGING LOAD TABLE**

| POINT LOAD | MIN. SPACING | ZONE | MAX. # OF LOAD |
|---|---|---|---|
| 750 lbs | 2 ft | A&B | 31 |
| 1500 lbs | 4 ft | A&B | 16 |
| 2000 lbs | 6 ft | A&B | 11 |
| 3000 lbs | 8 ft | A&B | 8 |
| 3500 lbs | 10 ft | A&B | 7 |
| 4500 lbs | 15 ft | A&B | 5 |
| 6000 lbs | 30 ft | A | 3 |

NOTE: DIRECT RIGGING OF TRUSS T5 IS NOT POSSIBLE DUE TO ARCHITECTURAL VENEER. ONLY SECONDARY LOADS FROM SUPPORTED BEAMS ARE PERMISSIBLE.




## TYPICAL BEAM

NOT TO SCALE

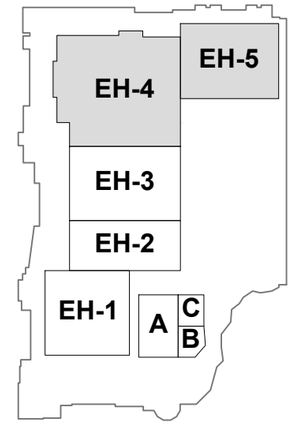
**BEAM RIGGING NOTES:**

A) MAXIMUM SINGLE HANGING POINT LOAD = 1,000 lbs.

B) MAXIMUM TOTAL LOAD = 1,000 lbs. (20 INDIVIDUAL POINTS MAXIMUM)

C) LOADS CAN BE HUNG FROM BOTTOM FLANGE OR BUILT-IN HANGING POINTS ON THE BOTTOM FLANGE OF THE FRAMING.

D) LOADS ARE TO BE DEAD HUNG ONLY. BRIDLING IS NOT ALLOWED ON ANY PORTION OF THE BEAM.



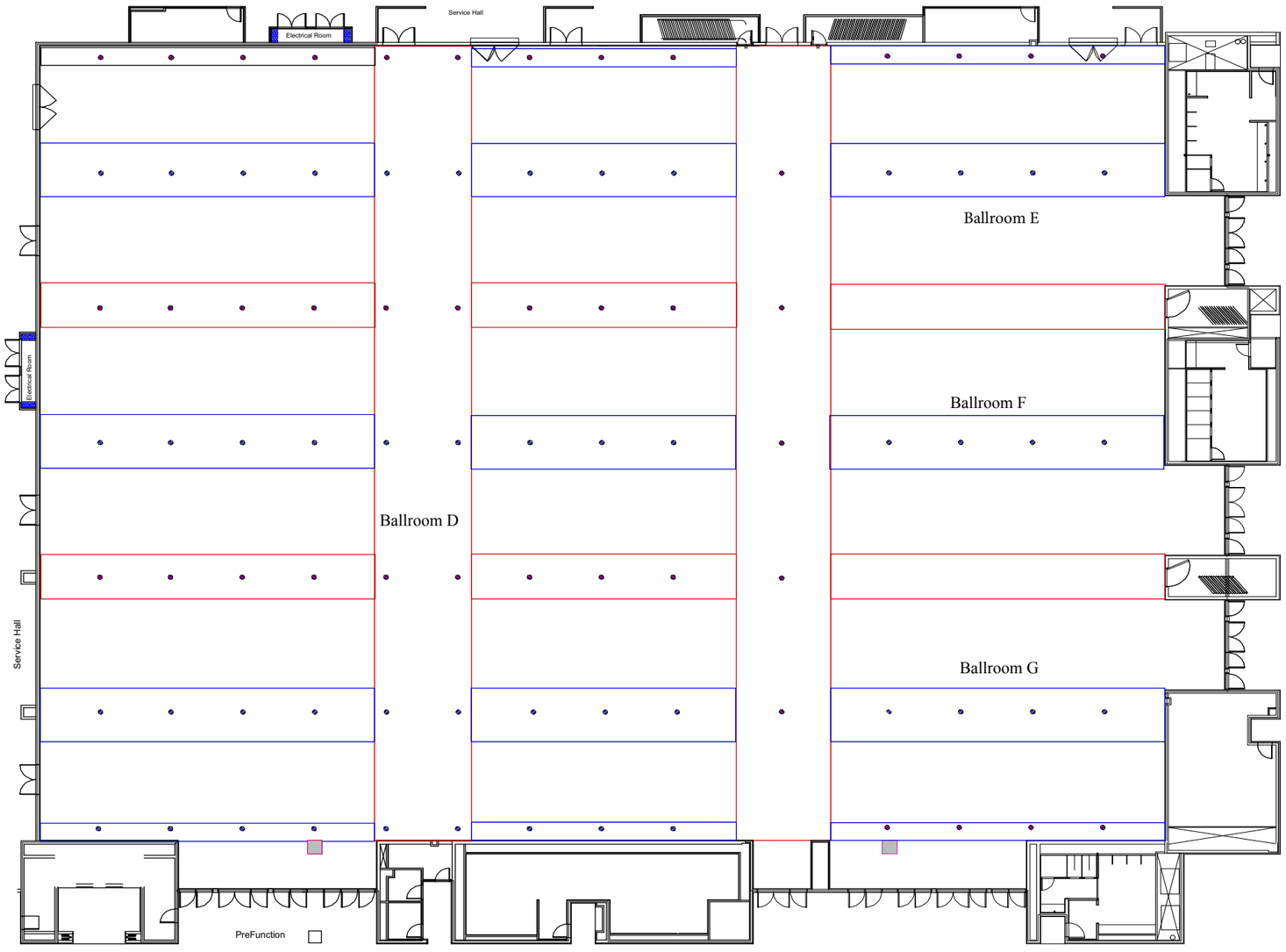

**KEY PLAN**

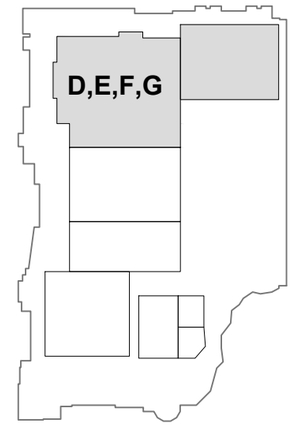
AUSTIN CONVENTION CENTER

RIGGING

| DRAWN BY: | CHECKED BY: | DATE: | SHEET NUMBER: |
|---|---|---|---|
| CEJ | | 02/20/2018 | S-300 |

SHEET NAME: EH-4 AND EH-5 TRUSS PLAN




**KEY PLAN**

**Rigging Points**
**Rigging allowed from fixed points only.**
**Maximum rigging load for ballrooms D-G is 30,000 lbs. The combine maximum rigging load for EH-4 ceiling and ballrooms D-G is 90,000 lbs.**
**Maximum Load of 1500 lbs per fixed point.**
**No Bridling**

High Points 35'

Low Points 27'

PLAN NORTH

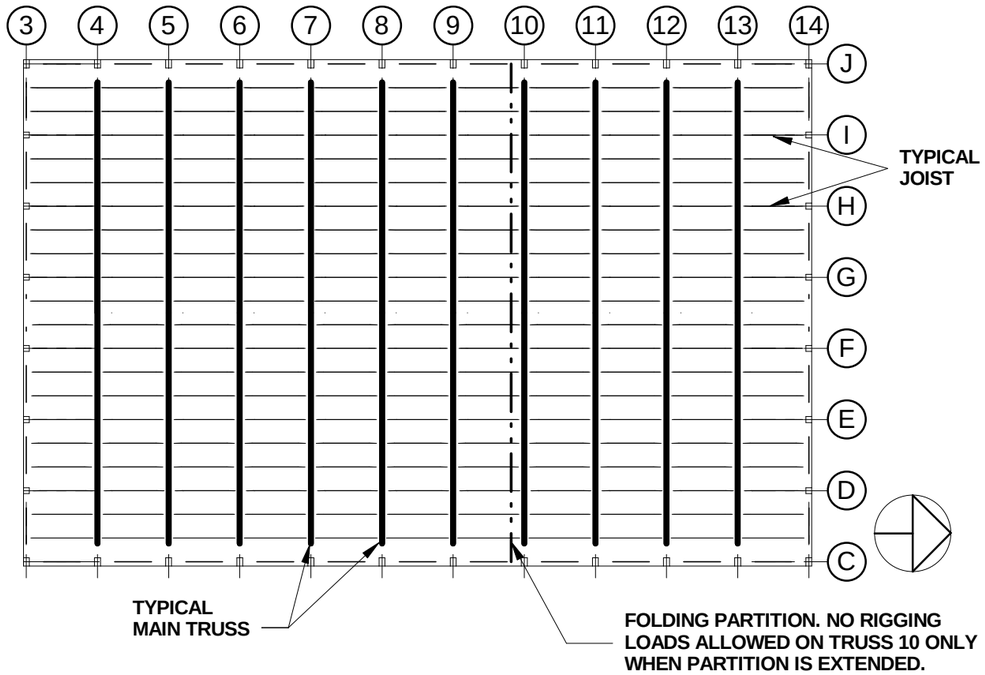
CITY OF AUSTIN FOUNDED 1839

AUSTIN CONVENTION CENTER

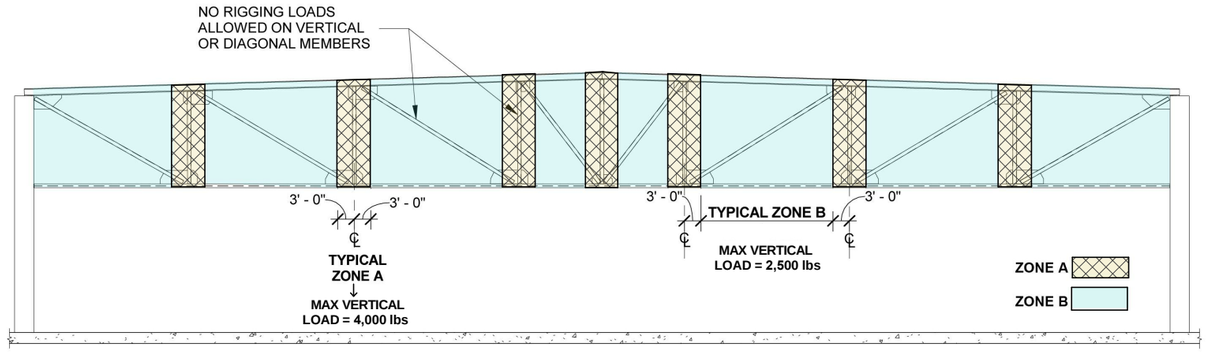
RIGGING

| DRAWN BY: | CHECKED BY: | DATE: | SHEET NUMBER: |
|---|---|---|---|
| CEJ | | 02/20/2018 | S-400 |

SHEET NAME: Ballrooms D, E, F, G Rigging points




1 EXHIBIT HALL RIGGING PLAN
NOT TO SCALE




**TYPICAL MAIN TRUSS RIGGING NOTES:**

MAXIMUM TOTAL LOAD ON MAIN TRUSS = 24,000 lbs.
SUBJECT TO THE FOLLOWING LIMITATIONS:

A) TOTAL LOAD COMPRISED OF POINT LOADS EQUIVALENT TO 500 lbs/ft OVER A COMBINED LENGTH NO GREATER THAN 48'-0", SEE TABLE.

B) MAXIMUM SINGLE POINT LOAD = 4,000 lbs.

C) TOTAL LOAD TO INCLUDE RIGGING LOADS FROM JOISTS.

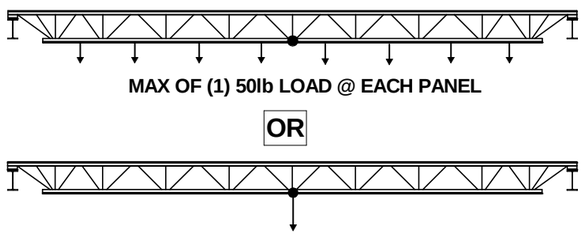
D) LOADS CAN BE HUNG FROM EITHER THE BOTTOM CHORD.

E) BRIDLING IS NOT ALLOWABLE ON ANY PORTION OF A MAIN TRUSS OR JOIST.

**TYPICAL MAIN TRUSS RIGGING LOAD TABLE**

| POINT LOAD | MIN. SPACING | ZONE | MAX. # OF LOADS |
|---|---|---|---|
| 500 lbs | 1ft | A & B | 48 |
| 1000 lbs | 2ft | A & B | 24 |
| 1500 lbs | 3ft | A & B | 16 |
| 2000 lbs | 4ft | A & B | 12 |
| 2500 lbs | 5ft | A & B | 9 |
| 3000 lbs | 6ft | A | 8 |
| 3500 lbs | 7ft | A | 7 |
| 4000 lbs | 8ft | A | 6 |

2 TYPICAL MAIN TRUSS
NOT TO SCALE




3 TYPICAL JOIST
NOT TO SCALE

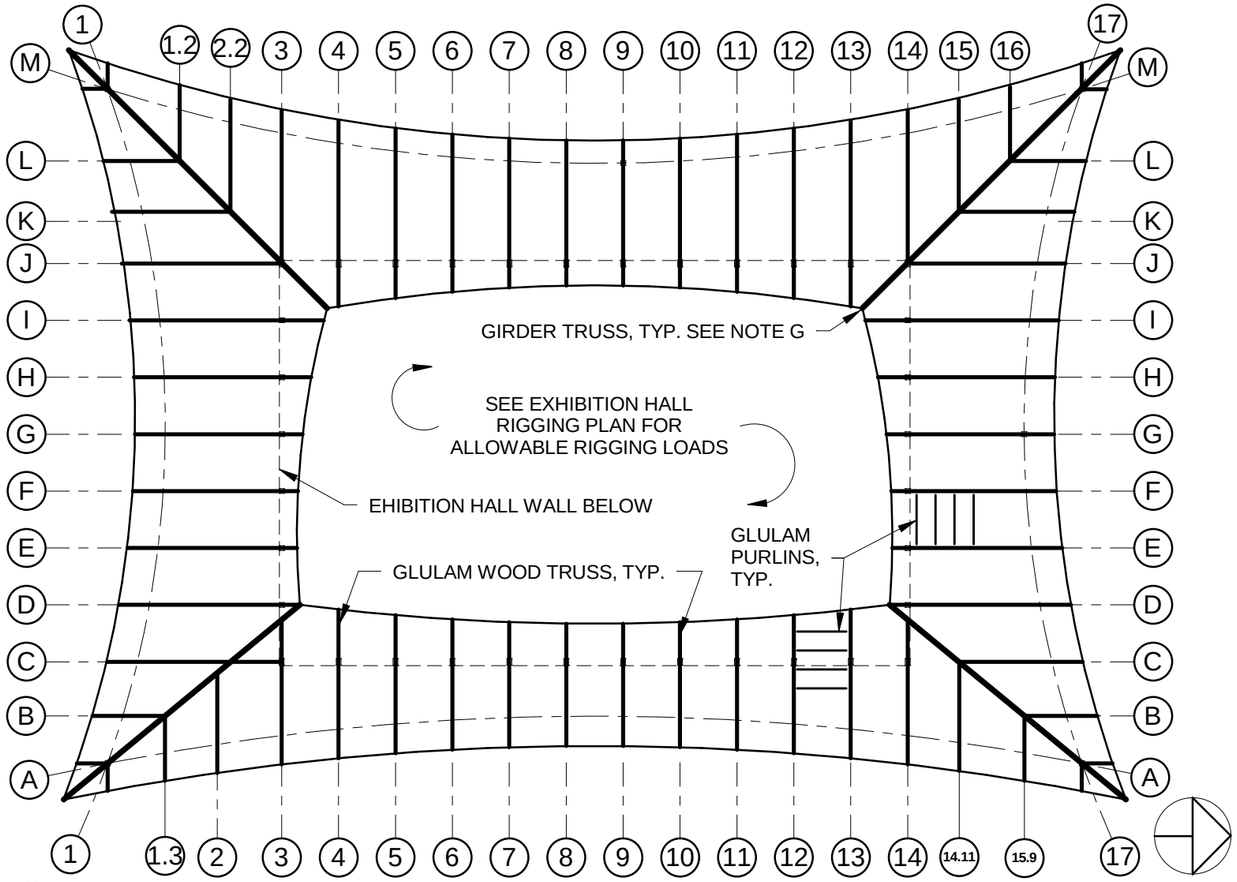
AUSTIN CONVENTION CENTER

PALMER EVENTS CENTER -
LOAD CAPACITY

| DRAWN BY | CHECKED BY | DATE | SHEET |
|---|---|---|---|
| CEJ | | 02-20-2018 | S-100 |

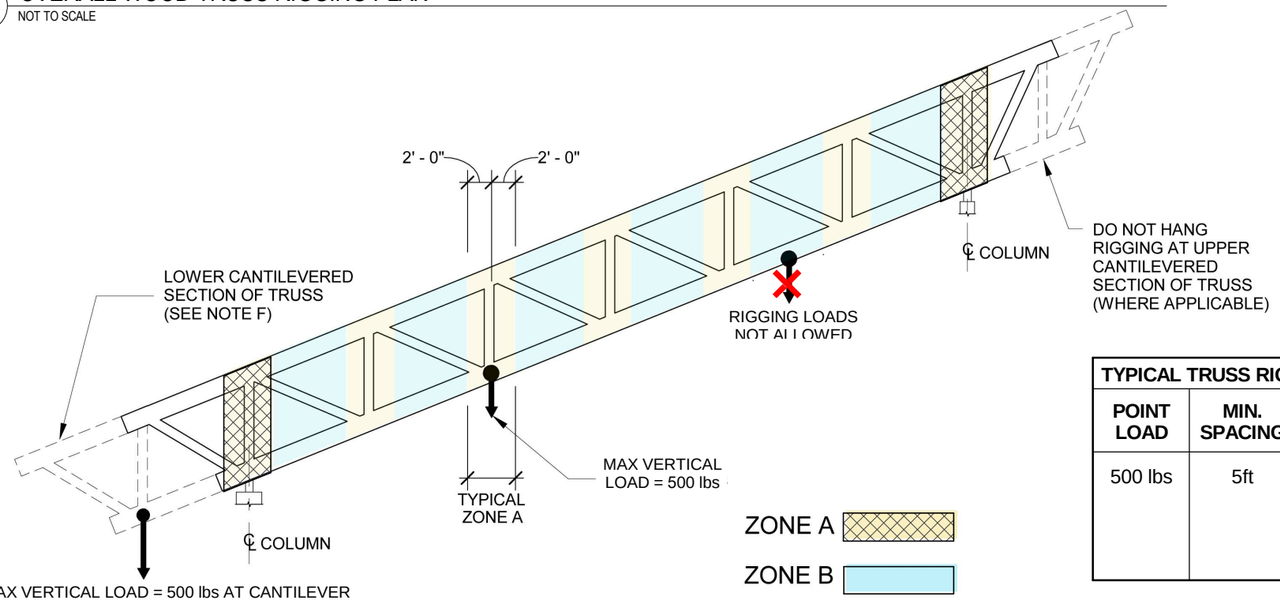
EXHIBIT HALL RIGGING LOADS

2/16/2012 2:04:07 PM




1 OVERALL WOOD TRUSS RIGGING PLAN

NOT TO SCALE




2 TYPICAL GLULAM TRUSS

NOT TO SCALE

**TYPICAL TRUSS RIGGING LOAD TABLE**

| POINT LOAD | MIN. SPACING | ZONE | MAX # OF LOADS |
|---|---|---|---|
| 500 lbs | 5ft | A ONLY | 2 |

**RIGGING LOAD LIMITATIONS:**

A) DO NOT EXCEED A TOTAL WEIGHT OF 5,000 lbs ON A SINGLE TRUSS, SEE TABLE.

B) BRIDLING IS NOT ACCEPTABLE ON ANY PART OF THE TRUSS.

C) RIGGING IS LIMITED TO THE BOTTOM CHORD ONLY.

D) DO NOT HANG RIGGING FROM GLULAM PURLINS.

E) DO NOT MODIFY TRUSS IN ANY WAY (i.e. HOLES, SAW, etc.)

F) RIGGING LOAD NOT TO EXCEED A TOTAL OF 500 lbs AT LOWER CANTILEVER SECTION, TYPICAL.

G) GIRDER TRUSS CAN BE LOADED SIMILAR TO TYPICAL GLULAM TRUSS.

H) PROVIDE TRUSS PROTECTION AT INDIVIDUAL TRUSS RIGGING POINTS.

I) RIGGING LOADS NOT ALLOWED IN ZONE B.

AUSTIN CONVENTION CENTER

palmer events center

**PALMER EVENTS CENTER - LOAD CAPACITY**

| DRAWN BY | CHECKED BY | DATE | SHEET |
|---|---|---|---|
| CEJ | | 02-20-2018 | S-101 |

**EXTERIOR TRUSSES - RIGGING LOADS**

2/16/2012 2:04:07 PM