

# SUMMIT ARENA

## PRODUCTION GUIDE



## WELCOME TO THE MONUMENT

### HOME OF SUMMIT ARENA

**The Monument**  
**C/O Production Department**  
**444 Mt. Rushmore Road N.**  
**Rapid City, SD 57701**

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**themonument.live**

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**605.394.4115**

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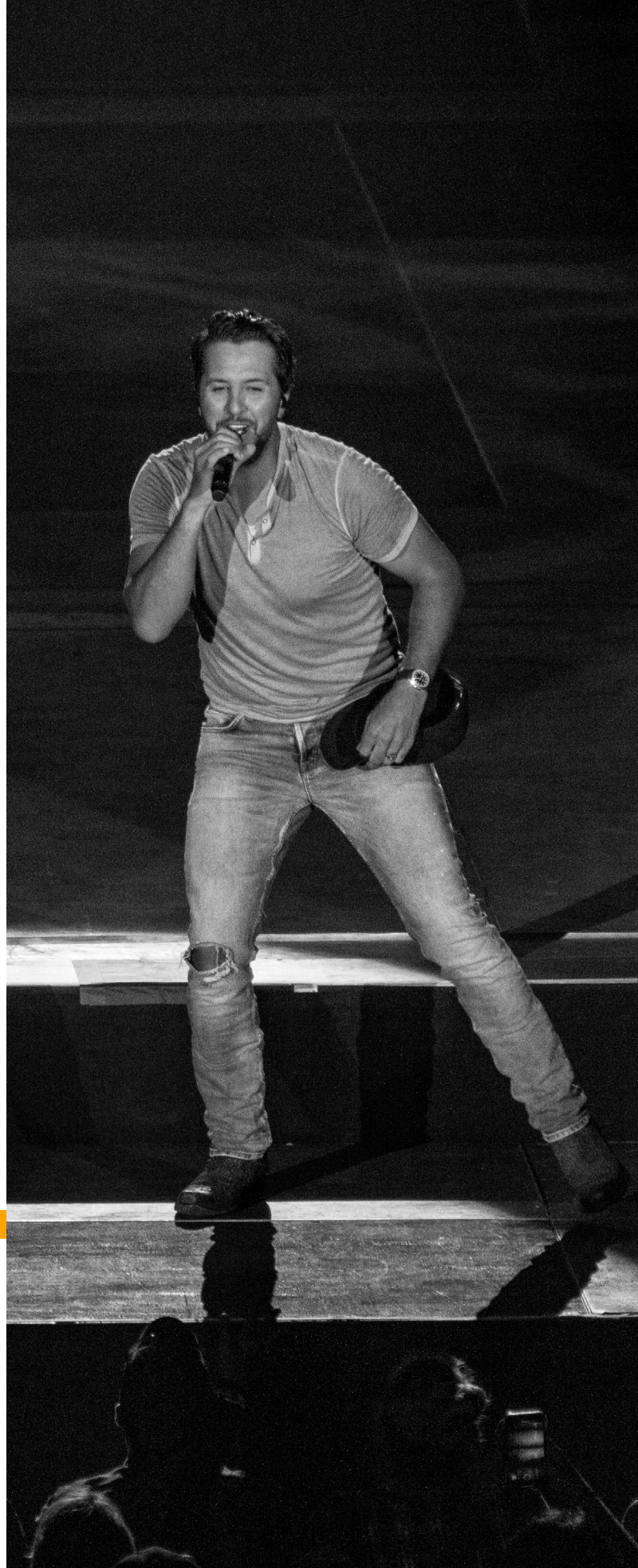
**605.381.0233**



# SUMMIT ARENA

## Table of Contents

Directions and Parking  
House Equipment  
LED Display and Scoring  
Safety and Production  
The Monument Complex Map  
Summit Arena Map  
    Event Level  
    Main Concourse Level  
    and Premium Levels  
Beam Rigging  
Grid Load Configurations  
Rigging Bay Sectors  
Building Sections  
Summit Arena Power  
House Curtain Plans and  
    Elevation



# DIRECTIONS

## ***FROM I-90 - Smaller Truck Route BLUE LINE***

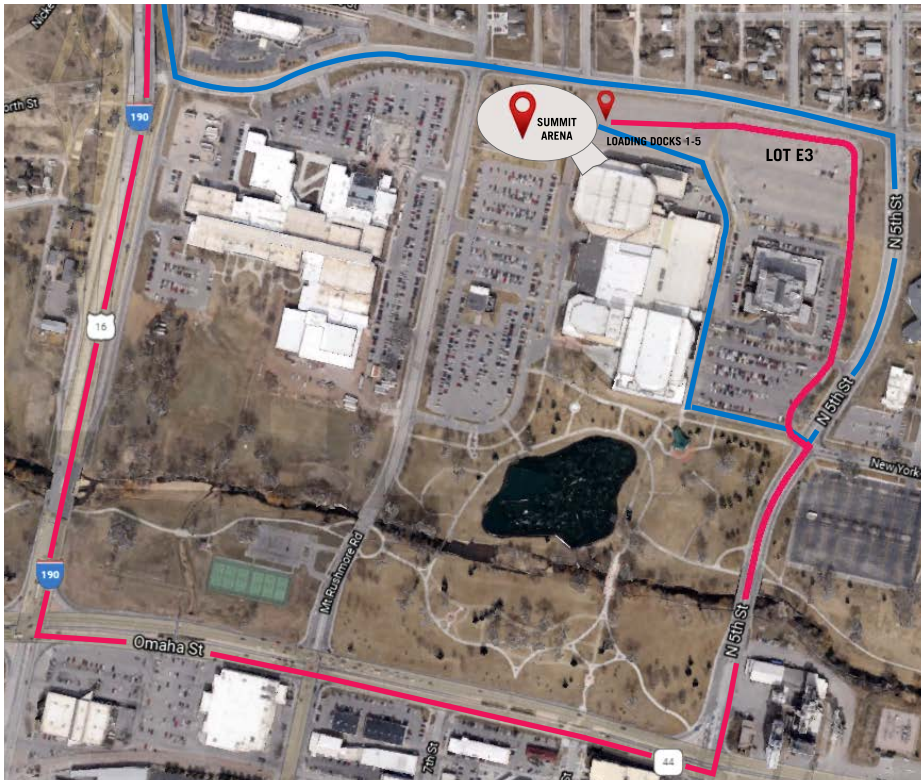
From I-90 (heading East or West) take Exit 57, the I-190 Byway heading South and take Exit 1C. Turn left onto North Street and proceed to the 4 Way Stop and continue straight to take a right on to 5th Street, proceed South. Head down to the light at New York Street and take a right. Continue to the building and follow the driveway North to the gate continue thru and Summit Arena Loading Docks 1-5 will be on left.

## ***FROM I-90 - Larger Truck Route RED LINE***

From I-90 (heading East or West) take Exit 57, the I-190 Byway heading South continue to street light and take a left on Omaha St. Continue in the left lane and take a left at the second light, 5th Street. Head North to the light at New York Street and take a left. Continue to the building and follow the driveway North to the gate continue thru and Summit Arena Loading Docks 1-5 will be on left.

## ***FROM AIRPORT - Approximately 20 minutes***

Depart airport to SD-44 West/East Omaha St., continue straight for 9 miles. Turn right onto 5th Street proceeded by a left on New York Street into Lot E at The Monument. Continue to the building and follow the driveway North to the gate continue thru and Summit Arena Loading Docks 1-5 will be on left.



**Click [HERE](#) for directions to The Monument**

## **SHOW PARKING**

Trucks can be queued in Lot E3 behind the hotel, East of loading docks 1-5. Buses can be located directly East of Loading docks, West of Lot E3. Shore power is available at the bus parking location. The security door entrance is also the stage door for access throughout the day.



# HOUSE EQUIPMENT

**The Monument carries a large array of Stage Right equipment. To compliment these packages, we have several accessories, such as easy lift stairs, wheel chair ramps and lift, handrails and skirting.**

## **Staging**

- Z-800 support of risers
- 49 - ME-500 platform 48"-78"
- 20 - ME-3750 Rolling Stage 48"-78"
- 347 - 4x8 Reversible Decks
- Stairs, ADA Ramps, Wheelchair lift, Guardrail, Skirting
- 47 - Z800 platform – 16"-24"
- 37 - Z 800 Legs 24"-32"
- 4 - Easy Lift Stairs 48"-78"
- Ascension Virtuoso 5460P ADA Lift
- 4 - ADA Ramp packages
- 232' of CC500 Barricade (plus 2 inside and 2 outside corners for thrusts)
- 697' of Bike Rack



# HOUSE EQUIPMENT

**The Monument has several pieces of heavy equipment available to rent, including multiple forklifts of different capabilities, various aerial lifts, and scissor lifts.**

- Forklifts
  - 1- Mitsubishi - high lift mass that won't fit into Semis
  - 2 - Clarke 3k lb. capacity
  - 1 - Clarke 9k lb. capacity
  - 1 - Toyota 6k lb. capacity
  - 2 - sets of slide over fork extenders
- 1 - Genie Z-60 Boom
- 1 - 26' Scissor Lift
- 1 - Genie 36' single person man lift
- 1 - 19' Scissor Lift
- 1 - JLG 300A Lift

**The complex also carries an array of other equipment.**

- Pipe and Drape
  - 2120' of 8' Black
  - 120' of 8' White
  - 1890' of Burgundy
- 469 - Silver Poles
- 55 - Black Poles
- US and SD State Flags in various sizes
- 13 - Podiums (11- traditional wooden, 2- modern black truss)

# HOUSE EQUIPMENT

## Additional Production Equipment - Portable

- Rigging
  - 4 - 1T CM Lodestar Motors with Distro
  - Rigging Steel Package
  - 12 - 10' Sticks with 12" Truss
- Projectors
  - 6 - Panasonic PTRZ570B
- Portable Video Switcher
  - 1 - Black Magic Atem Television Studio HD Pro
- 78' Cable Ramps (+2 ADA Cable Ramps)
- 3 - Sony PXW-X160 w/Tripod
- 3 - Sony PXW-X200 w/Tripod
- Behringer X32 Compact and Producer

## House Audio

The arena's distributed line array system consists primarily of JBL VRX932LA-1 elements with JBL ASB6128 Sub-woofers, powered by Crown DCI amplifiers, through a Dante network. The arena's back of house and premium areas are covered by JBL 70v ceiling systems. All of this is controlled from the AV room on the fourth level.

- House carries several Shure QLXD Combo Packs

## Clear-Com

Video has a 4 channel comm system, and there is a separate 2 channel system throughout the arena for spotlights and FOH needs.



## **House Lighting**

Dimmable LED sport and house light fixtures, with possible DMX Control.

6 - Gladiator 4 (4k)

## **House Video**

The house video system is built around the Newtek TriCaster TC1 with the 2Stripe IP control panel, and uses 3P1 3Play for slow motion and replay, and SuperLogics for character generation.

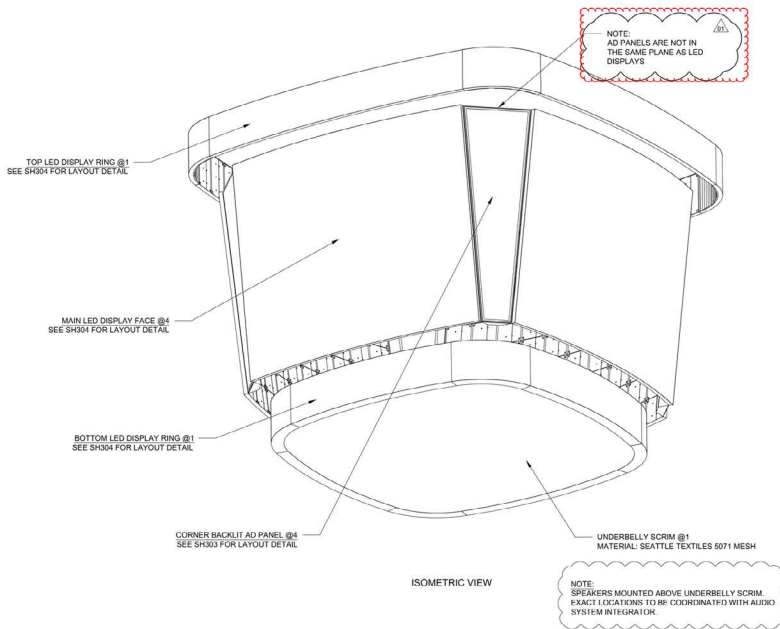
- Cameras
  - 3 - Ikegami HC-HD300

## **Broadcast Trucks**

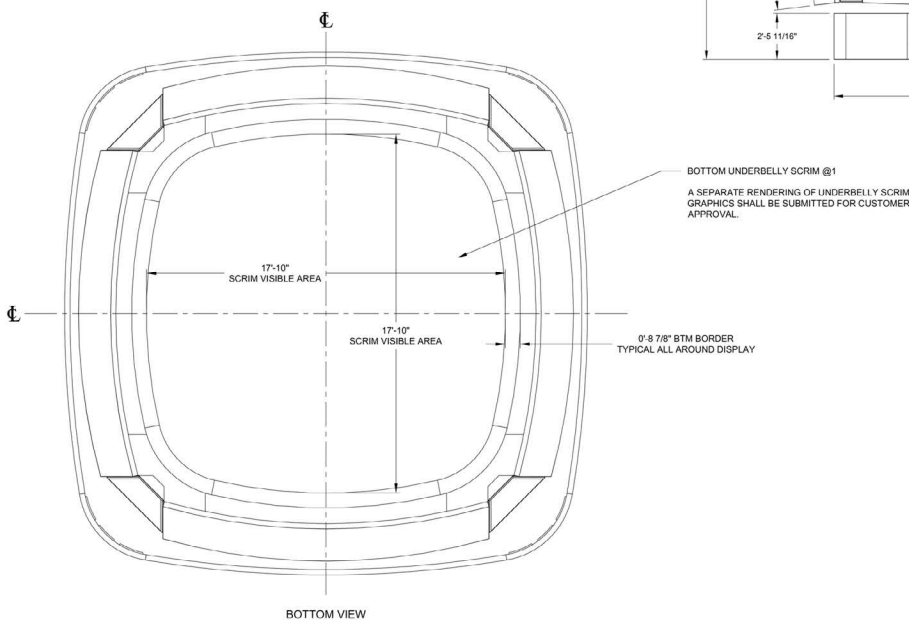
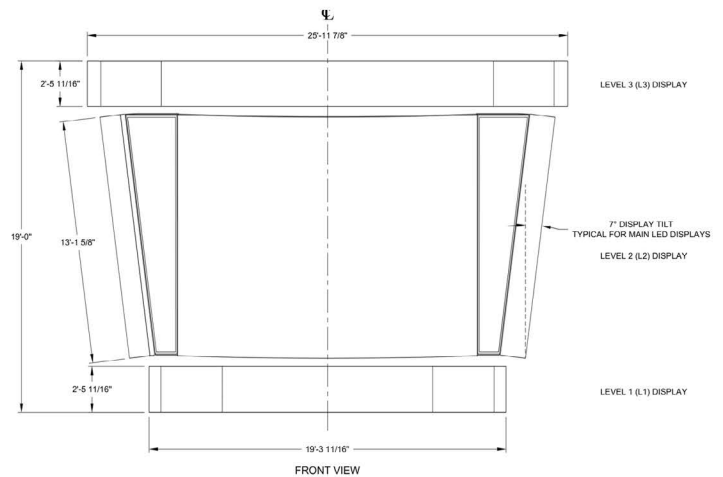
There are 4 - 200 amp disconnects for broadcast truck power. There is also a broadcast truck hookup with connection points throughout the arena.

# LED Display and Scoring

The house Daktronics Center Hung consists of 4 main displays, a top ring, and a bottom ring, all of which can be raised entirely into the grid, out of sight. There is also a Ribbon that wraps around the North, West, and South sides, and a package of scorers tables for sporting events.



- Main Display: 672 x 840
- Top Ring: 126 x 4708
- Bottom ring: 126 x 3364
- Ribbon Display: 48 x 12320
- Scorers Tables: 64 x 864





# SAFETY AND PRODUCTION

The Monument takes pride in ensuring the safety of all of its guests (both front and back of house). From fire lanes to pyrotechnic regulations, the following are some of the policies the building enforces to maintain a safe environment

## EQUIPMENT/ FORK LIFTS

The use of the facility equipment, such as the forklifts, can only be operated by individuals certified by the facility to use that piece of equipment. All equipment should be operated and stored in a safe fashion.

## FIRE REGULATIONS

For pyrotechnics, lasers, and open flames, an on-site inspection may be required. All pyrotechnicians will need to have proof of the proper licensing with the ATF. Related paperwork (pyrotechnics, fireproofing certificates, insurances etc.) should be available upon request. For more information or questions please contact the Rapid City Fire Prevention Department at 605.394.5233

## CABLES AND CORDS

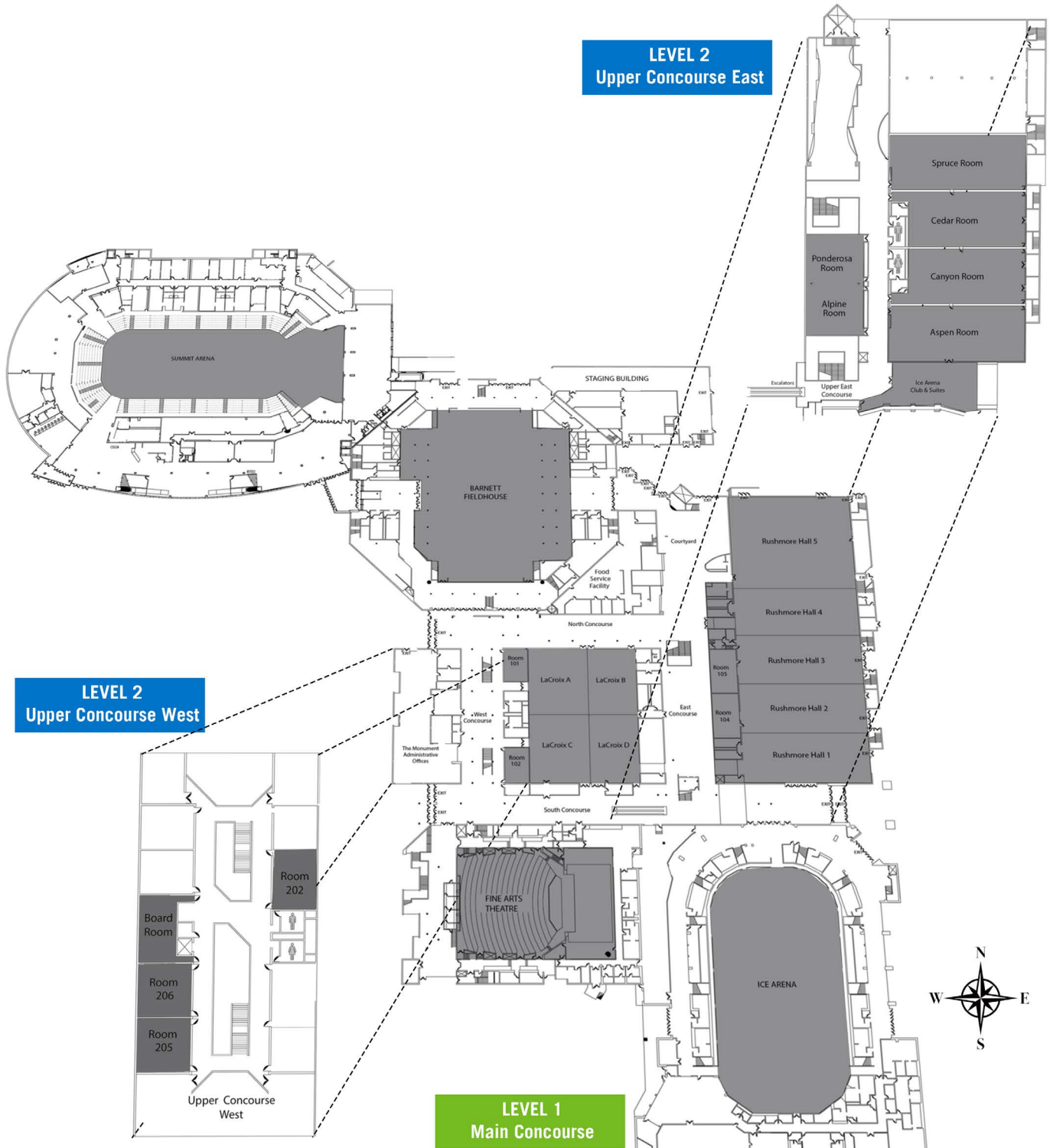
Any cable or cord that is in an area on the floor that is accessible to a guest, employee or member of a visiting tour must be covered by a cable ramp, or some kind of tape in order to minimize a tripping hazard.

## LABOR

The Monument has a contract with IATSE Local 731. Calls and labor billing are both through the building. For production labor or equipment estimates, contact David Owen at (605) 718-7140 or DavidO@themonument.live

# ALL UNDER ONE ROOF

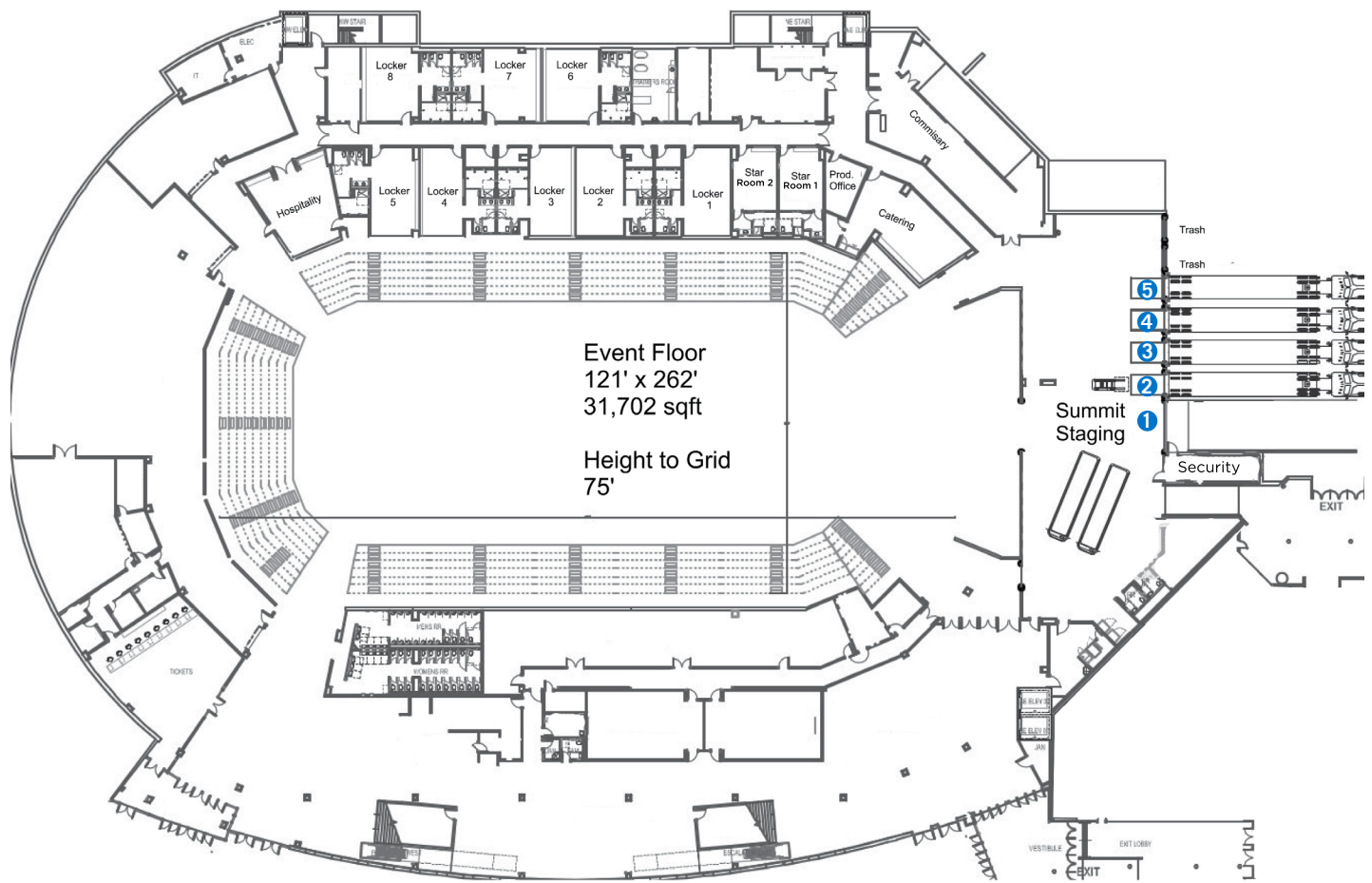
Total of 480,000 square feet.





# SUMMIT ARENA

## EVENT LEVEL



### Back of House

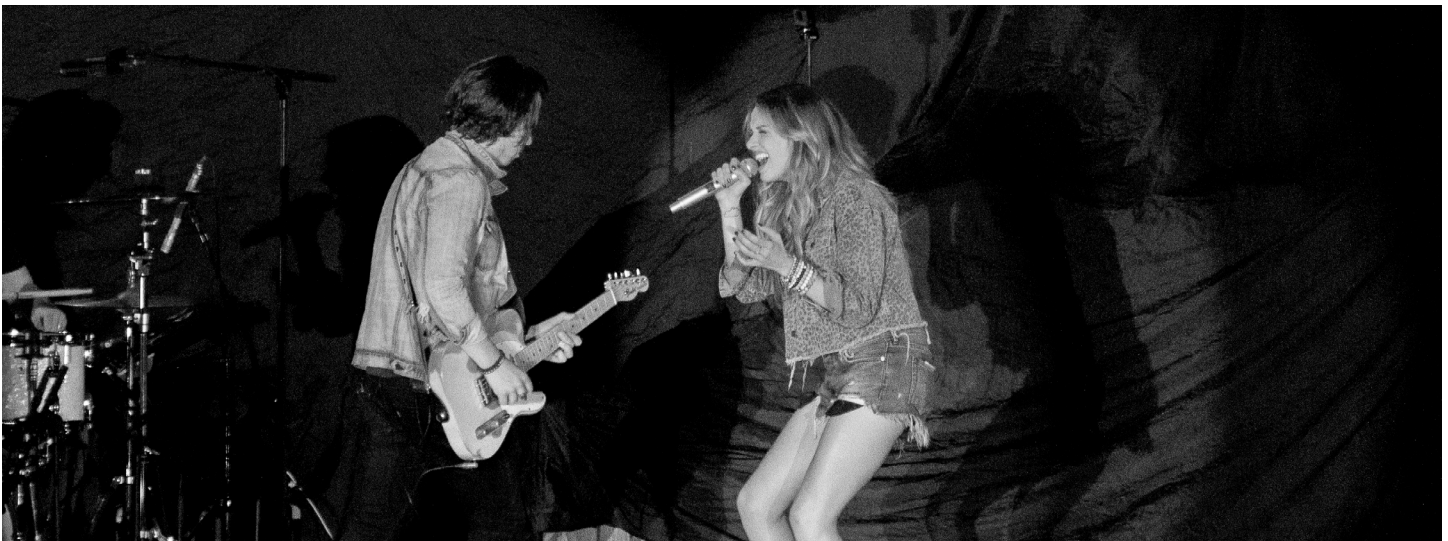
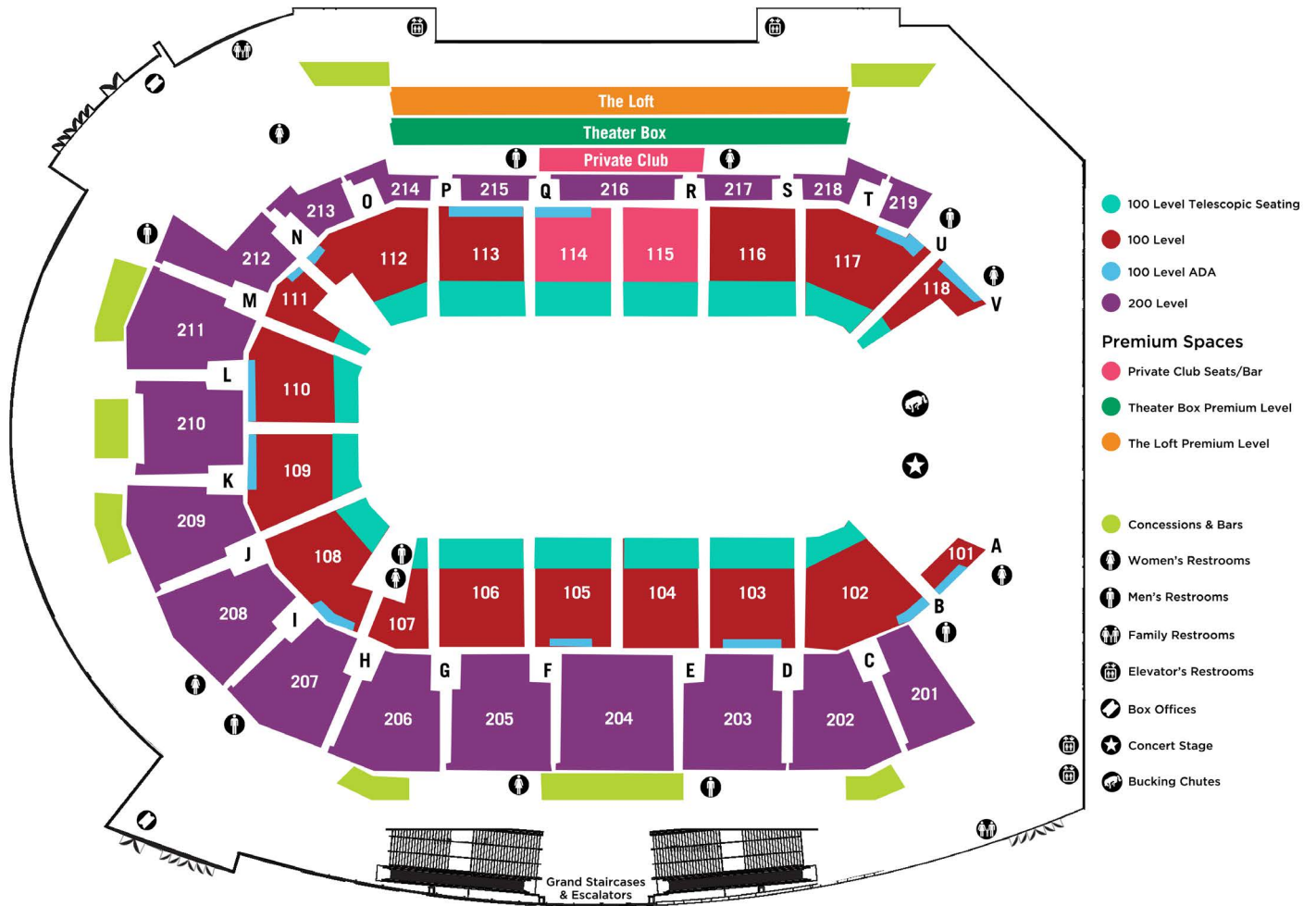
- 8 - Locker Rooms (main area with restrooms and showers)
- 2 - Star Dressing Rooms (Green room with restroom and showers)
- 1 - Dedicated Production Office
- 1 - Catering Room
- 1 - Hospitality Room
- 1 - Laundry Room (Washer and Dryer)
- 1 - Staging area (Loading docks, ramp, and stage power, two restrooms)

### Load In Access

Loading Docks 2 - 5 with levelers and seals, and Loading Dock 1 is a ramp from street level to the staging area, are located on the East side of Summit Arena. The staging area has plenty of room for dead storage, and is a short push to the arena floor.

# SUMMIT ARENA

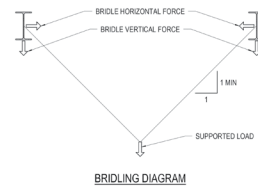
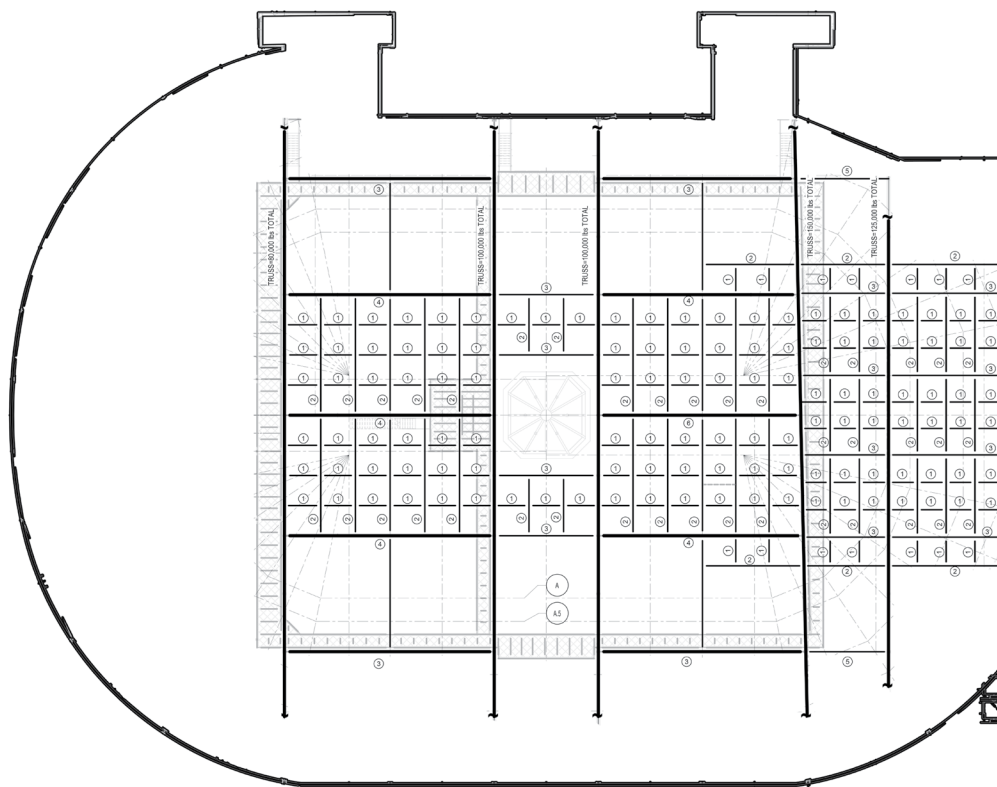
## CONCOURSE LEVEL & PREMIUM



# Maximum Beam Rigging Loads

The rigging grid covers the entire arena floor, with an expanded grid over the end house stage position. The grid has a height of 75' and has a 150,000 lbs. limit, depending on which zone is rigged in. There is a minimum 5,000 lbs. dead hang limit and a minimum 4,000 lbs. bridle limit, with additional capacity depending on grid location. See following diagrams for more information.

*Only experienced riggers are permitted on the rigging steel. All riggers are required to use Fall Arrest Equipment while rigging.*



BOTTOM CHORD RIGGING LOAD SCHEDULE			
PLAN SYMBOL	BOTTOM CHORD DEAD HUNG TOTAL VERTICAL	BOTTOM CHORD BRIDLE TOTAL VERTICAL	BOTTOM CHORD BRIDLE TOTAL HORIZONTAL
①	5,000 lbs	4,000 lbs	4,000 lbs
②	16,000 lbs	12,000 lbs	4,000 lbs BETWEEN BEAMS
③	32,000 lbs	16,000 lbs	4,000 lbs BETWEEN BEAMS
④	50,000 lbs	25,000 lbs	4,000 lbs BETWEEN BEAMS
⑤	4,000 lbs	2,000 lbs	2,000 lbs
⑥	75,000 lbs	37,500 lbs	4,000 lbs BETWEEN BEAMS
⑦	16,000 lbs MAX BETWEEN TRUSS VERTICALS	12,000 lbs BETWEEN TRUSS VERTICALS	4,000 lbs BETWEEN BEAMS
⑧	500 lbs	0 lbs	0 lbs
⑨	18,000 lbs (ULTIMATE) UPWARD	-	-

## BOTTOM CHORD RIGGING PLAN

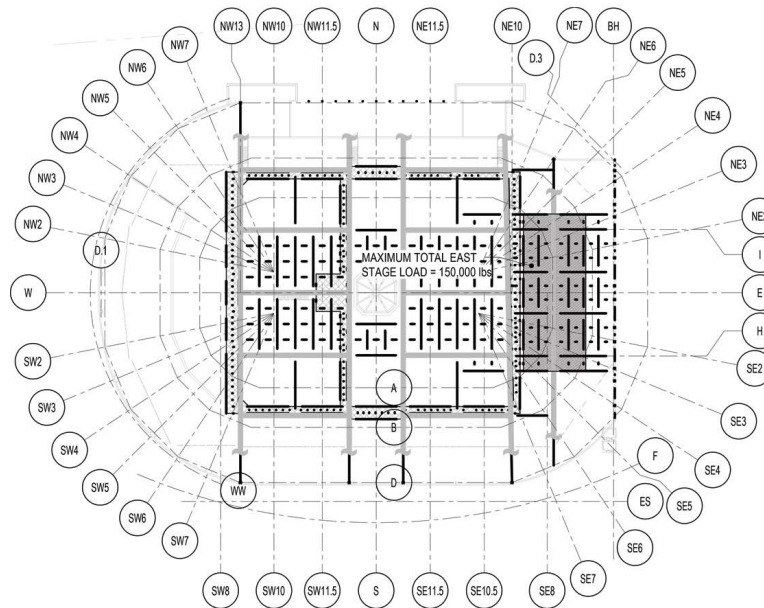
1/16" = 1'-0"

### NOTES:

- RIGGING GRID AND TRUSSES ARE CAPABLE OF ACCOMMODATING A LIFE SAFETY FALL PROTECTION SYSTEM ENGINEERED PER OSHA STANDARDS WITHIN THE FOLLOWING GUIDELINES:
  - RIGGING GRID MEMBERS AND TRUSS CHORD LOAD CAPACITIES ARE LIMITED AS INDICATED IN THE BOTTOM CHORD RIGGING SCHEDULE. ASSUME PLAN SYMBOL (X) UNLESS NOTED OTHERWISE.
  - TRUSS VERTICAL MEMBERS CAN SUPPORT A VERTICAL 5 KIIPS (ULTIMATE) LOAD.
  - TRUSS VERTICAL MEMBERS SHALL NOT BE LOADED HORIZONTALLY.
  - TRUSS DIAGONAL MEMBERS SHALL NOT BE LOADED VERTICALLY NOR HORIZONTALLY.
- TOP AND BOTTOM CHORDS MAY BE RIGGED SIMULTANEOUSLY WITHIN THE ALLOWABLE LOAD LIMITS SHOWN ON THE RIGGING SCHEDULES PROVIDED THAT THE MAXIMUM TRUSS LOADS INDICATED ABOVE ARE NOT EXCEEDED.
- HOST PLATFORM LOAD (A) INCLUDES 1.5 DYNAMIC LOAD FACTOR.



# Maximum Grid Load Configurations

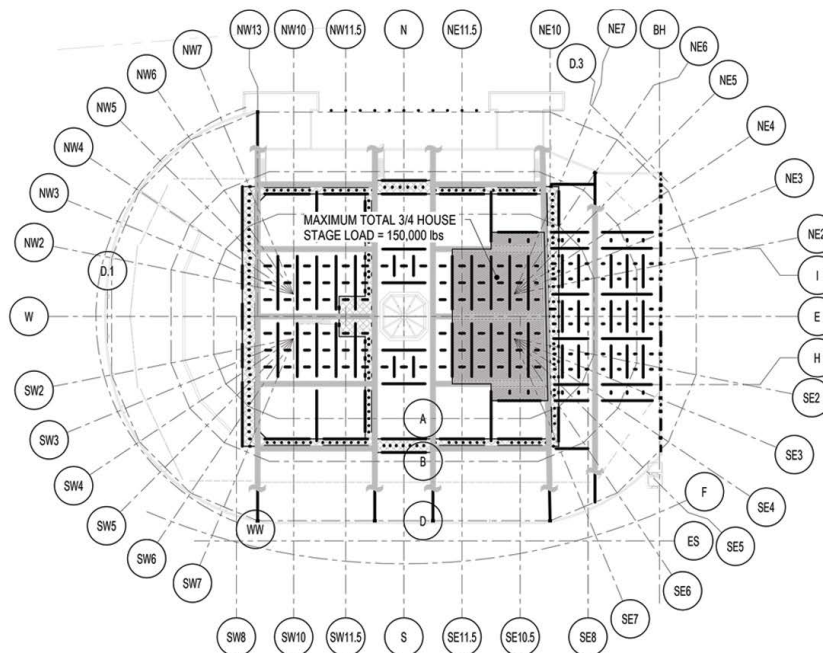


## BOTTOM CHORD RIGGING PLAN - EAST STAGE LOAD PLAN

1" = 50'-0"

### NOTES:

1. TOTAL LOAD SHALL BE DISTRIBUTED OVER SHADED REGION. TOTAL LOAD DISTRIBUTED OVER A SMALLER AREA RESULTING IN AN INCREASE IN RIGGING LOAD DENSITY IS NOT ALLOWED.
2. MAXIMUM CENTER STAGE, WEST STAGE, 3/4 HOUSE, AND END STAGE LOADS SHALL NOT OCCUR SIMULTANEOUSLY.



## BOTTOM CHORD RIGGING PLAN - 3/4 HOUSE LOAD PLAN

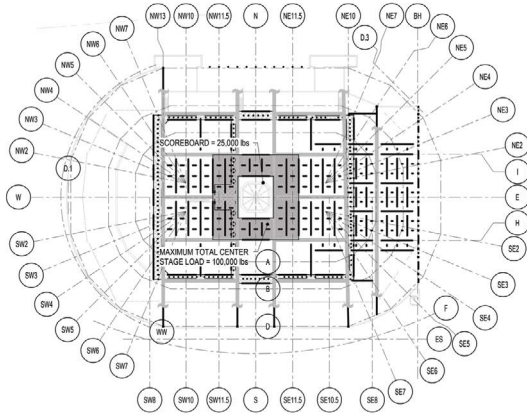
1" = 50'-0"

### NOTES:

1. TOTAL LOAD SHALL BE DISTRIBUTED OVER SHADED REGION. TOTAL LOAD DISTRIBUTED OVER A SMALLER AREA RESULTING IN AN INCREASE IN RIGGING LOAD DENSITY IS NOT ALLOWED.
2. MAXIMUM CENTER STAGE, WEST STAGE, 3/4 HOUSE, AND END STAGE LOADS SHALL NOT OCCUR SIMULTANEOUSLY.



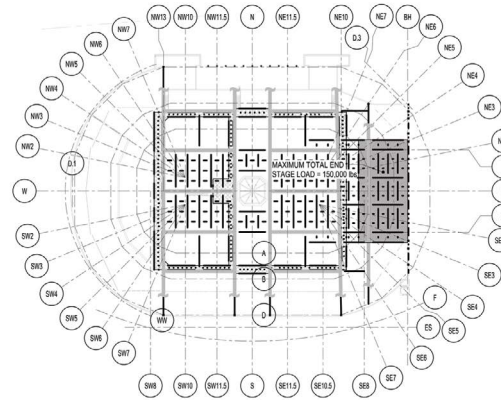
# Maximum Grid Load Configurations



**BOTTOM CHORD RIGGING PLAN - CENTER STAGE LOAD PLAN**

1" = 50'-0"

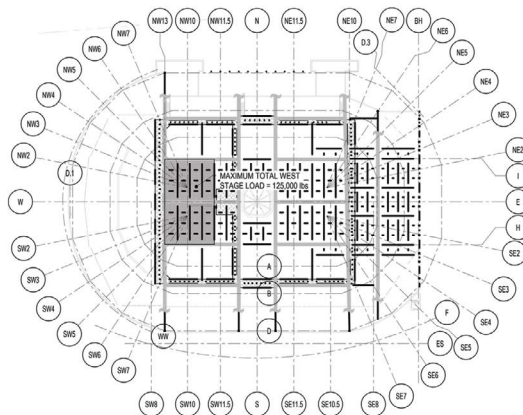
- NOTES:**
1. TOTAL LOAD SHALL BE DISTRIBUTED OVER SHADED REGION. TOTAL LOAD DISTRIBUTED OVER A SMALLER AREA RESULTING IN AN INCREASE IN RIGGING LOAD DENSITY IS NOT ALLOWED.
  2. MAXIMUM CENTER STAGE, WEST STAGE, 34 HOUSE, AND END STAGE LOADS SHALL NOT OCCUR SIMULTANEOUSLY.



**BOTTOM CHORD RIGGING PLAN - END STAGE LOAD PLAN**

1" = 50'-0"

- NOTES:**
1. TOTAL LOAD SHALL BE DISTRIBUTED OVER SHADED REGION. TOTAL LOAD DISTRIBUTED OVER A SMALLER AREA RESULTING IN AN INCREASE IN RIGGING LOAD DENSITY IS NOT ALLOWED.
  2. MAXIMUM CENTER STAGE, WEST STAGE, 34 HOUSE, AND END STAGE LOADS SHALL NOT OCCUR SIMULTANEOUSLY.

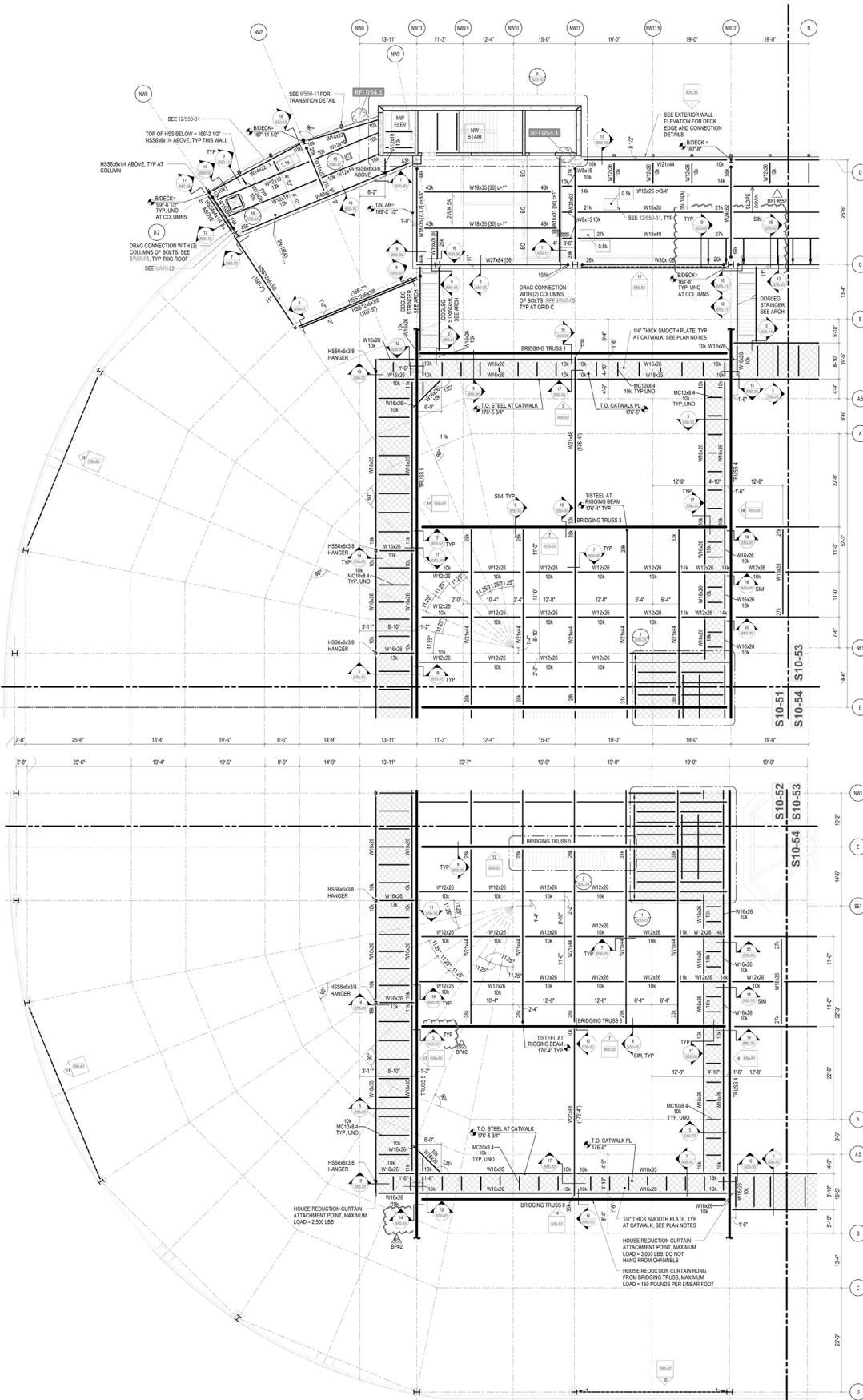


**BOTTOM CHORD RIGGING PLAN - WEST STAGE LOAD PLAN**

1" = 50'-0"

- NOTES:**
1. TOTAL LOAD SHALL BE DISTRIBUTED OVER SHADED REGION. TOTAL LOAD DISTRIBUTED OVER A SMALLER AREA RESULTING IN AN INCREASE IN RIGGING LOAD DENSITY IS NOT ALLOWED.
  2. MAXIMUM CENTER STAGE, WEST STAGE, 34 HOUSE, AND END STAGE LOADS SHALL NOT OCCUR SIMULTANEOUSLY.

# Rigging Bay - Sectors 1 & 2 (West Summit Arena)



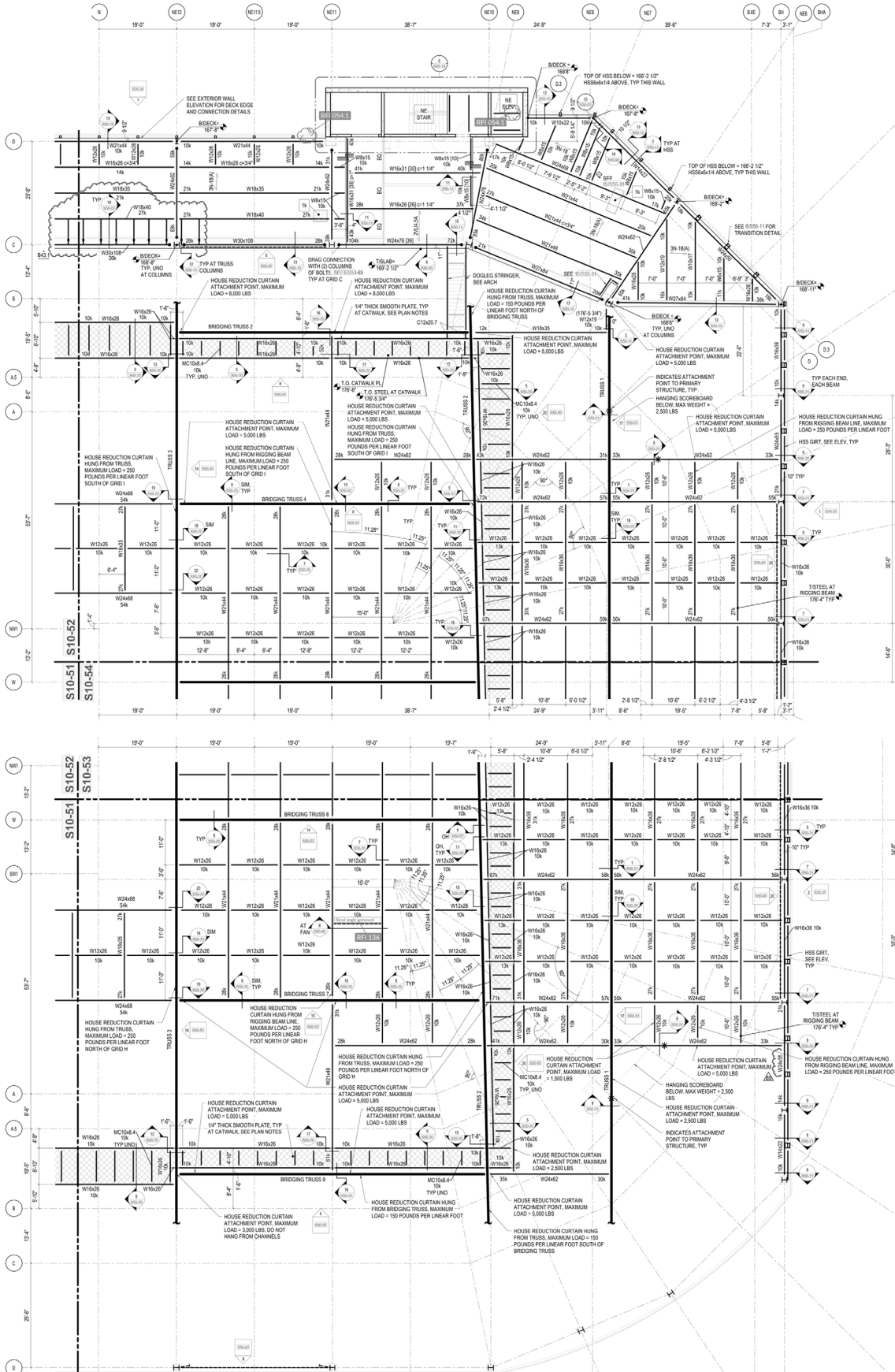
## Sector 2

### CATWALK FRAMING PLAN NOTES:

- A. GRIDS:
    - SEE 1750-17 AND ARCHITECTURAL DRAWINGS FOR DETAILED GRID INFORMATION INCLUDING DIMENSIONS.
    - USGS ELEVATION 3229.00' = PROJECT ELEVATION 100.0'. VERIFY IN FIELD AND WITH CIVIL DRAWINGS PRIOR TO CONSTRUCTION.
  - B. COLUMNS:
    - ALL COLUMNS SHALL BE CENTERED ON GRID LINE INTERSECTIONS UNLESS DIMENSIONED OTHERWISE.
  - C. TRUSSES:
    - TRUSSES INDICATED ON PLAN THUS:   
 TRUSS NAME
  - D. STEEL BEAMS:
    - STEEL BEAMS SHALL BE EQUALLY SPACED BETWEEN GRID LINES UNLESS DIMENSIONED OTHERWISE.
    - WHERE WIDE FLANGE MEMBERS FRAME INTO TRUSSES, SEE DETAILS FOR BEAM WORKPOINTS TO DETERMINE TOP OF STEEL ELEVATIONS.
    - STEEL BEAMS INDICATED ON PLAN THUS:
- STEEL BEAM:  $\frac{\text{NUMBER OF SHEAR STUDS, WHERE SHOWN}}{\text{XXX}} \text{ BEAM SIZE } \text{XXX} \times \text{XXX}$
- ULTIMATE RAIL REACTION USING LRFD LOAD COMBINATIONS (KIPS)      EL. OF T/STEEL, T/STEEL + B/DECK UNO ON PLAN
- MOMENT CONNECTION, SEE 14550-50  
 AXIAL DRAG CONNECTION, SEE DETAILS CUT ON PLAN  
 FULL-HEIGHT SHEAR CONNECTION, SEE 17550-50
- E. CATWALK:
    - EXTENT OF CATWALK FRAMING INDICATED ON PLAN THUS: [ ]
    - CATWALK PLATE SHALL BE 1/4" THICK SMOOTH PLATE.
  - F. RIGGING:
    - SEE DESIGN CRITERIA FOR RIGGING LOADS USED IN DESIGN.
  - G. EXTERIOR WALL FRAMING:
    - SEE ARCHITECTURAL DRAWINGS FOR EXTERIOR WALL DETAILS AND SECTIONS.

## Sector 1

# Rigging Bay - Sectors 3 & 4 (East Summit Arena)



## Sector 3

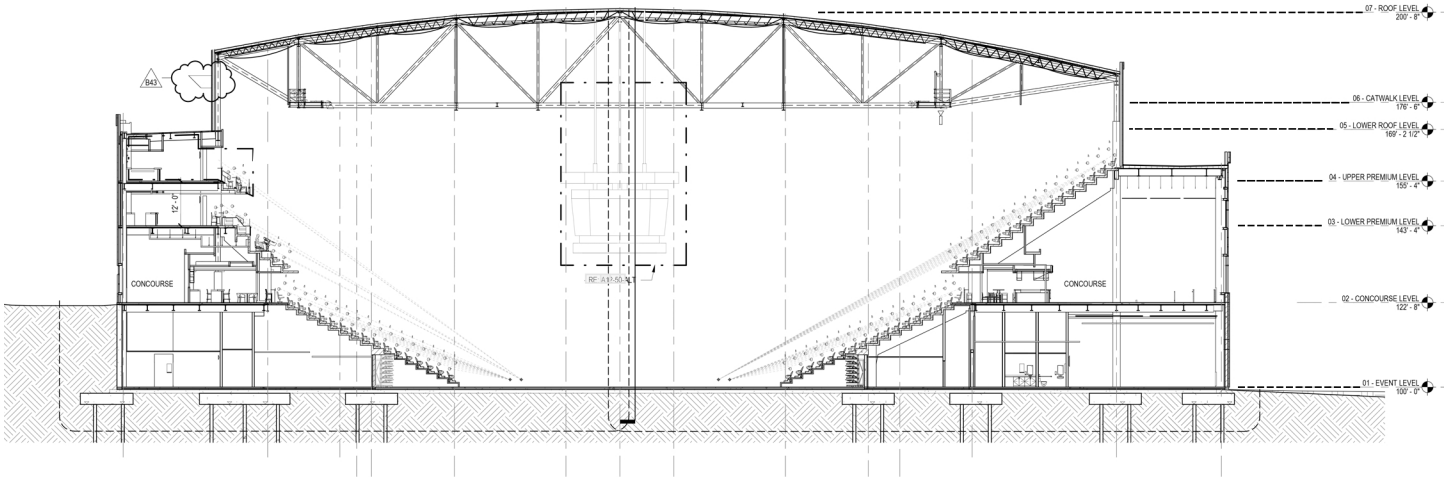
- CATWALK FRAMING PLAN NOTES:**
- GRIDS:**
    - SEE STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR DETAILED GRID INFORMATION INCLUDING DIMENSIONS.
    - USGS ELEVATION 3229.00' + PROJECT ELEVATION 100' VERIFY IN FIELD AND WITH CIVIL DRAWINGS PRIOR TO CONSTRUCTION.
  - COLUMNS:**
    - ALL COLUMNS SHALL BE CENTERED ON GRID LINE INTERSECTIONS UNLESS DIMENSIONED OTHERWISE.
  - TRUSSES:**
    - TRUSSES INDICATED ON PLAN THUS:
 

TRUSS NAME
  - STEEL BEAMS:**
    - STEEL BEAMS SHALL BE EQUALLY SPACED BETWEEN GRID LINES UNLESS DIMENSIONED OTHERWISE.
    - WHERE WIDE FLANGE MEMBERS FRAME INTO TRUSSES SEE DETAILS FOR BEAM WORKPOINTS TO DETERMINE TOP OF STEEL ELEVATIONS.
    - STEEL BEAMS INDICATED ON PLAN THUS:
 

STEEL BEAM	BEAM SIZE	XXX' X XX' X XX'	NUMBER OF SHEAR STUDS WHERE SHOWN CAMBER, WHERE SHOWN
- MOMENT CONNECTION, SEE 148550-00  
 AXIAL DRAG CONNECTION, SEE DETAILS CUT ON PLAN  
 FULL HEIGHT SHAR CONNECTION, SEE 178550-94
- CATWALK:**
    - EXTENT OF CATWALK FRAMING INDICATED ON PLAN THUS:
    - CATWALK PLATE SHALL BE 1/4" THICK SMOOTH PLATE.
  - RIGGING:**
    - SEE DESIGN CRITERIA FOR RIGGING LOADS USED IN DESIGN.
  - EXTERIOR WALL FRAMING:**
    - SEE ARCHITECTURAL DRAWINGS FOR EXTERIOR WALL DETAILS AND SECTIONS.

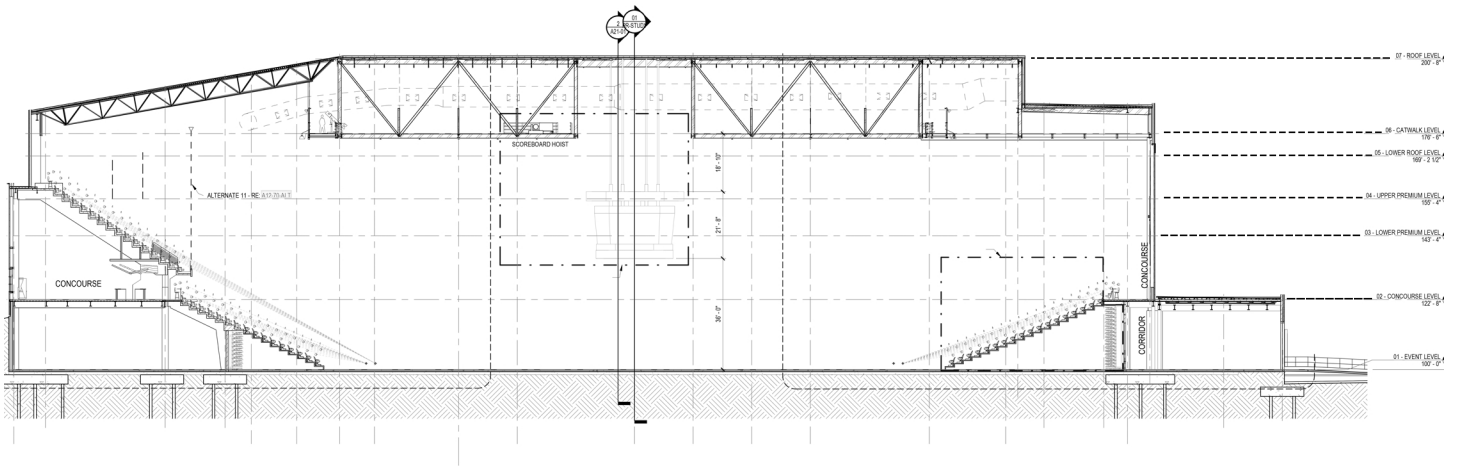
## Sector 4

# Summit Arena Building Sections



TRANSVERSE SECTION

1/4"



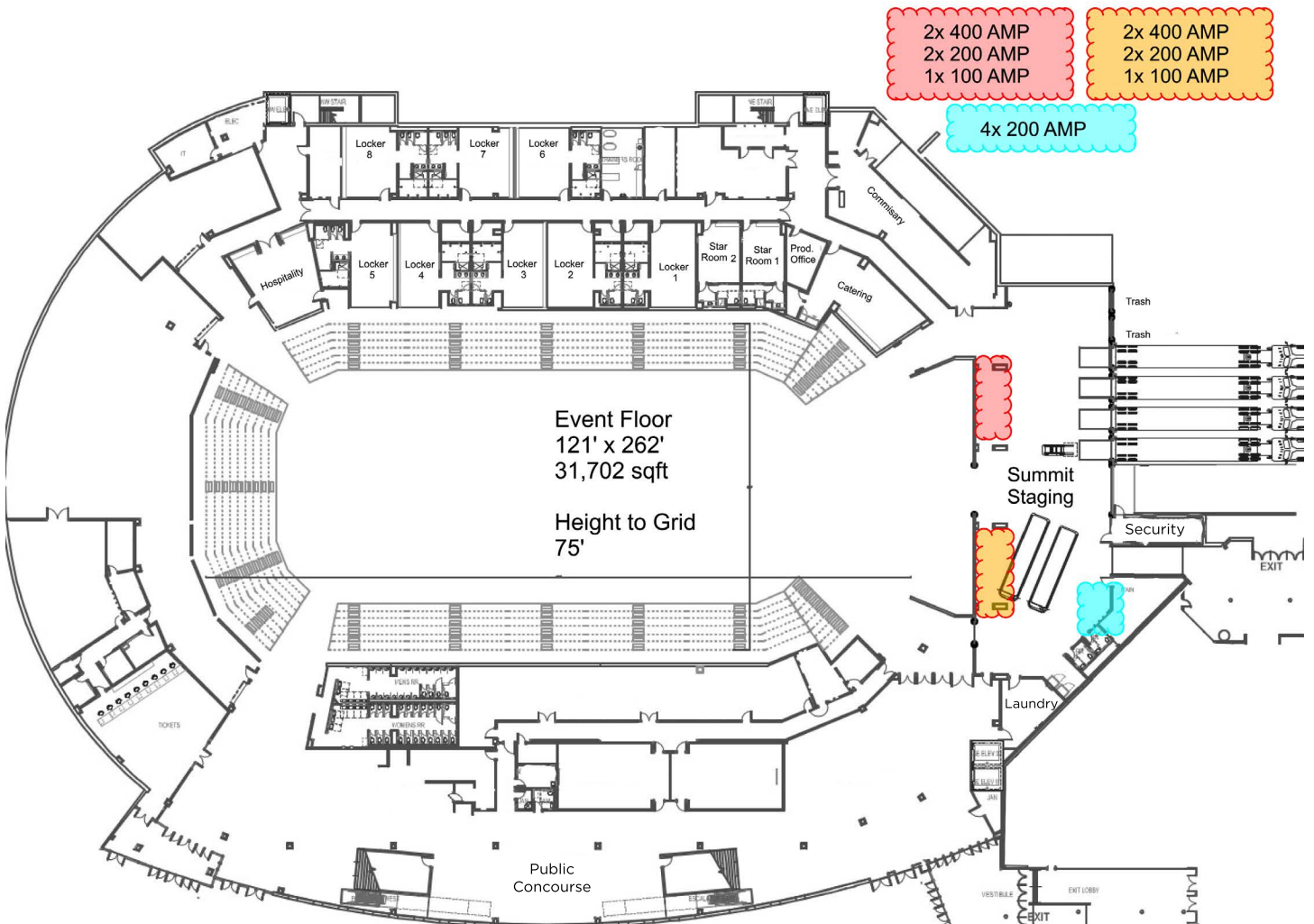
LONGITUDINAL SECTION

5/16" = 1'-0"



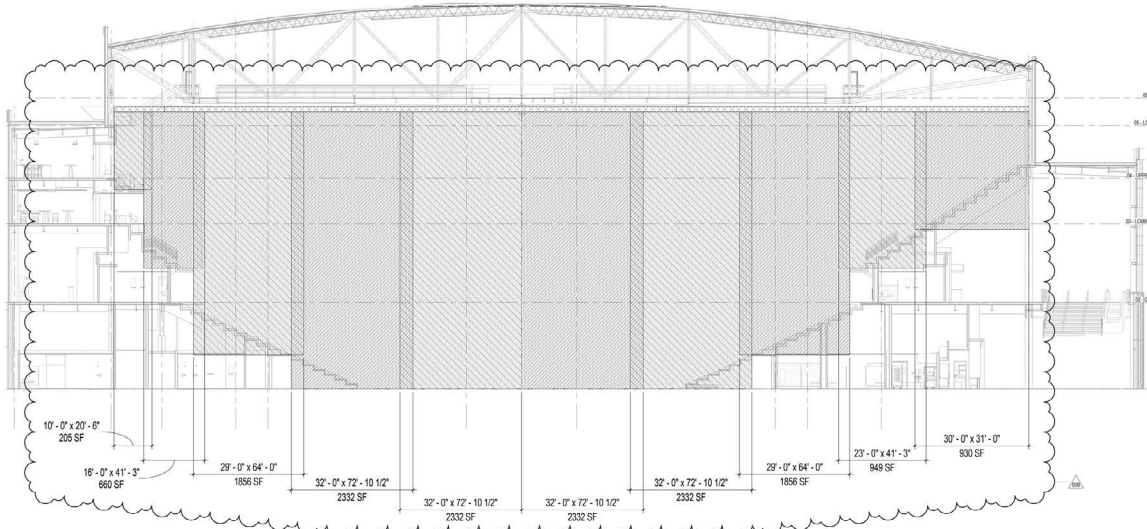
# Summit Arena Power

Show power is located within the staging areas, and consists of 4 - 400 AMP, 4 - 200 AMP, 2 - 100 AMP bare tail disconnects, split between stage right and stage left. There are an additional 4 - 200 AMP bare tail disconnects located in the South East corner of staging for broadcast trucks. House does require the use of a licensed electrician for connects and disconnects. Shore power for buses and trucks can be found along the North wall of the Summit Arena's loading dock area. There are 6 - 50AMP plugs down the length of the retaining wall.

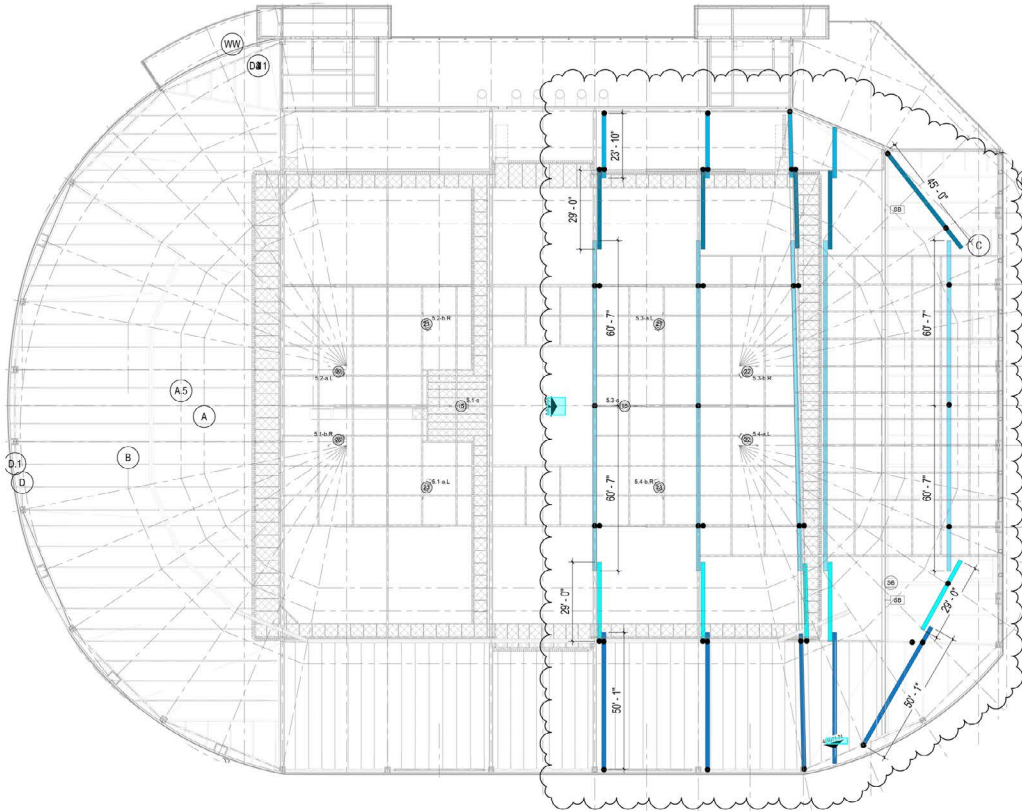


# Half House Curtain Plans and Elevation

The Summit Arena is equipped with both half house and house reduction curtains. The half house curtains are used to reduce the floor and seating space visible from one end of the arena to the other. This system is composed of curtains hung off of several lengths of truss, flown with  $\frac{1}{2}$  ton CM Lodestar motors, and can be moved up stage and down stage in the arena for different setups (end house,  $\frac{3}{4}$  house,  $\frac{1}{2}$  house). The house reduction curtains block off the upper bowl seating.



① HALF HOUSE REDUCTION CURTAINS - EAST ELEVATION  
3/27 - 1/0'



① HALF HOUSE REDUCTION CURTAINS - OVERALL RCP  
1/18 - 1/0'

# THE MONUMENT

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