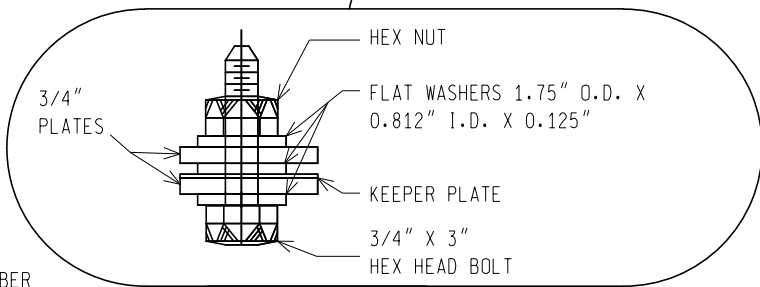
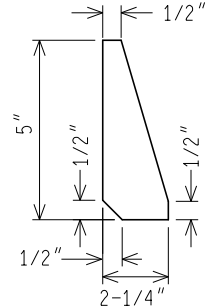
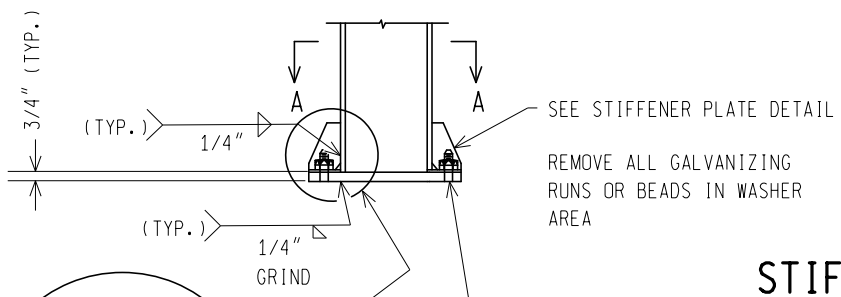


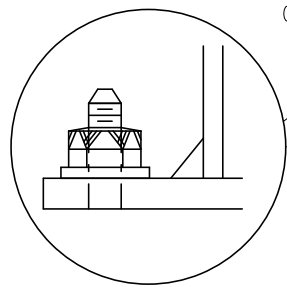
FURNISH 2 \times 0.012" OR 2 \times 0.034" THICK SHIMS PER COLUMN, SHIMS SHALL BE FABRICATED FROM BRASS OR GALVANIZED STEEL SHIM STOCK OR STRIP. A MAX. OF 2 SHIMS PER COLUMN SHALL BE USED. ANY COMBINATION OF SHIMS IS ALLOWED AS LONG AS THE TOTAL NUMBER OF SHIMS DOES NOT EXCEED 2 PER COLUMN.



SHIM DETAIL



STIFFENER PLATE DETAIL



STAINLESS STEEL BOLT WITH HEX HEAD, HEX NUT AND 3 WASHERS WITH BOLT (4 REQUIRED). * USE 3/4" DIA. X 3" BOLTS TORQUED TO 75 FT-LBS (DO NOT OVERTIGHTEN). FOR TIGHTENING PROCEDURE SEE STEP C AND D UNDER NOTE 1

* THE BOLT, NUT AND WASHERS SHALL MEET THE STANDARD SPECIFICATIONS FOR CONSTRUCTION

COLUMN END VIEW

MDOT
Michigan Department of Transportation

PREPARED BY
TSMO DIVISION

DRAWN BY: DHD

CHECKED BY: AJU

DEPARTMENT DIRECTOR
Paul C. Ajegba

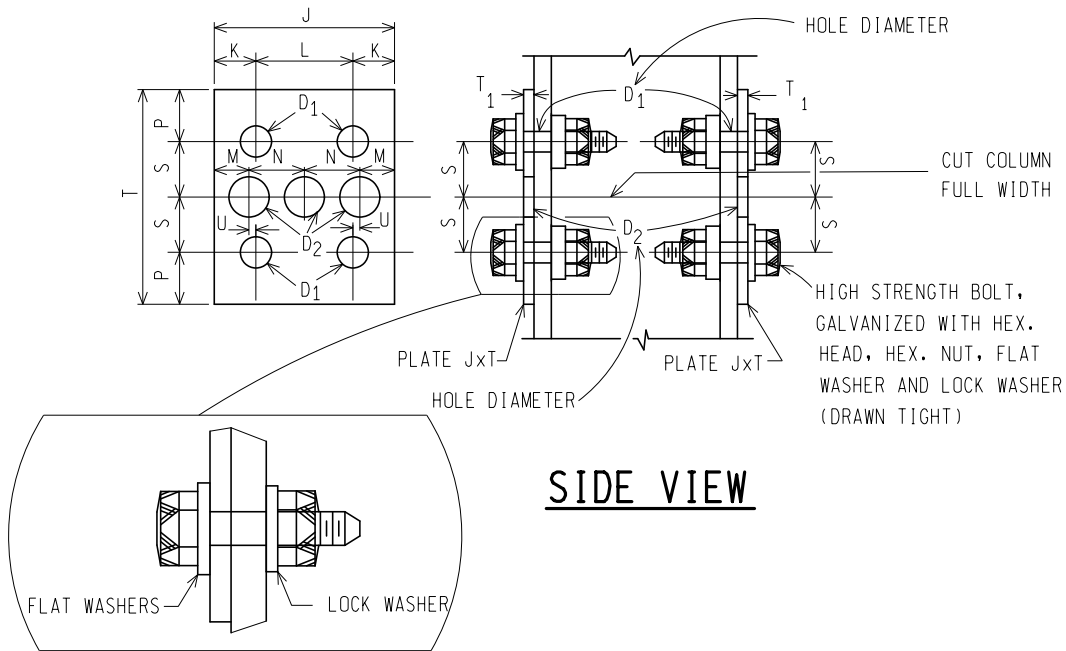
APPROVED BY: Randy U. Pittford
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: Mark A. Van Pelt
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

**STEEL COLUMN
BREAK-AWAY (W)**

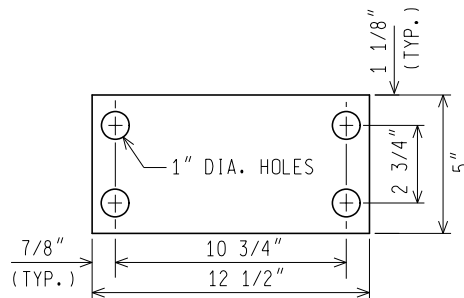
05/01/15 F.H.W.A. APPROVAL	12/02/14 PLAN DATE	SIGN-220-C	SHEET 1 OF 3
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SIDE VIEW

FUSE PLATE DETAILS

COLUMN SIZE	FUSE PLATE DIMENSIONS (inches)												BOLT SIZE
	J	K	L	M	N	P	S	T	U	T ₁	D ₁	D ₂	
W8 x 13	4	7/8	2-1/4	25/32 ± 1/32	1-7/32 ± 1/32	1-1/4	1-1/4	5	3/32	1/4	13/16	7/8	3/4 DIA. X 1-3/4
W8 x 18	5-1/4	1-1/4	2-3/4	1 ± 1/32	1-5/8 ± 1/32	1-1/2	1-1/2	6	1/4	5/16	15/16	1-1/4	7/8 DIA. X 2



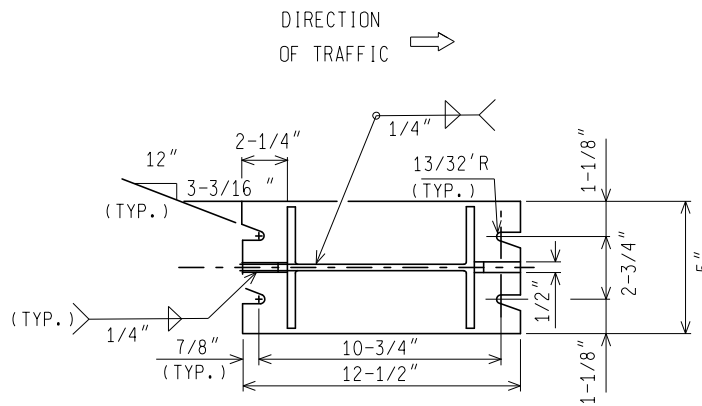
KEEPER PLATE DETAIL

(28 GA GALVANIZED STEEL)

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	05/01/15 F.H.W.A. APPROVAL	12/02/14 PLAN DATE	SIGN-220-C	SHEET 2 OF 3
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NOTE: THE ORIGINAL SIGNED COPY IS KEPT ON FILE AT THE MICHIGAN DEPARTMENT OF TRANSPORTATION.



SECTION A-A

SECTION SHOWN IS FOR INSTALLATION ON RIGHT SHOULDER AND IN GORE.
 PLATE SLOT BEVELS ARE OPPOSITE HAND FROM THAT SHOWN FOR
 INSTALLATIONS ON LEFT SHOULDER.

NOTES:

1. PROCEDURE FOR ASSEMBLY OF BASE CONNECTION:
 - A. ASSEMBLE COLUMN TO STUB WITH BOLTS AND WITH ONE FLAT WASHER ON EACH BOLT BETWEEN PLATES.
 - B. NUMBER OF SHIMS LIMITED TO TWO PER COLUMN.
 - C. TIGHTEN BOLTS IN SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. DO NOT OVERTIGHTEN.
 - D. LOOSEN EACH BOLT & RETIGHTEN TO PRESCRIBED TORQUE IN THE SAME ORDER AS INITIAL TIGHTENING, USE COLORED LOCTITE.
2. DESIGN CONFORMS WITH AASHTO SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS.
3. MATERIALS AND FABRICATION PER MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
4. ALL HIGH STRENGTH NUTS SHALL BE OF SUCH CAPACITY AS TO DEVELOP THE BOLT STRENGTH
5. ALL STRUCTURAL STEEL SHALL BE GALVANIZED AFTER FABRICATION EXCEPT WHERE NOTED.
6. ALL CONTACT AREAS OF PLATES AND COLUMN FLANGES SHALL BE FREE OF GALVANIZING BEADS OR RUNS.
7. THE KEEPER PLATE SHALL BE FABRICATED FROM 28 GA GALVANIZED STEEL AND PLACED BETWEEN THE COLUMN AND STUB.
8. WHEN EXISTING STEEL COLUMN BREAKAWAY SUPPORTS ARE TO BE RETAINED, REPLACE BOLTS, WASHERS, NUTS AND KEEPER PLATE.
9. THE SIGNS SHOULD BE PLACED ON THE SUPPORTS FOLLOWING SHS 10 - SUPPORT HOLE PLACEMENT. FOR RECTANGULAR SIGNS THE SUPPORT SHOULD BE LONG ENOUGH TO REACH THE TOP OF THE SIGN. THE SUPPORT SHOULD NOT EXTEND BEYOND THE TOP EDGE OF THE SIGN. FOR SIGNS THAT ARE NOT RECTANGULAR THE SUPPORT SHOULD EXTEND TO THE TOP OF THE SIGN WITHOUT EXTENDING BEYOND THE TOP EDGE. THE SUPPORT SHOULD NOT BE VISIBLE WHEN FACING THE SIGN.

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	05/01/15 F.H.W.A. APPROVAL	12/02/14 PLAN DATE	SIGN-220-C	SHEET 3 OF 3
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