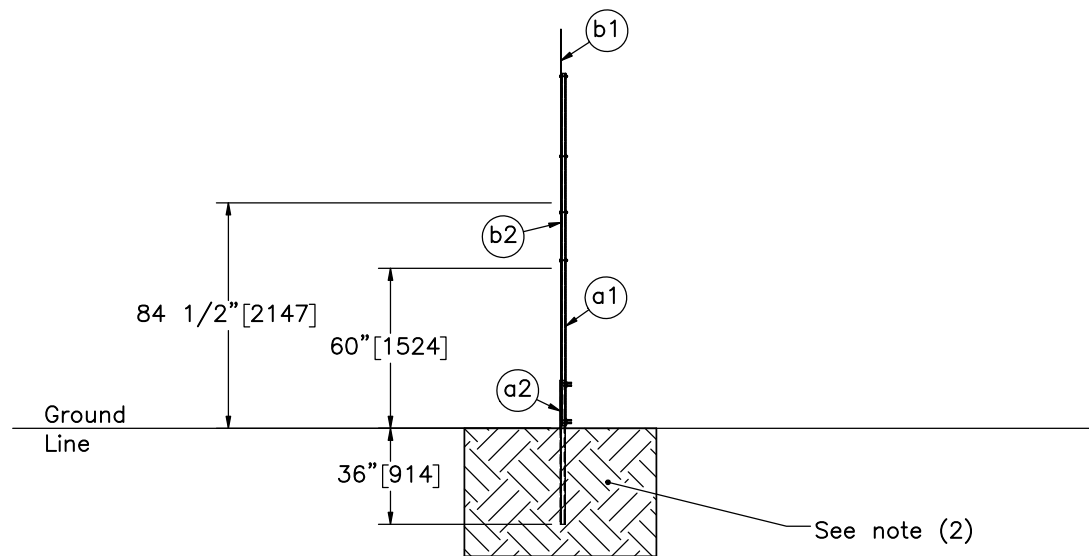


PLAN VIEW



PROFILE VIEW

- Notes: (1) Test shall be performed according to test designation no. 3-62 of MASH 2016 criteria.
- (2) Dig a trench approximately 5'-6" [1,676] wide and 6' [1,829] long centered on the post to a depth approximately 1' [305] below bottom of post. Backfill with compacted MASH soil.



Midwest Roadside
Safety Facility

MoDOT U-Channel Signs
Test No. MOS-5

Test Layout

DWG. NAME.
MOS-5_R7

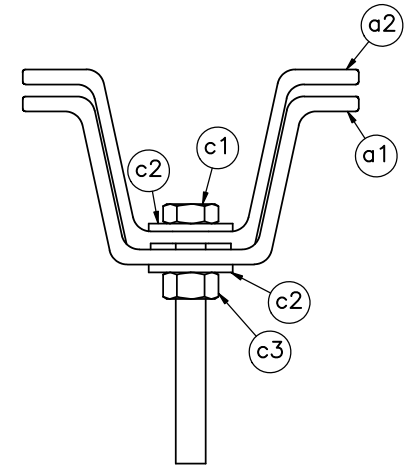
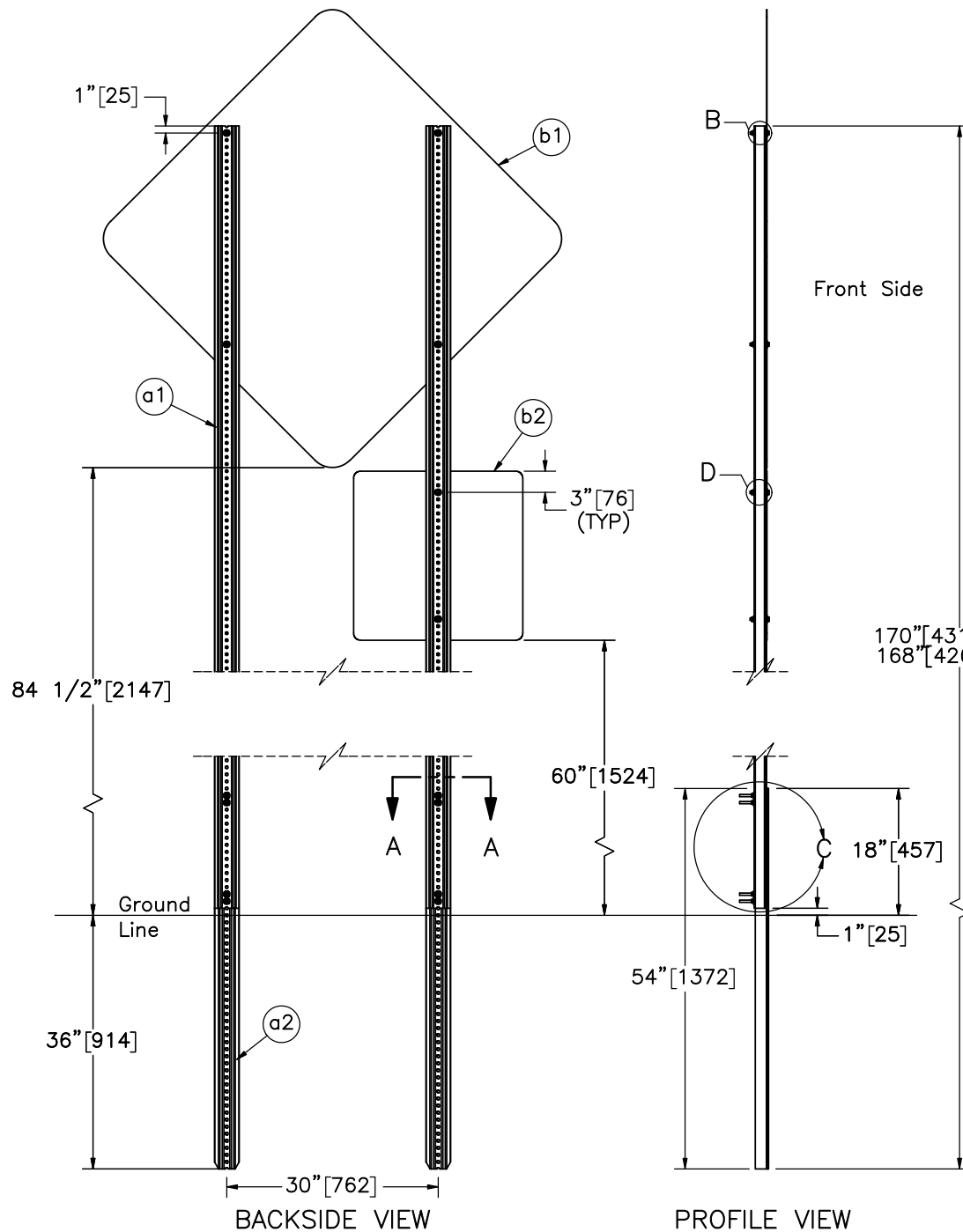
SCALE: 1:72
UNITS: in.[mm]

SHEET:
1 of 8

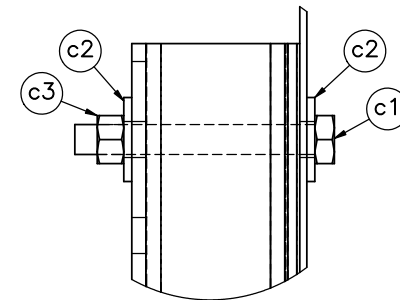
DATE:
6/17/2019

DRAWN BY:
DJW/MKB

REV. BY:
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KAL



SECTION A-A
SCALE 1:2



DETAIL B
SCALE 1:2

Note: (1) Part a2 may stick above the ground a maximum of 18" [204].



Midwest Roadside
Safety Facility

MoDOT U-Channel Signs
Test No. MOS-5

Sign Assembly

DWG. NAME.
MOS-5_R7

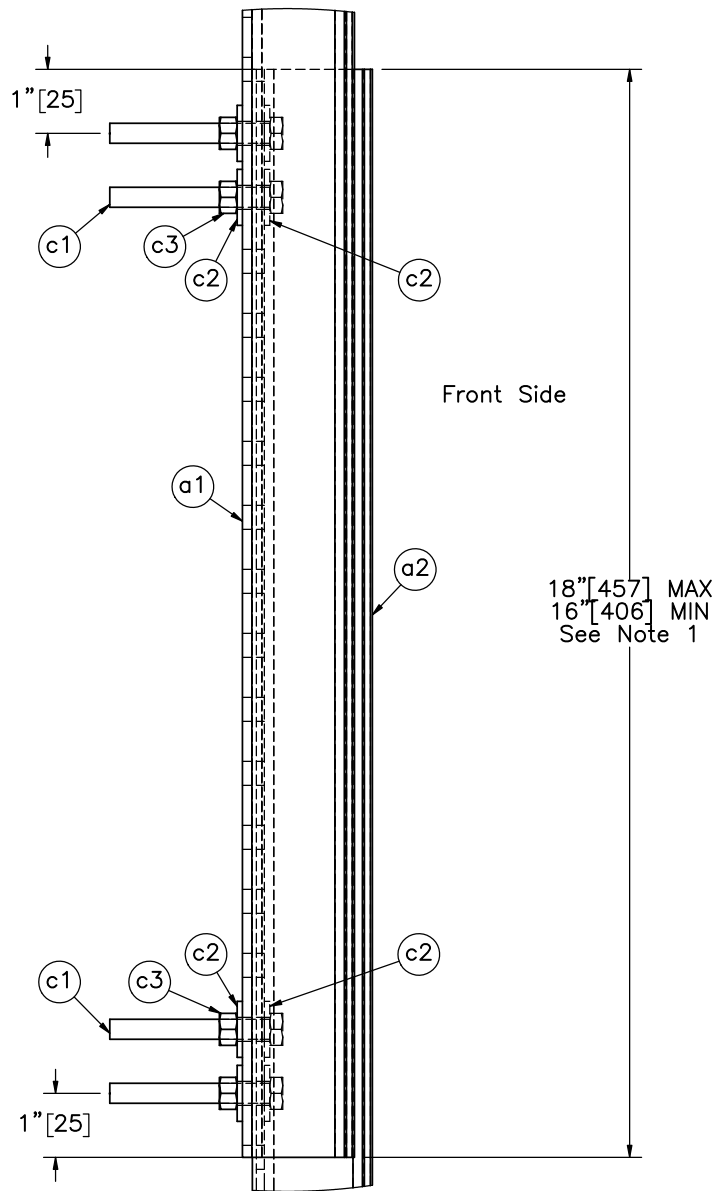
SCALE: 1:24
UNITS: in.[mm]

SHEET:
2 of 8

DATE:
6/17/2019

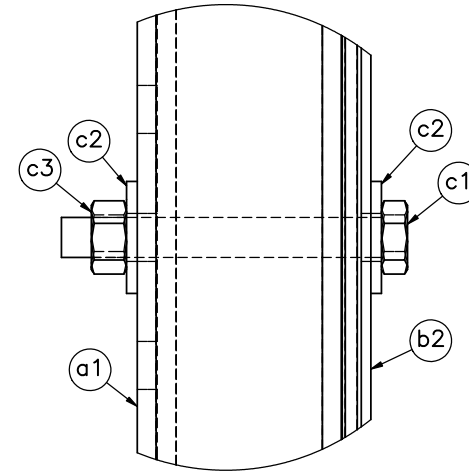
DRAWN BY:
DJW/MKB

REV. BY:
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KAL



DETAIL C

Note: (1) Range depends on where holes line up and sign panel height.



DETAIL D
SCALE 1:1.5



Midwest Roadside
Safety Facility

MoDOT U-Channel Signs
Test No. MOS-5

Sign Assembly Details

DWG. NAME.
MOS-5_R7

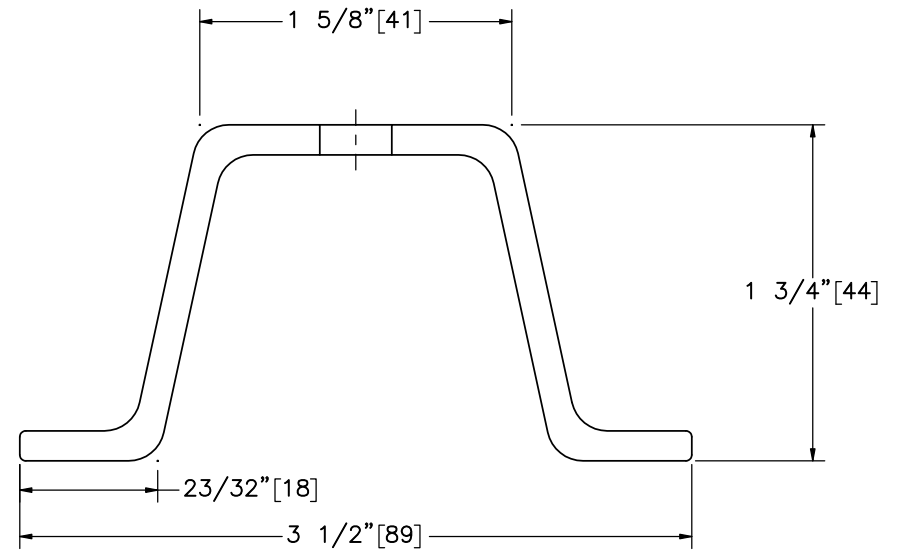
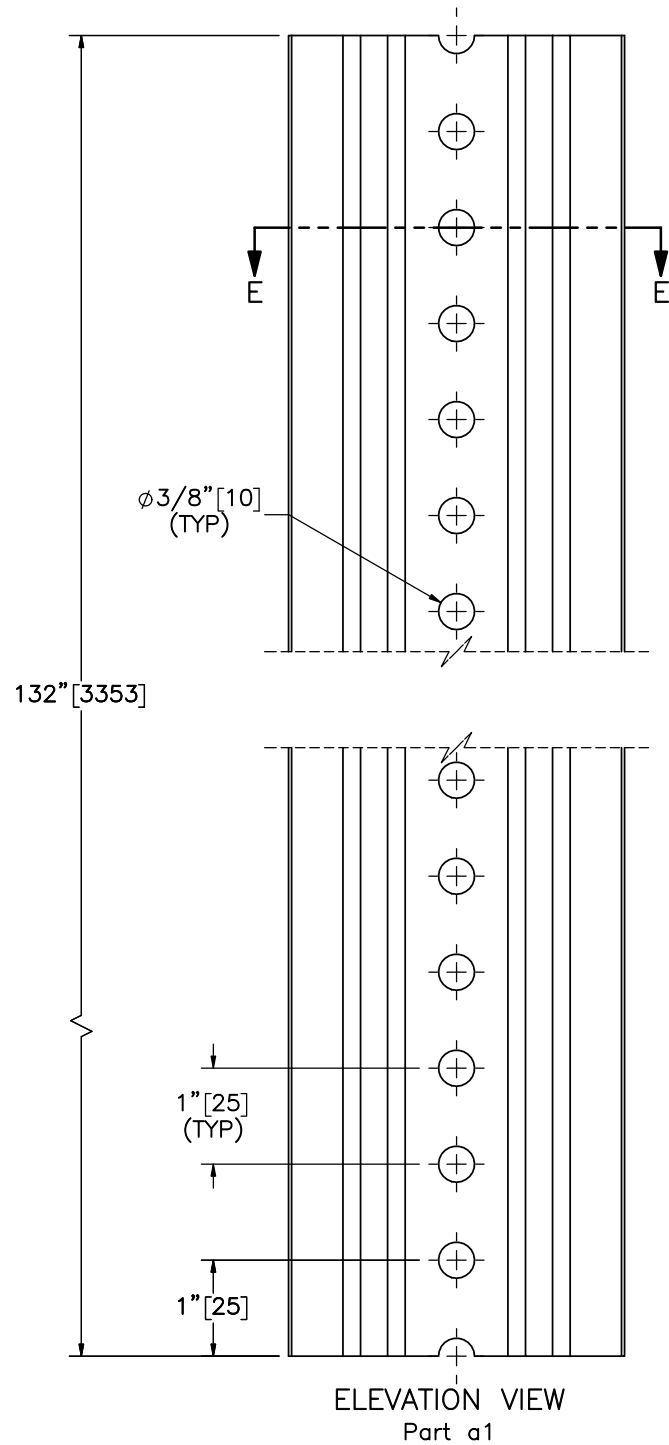
SCALE: 1:3
UNITS: in./mm

SHEET:
3 of 8

DATE:
6/17/2019

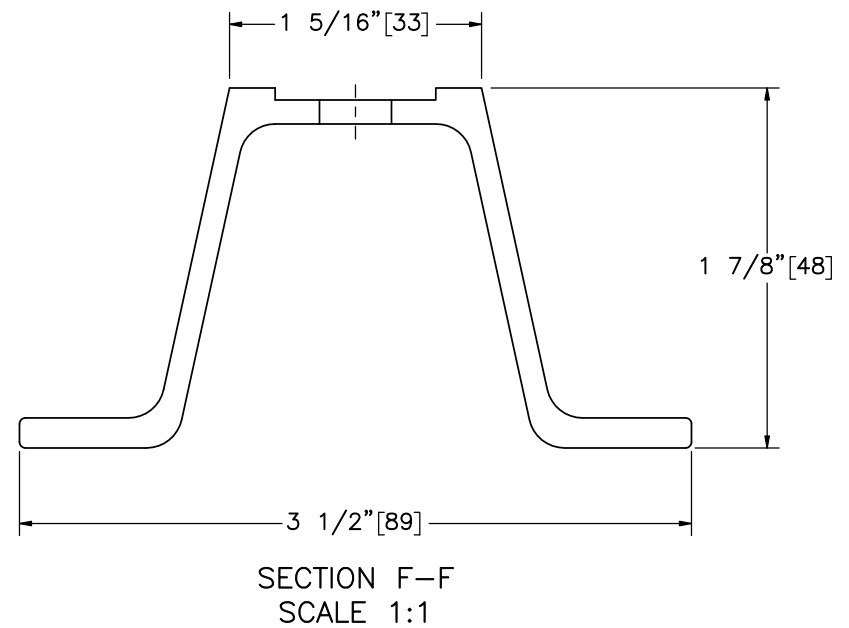
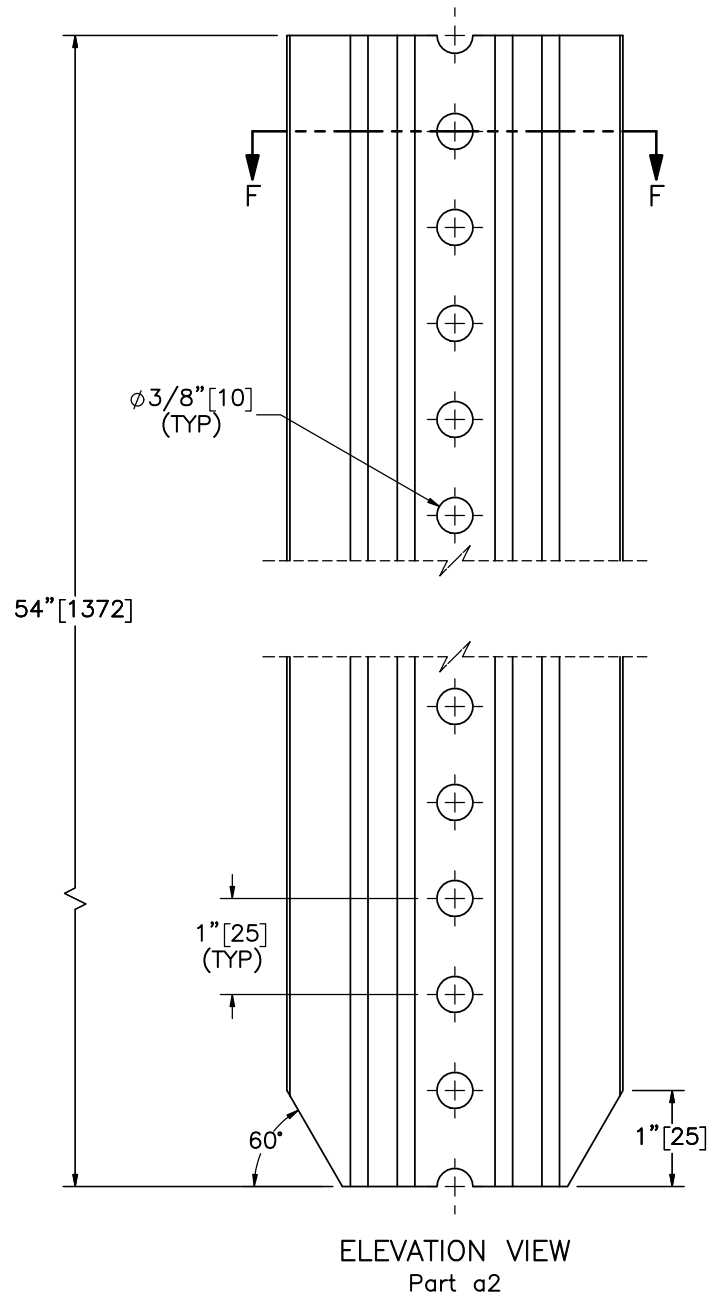
DRAWN BY:
DJW/MKB

REV. BY:
JEK/JDS/
KAL



SECTION E-E
SCALE 1:1

	MoDOT U-Channel Signs Test No. MOS-5		SHEET: 4 of 8
	U-Channel Signpost Detail		DATE: 6/17/2019
Midwest Roadside Safety Facility	DWG. NAME: MOS-5_R7		DRAWN BY: DJW/MKB
	SCALE: 1:2 UNITS: in./mm		REV. BY: JEK/JDS/ KAL



Midwest Roadside
Safety Facility

MoDOT U-Channel Signs
Test No. MOS-5

Rib-Bak U-Channel Detail

DWG. NAME.
MOS-5_R7

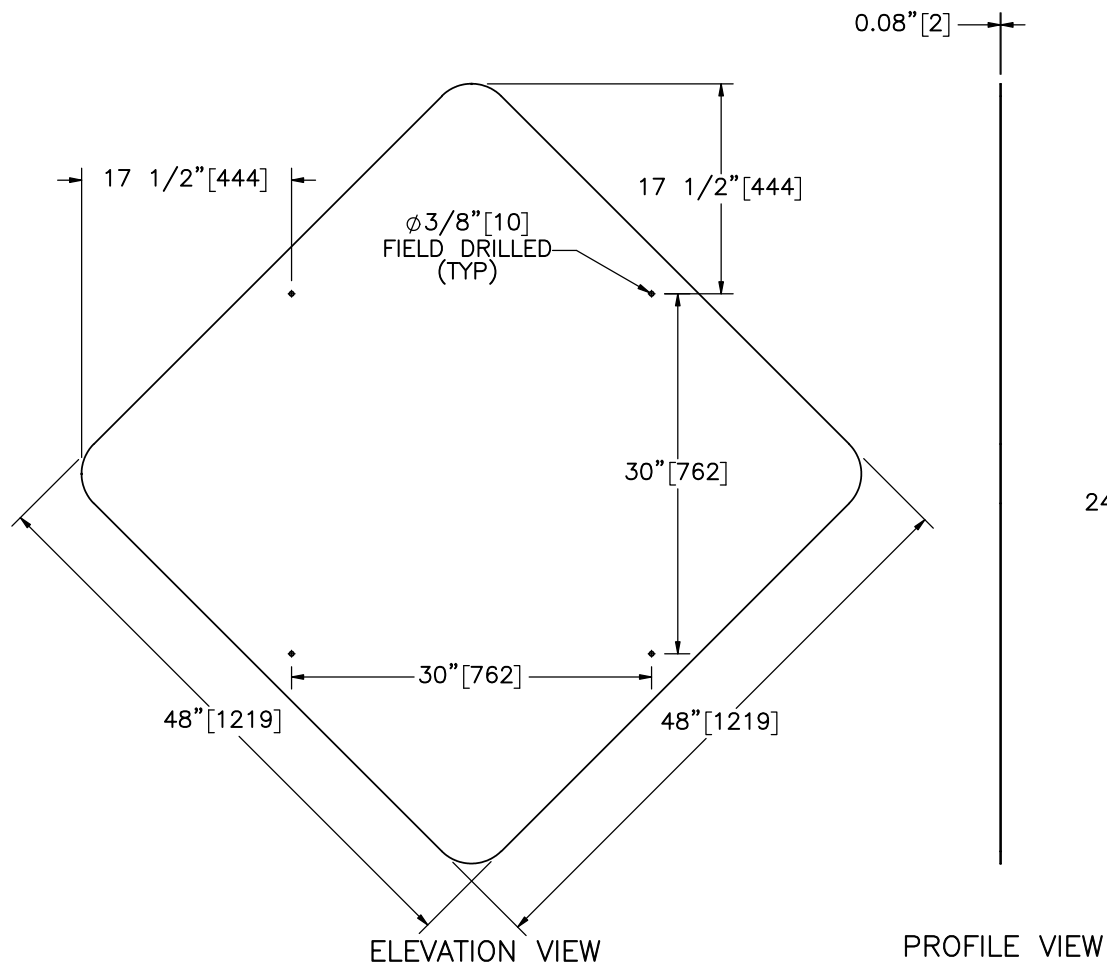
SCALE: 1:2
UNITS: in.[mm]

SHEET:
5 of 8

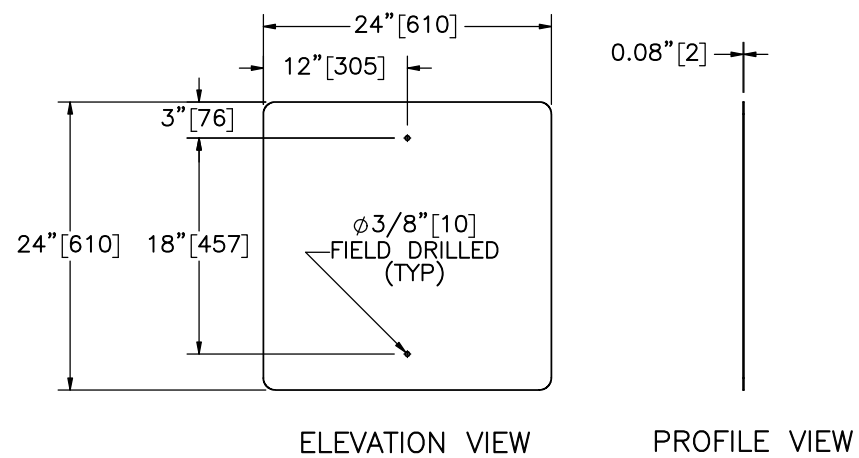
DATE:
6/17/2019

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DJW/MKB

REV. BY:
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KAL



Part b1



Part b2



Midwest Roadside
Safety Facility

MoDOT U-Channel Signs
Test No. MOS-5

Sign Details

DWG. NAME.
MOS-5_R7

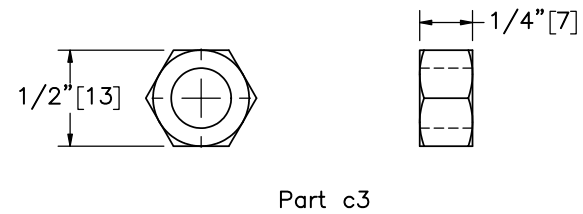
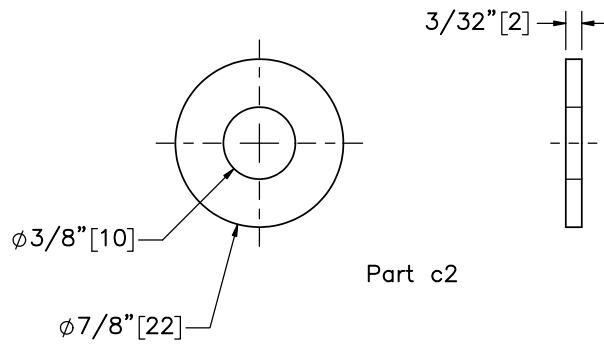
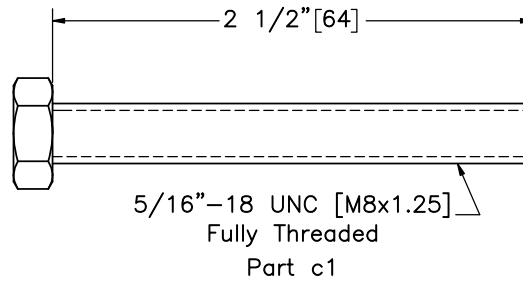
SCALE: 1:16
UNITS: in.[mm]

SHEET:
6 of 8

DATE:
6/17/2019

DRAWN BY:
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KAL



Midwest Roadside
Safety Facility

MoDOT U-Channel Signs
Test No. MOS-5

Hardware

DWG. NAME.
MOS-5_R7

SCALE: 1:1
UNITS: in.[mm]

SHEET:
7 of 8

DATE:
6/17/2019

DRAWN BY:
DJW/MKB

REV. BY:
JEK/JDS/
KAL

Item No.	QTY.	Description	Material Specification	Treatment Specification	Hardware Guide
a1	2	3.0 lb/ft [4.5 kg/m] U-Channel Sign Post, 132" [3,353] Long	ASTM A499 Gr. 60 Min. Yield = 60 ksi [414 Mpa]	ASTM A123	—
a2	2	3.0 lb/ft [4.5 kg/m] Rib-Bak U-Channel Base Post, 54" [1,372] Long	ASTM A499 Gr. 60 Min. Yield = 80 ksi [552 Mpa]	ASTM A123	—
b1	1	48"x48"x0.08" [1219x1219x2] Sign with Reflective Sheeting	Aluminum Alloy 5052 or Similar	—	—
b2	1	24"x24"x0.08" [610x610x2] Sign with Reflective Sheeting	Aluminum Alloy 5052 or Similar	—	—
c1	14	5/16"—18 UNC [M8x1.25], 2 1/2" [70] Long Fully Threaded Hex Bolt	SAE J429 Gr. 5 or equivalent	Fe/ZN 3AN per ASTM F1941	FBX08b
c2	28	5/16" [8] Dia. Plain USS Washer	ASTM F844	ASTM A123 or A153 or B695 Class 55	FWC08a
c3	14	5/16"—18 UNC [M8x1.25] Heavy Hex Nut	SAE J995 Gr. 5 or equivalent	Fe/Zn 3AN per ASTM F1941	FNX08b



Midwest Roadside
Safety Facility

MoDOT U-Channel Signs
Test No. MOS-5

Bill of Materials

DWG. NAME.
MOS-5_R7

SCALE: None
UNITS: in.[mm]

SHEET:
8 of 8

DATE:
6/17/2019

DRAWN BY:
DJW/MKB

REV. BY:
JEK/JDS/
KAL

REV.	DATE OF ISSUE	Page	NATURE OF CHANGES	REVIEWER	REVISED BY
0	11/12/2018	–	New Drawing created.	–	DJW
1	11/15/2018	1	Note edits for test designation change.	JEK	DJW
		2	Dim edits. Note edits. New section view.		
		3,4,5	Dim edits. Note edits.		
		6	Dim added. Title block edit.		
		7	Washer dim edit. Nut dim edit. Part c5 removed.		
		BOM	Washer description edit. Material & Treatment Spec edits. Part c5 removed.		
2	2/5/2019	–	Modified bolt pattern on 48"x48" sign. Adjusted U-channel posts accordingly.	JEK	DJW
		2	Updated U-channel spacing and Detail B location.		
		3	Added dim on Detail C. Reoriented part balloons.		
		4	Part a1 height change.		
		6	Update hole pattern dimensions on part b1.		
		BOM	Description: a1. QTY: c2, c3, c4 (automatically updated).		
3	2/11/2019	1	Note edit for trench width.	JDS/KAL	MKB
		2	Dim add, Dim edit.		
		3	Note added, dim callout edit.		
		BOM	Description: a1, a2.		
4	4/15/2019	–	Redid sheets 2 and 3 to fix error in edrawing.	KAL	MKB
5	4/24/2019	–	Deleted 5/16"-18 UNC [M8x1.25], 1 3/4" [44] Long Hex Bolt. Used 2 1/2" Bolt in its place. Renamed parts accordingly.	KAL	DJW
		7	Changed Part c1 (2 1/2" long bolt) to fully threaded.		
		BOM	Updated Item Nos., updated qty and description for c1.		
6	5/16/2019	1	Correct upper sign height dim. Cosmetic edits (trench sizing, view labels, sheet scale).	KAL	DJW
		2	Correct upper sign height dim. Dim and label adds in profile view. Modify assembly so that U-channels appear to fit completely together in Section A-A.		
		3	Add label in Detail C. Show U-channel fit.		
		4&5	Added half circles to top and bottom of U-channel posts (cosmetic).		
		6	Correct radii and dims on part b1.		
7	6/17/2019	–	Embedded stub (part a2) changed to Rib-Bak profile. U-channel post (part a1) dimensions corrected.	KAL	DJW

7	6/17/2019	2	Section A updated to show new fitment after dim changes.	KAL	DJW
		4	Section E dimensions corrected.		
		5	Title block edit. Section F changed to Rib-Bak profile.		
		BOM	Description: a2; Material Spec: a2.		