

### 12" X 12" X 96" AV, 3/16" chord Bolt Plate Truss Load Capacity (Repetitive Use)

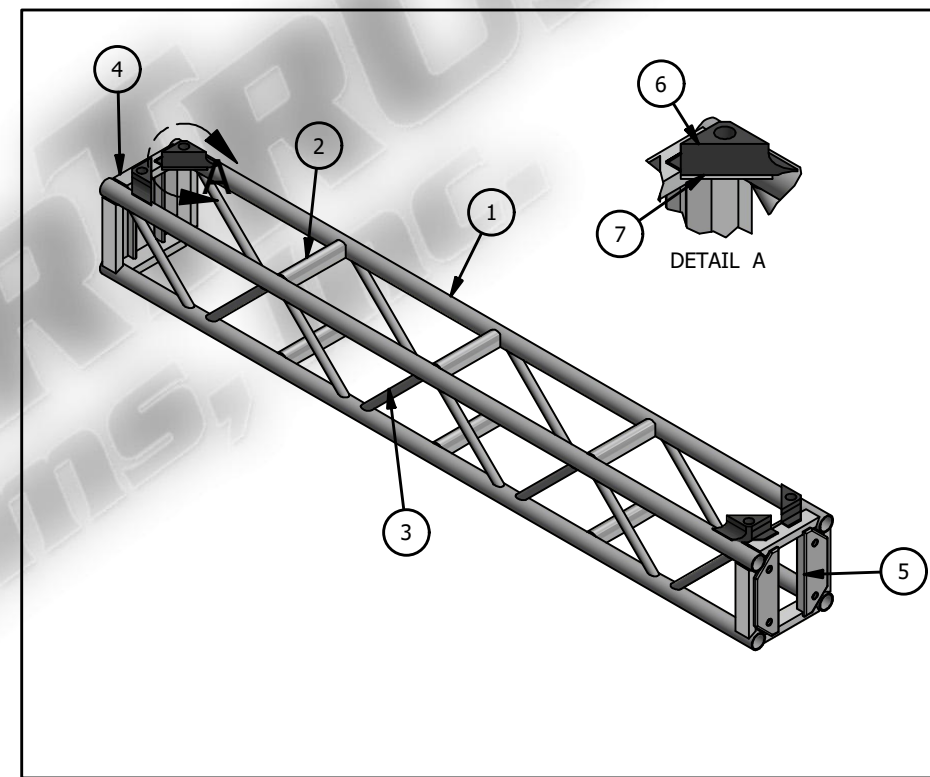
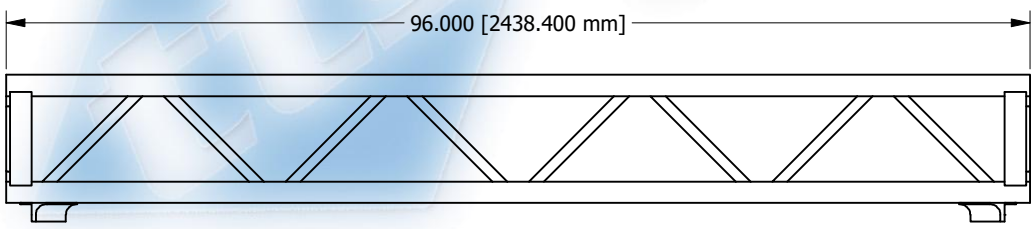
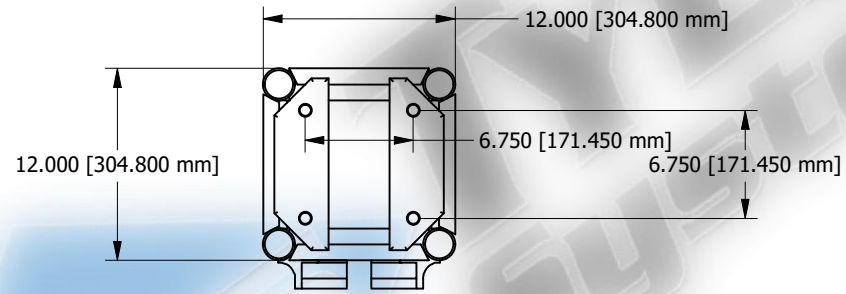
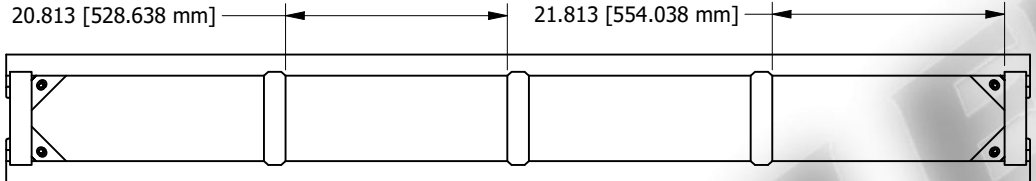
TRUSS SPAN	UNIFORMLY DISTRIBUTED LOAD		CENTER POINT LOAD		THIRD POINT LOAD		QUARTER POINT LOAD		FIFTH POINT LOAD	
	LOAD (pfl)	DEFL. (in)	LOAD (lbs)	DEFL. (in)	LOAD (lbs)	DEFL. (in)	LOAD (lbs)	DEFL. (in)	LOAD (lbs)	DEFL. (in)
8'-0"	805	0.068	5970	0.101	3221	0.094	2147	0.087	1611	0.082
16'-0"	370	0.503	2959	0.407	2219	0.522	1480	0.483	1233	0.507
24'-0"	162	1.135	1944	0.922	1458	1.176	972	1.091	810	1.144
32'-0"	89	2.025	1428	1.654	1071	2.096	714	1.949	595	2.041
40'-0"	46	2.671	1111	2.615	659	2.654	477	2.667	379	2.667
48'-0"	24	3.205	725	3.2	421	3.2	305	3.2	242	3.2

PARTS LIST		
ITEM	PART NUMBER	DESCRIPTION
1	CHORDS	Ø2" X .1875" ALUMINUM TUBE
2	HORIZONTALS	Ø2" X .125" ALUMINUM TUBE
3	DIAGONALS	Ø1" X .125" ALUMINUM TUBE
4	ENDS	1" X 2" X .125" ALUMINUM TUBE
5	SMALL CAMLOCK	.375" ALUMINUM
6	STACKING BLOCK	BLACK UHMW
7	STACKING PLATE	ALUMINUM FLAT BAR

#### Table Usage Notes:

- The truss is supporting vertical loads only, i.e. the truss diagonals are oriented vertically and no lateral loads are applied to the truss.
- The truss is analyzed as a simple span beam. Truss support points are located at truss panel points.
- The truss has been analyzed for static loads only.
- All loads are applied at the centroid of the truss between the two ladder trusses below the truss.
- All loads are applied at the panel points of the truss as to not induce local bending stresses in the chords.
- All capacities are reduced by 0.85 per ANSI E1.2-2012 for repetitive use members.
- Selfweight has been considered.
- Maximum deflection limited to span/180.
- All allowable loads based on 2010 Aluminum Design Manual.

Information extracted from the structural report by: CLARK REDER ENGINEERING



**Notes:**

TITLE: 12" X 12" X 96" AV TRUSS 3/16" MAIN CHORDS & STACKERS  
 PART NUMBER: 815096  
 WEIGHT: 52 lbs  
 DATE: 12/10/2021  
 AUTHOR: NATHAN V  
 REV: A  
 TOLERANCE: +/- 0.010 (0.254mm) U.O.S

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