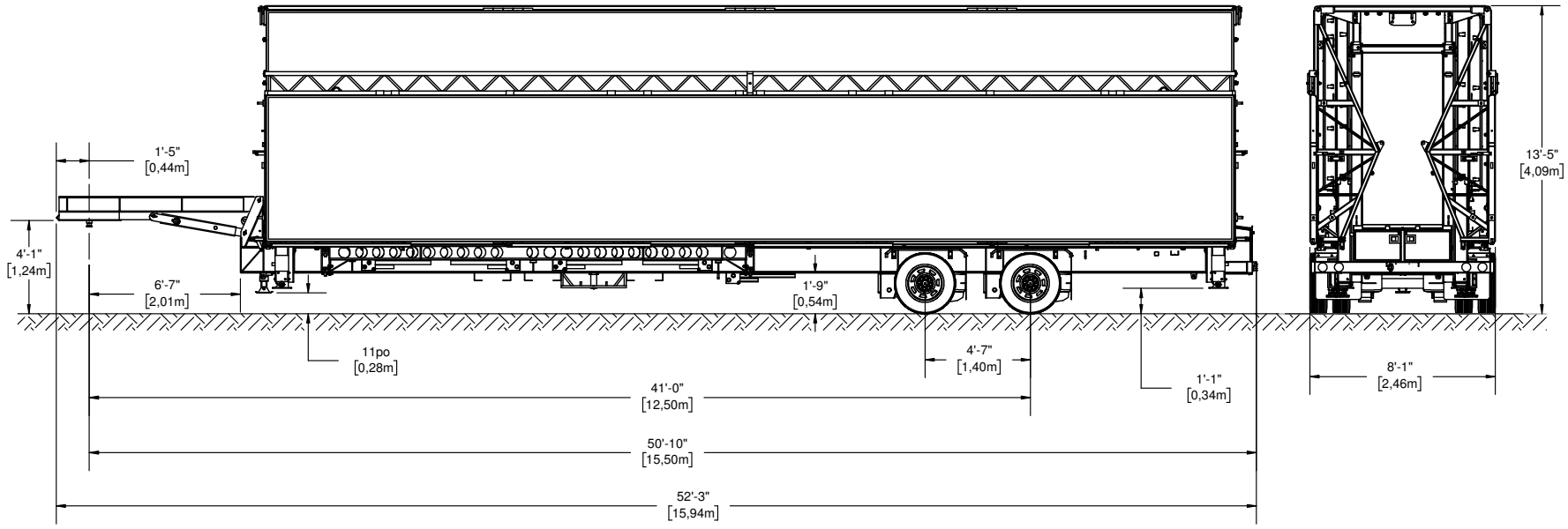
STAGE LINE®

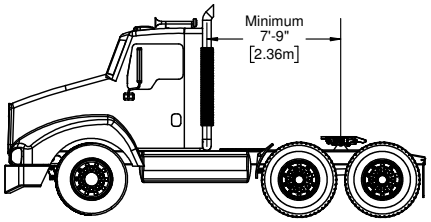
SL320

TECHNICAL DRAWINGS

SL320

MASS & DIMENSIONS



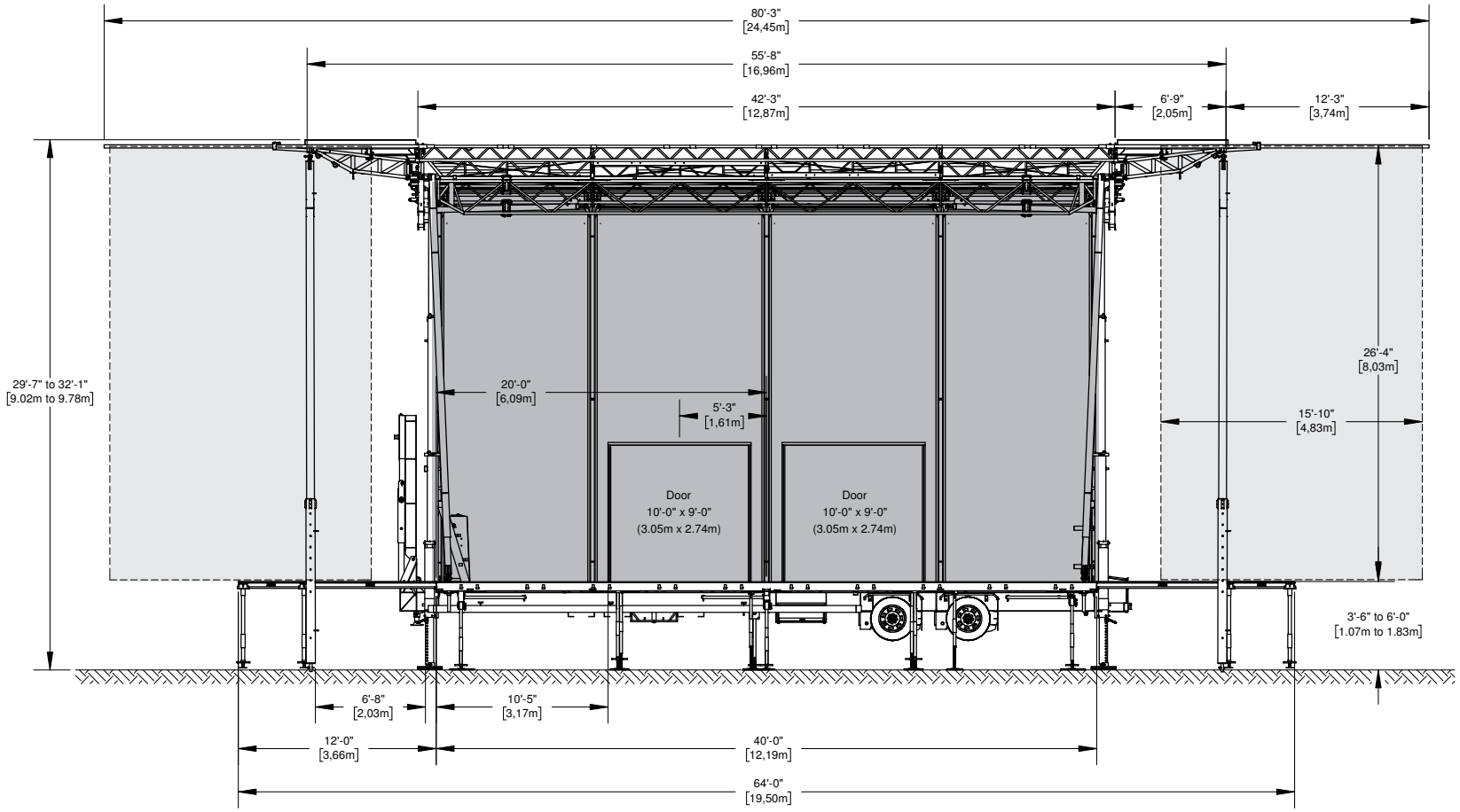


Mass SL320	Unladen		Standard Equipment		Maximum Capacity	
	Lbs	Kg	Lbs	Kg	Lbs	Kg
Total Mass	38890	17640	44864	20350	50000	22680
Mass on Axles	28418	12890	32805	14880	34000	15422
Mass on Hitch	10472	4750	12059	5470	-	-

Drawings may show stage equipped with optional accessories. May be sold separately.

SL320

FRONT VIEW



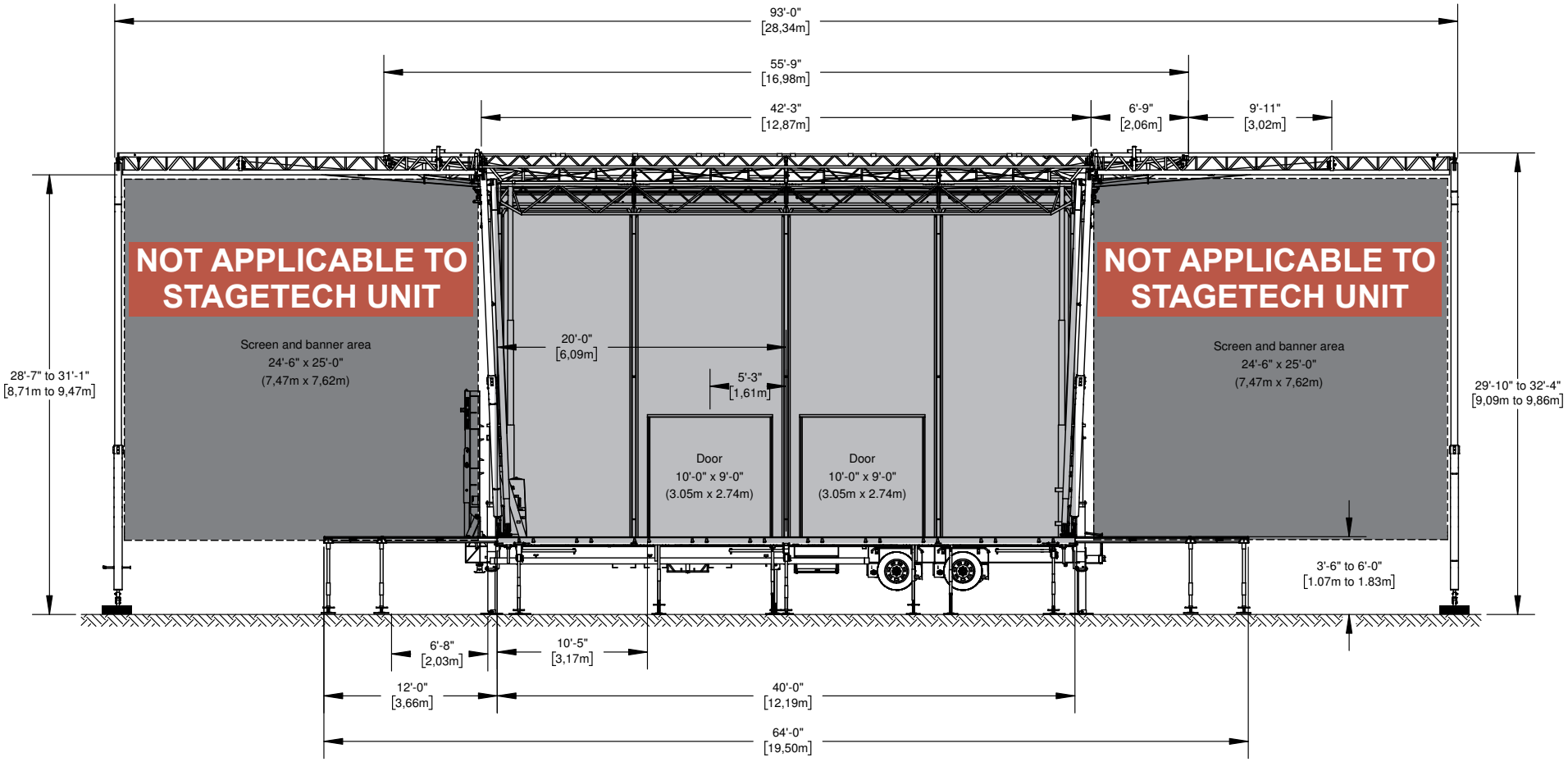
WINDWALL

BANNER (For dimensions, please refer to Banner Book)

Drawings may show stage equipped with optional accessories. May be sold separately.

SL320

FRONT VIEW WITH SCREEN SUPPORT

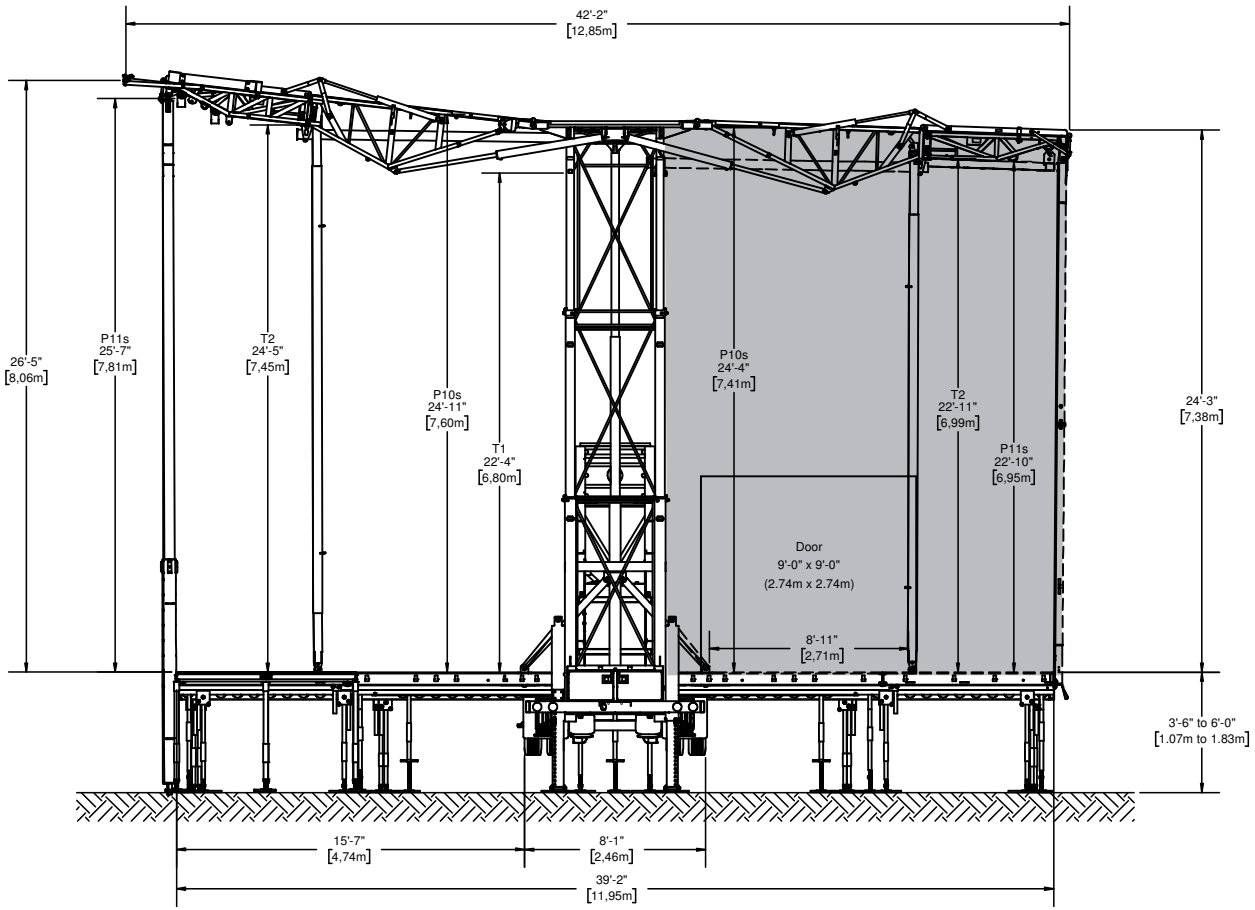


SCREEN AND BANNER AREA, REFER TO RIGGING PLAN FOR DETAILS AND LIMITATIONS.

WINDWALL

NOTE: Screen support ballasts were removed to lighten the view.

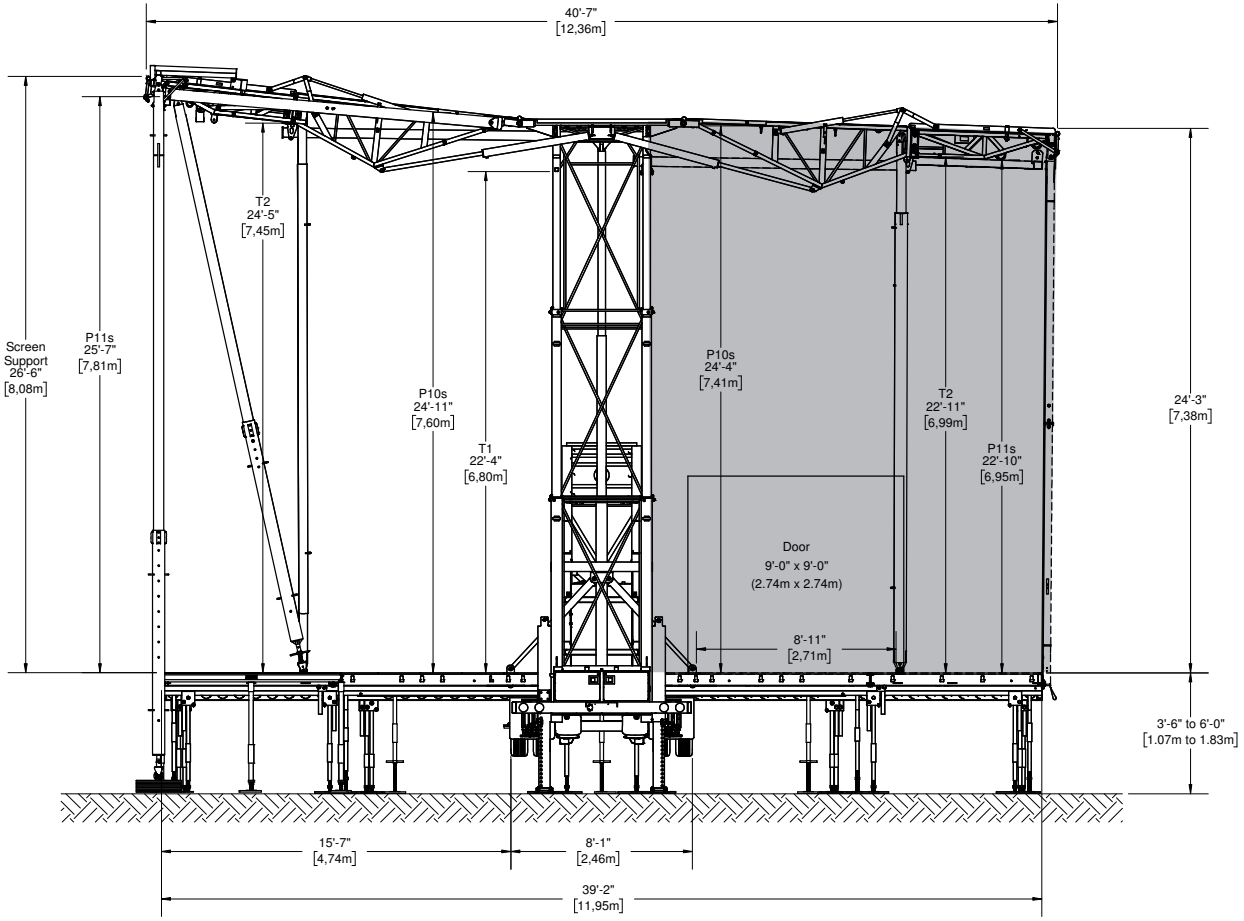
Drawings may show stage equipped with optional accessories. May be sold separately.



WINDWALL

Drawings may show stage equipped with optional accessories. May be sold separately.

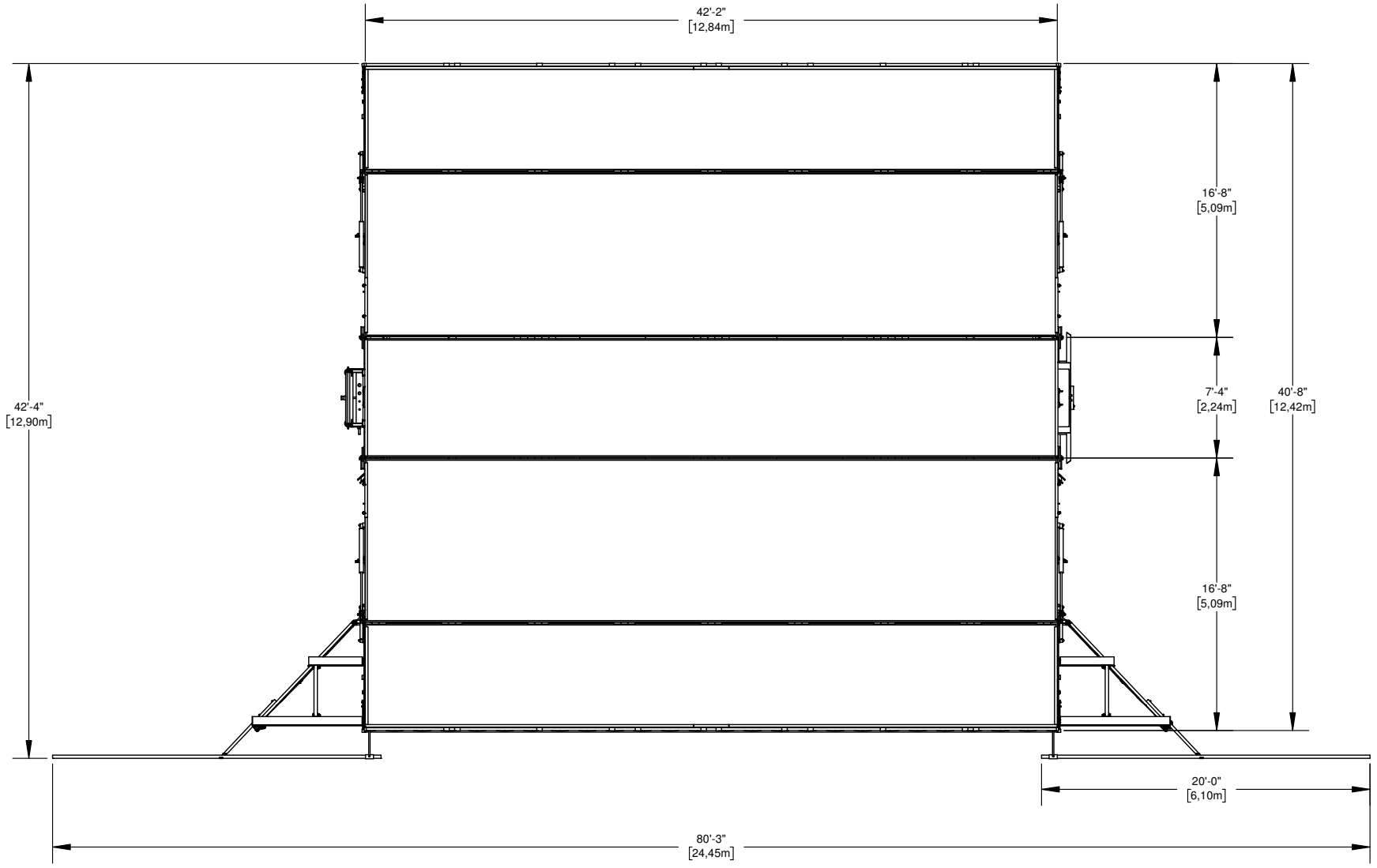
SIDE VIEW WITH SCREEN SUPPORT



WINDWALL

NOTE: Screen support ballasts were removed to lighten the view.

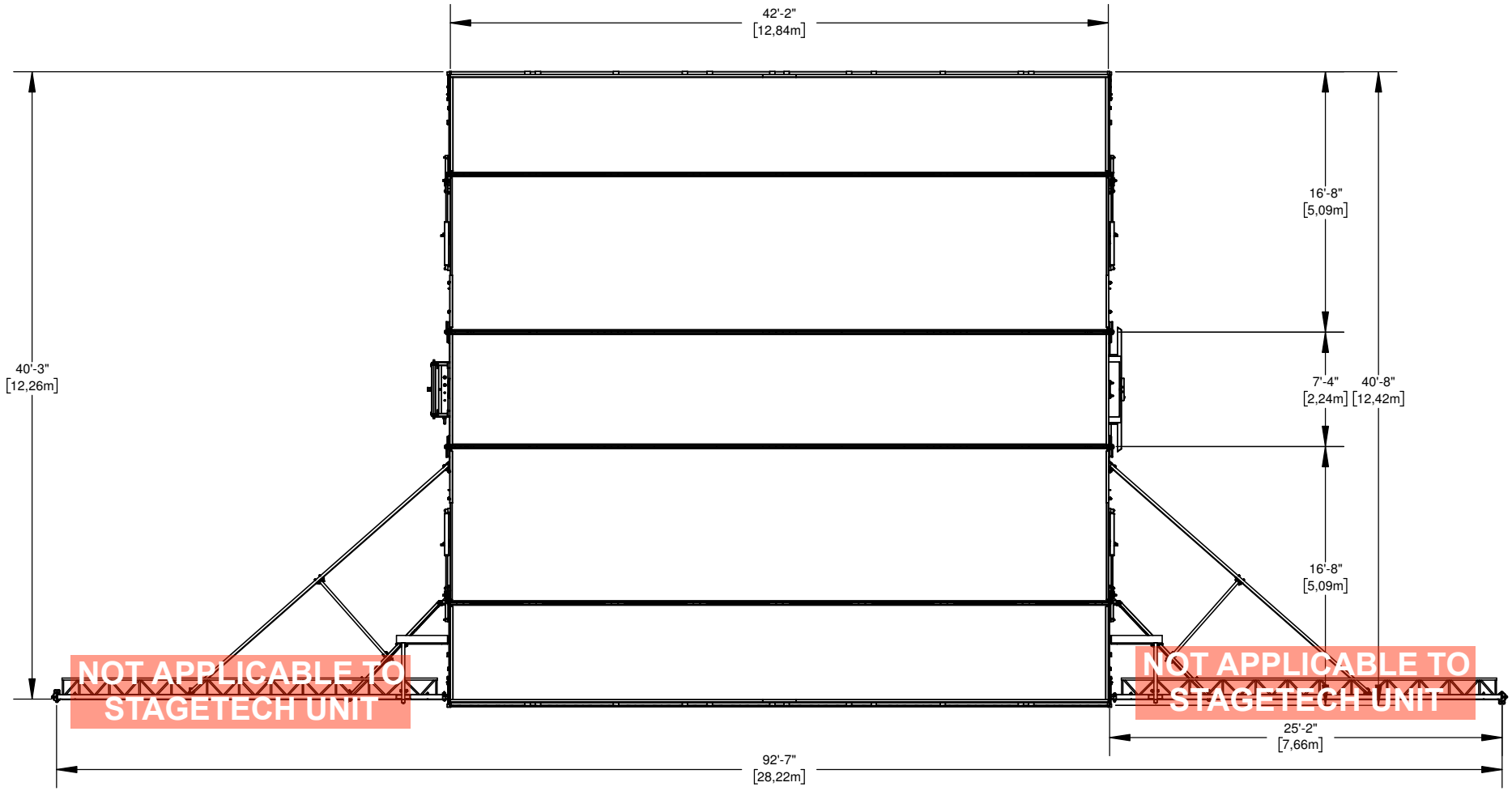
Drawings may show stage equipped with optional accessories. May be sold separately.



DOWNSTAGE

Drawings may show stage equipped with optional accessories. May be sold separately.

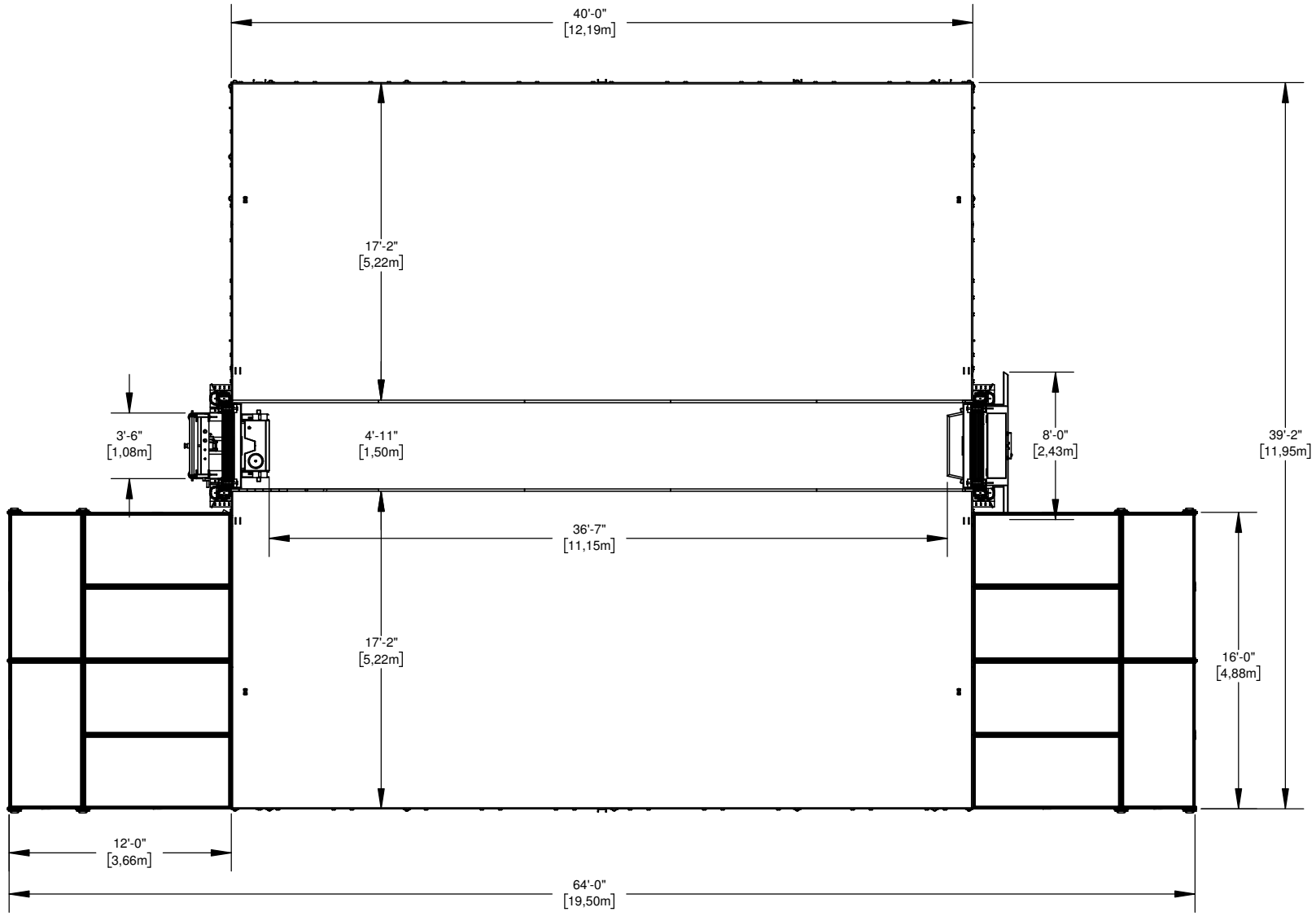
ROOF VIEW WITH SCREEN SUPPORT



DOWNSTAGE

NOTE: Screen support ballasts were removed to lighten the view.

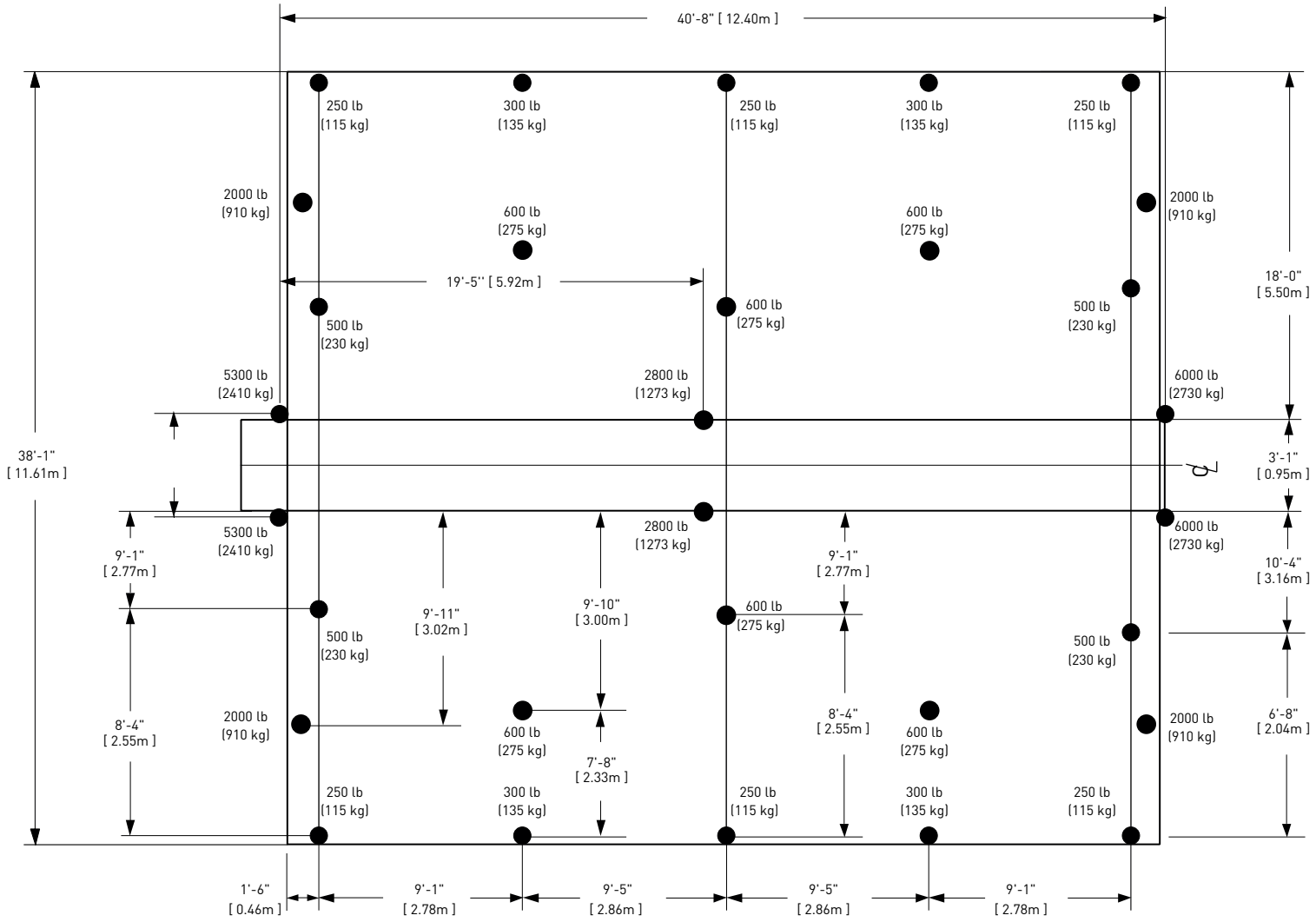
Drawings may show stage equipped with optional accessories. May be sold separately.



DOWNSTAGE

CAPACITY: 100lbs/ft² (490kg./m²)

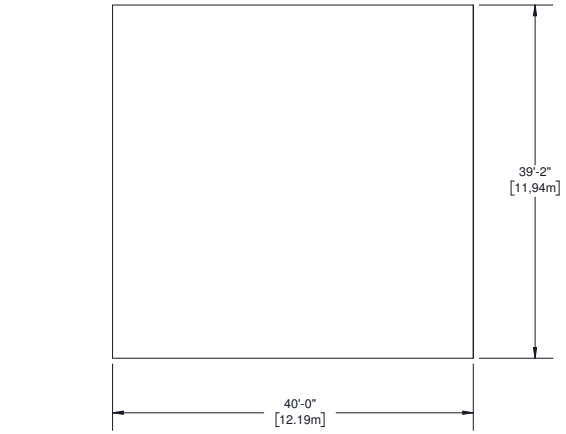
Drawings may show stage equipped with optional accessories. May be sold separately.

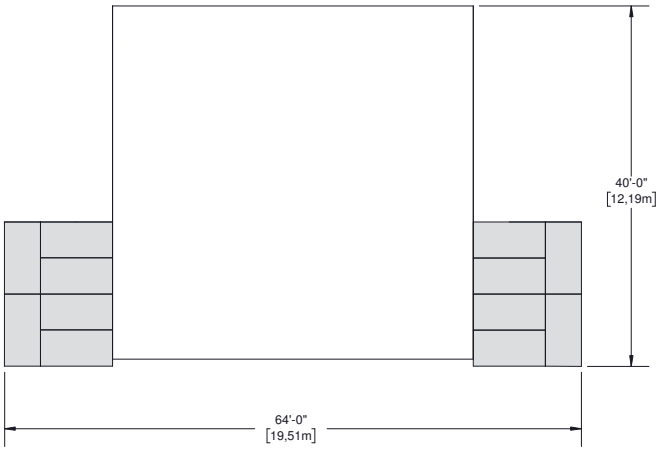


● FLOOR STABILIZERS, EXTENSIONS AND LEVELLING JACKS

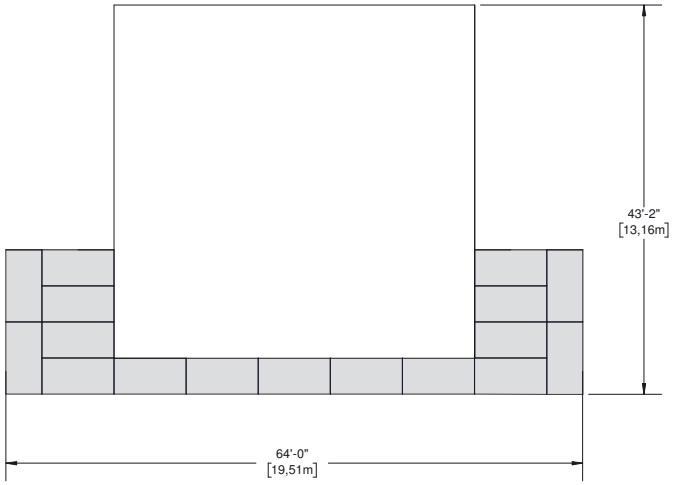
Drawings may show stage equipped with optional accessories. May be sold separately.

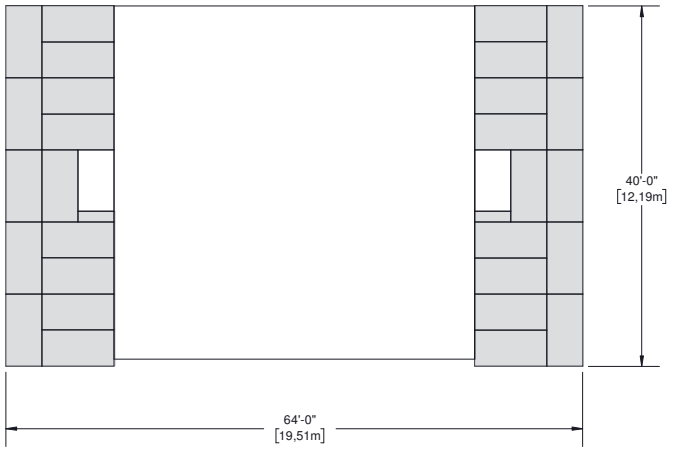
STANDARD CONFIGURATIONS





EXTENDED CONFIGURATIONS





PLATFORM

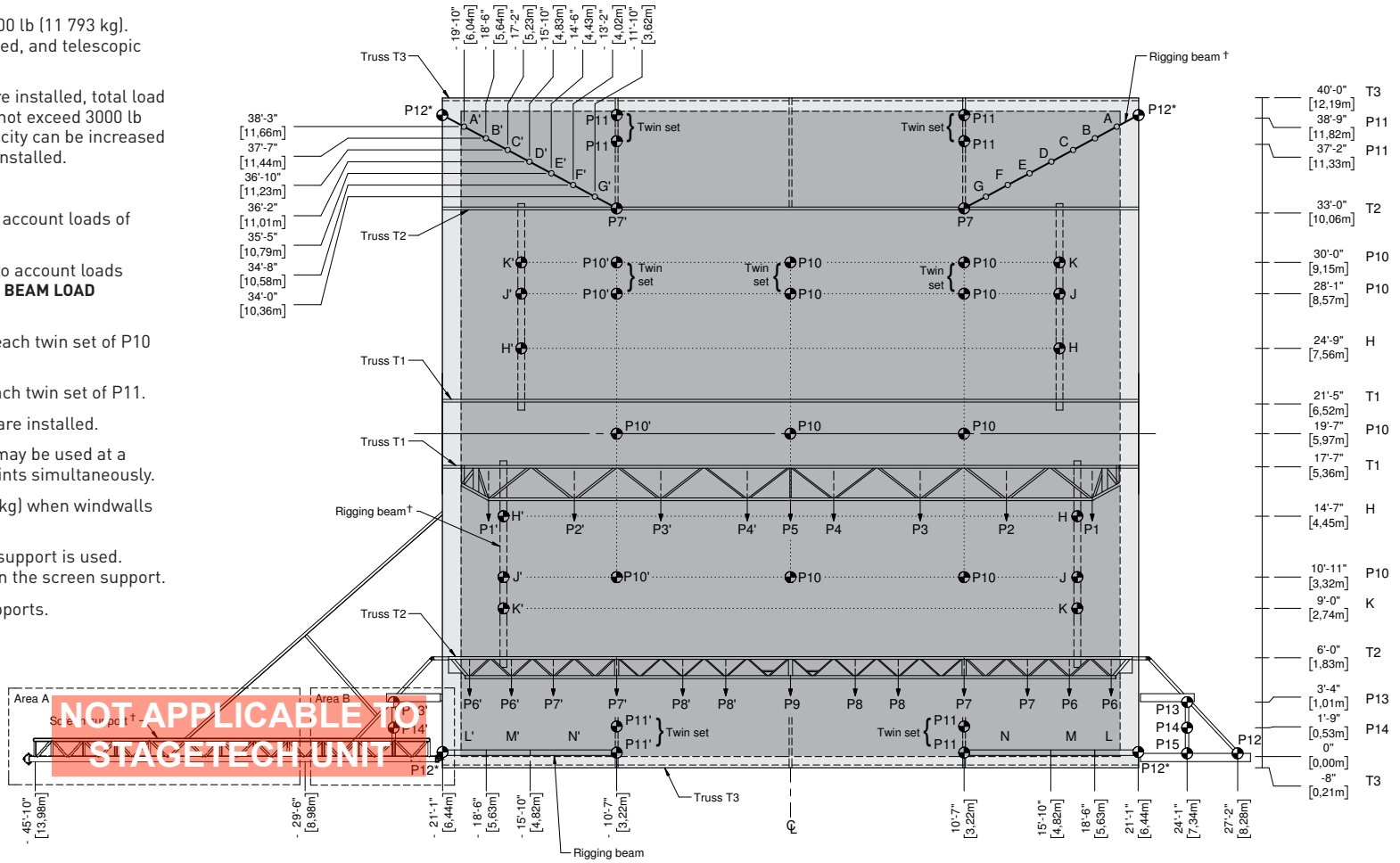
Drawings may show stage equipped with optional accessories. May be sold separately.

RIGGING RESTRICTIONS:

- MAXIMUM LOAD BEARING CAPACITY: 26 000 lb (11 793 kg). All corner posts must be installed and pinned, and telescopic columns pinned and secured.
- Once corner posts and sound wing posts are installed, total load of P12s to P15 and zones L, M and N must not exceed 3000 lb (1360 kg) when banners are installed. Capacity can be increased to 4000 lb (1814 kg) when banners are not installed.
- Do not rig on T3 trusses.
- Capacity of downstage P12* must take into account loads of points P13 to P15 and zones L, M and N.
- Capacity of T1 and T2 trusses must take into account loads on rigging beams. (Please refer to **RIGGING BEAM LOAD DISTRIBUTION RATIO** table on next page)
- Do not load more than 1000 lb (454 kg) on each twin set of P10 in upstage roof panel.
- Do not load more than 500 lb (227 kg) on each twin set of P11.
- Do not load P11s when upstage windwalls are installed.
- On any given beam, only one rigging point may be used at a time, i.e. it is not allowed to rig multiple points simultaneously.
- Upstage P12*s cannot exceed 1000 lb (454 kg) when windwalls are installed.
- Do not rig on downstage P12 when screen support is used. Refer to page 14 for details about rigging on the screen support.
- Banners may be installed to the screen supports.

LIFTING RESTRICTIONS

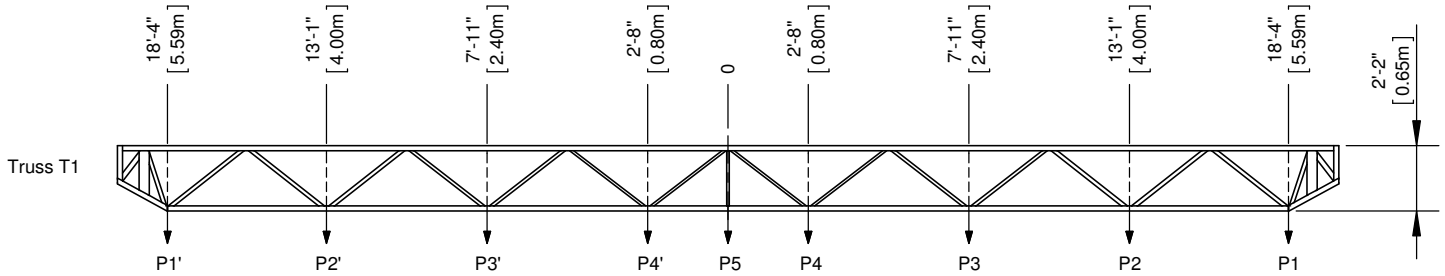
- MAXIMUM LIFTING CAPACITY IS 2000 lb (907 kg).
- Maximum asymmetric load difference between front and rear of stage is 1200 lb (544 kg). This includes loads on T1 trusses.
- Load must be symmetrically distributed between right and left side of stage.



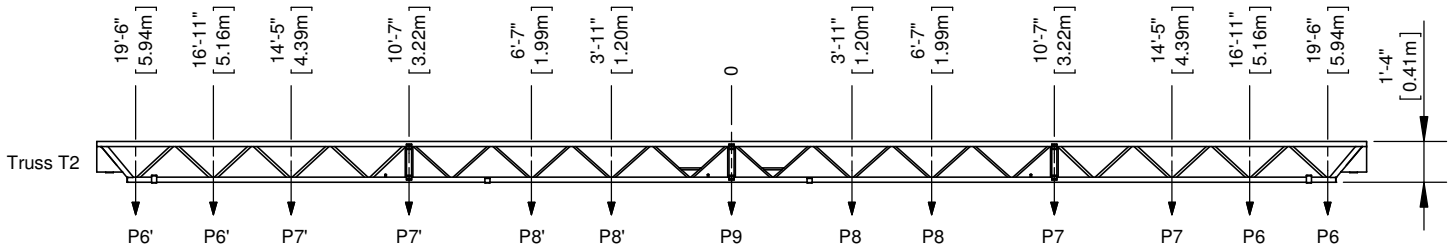
NOTES:

Outside square tube rigging bar for lower chord of all trusses is 2'' (5 cm).

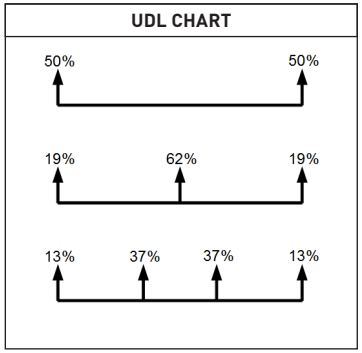
† Optional items, see stage specifications.



Truss T1**: $\frac{\text{Load } \mathbf{P1}}{\text{Capacity } \mathbf{P1}} + \frac{\text{Load } \mathbf{P2}}{\text{Capacity } \mathbf{P2}} + \frac{\text{Load } \mathbf{P3}}{\text{Capacity } \mathbf{P3}} + \frac{\text{Load } \mathbf{P4}}{\text{Capacity } \mathbf{P4}} + \frac{\text{Load } \mathbf{P5}}{\text{Capacity } \mathbf{P5}} \leq 1.00$



Truss T2**: $\frac{\text{Load } \mathbf{P6}}{\text{Capacity } \mathbf{P6}} + \frac{\text{Load } \mathbf{P7}}{\text{Capacity } \mathbf{P7}} + \frac{\text{Load } \mathbf{P8}}{\text{Capacity } \mathbf{P8}} + \frac{\text{Load } \mathbf{P9}}{\text{Capacity } \mathbf{P9}} \leq 1.00$



RIGGING BEAM LOAD DISTRIBUTION RATIO (%) ***			
Point No.	P12 * / T2	Point No.	T1 / T2
A†	88 / 12	H†	71 / 29
B†	75 / 25	J†	42 / 58
C†	63 / 37	K†	26 / 74
D†	50 / 50		
E†	37 / 63		
F†	25 / 75		
G†	12 / 88		

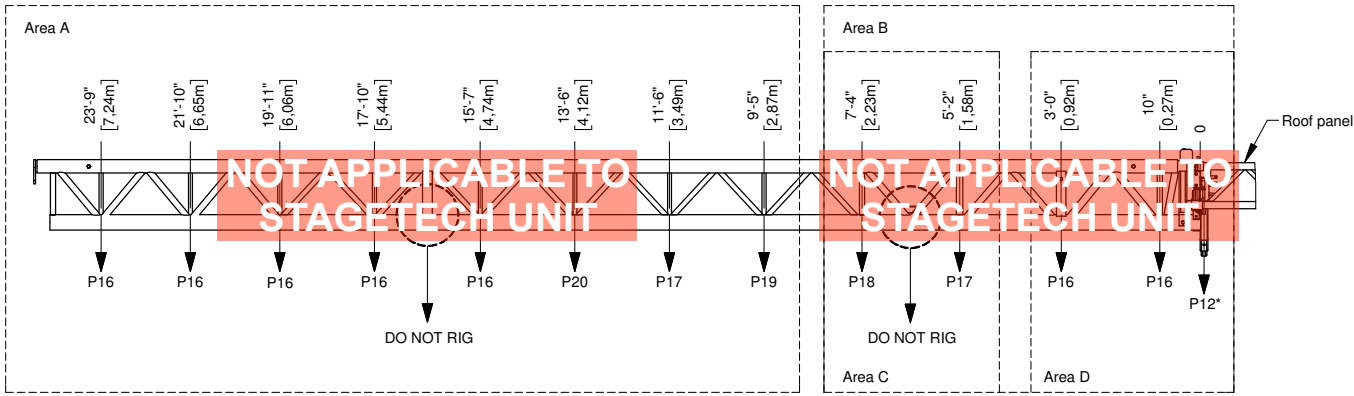
MAXIMUM LOAD CAPACITY											
Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg
P1, P2	1500	680	P11	500	227	P20†	2500	1134	G†	750	340
P3	1200	544	P12, P12 *	2000	907	A†	1700	770	H†	1500	680
P4, P5	700	318	P13, P14, P15	4000	1815	B†	2000	907	J†	1700	770
P6	1000	454	P16†	3000	1361	C†	1700	770	K†	1000	454
P7	650	295	P17†	2000	907	D†	1300	590	Zone L	2000	907
P8, P9	400	182	P18†	1000	454	E†	1000	454	Zone M	1000	454
P10	1000	454	P19†	1500	680	F†	850	385	Zone N	500	227

† *Optional items, see stage specifications.*

** *Valid for symmetric loads only. In other cases, contact Stageline for assistance.*

*** *Weight distribution percentages of rigging points on their supporting truss or rigging point (ex: loading 1700 lbs (770 kg) on point A will distribute 88% of that weight on P12* and 12% on T2).*

Drawings may show stage equipped with optional accessories. May be sold separately.



RIGGING RESTRICTIONS:

- Maximum allowable load per area:
  - Area A is 3000lb (1361kg)
  - Area B is 3000lb (1361kg)
  - Area C is 2000lb (907kg)
  - Area D is 3000lb (1361kg)
- When rigging a screen, minimum distance between the points:
  - 2 points : 8'0'' (2.44m)
  - 3 points : 6'0'' (1.80m)
- No rigging is allowed between the screen's rigging points.
- Leave a minimum of 6' (1.80m) between any rigging points located in area A.
- Do not apply tension to the lateral banners.
- Ballast weights are mandatory for utilization of screen support system, refer to User's Manuel for details and specifications.
- Areas B and D must take into account loads from points P12*, P13 and P14.

MAXIMUM LOAD CAPACITY											
Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg	Point No.	Lbs	Kg
P1, P2	1500	680	P11	500	227	P20†	2500	1134	G†	750	340
P3	1200	544	P12, P12 *	2000	907	A†	1700	770	H†	1500	680
P4, P5	700	318	P13, P14, P15	4000	1815	B†	2000	907	J†	1700	770
P6	1000	454	P16†	3000	1361	C†	1700	770	K†	1000	454
P7	650	295	P17†	2000	907	D†	1300	590	Zone L	2000	907
P8, P9	400	182	P18†	1000	454	E†	1000	454	Zone M	1000	454
P10	1000	454	P19†	1500	680	F†	850	385	Zone N	500	227

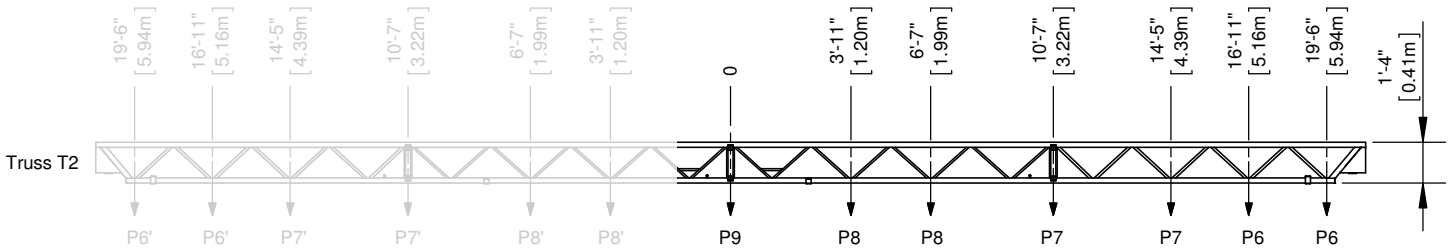
† *Optional items, see stage specifications.*

Drawings may show stage equipped with optional accessories. May be sold separately.

WHEN CALCULATING THE LOAD ON A SL320 TRUSS, USE FOLLOWING METHOD.

Each truss in the roof must be visualized as 2 trusses put together that share a center point.

Example: T2 on a SL320.
Points from left to right are P6', P7', P8', P9, P8, P7, P6. We will only verify loads on 1 side of the truss, Meaning P6 thru P9.



CALCULATION EXAMPLE #1:

1 lighting truss on 2 motors, total uniformly distributed weight of the truss is 1500lbs.
Each motor will be hung from the P6 points.

- 0.50 x 1500 (50% of weight, see UDL chart) / 1000 (the capacity of the P6 on the T2 truss) = 0.75.
- 0.75 = 75 %, as 1.00 would equal 100 %.

So the T2 truss is at 75 % of its total capacity.

CALCULATION EXAMPLE #2:

1 lighting truss on 3 motors, total uniformly distributed weight of the truss is 1500lbs.
The motors will be hung from P6', P9, P6.

- **P6**
  0.19 x 1500 (19% of weight, see UDL chart) / 1000 (capacity P6) = 0.29, so this one point will use 29 % of the truss capacity.
- **P9**
  0.62 x 1500 (62% of weight, see UDL chart) / 400 (capacity P9) = 2.33, 233 % of truss capacity.

Now that we have the loads for both points, we add them together to determine the total load on the truss.

0.29 + 2.33 = 2.62
So the T2 truss is at 262 % of its total capacity.

CALCULATION EXAMPLE #3:

1 lighting truss on 2 motors, total uniformly distributed weight of the truss is 1200lbs. The motors will be hung from L' and L on the downstage rigging beam. Also, a 3000lbs line array will be rigged at each P15 point.

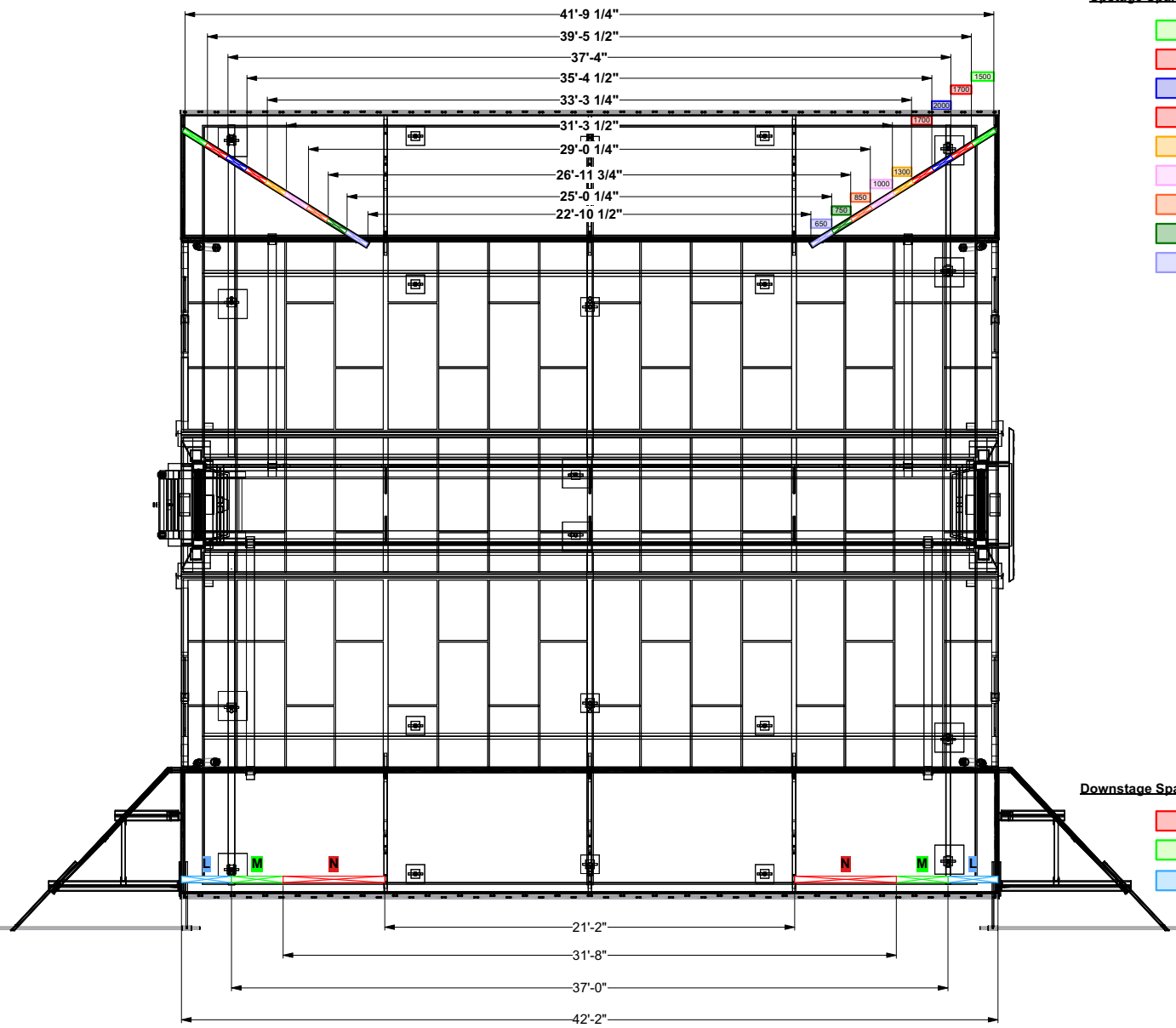
- **L**
  0.50 x 1200 (50% of truss weight on right side) = 600lbs.
  0.75 x 600 (75% of weight on stage right P12*) = 450lbs.
  0.25 x 600 (25% of weight on stage right P11) = 150lbs.
- **P15**
  0.50 x 3000 (50% of weight on stage right P12*) = 1500lbs

Now that we have the loads for both points, we add them together to determine total load on P12*.

(450 + 1500)/2000 (P12* capacity) = 0.98
So the P12* point is at 98 % of its total capacity.

STAGE-TECH REQUIRES A DETAILED RIGGING PLOT OF ALL ITEMS YOU WANT FLOWN FROM THIS UNIT A MINIMUM OF 14 DAYS PRIOR TO LOAD IN. THE NEXT SEVERAL PAGES IS INTENDED AS GUIDANCE OF WHAT IS REQUIRED FOR THAT RIGGING PLOT TO BE REVIEWED AND APPROVED>

UPSTAGE AND DOWNSTAGE SPANNER BEAM DIMENSIONS AND CAPACITIES



Upstage Spanner Weight Capacities

- 1500 #
- 1700 #
- 2000 #
- 1700 #
- 1300 #
- 1000 #
- 850 #
- 750 #
- 650 #

Downstage Spanner Weight Capacities

- 500 #
- 1000#
- 2000 #

STAGE TECH
PRODUCTION SIMPLIFIED

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web: www.stage-tech.com

NOTES:

SL320 RIGGING SAMPLE
MAY 2023

REVISIONS:	--/--/--
--/--/--	--/--/--
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--/--/--	--/--/--

JOB NUMBER: **_***

INSTALL DATE: --/--/--

DRAWING DESCRIPTION: SL320 Spanners

FILE NAME: MAY 2023 RIGGING - SL320.vwx

CREATED: 5/1/2023

LAST REVISION: --/--/--

SCALE: 1:30
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STAMP:

SHEET: Sht-7 OF 13

SHEET SIZE: US Arch D

CREATED BY: Hannah Buckhoff

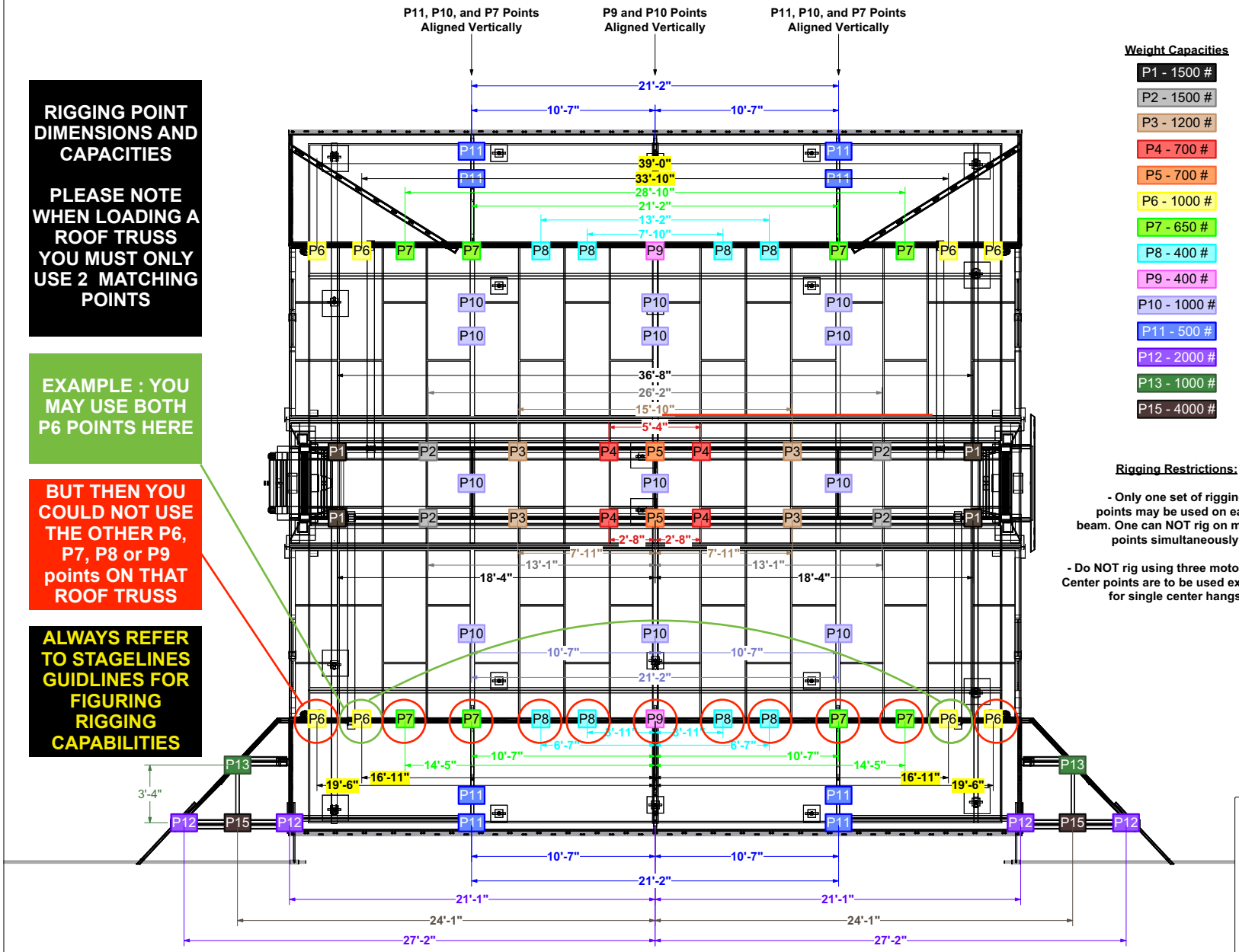
RIGGING POINT DIMENSIONS AND CAPACITIES

PLEASE NOTE WHEN LOADING A ROOF TRUSS YOU MUST ONLY USE 2 MATCHING POINTS

EXAMPLE : YOU MAY USE BOTH P6 POINTS HERE

BUT THEN YOU COULD NOT USE THE OTHER P6, P7, P8 or P9 points ON THAT ROOF TRUSS

ALWAYS REFER TO STAGELINES GUIDLINES FOR FIGURING RIGGING CAPABILITIES



Weight Capacities

- P1 - 1500 #
- P2 - 1500 #
- P3 - 1200 #
- P4 - 700 #
- P5 - 700 #
- P6 - 1000 #
- P7 - 650 #
- P8 - 400 #
- P9 - 400 #
- P10 - 1000 #
- P11 - 500 #
- P12 - 2000 #
- P13 - 1000 #
- P15 - 4000 #

Rigging Restrictions:

- Only one set of rigging points may be used on each beam. One can NOT rig on multiple points simultaneously.

- Do NOT rig using three motor points. Center points are to be used exclusively for single center hangs.

STAGE TECH
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web: www.stage-tech.com

NOTES:

SL320 RIGGING SAMPLE
MAY 2023

REVISIONS:	--/--/--
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JOB NUMBER: **-***

INSTALL DATE: --/--/--

DRAWING DESCRIPTION: SL320 Rigging Points

FILE NAME: MAY 2023 RIGGING - SL320.vwx

CREATED: 5/1/2023

LAST REVISION: --/--/--

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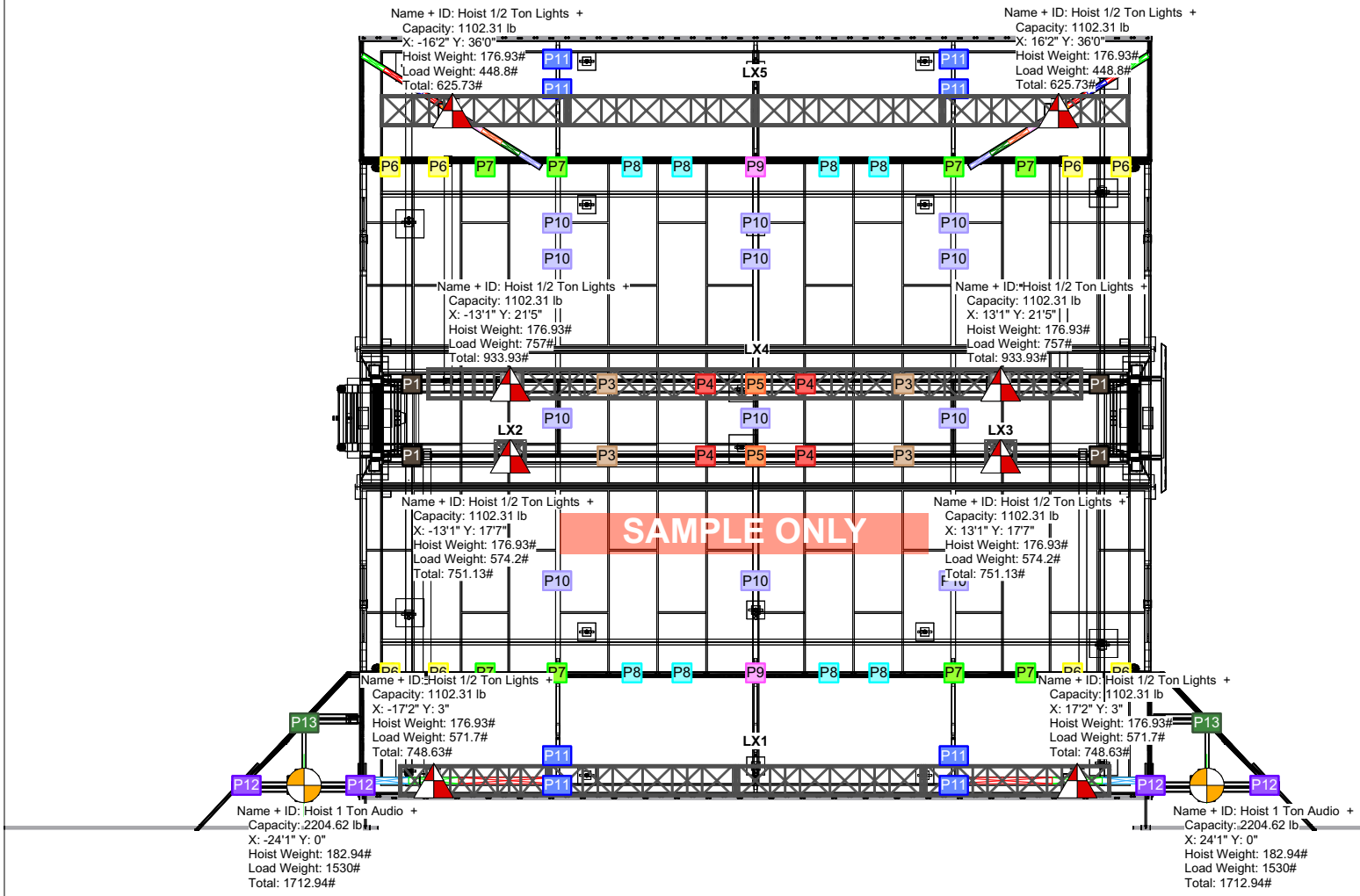
SHEET SIZE: US Arch D

CREATED BY: Hannah Buckhoff



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NOTES:

SL320 RIGGING SAMPLE
MAY 2023

REVISIONS:	--/--/--
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JOB NUMBER: **_***

INSTALL DATE: --/--/--

DRAWING DESCRIPTION: Rigging Plot

FILE NAME: MAY 2023 RIGGING - SL320.vwx

CREATED: 5/1/2023

LAST REVISION: --/--/--

SCALE: 1:32
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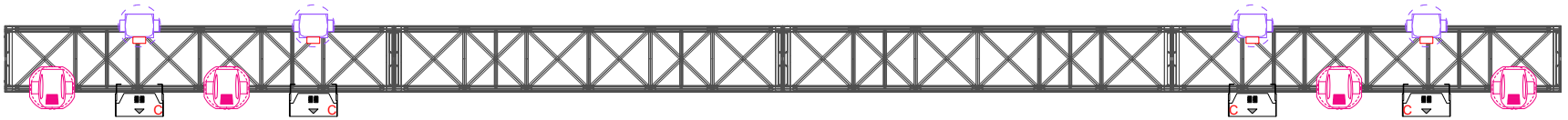
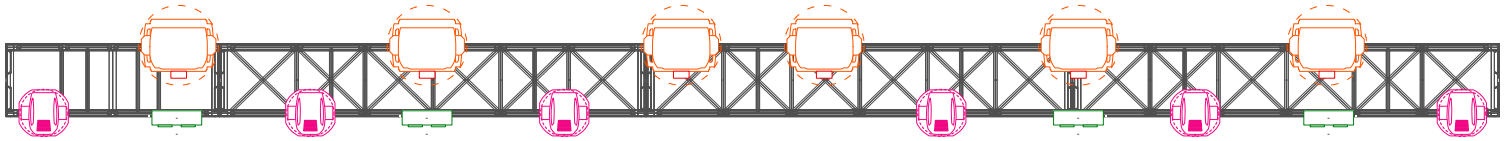
STAMP:

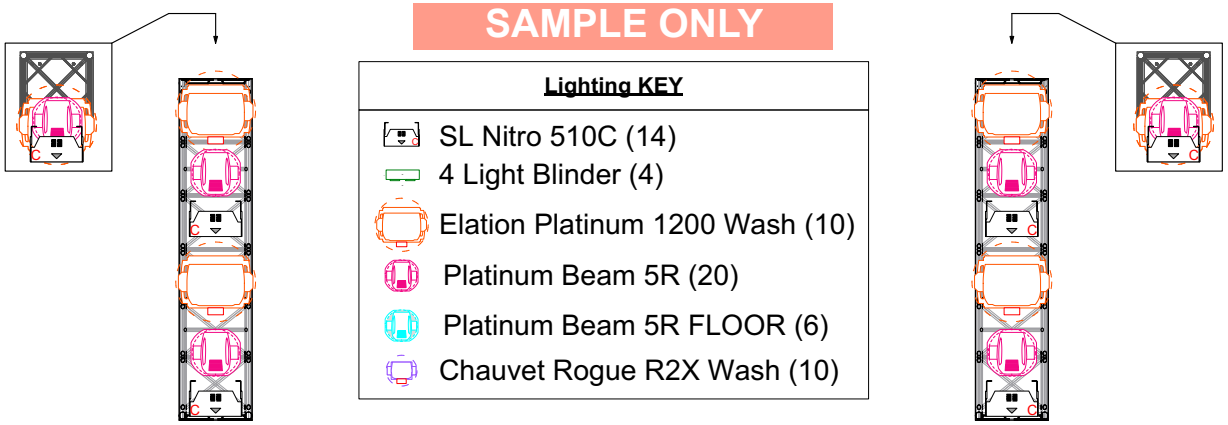
SHEET: Sht-9 OF 13

SHEET SIZE: US Arch D

CREATED BY: Hannah Buckhoff



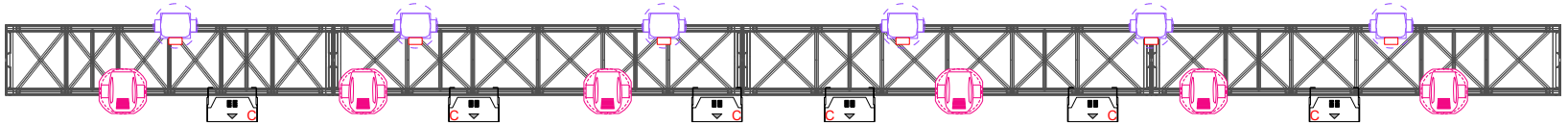




SAMPLE ONLY

Lighting KEY

- SL Nitro 510C (14)
- 4 Light Blinder (4)
- Elation Platinum 1200 Wash (10)
- Platinum Beam 5R (20)
- Platinum Beam 5R FLOOR (6)
- Chauvet Rogue R2X Wash (10)



STAGE TECH
PRODUCTION SIMPLIFIED

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web: www.stage-tech.com

NOTES:

SL320 RIGGING SAMPLE
MAY 2023

REVISIONS:	--/--/--
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--/--/--	--/--/--

JOB NUMBER: **_***

INSTALL DATE: --/--/--

DRAWING DESCRIPTION: Lighting - Detail

FILE NAME: MAY 2023 RIGGING - SL320.vwx

CREATED: 5/1/2023

LAST REVISION: --/--/--

SCALE: 1:16
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SHEET SIZE: US Arch D

CREATED BY: Hannah Buckhoff

SPREAD SHEET SHOWING MATH LISTING ALL ITEMS THAT WILL HANG ON EACH POINT YOU WISH TO RIG.

SAMPLE ONLY

Audio P15s						
Equipment	Qty.		Weight (lbs)		Total (qty. x wt.)	
VTX A12 Speakers	10	x	134	=	1340	
VTX Array Frame	1	x	90	=	90	
Cable	1	x	100	=	100	
1 Ton Motor w/60' Chain	1	x	182.94	=	182.94	
					Total Pt Load	
					1712.94	
LX1 Downstage Spanners (M)						
Equipment	Qty.		Weight (lbs)		Total (qty. x wt.)	
20.5" Truss 10'	4	x	90	=	360	
20.5" Truss 8'	1	x	77	=	77	
Platinum Beam 5R EXT	6	x	44	=	264	
Nitro 510C	6	x	17.6	=	105.6	
Chauvet Rogue R2X Wash	6	x	22.8	=	136.8	
Cable	1	x	200	=	200	
1/2 Ton Motor w/60' Chain	2	x	176.93	=	353.86	
					Total Pt Load	1/2 Total Load for 2 Rigging Points
					1497.26	**748.63**
LX2 & LX3 FIRST Midstage P2s						
Equipment	Qty.		Weight (lbs)		Total (qty. x wt.)	
20.5" Truss 8'	1	x	77	=	77	
Platinum Beam 5R EXT	2	x	44	=	88	
Platinum 1200 Wash	2	x	87	=	174	
Nitro 510C	2	x	17.6	=	35.2	
Cable	1	x	200	=	200	
1/2 Ton Motor w/60' Chain	1	x	176.93	=	176.93	
					Total Pt Load	
					751.13	
LX4 SECOND Midstage P2s						
Equipment	Qty.		Weight (lbs)		Total (qty. x wt.)	
20.5" Truss 10'	4	x	90	=	360	
20.5" Truss 5'	1	x	56	=	56	
Platinum Beam 5R EXT	6	x	44	=	264	
Platinum 1200 Wash	6	x	87	=	522	
DTW Blinder 700 IP	4	x	28	=	112	
Cable	1	x	200	=	200	
1/2 Ton Motor w/60' Chain	2	x	176.93	=	353.86	
					Total Pt Load	1/2 Total Load for 2 Rigging Points
					1867.86	**933.93**
LX5 Upstage Spanners (1300 # Span)						
Equipment	Qty.		Weight (lbs)		Total (qty. x wt.)	
20.5" Truss 10'	4	x	90	=	360	
Platinum Beam 5R EXT	4	x	44	=	176	
Nitro 510C	4	x	17.6	=	70.4	
Chauvet Rogue R2X Wash	4	x	22.8	=	91.2	
Cable	1	x	200	=	200	
1/2 Ton Motor w/60' Chain	2	x	176.93	=	353.86	
					Total Pt Load	1/2 Total Load for 2 Rigging Points
					1251.46	**625.73**

STAGE TECH
PRODUCTION SIMPLIFIED

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NOTES:

SL320 RIGGING SAMPLE
MAY 2023

REVISIONS:	--/--/--
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JOB NUMBER: **_***

INSTALL DATE: --/--/--

DRAWING DESCRIPTION: Rigging Math

FILE NAME: MAY 2023 RIGGING - SL320.vwx

CREATED: 5/1/2023

LAST REVISION: --/--/--

SCALE: 1:1
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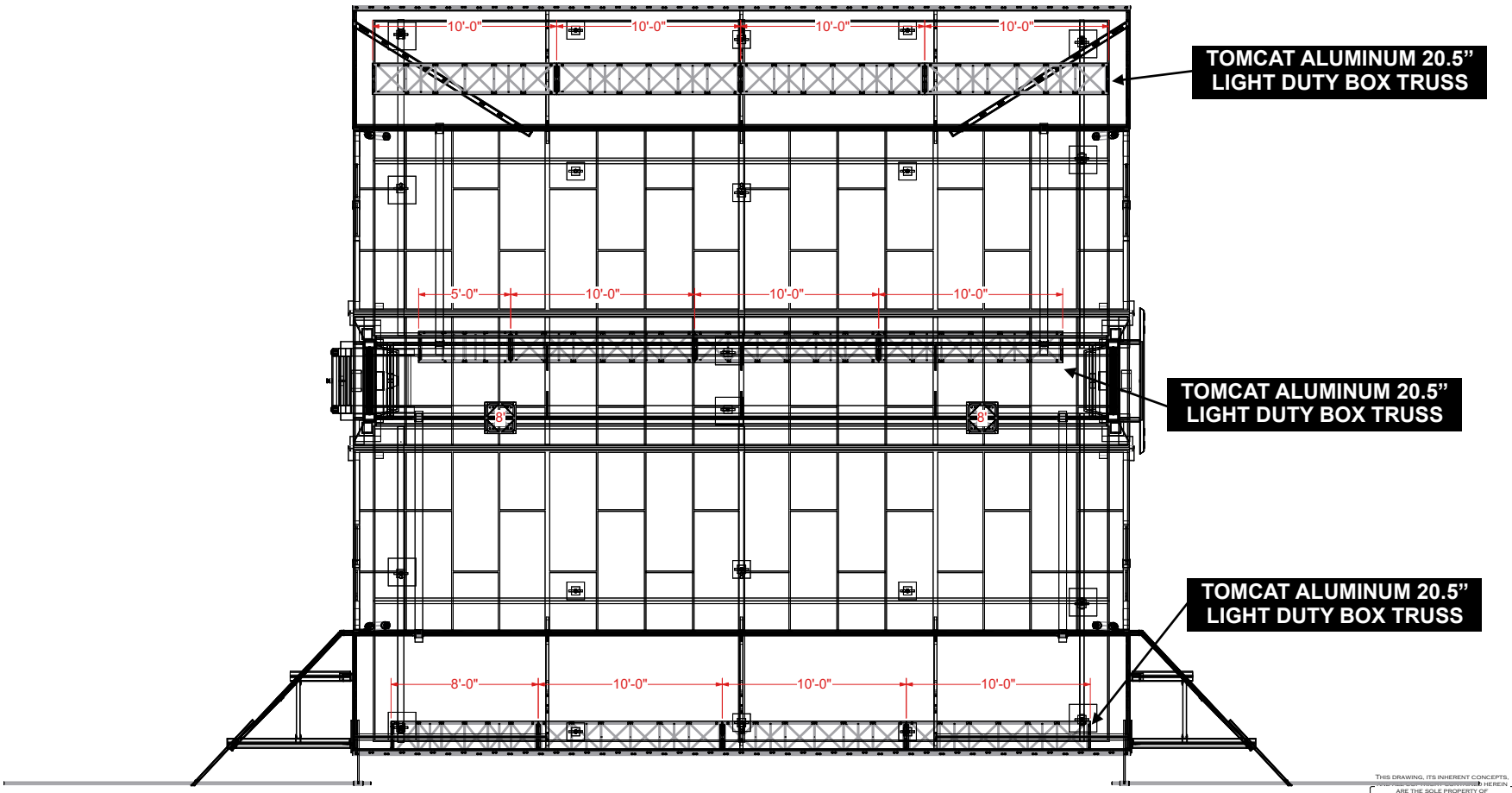
DETAILS SHOWING TRUSS TYPE AND LENGTH

SAMPLE ONLY



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NOTES:

SL320 RIGGING SAMPLE
MAY 2023

REVISIONS:	--/--/--
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JOB NUMBER: **_***

INSTALL DATE: --/--/--

DRAWING DESCRIPTION: Truss Dimensions

FILE NAME: MAY 2023 RIGGING - SL320.vwx

CREATED: 5/1/2023

LAST REVISION: --/--/--

SCALE: 1:32
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SHEET: Sht-11 OF 13

SHEET SIZE: US Arch D

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