S depth overall

Bearing

angle L 3 × 3 × 3/2 See detail B

Alum Extrusion Horz Zee 3 x $\frac{3}{8}$ x 2 $\frac{1}{6}$

bolted on DMS directly

€ Support bracket

1'-0"

2" | 2 1/4" | 2 1/4" | 2 1/8" | 2"

SECTION A-A (Truss chord angle not shown)

MOUNTING DETAILS

(Skyline DMS)

7,4

Dia holes

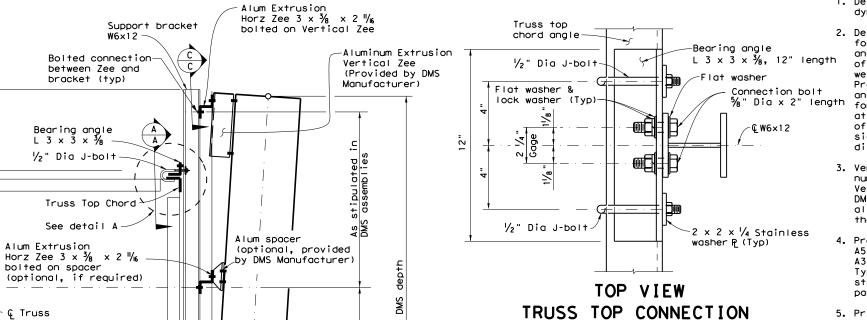
dia J-bolts

Zee 3 x 3% x 2 11/16

"‰" Dia hole @ Zee

(Field drill)

Truss Bottom Chord



11/8"

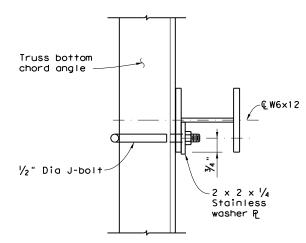
SECTION C-C

-"%" Dia x 1 %6' slot @ W6x12

Dynamic <u>.</u>⊆

Message Sign

Gage 2 1/4"



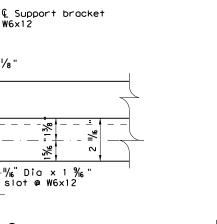
TOP VIEW TRUSS BOTTOM CONNECTION

3 ½"

11/2 " 2"

___R=1"

4"



1/2" Dia J-BOLT

3 1/2

3 1/2"

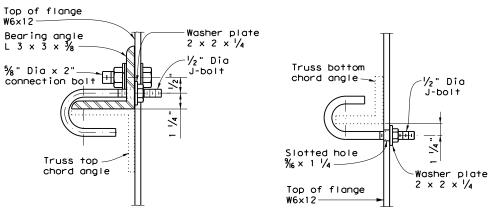
-2×2× ¼ Stainless washer 원

Chord angle up to 4"

Chord angle 5" & 6"

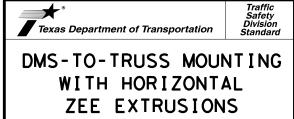
GENERAL NOTES:

- 1. Determine the adequacy of the overhead sign support structure to support the dynamic message sign (DMS) prior to attaching the sign to the truss.
- 2. Designed according to the 1994 edition of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals and Interim Revisions. Designed for a Sustained (Fastest Mile) Wind Velocity of 100 mph with a gust factor of 1.3. Connections are designed for a DMS weight of 3800 lbs. The structural support is designed for an Effective Projected Area (EPA) of 441 sq. ft. based on a DMS nominal width of 30.5 feet and nominal depth of 8.25 feet, with a drag coefficient of 1.7 applied, plus four 1'-8" square flashing beacons with a drag coefficient of 1.2. DMS attachment is designed for a horizontal eccentricity of 1.3 ft. from the face of the truss to the center of gravity of the DMS. Provide an even number of sign supporting brackets (6 minimum), W6x12, spaced at 5'-6" max. The maximum distance between the sign edge to the nearest supporting bracket is 2'-3".
- 3. Verify applicable field dimensions before fabrication. Determine the required number and spacing of sign support brackets, along with the Aluminum Extrusion Vertical and Horizontal Zees provided by the DMS manufacturer, to connect the DMS to the truss. For the J-bolt connection of DMS to overhead sign structure, align each arranged sign bracket with its bearing angle to avoid conflict with the truss connection bolts at the point of attachment.
- 4. Provide structural steel meeting the requirements of ASTM A36, A572 Gr 50 or A588. Provide connection bolts meeting the requirements of ASTM F3125, Grade A325 or A449 with 1 heavy hex nut, 2 flat washers, and 1 lock washer. Provide Type 304 stainless steel J bolt and washer plate, with bolt minimum yield strength of 50 ksi and an elongation of 16 percent in 2 inches. Galvanize all parts except stainless steel.
- 5. Prior to the initialization of DMS mounting, the DMS manufacturer must provide and install the 6061-T6 Aluminum Extrusion Vertical and Horizontal Zees, $3\times \frac{3}{8}\times 2^{11}$ /6, and the specified Aluminum Spacers (if any) to the back of the DMS.
- 6. The sign support bracket attached to the truss shown here is an example only. Adjust the bracket position along the truss depth to achieve the required vertical clearance to be confirmed by the Engineer.
- 7. When the structure is to be exposed to a highly corrosive environment, provide elastomeric spacer to separate aluminum alloy parts from direct contact with



DETAIL A

DETAIL B



DMS (HZ-1)-21

FILE: dms(hz-1)-21.dgn	DN: Tx	DOT	ck: TxDOT	DW:	TxDOT	ck: TxDOT
© TxDOT February 2021	CONT	SECT	JOB		HIGHWAY	
REVISIONS						
	DIST	COUNTY			SHEET NO.	

"/₀" Dia