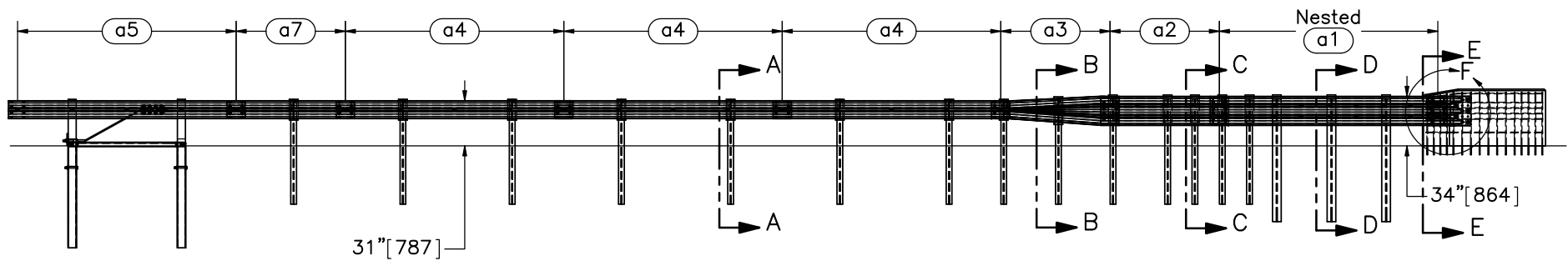


PLAN VIEW



ELEVATION VIEW

- Notes: (1) Test shall be performed according to MASH test designation no. 3-20.  
 (2) The impact location is 63" [1600] upstream of the buttress or at the centerline of post no. 18.  
 (3) BCT anchors are placed in 3' [914] diameter holes, then backfilled and tamped with soil.  
 (4) Critical region is located between post nos. 12 and 19.  
 (5) The upstream end of part a3 is rotated upward 3/4" [19] to accommodate the 31" [787] MGS guardrail height.



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

System Layout

DWG. NAME:  
Thrie\_Buttress-2\_R2

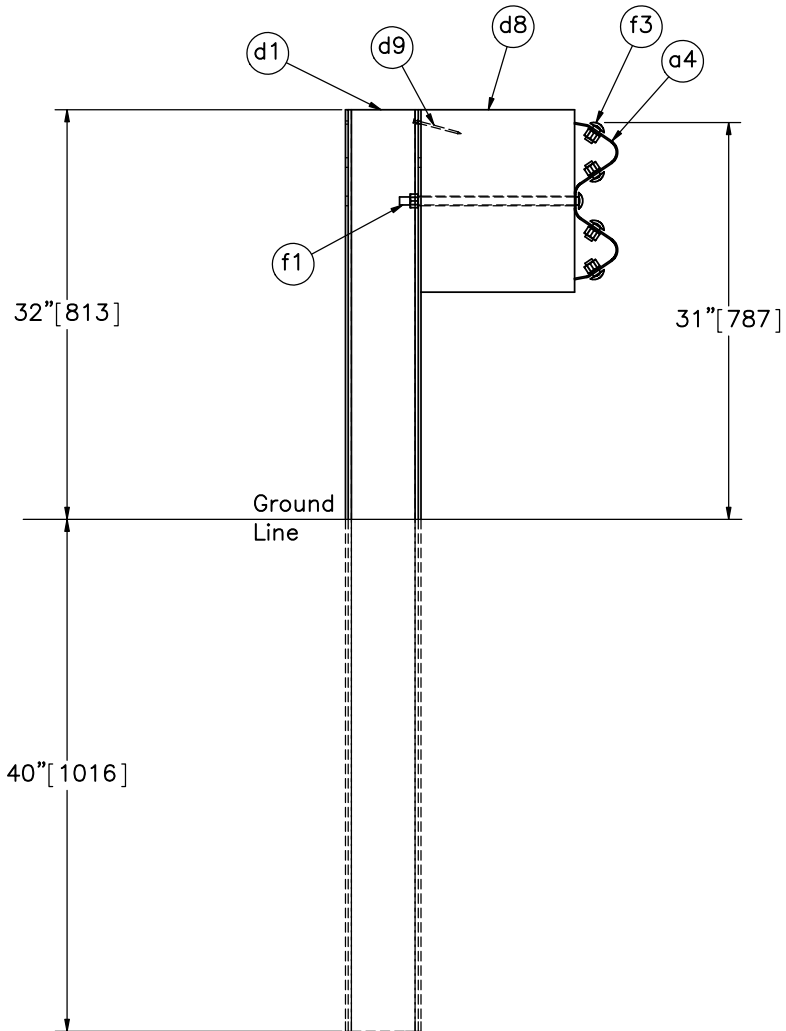
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SHEET:  
1 of 23

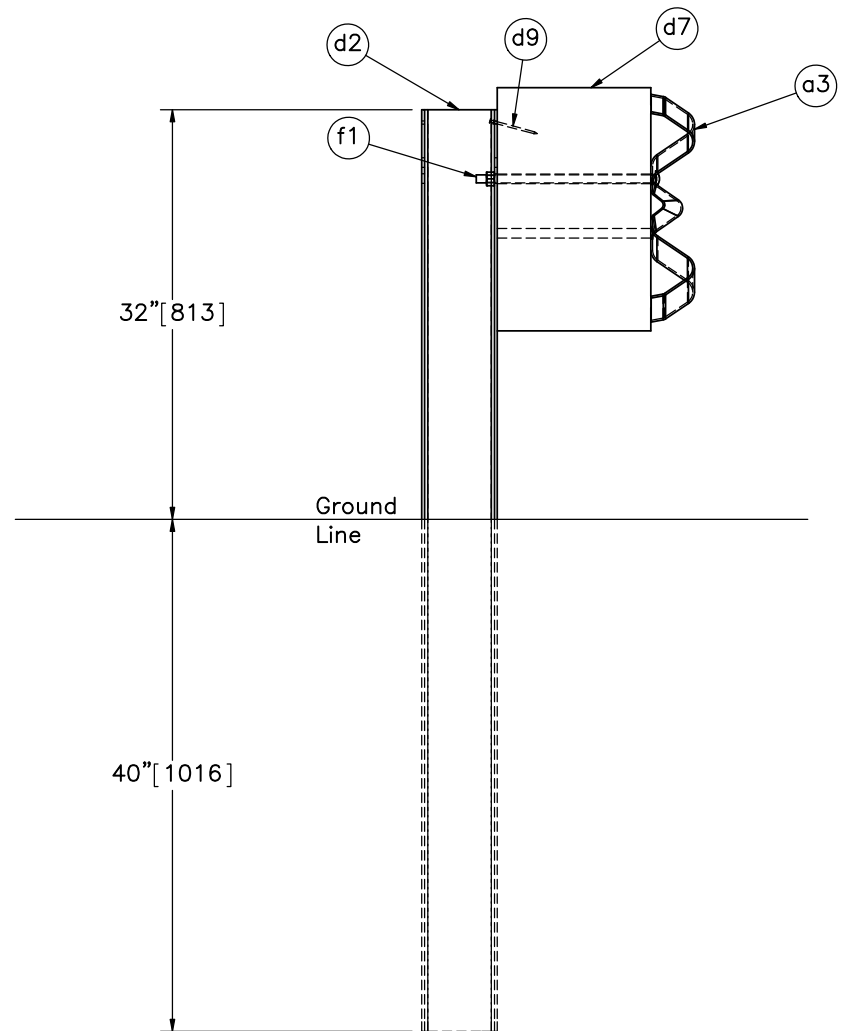
DATE:  
1/18/2017

DRAWN BY:  
JEK

REV. BY:  
KAL/JCH



SECTION A-A  
Post Nos. 3-10



SECTION B-B  
Post No. 11

Note: (1) No bolt placed in lower hole of post no. 11.



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

Post Nos. 3-11 Details

DWG. NAME.  
Thrie\_Buttress-2\_R2

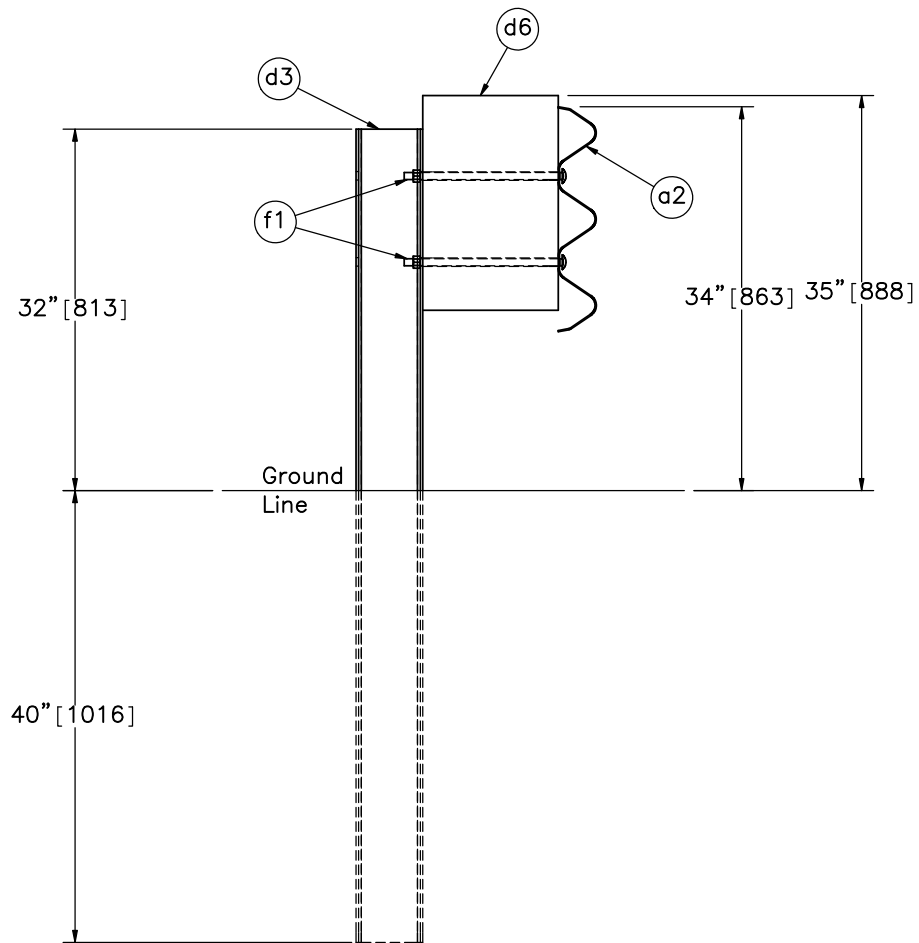
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SHEET:  
2 of 23

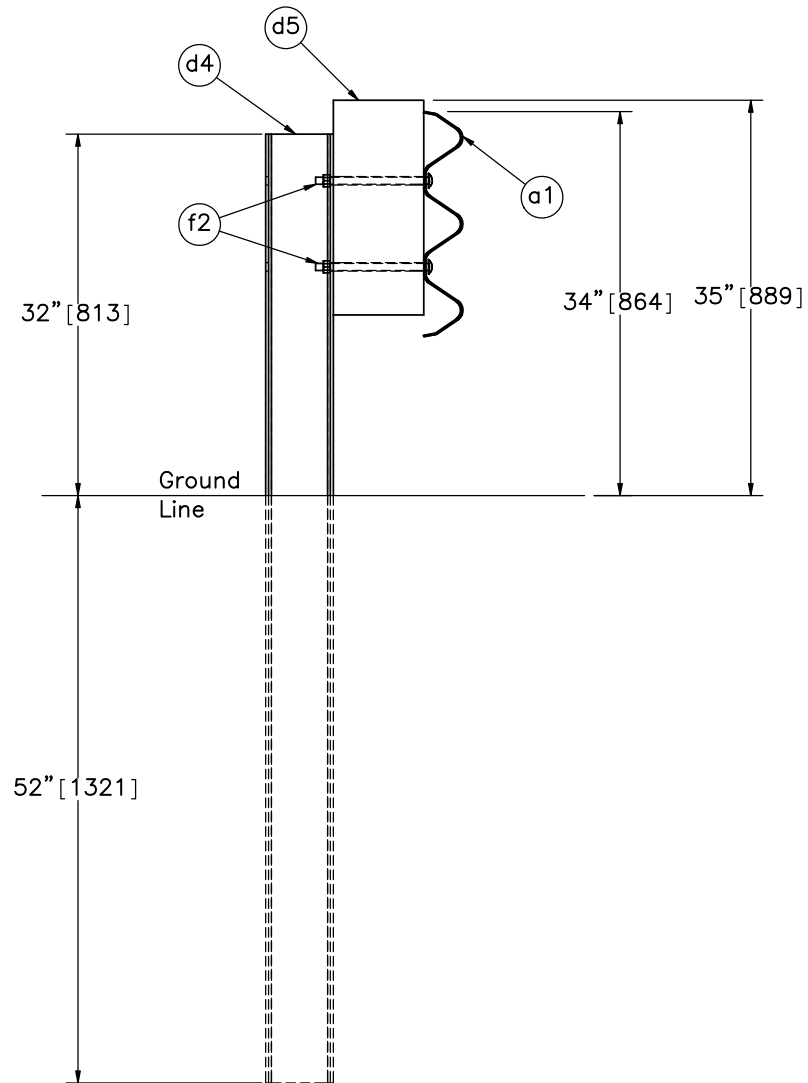
DATE:  
1/18/2017

DRAWN BY:  
JEK


REV. BY:  
KAL/JCH

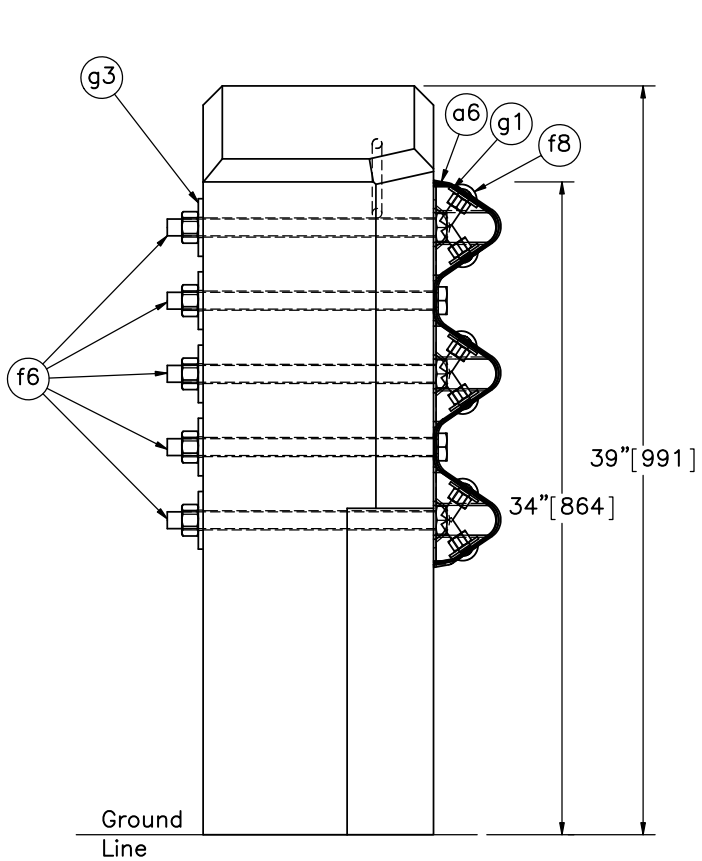


SECTION C-C  
Post Nos. 12-16

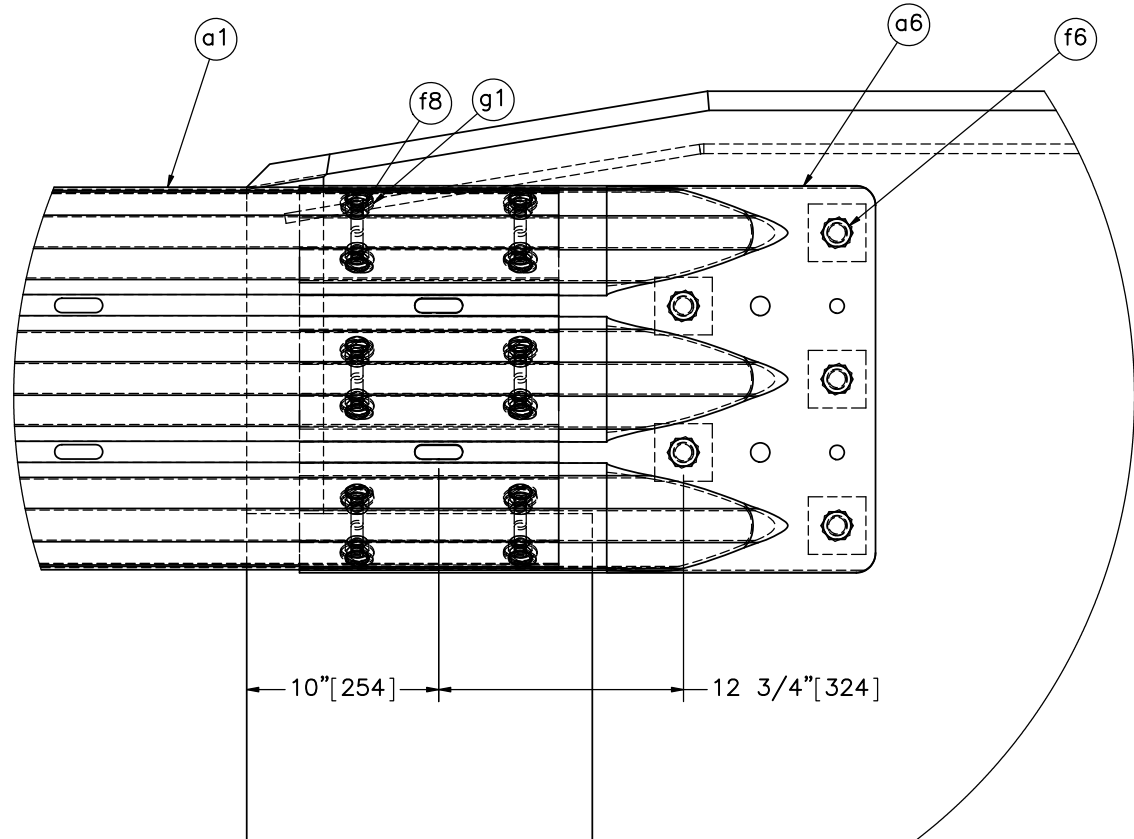


SECTION D-D  
Post Nos. 17-19

	<b>34" Thrie-Beam AGT to Concrete Buttress</b>		SHEET: 3 of 23
	Post Nos. 12-19 Details		DATE: 1/18/2017
Midwest Roadside Safety Facility	DWG. NAME: Thrie_Buttress-2_R2	SCALE: 1:17 UNITS: in.[mm]	DRAWN BY: JEK  REV. BY: KAL/JCH



SECTION E-E  
(REBAR HIDDEN)



DETAIL F  
(REBAR HIDDEN)

Note: (1) g1 washers placed between nuts and thrie beam end connector.



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

Thrie Beam Buttress and End  
Shoe Details

DWG. NAME:  
Thrie\_Buttress-2\_R2

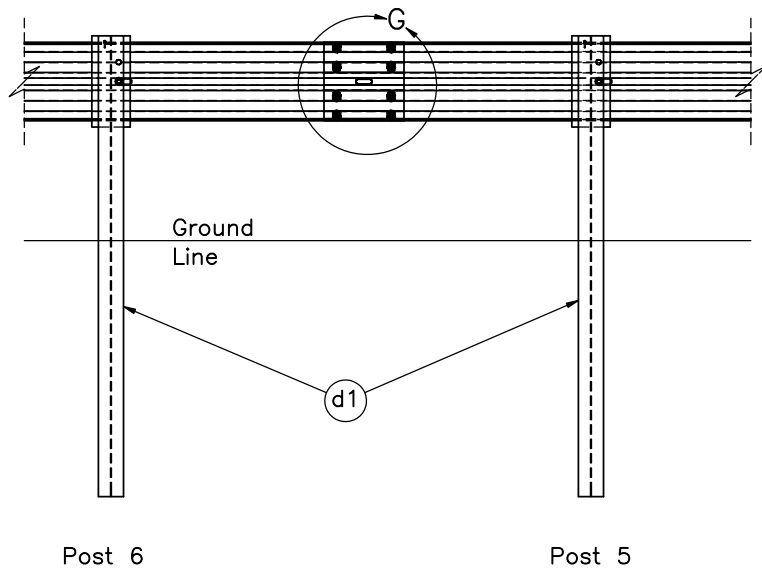
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SHEET:  
4 of 23

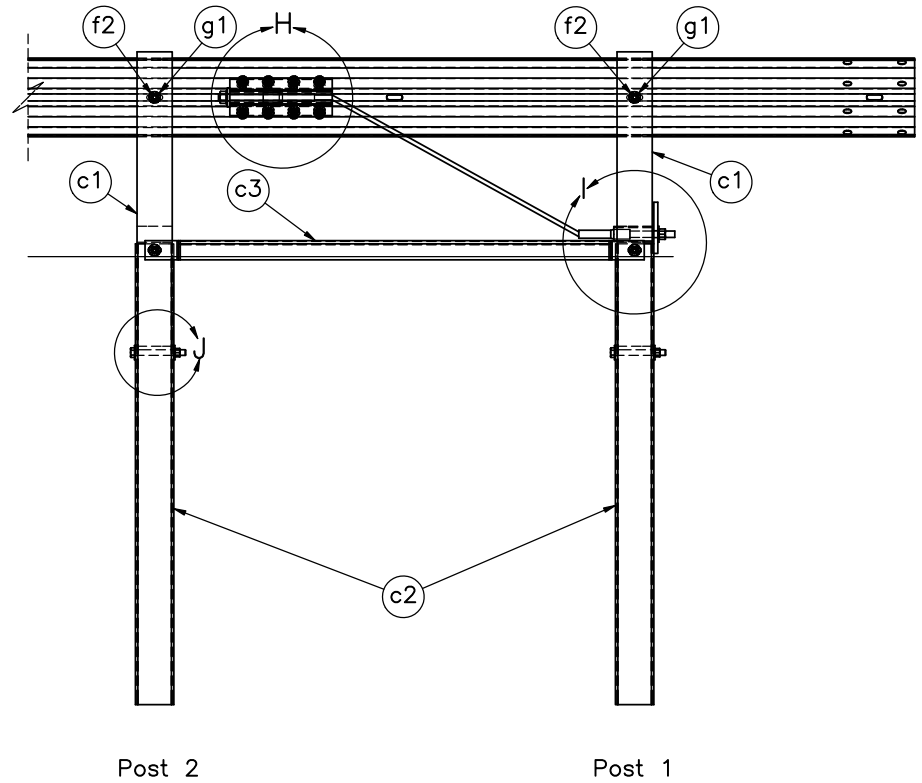
DATE:  
1/18/2017

DRAWN BY:  
JEK

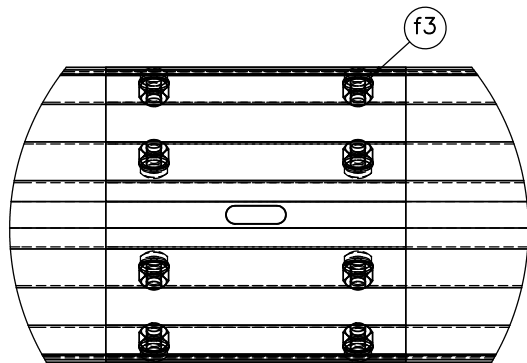
REV. BY:  
KAL/JCH



SPLICE DETAIL  
BACKSIDE



END SECTION DETAIL  
BACKSIDE



DETAIL G  
SCALE 1 : 8



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

End Section and Splice Detail

DWG. NAME.  
Thrie\_Buttress-2\_R2

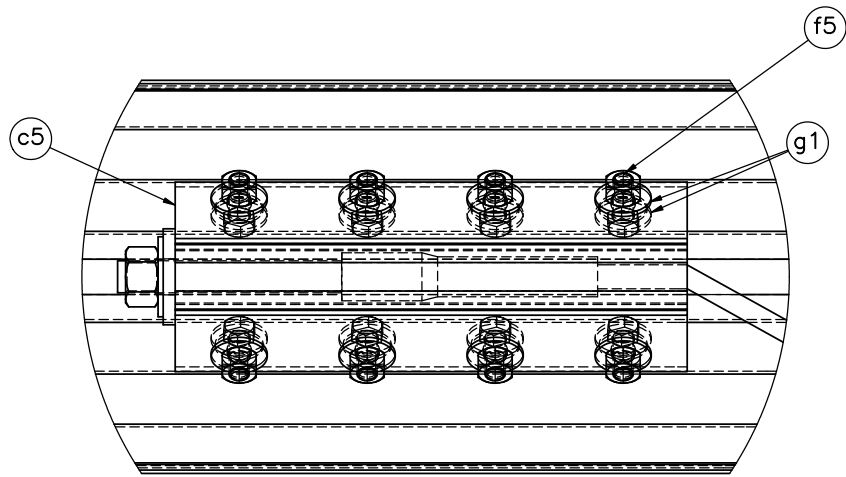
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SHEET:  
5 of 23

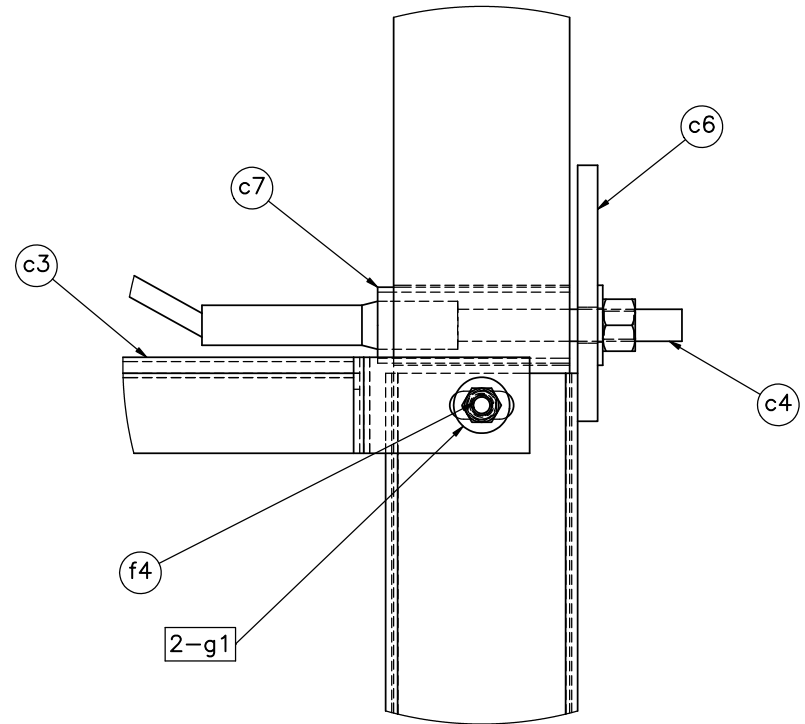
DATE:  
1/18/2017

DRAWN BY:  
JEK

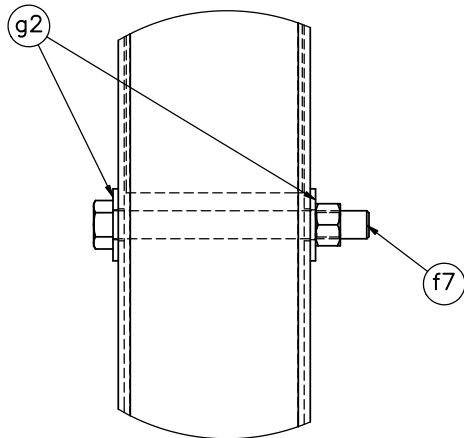
REV. BY:  
KAL/JCH



DETAIL H



DETAIL I



DETAIL J



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

BCT Anchor Details

DWG. NAME:  
Thrie\_Buttress-2\_R2

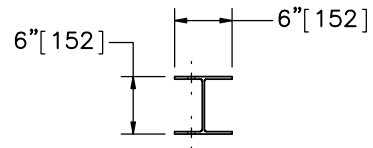
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SHEET:  
6 of 23

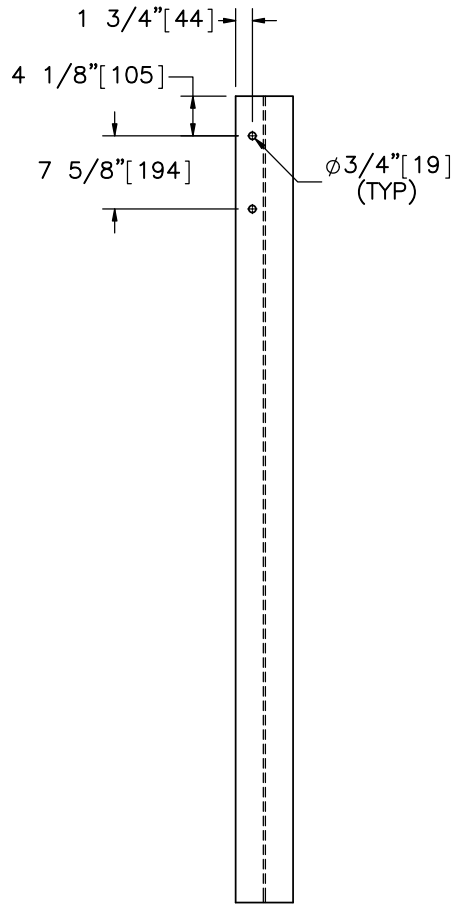
DATE:  
1/18/2017

DRAWN BY:  
JEK

REV. BY:  
KAL/JCH

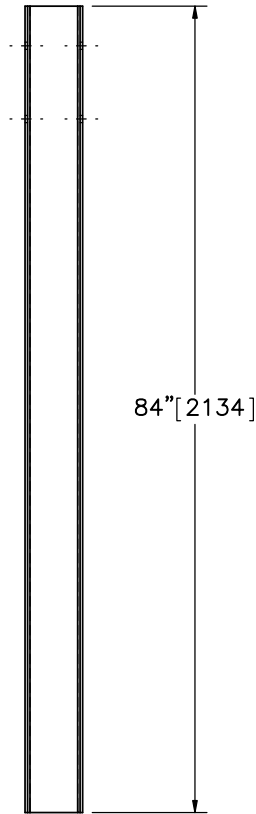


PLAN VIEW

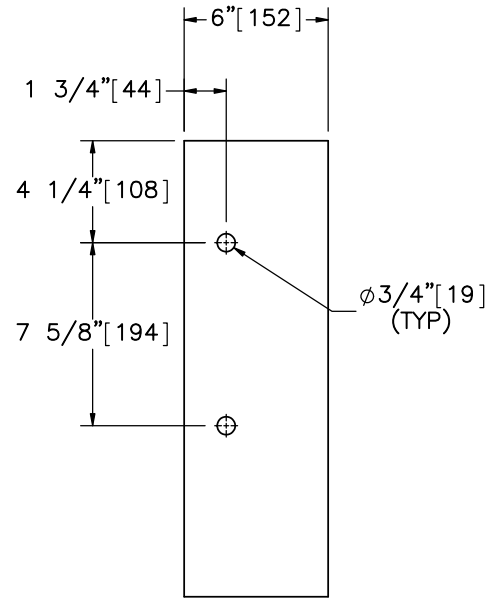


ELEVATION VIEW

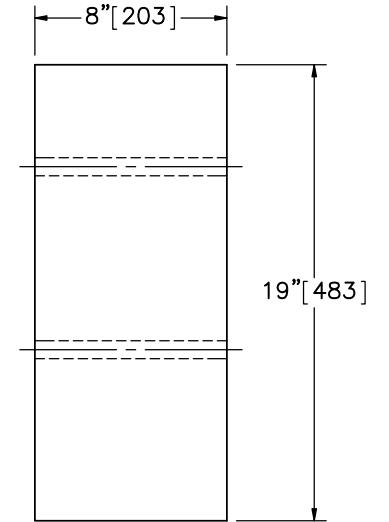
Part d4



PROFILE VIEW



ELEVATION VIEW



PROFILE VIEW

Part d5  
SCALE 1:8



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

Post Nos. 17-19 Components

DWG. NAME.  
Thrie\_Buttress-2\_R2

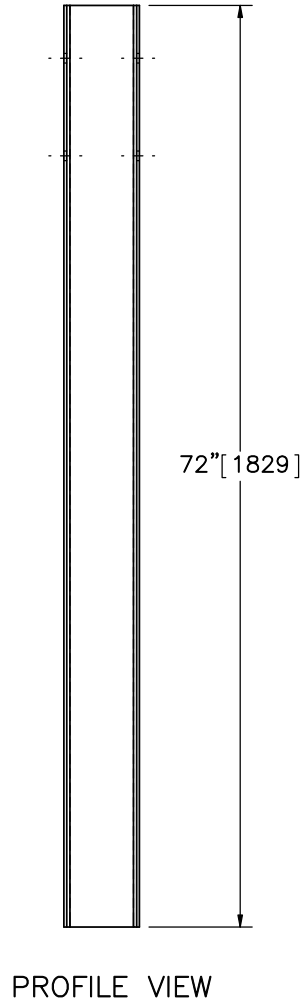
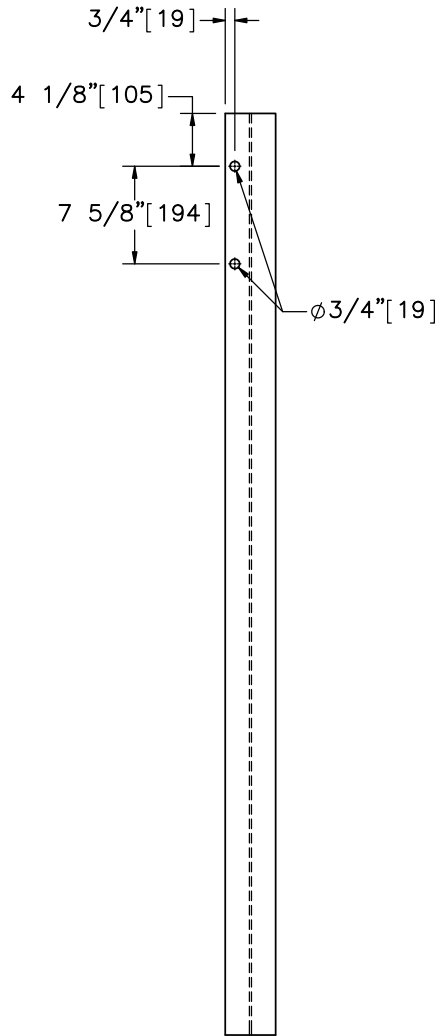
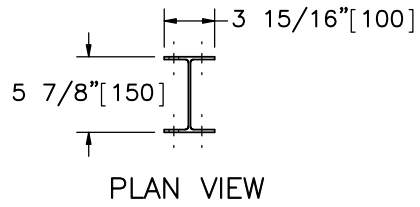
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SHEET:  
7 of 23

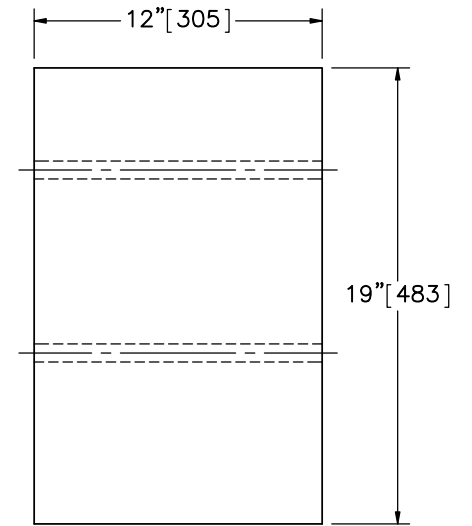
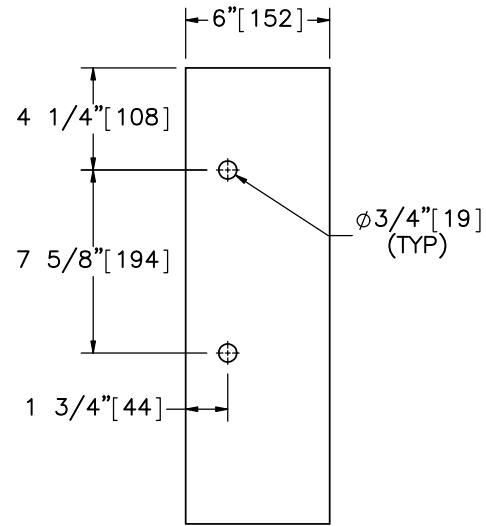
DATE:  
1/18/2017

DRAWN BY:  
JEK

REV. BY:  
KAL/JCH



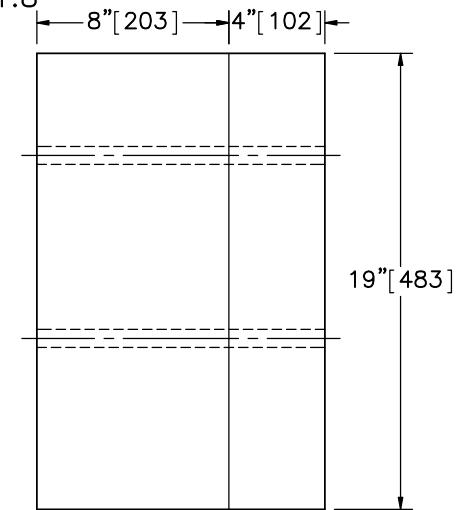
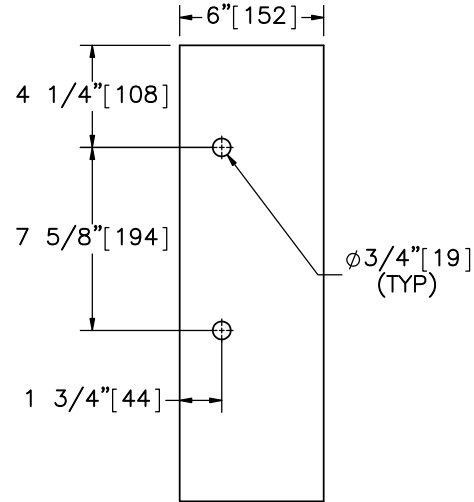
Part d3



ELEVATION VIEW

PROFILE VIEW

Part d6  
SCALE 1:8



ELEVATION VIEW

PROFILE VIEW

Alternate Blockout Option



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

Post Nos. 12-16 Components

DWG. NAME:  
Thrie\_Buttress-2\_R2

SCALE: 1:15  
UNITS: in.[mm]

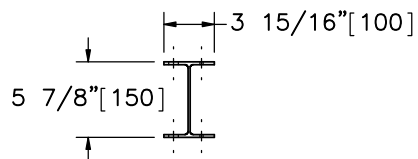
SHEET:  
8 of 23

DATE:  
1/18/2017

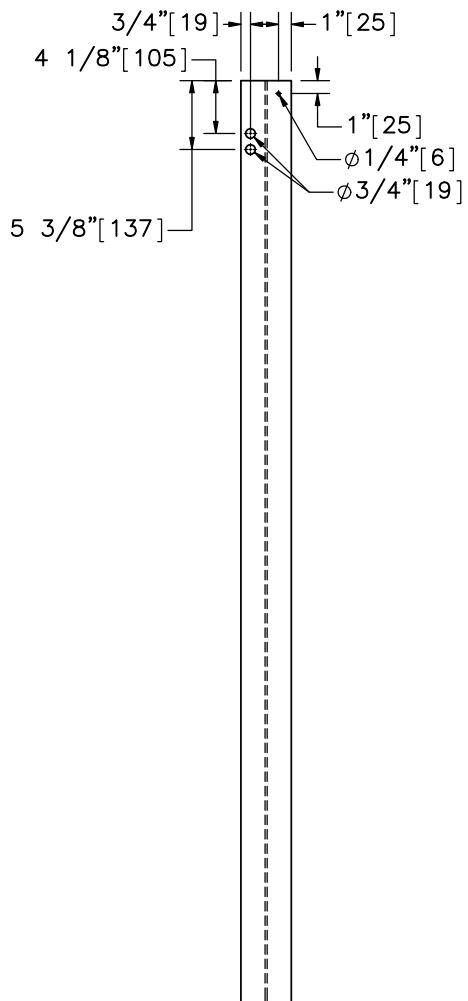
DRAWN BY:  
JEK

REV. BY:  
KAL/JCH



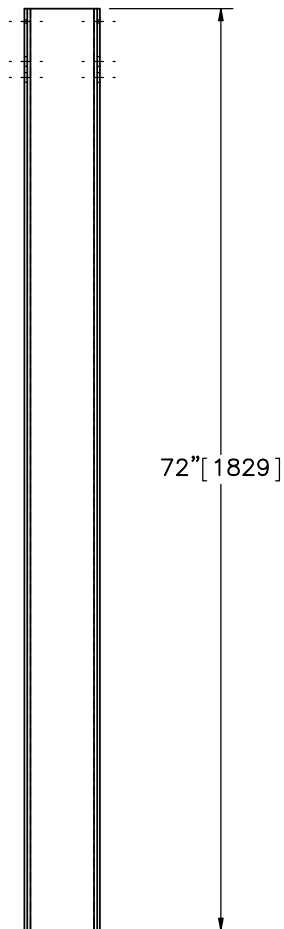


PLAN VIEW



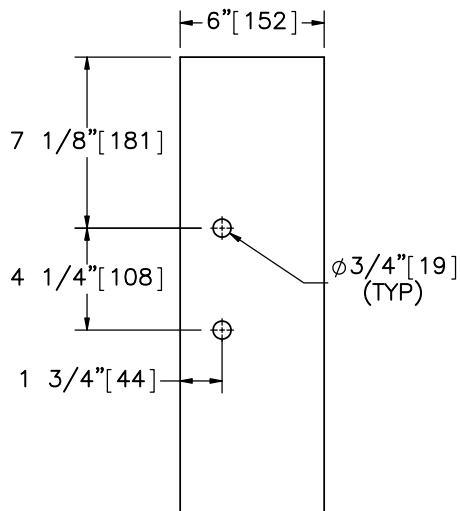
ELEVATION VIEW

Part d2



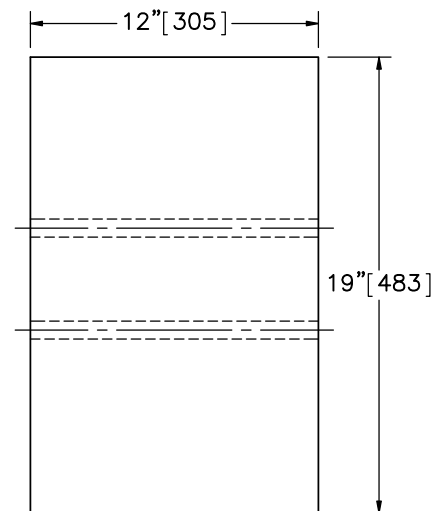
PROFILE VIEW

Note: (1) Top bolt hole in part d2 is for use with asymmetric guardrail segment after 3" [76] roadway overlay.  
 (2) Top hole not necessary for testing.

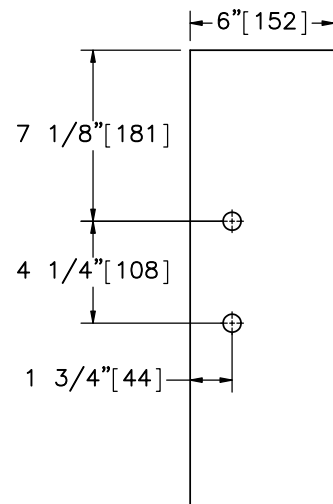


ELEVATION VIEW

Part d7  
SCALE 1:8

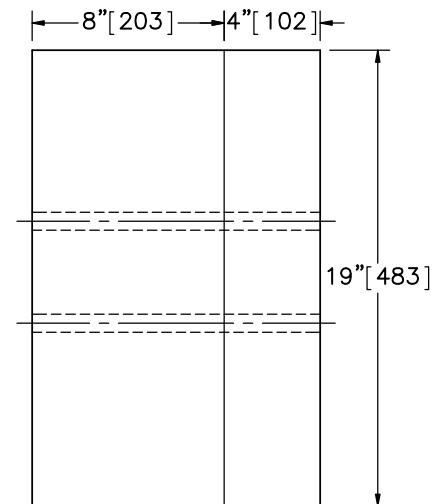


PROFILE VIEW



ELEVATION VIEW

Alternate Blockout Option



PROFILE VIEW



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

Post No. 11 Components

DWG. NAME:  
Thrie\_Buttress-2\_R2

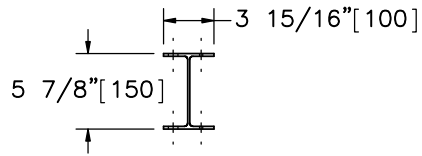
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UNITS: in.[mm]

SHEET:  
9 of 23

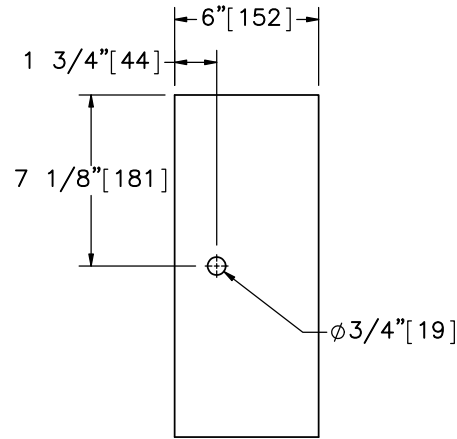
DATE:  
1/18/2017

DRAWN BY:  
JEK

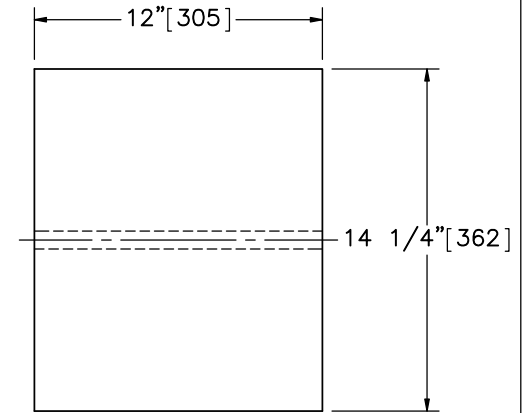
REV. BY:  
KAL/JCH



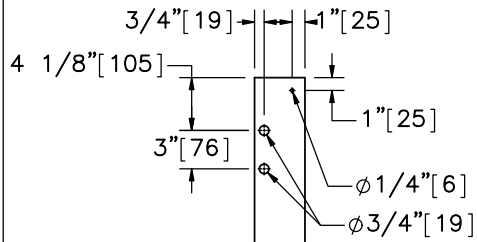
PLAN VIEW



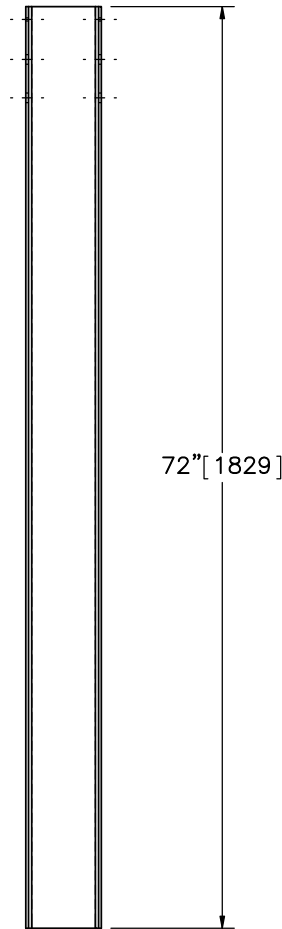
ELEVATION VIEW



PROFILE VIEW

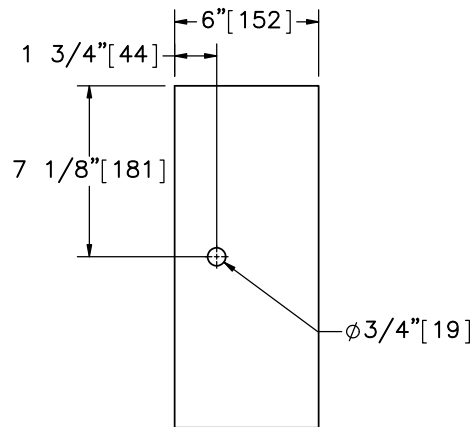


ELEVATION VIEW

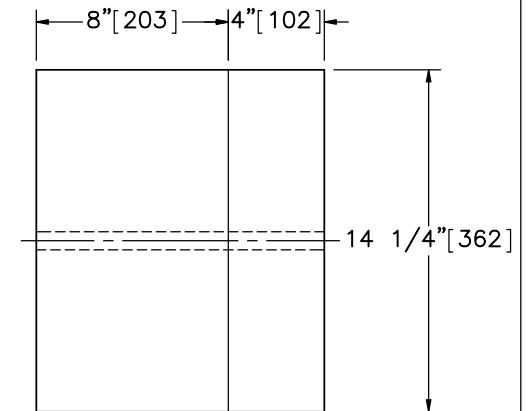


PROFILE VIEW

Part d8  
SCALE 1:8



ELEVATION VIEW



PROFILE VIEW

Alternate Blockout Option

Part d1

Note: (1) Top bolt hole in part d1 for use to attach rail and blockout after 3" [76] roadway overlay.  
(2) Top hole not necessary for testing.



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

Post Nos. 3-10 Components

DWG. NAME:  
Thrie\_Buttrss-2\_R2

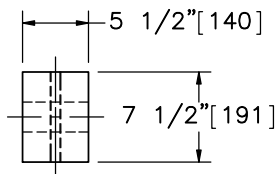
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UNITS: in.[mm]

SHEET:  
10 of 23

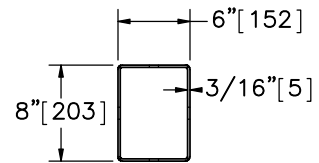
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1/18/2017

DRAWN BY:  
JEK

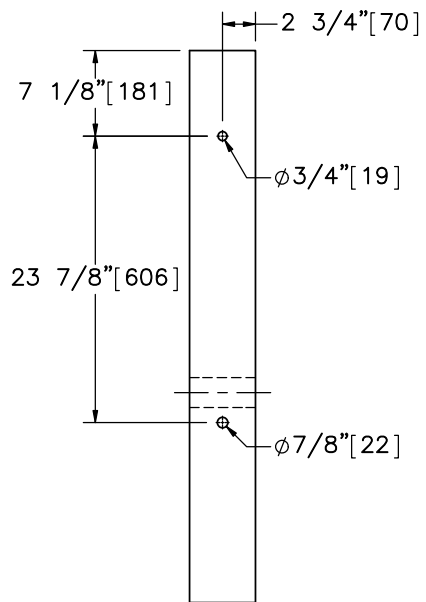
REV. BY:  
KAL/JCH



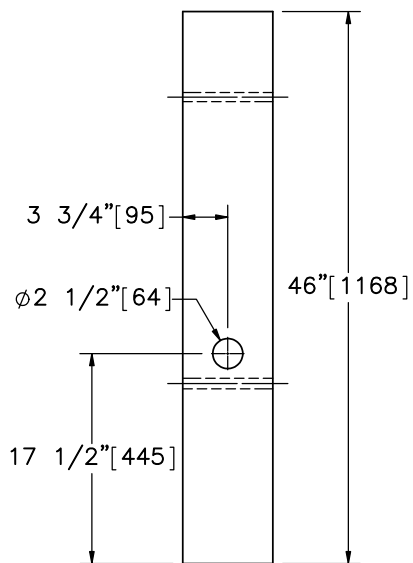
PLAN VIEW



PLAN VIEW

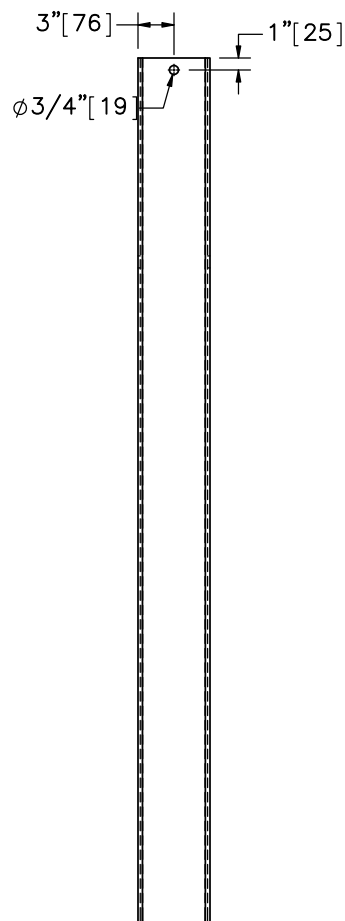


ELEVATION VIEW

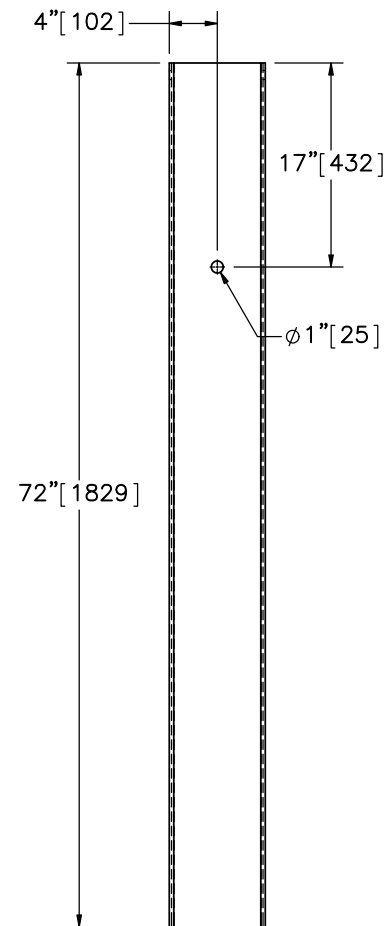


PROFILE VIEW

Part c1



ELEVATION VIEW



PROFILE VIEW

Part c2



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

BCT Timber Post & Foundation Tube Details

DWG. NAME:  
Thrie\_Buttress-2\_R2

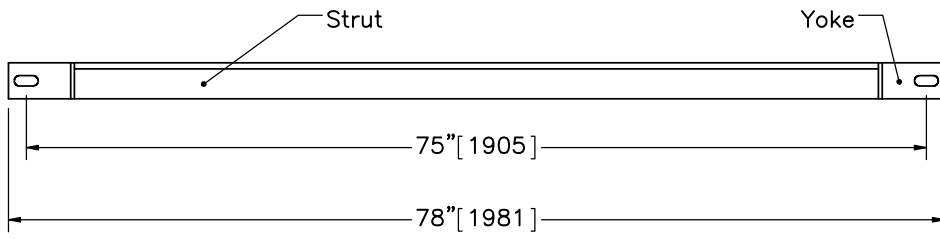
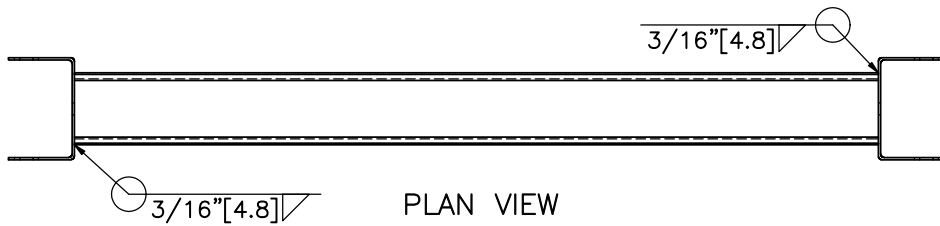
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UNITS: in.[mm]

SHEET:  
11 of 23

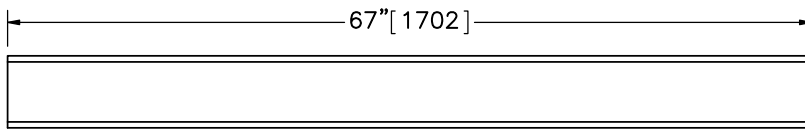
DATE:  
1/18/2017

DRAWN BY:  
JEK

REV. BY:  
KAL/JCH

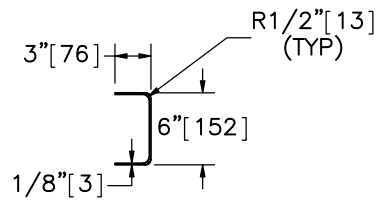


Part c3

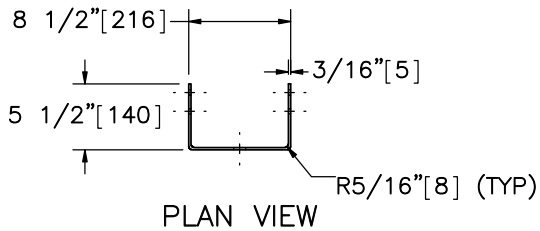


ELEVATION VIEW

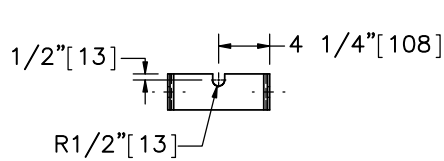
6"x3" [152x76] 10 Gauge [3.4] Strut



PROFILE VIEW

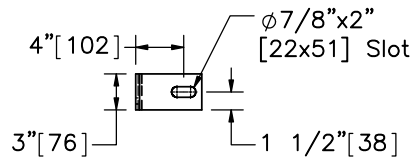


PLAN VIEW

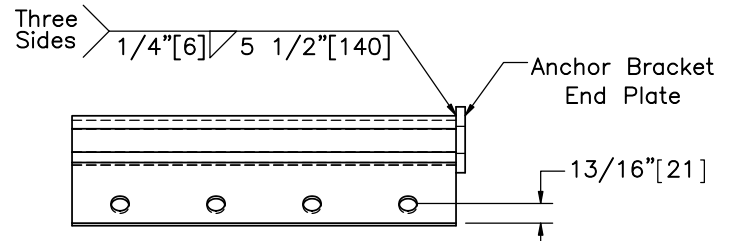


ELEVATION VIEW

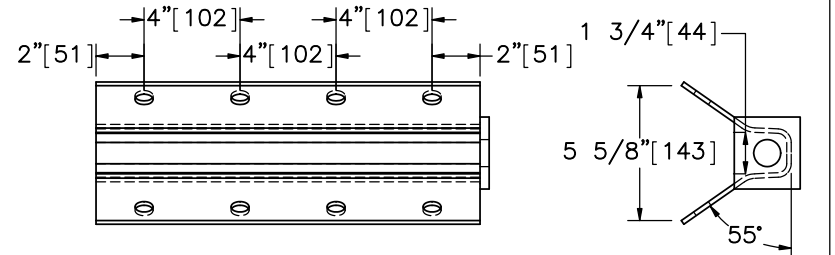
Yoke



PROFILE VIEW



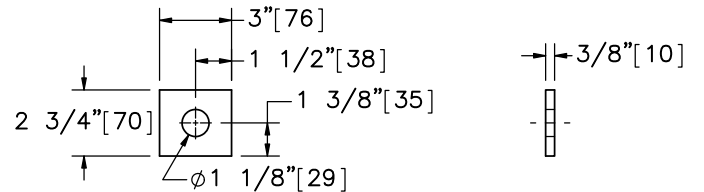
PLAN VIEW



ELEVATION VIEW

Part c5  
SCALE 1:8

PROFILE VIEW



ELEVATION VIEW

PROFILE VIEW

Anchor Bracket End Plate  
SCALE 1:8



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

Ground Strut Details

DWG. NAME:  
Thrie\_Buttress-2\_R2

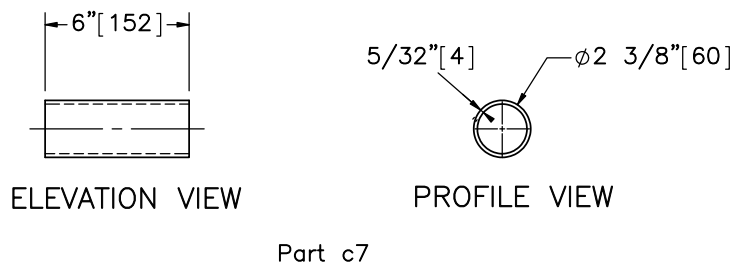
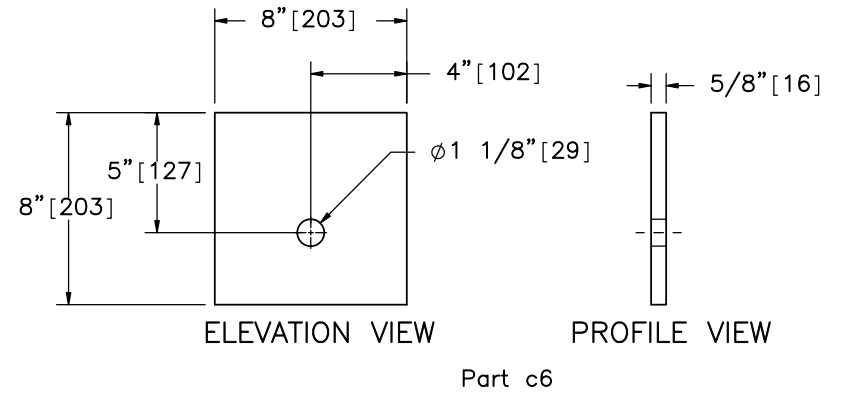
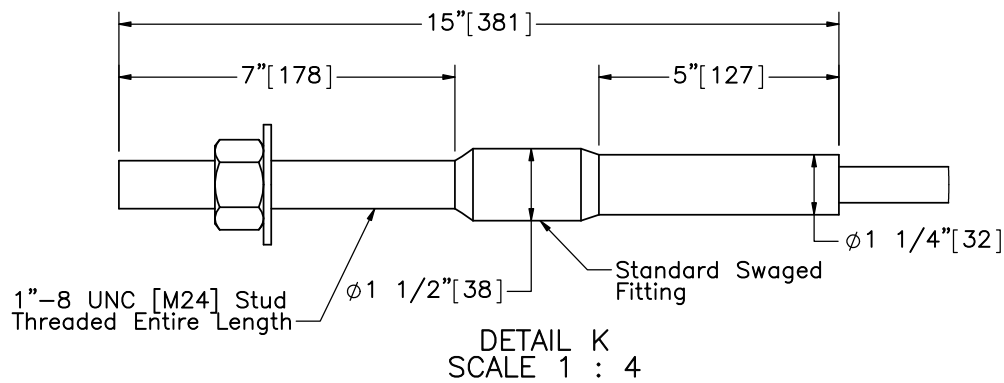
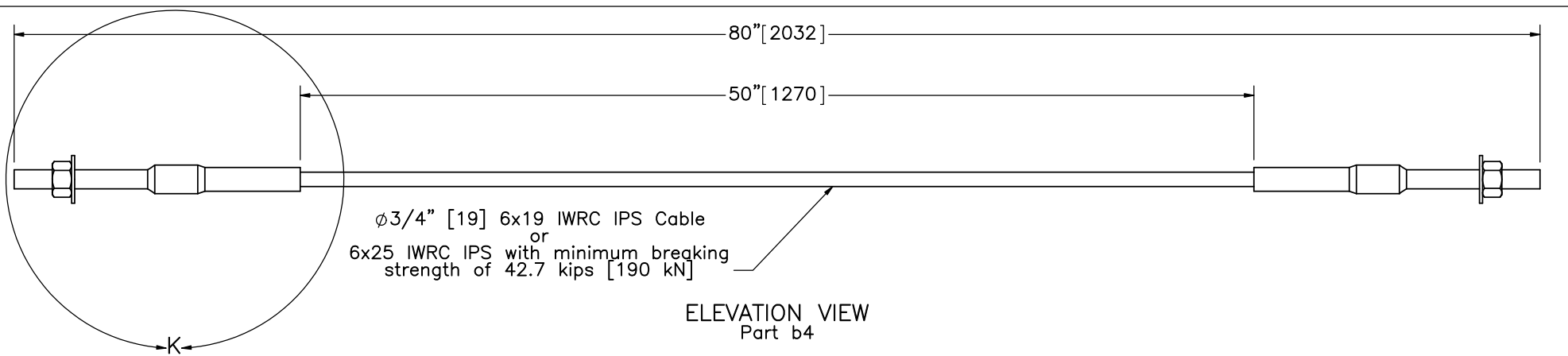
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UNITS: in.[mm]

SHEET:  
12 of 23

DATE:  
1/18/2017

DRAWN BY:  
JEK

REV. BY:  
KAL/JCH



Midwest Roadside Safety Facility

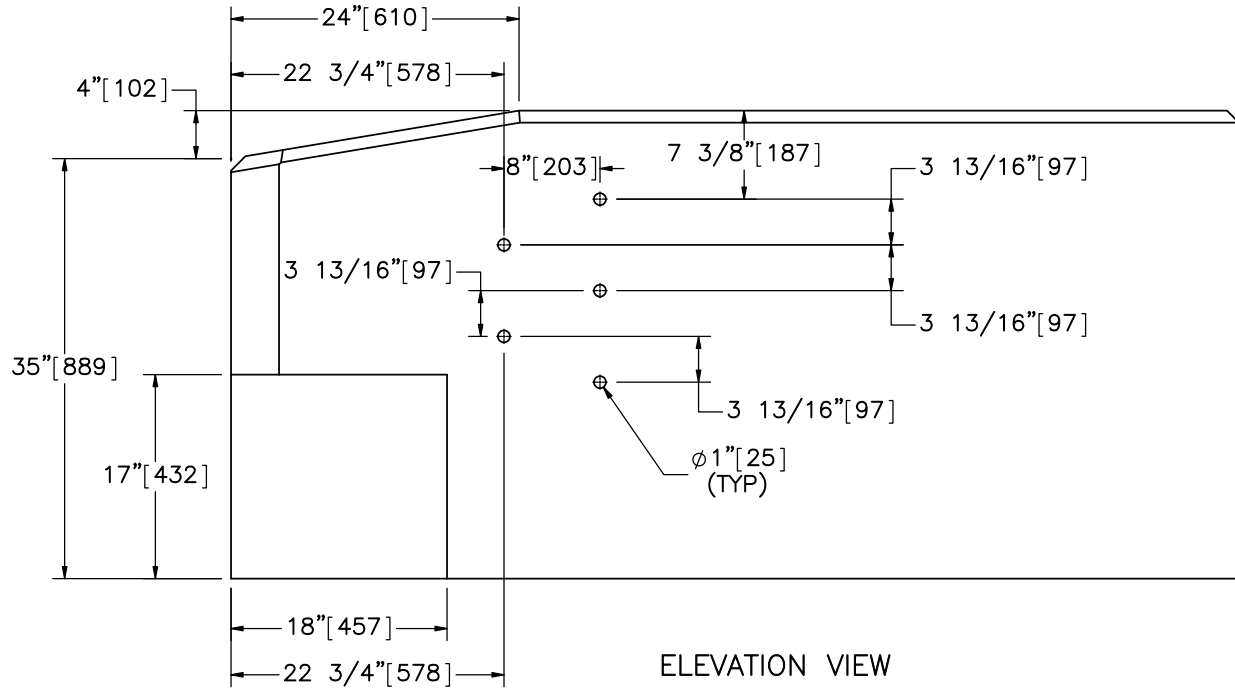
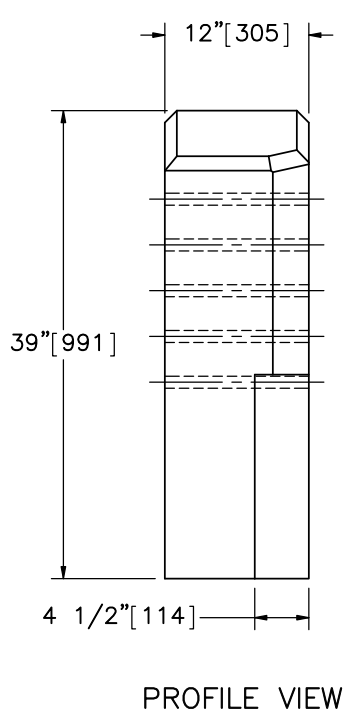
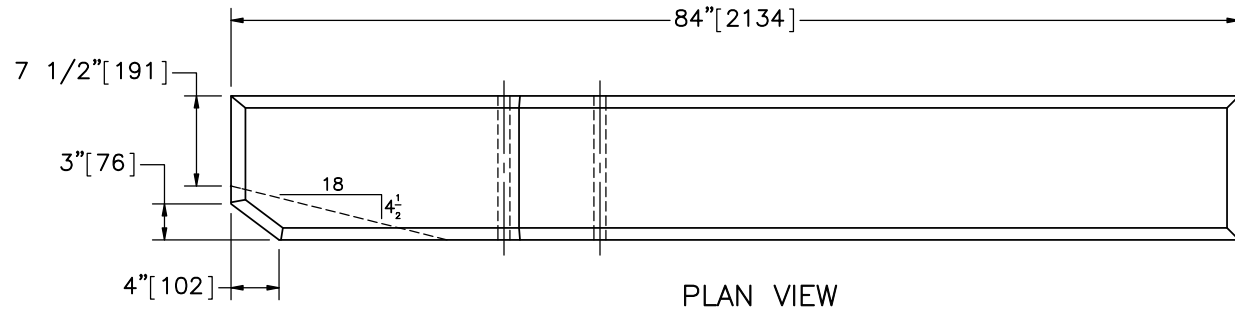
34" Thrie-Beam AGT to Concrete Buttress

BCT Anchor Cable

DWG. NAME:  
Thrie\_Buttress-2\_R2

SCALE: 1:8  
UNITS: in,[mm]

SHEET:  
13 of 23  
DATE:  
1/18/2017  
DRAWN BY:  
JEK  
REV. BY:  
KAL/JCH



Part b1

- Notes: (1) Lower setback has lateral flare of 1:4.  
 (2) Five 1" [25] diameter holes are required for placement of 7/8" [22] diameter bolts.



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

Buttress Details

DWG. NAME.  
Thrie\_Buttress-2\_R2

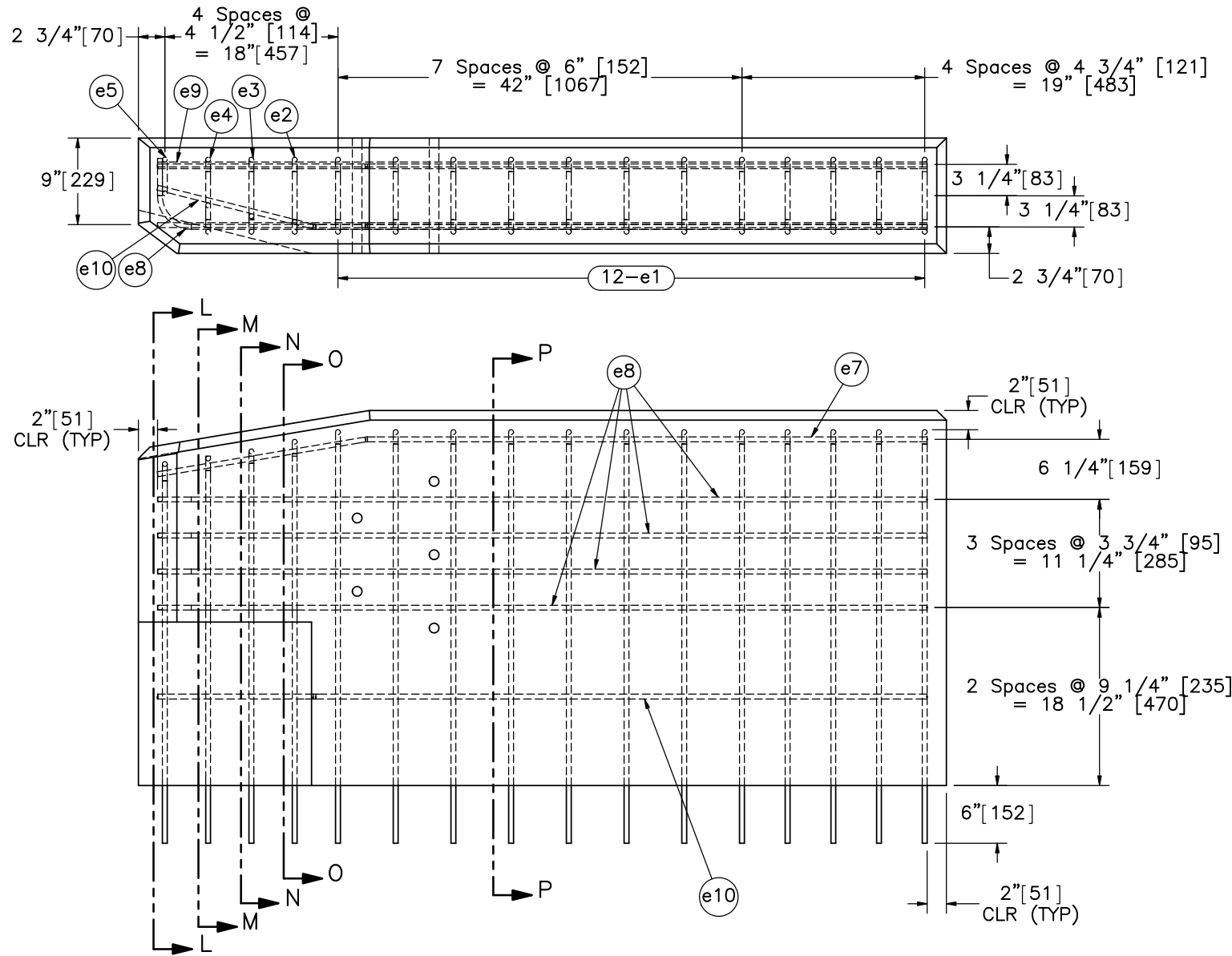
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UNITS: in.[mm]

SHEET:  
14 of 23

DATE:  
1/18/2017

DRAWN BY:  
JEK

REV. BY:  
KAL/JCH



- Notes:
- (1) Vertical rebar embedded in tarmac with chemical epoxy adhesive with a minimum bond strength of 1,450 psi [10.0 MPa].
  - (2) All edges of the top of the buttress are chamfered 1" [25].



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

Rebar Detail

DWG. NAME:  
Thrie\_Buttress-2\_R2

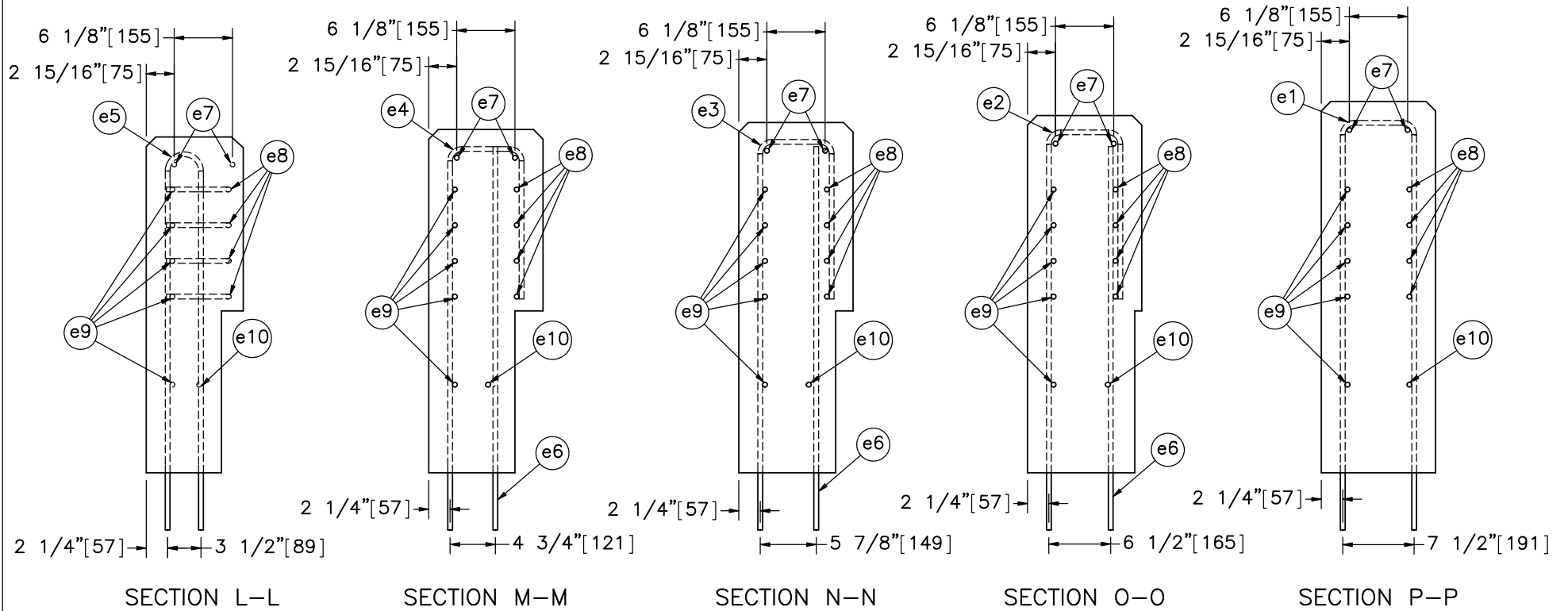
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UNITS: in.[mm]

SHEET:  
15 of 23

DATE:  
1/18/2017

DRAWN BY:  
JEK

REV. BY:  
KAL/JCH



Note: (1) All stirrups have minimum 2" [51] concrete clear cover.



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

Buttress Sections

DWG. NAME:  
Thrie\_Buttress-2\_R2

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

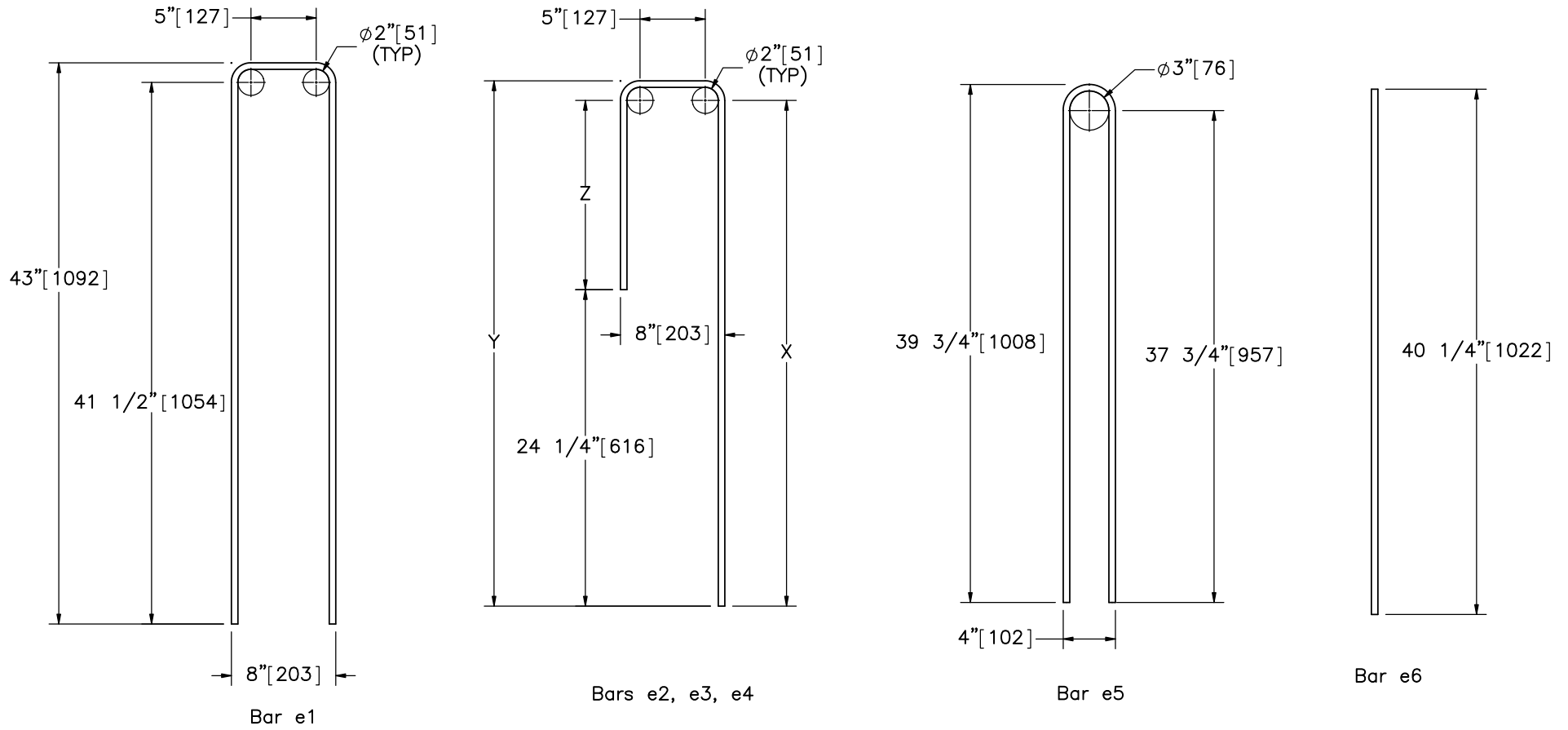
SHEET:  
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DATE:  
1/18/2017

DRAWN BY:  
JEK

REV. BY:  
KAL/JCH





Bill of Bars						
Part No.	QTY	Size	X	Y	Z	Unbent Length
e1	12	#4	41 1/2" [1,054]	43" [1,092]	-	92" [2,337]
e2	1	#4	40 1/2" [1,029]	42" [1,067]	16 1/4" [413]	65 3/4" [1,670]
e3	1	#4	39 1/2" [1,003]	41" [1,042]	15 1/4" [387]	63 1/2" [1,612]
e4	1	#4	38 3/4" [984]	40 1/4" [1,022]	14 1/2" [368]	62 1/4" [1,581]
e5	1	#4	37 3/4" [959]	39 3/4" [1,010]	-	80 3/4" [2,051]
e6	1	#4	-	-	-	40 1/4" [1,022]



Midwest Roadside Safety Facility

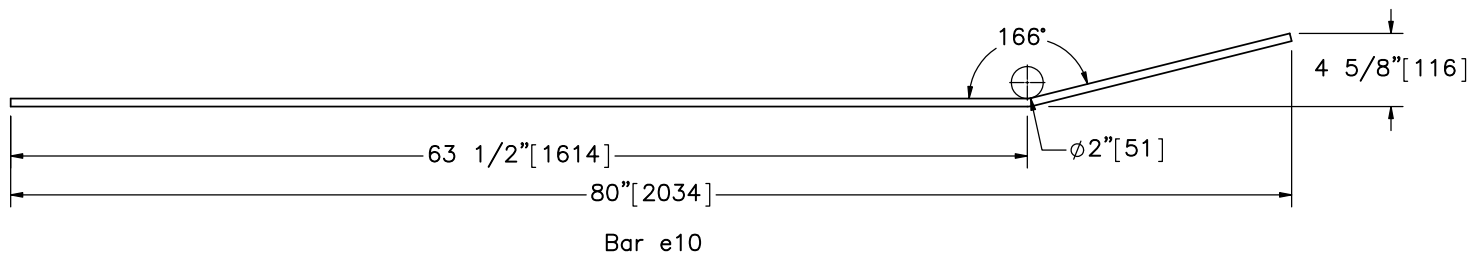
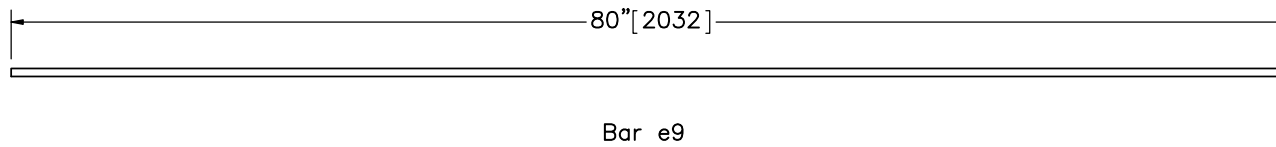
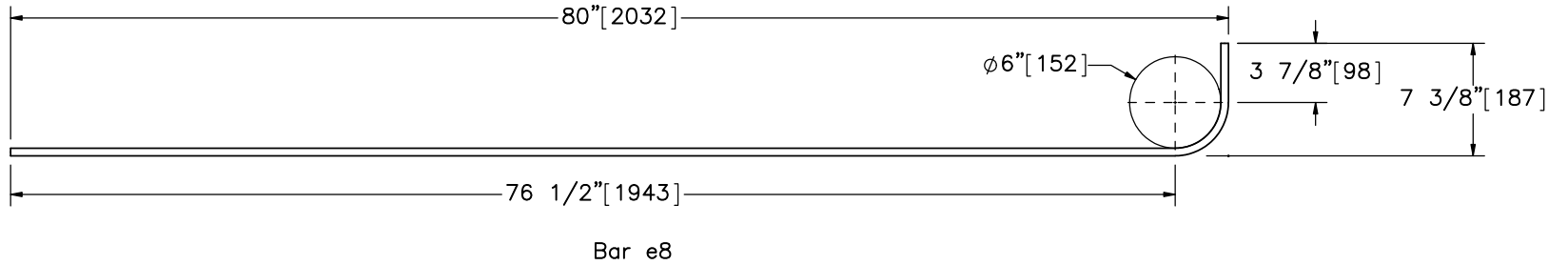
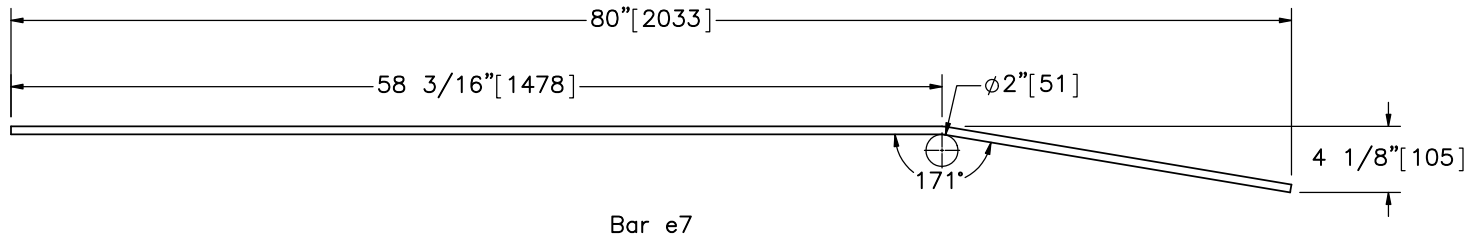
34" Thrie-Beam AGT to Concrete Buttress

Vertical Rebar Details

DWG. NAME: Thrie\_Buttress-2\_R2

SCALE: 1:12  
UNITS: in.[mm]

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DATE: 1/18/2017  
DRAWN BY: JEK  
REV. BY: KAL/JCH



Bill of Bars			
Part No.	QTY	Size	Unbent Length
e7	2	#4	80 1/4" [2,038]
e8	4	#4	85 1/2" [2,171]
e9	5	#4	80" [2,032]
e10	1	#4	80 1/2" [2,045]



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

Horizontal Rebar Details

DWG. NAME.  
Thrie\_Buttress-2\_R2

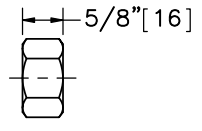
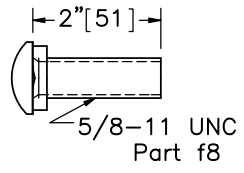
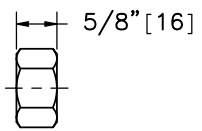
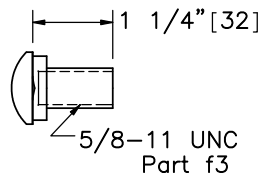
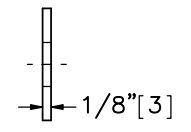
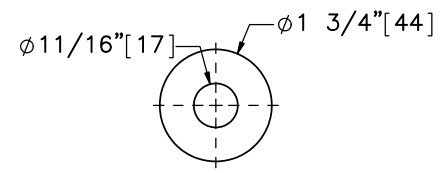
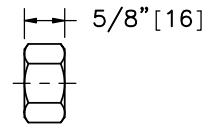
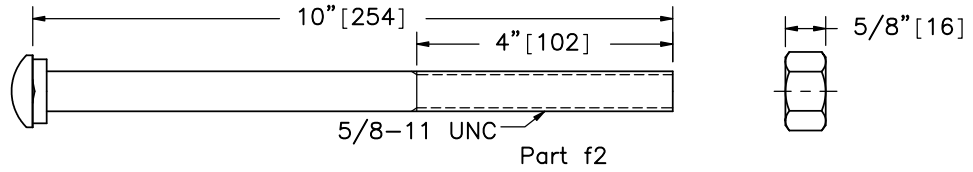
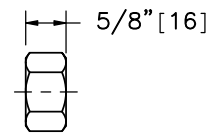
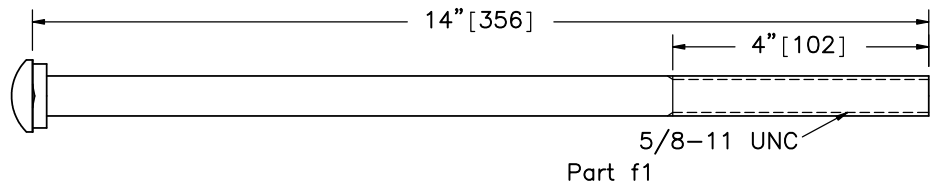
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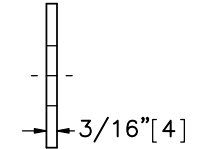
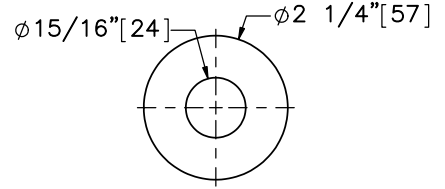
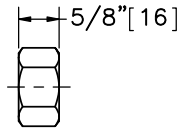
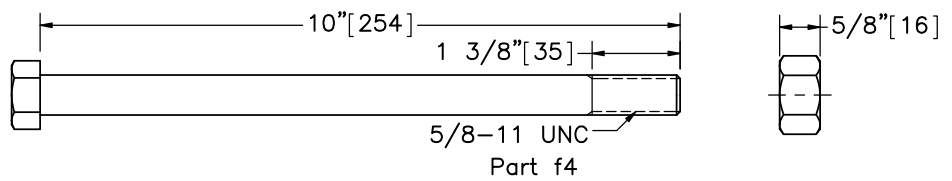
DATE:  
1/18/2017

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JEK

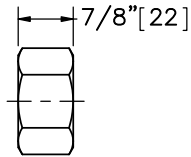
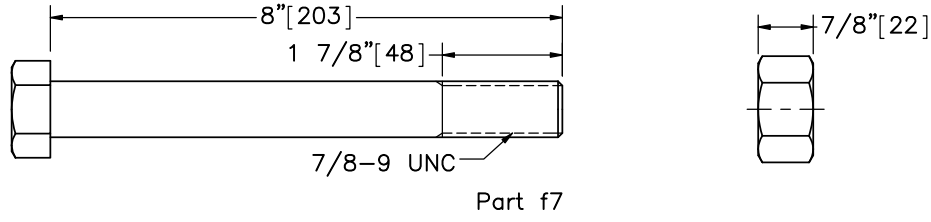
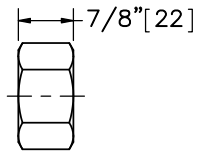
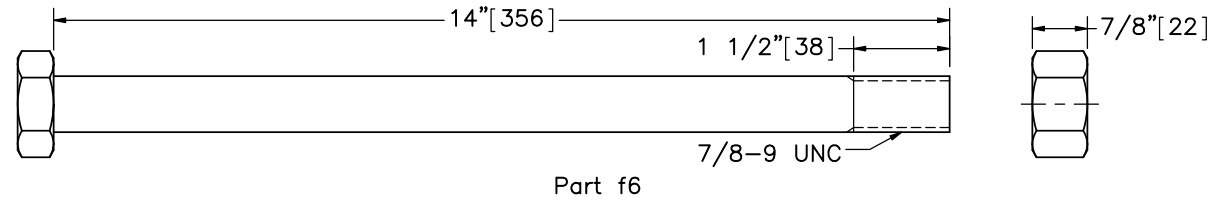
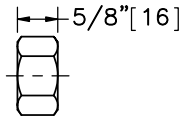
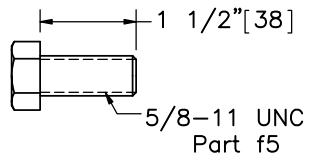
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Part g1



Part g2



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

Fastener Details

DWG. NAME:  
Thrie\_Buttress-2\_R2

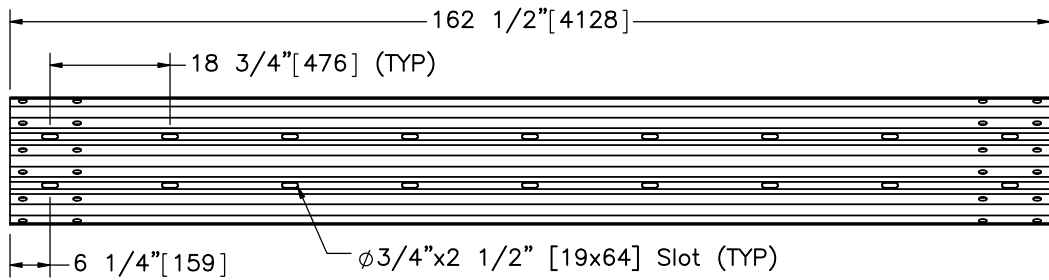
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19 of 23

DATE:  
1/18/2017

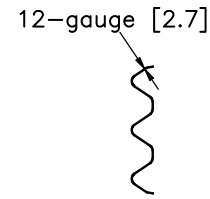
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JEK

REV. BY:  
KAL/JCH

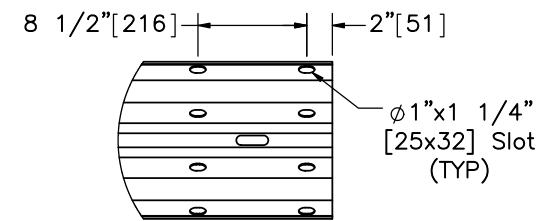


ELEVATION VIEW

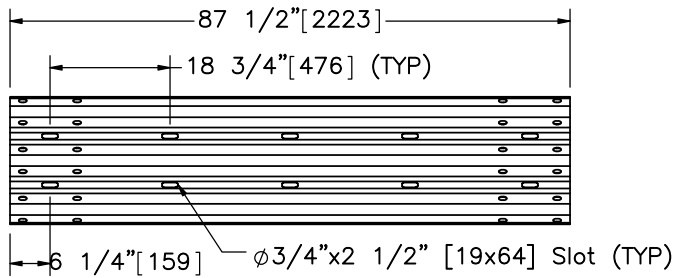
Part a1



PROFILE VIEW

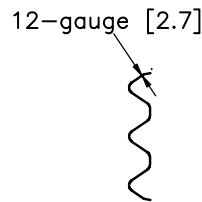


DETAIL Q  
SCALE 1 : 15

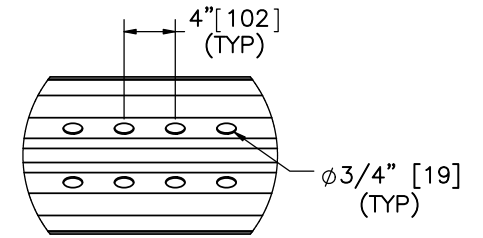


ELEVATION VIEW

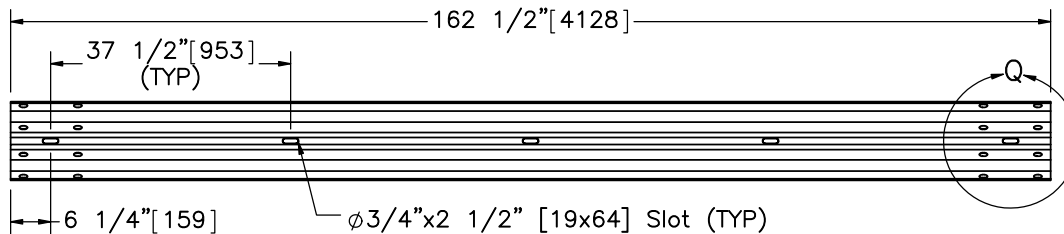
Part a2



PROFILE VIEW

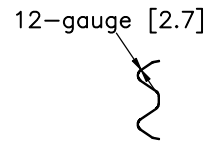


DETAIL R  
SCALE 1 : 15

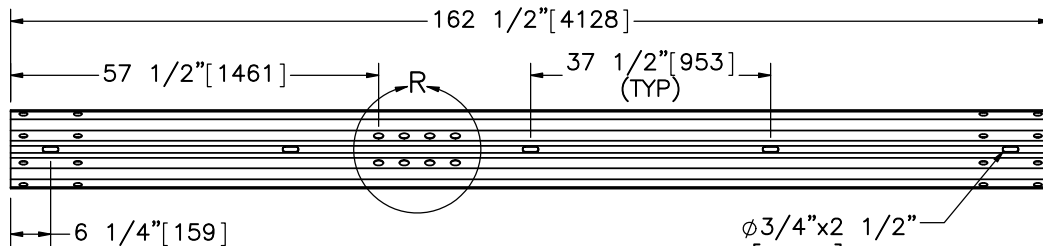


ELEVATION VIEW

Part a4



PROFILE VIEW



ELEVATION VIEW

Part a5

$\phi 3/4$ "x2 1/2"  
[19x64] Slot  
(TYP)



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

Guardrail Details

DWG. NAME:  
Thrie\_Buttress-2\_R2

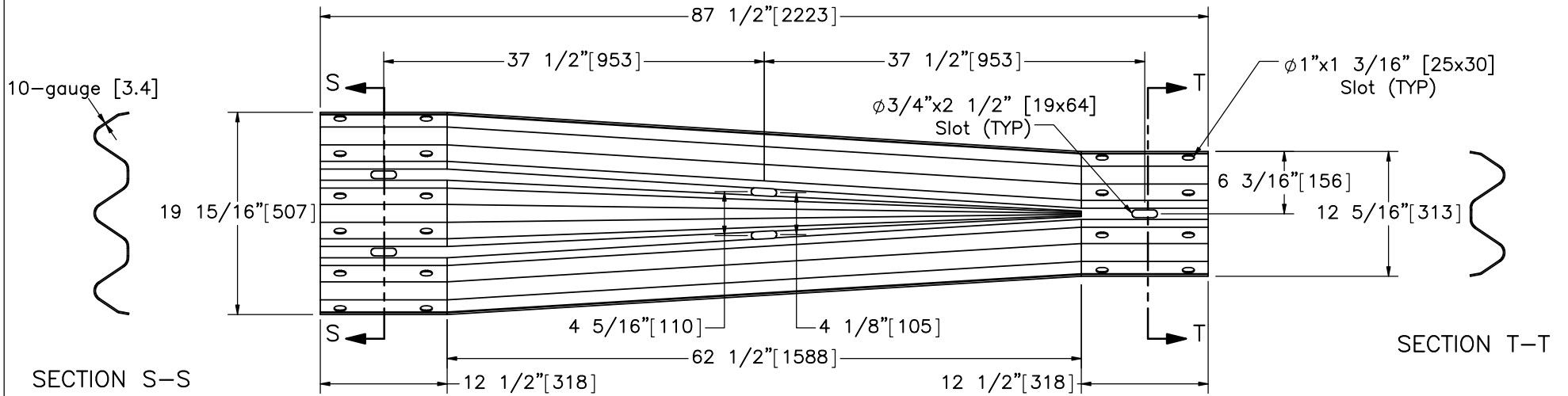
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SHEET:  
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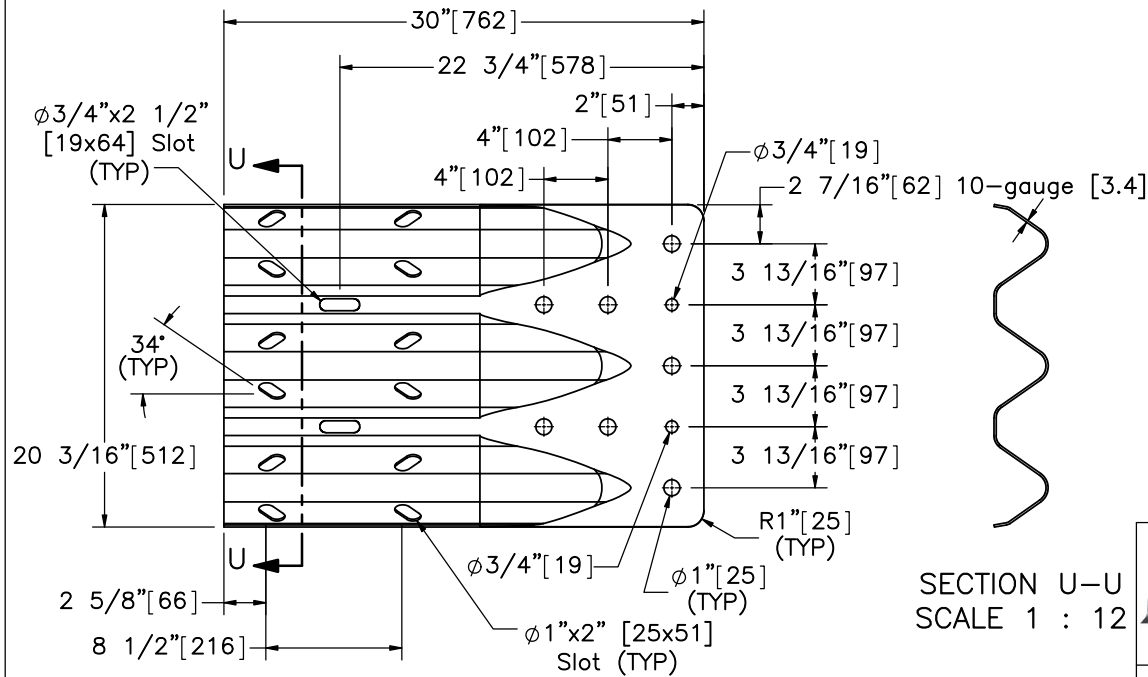
DATE:  
1/18/2017

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REV. BY:  
KAL/JCH

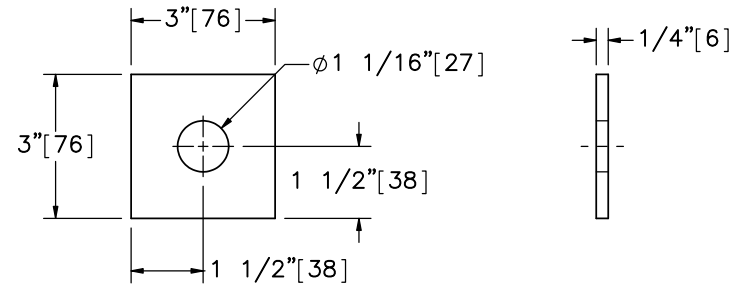


ELEVATION VIEW  
Part a3



ELEVATION VIEW  
Part a6

SECTION U-U  
SCALE 1 : 12



Part g3



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

Rail Transition and Component  
Details

DWG. NAME:  
Thrie\_Buttress-2\_R2

SCALE: 1:15  
UNITS: in.[mm]

SHEET:  
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DATE:  
1/18/2017

DRAWN BY:  
JEK

REV. BY:  
KAL/JCH

Item No.	QTY.	Description	Material Specification	Galvanization Specification	Hardware Guide
a1	2	12'-6" [3,810] 12-gauge [2.7] Thrie Beam Section	AASHTO M180	ASTM A653	RTM08a
a2	1	6'-3" [1,905] 12-gauge [2.7] Thrie Beam Section	AASHTO M180	ASTM A653	RTM19a
a3	1	10-gauge [3.4] Symmetrical W-beam to Thrie Beam Transition	AASHTO M180	ASTM A653	RWT01b
a4	3	12'-6" [3,810] 12-gauge [2.7] W-Beam Section	AASHTO M180	ASTM A653	RWM04a
a5	1	12'-6" [3,810] 12-gauge [2.7] W-Beam MGS End Section	AASHTO M180	ASTM A653	RWM14a
a6	1	10-gauge [3.4] Thrie Beam End Shoe Section	AASHTO M180	ASTM A653	RTE01b
a7	1	6'-3" [1,905] 12-gauge [2.7] W-Beam MGS Section	AASHTO M180	ASTM A653	RWM04a
b1	1	Concrete - 21.9 cubic ft [0.62 cubic m]	Min. f'c = 4,000 psi [27.6 MPa]	-	-
c1	2	BCT Timber Post - MGS Height	SYP Grade No. 1 or better (No knots +/- 18" [457] from ground on tension face)	-	PDF01
c2	2	72" [1,829] Long Foundation Tube	ASTM A500 Gr. B	*AASHTO M111 (ASTM A123)	PTE06
c3	1	Ground Strut Assembly	ASTM A36	*AASHTO M111 (ASTM A123)	PFPO2
c4	1	BCT Cable Anchor Assembly	-	-	FCA01
c5	1	Anchor Bracket Assembly	ASTM A36	*AASHTO M111 (ASTM A123)	FPA01
c6	1	8"x8"x5/8" [203x203x16] Anchor Bearing Plate	ASTM A36	*AASHTO M111 (ASTM A123)	FPB01
c7	1	2 3/8" [60] O.D. x 6" [152] Long BCT Post Sleeve	ASTM A53 Gr. B Schedule 40	*AAHSTO M111 (ASTM A123)	FMM02
d1	8	W6x8.5 [W152x12.6] or W6x9 [W152x13.4], 72" [1,829] Long Steel Post	ASTM A992	*AASHTO M111 (ASTM A123)	-
d2	1	W6x8.5 [W152x12.6] or W6x9 [W152x13.4], 72" [1,829] Long Steel Post	ASTM A992	*AASHTO M111 (ASTM A123)	-
d3	5	W6x8.5 [W152x12.6] or W6x9 [W152x13.4], 72" [1,829] Long Steel Post	ASTM A992	*AASHTO M111 (ASTM A123)	-
d4	3	W6x15 [W152x22.3], 84" [2,134] Long Steel Post	ASTM A992	*AASHTO M111 (ASTM A123)	PWE12
d5	3	6"x8"x19" [152x203x483] Timber Blockout	SYP Grade No.1 or better	-	PDB17
d6	5	6"x12"x19" [152x305x483] Timber Blockout	SYP Grade No.1 or better	-	-
d7	1	6"x12"x19" [152x305x483] Timber Blockout	SYP Grade No.1 or better	-	PDB18
d8	8	6"x12"x14 1/4" [152x305x368] Timber Blockout	SYP Grade No.1 or better	-	PDB10a

\* Component does not need to be galvanized for testing purposes.



Midwest Roadside Safety Facility

34" Thrie-Beam AGT to Concrete Buttress

Bill of Materials

DWG. NAME:  
Thrie\_Buttress-2\_R2

SCALE: None  
UNITS: in.[mm]

SHEET:  
22 of 23

DATE:  
1/18/2017

DRAWN BY:  
JEK

REV. BY:  
KAL/JCH

Item No.	QTY.	Description	Material Specification	Galvanization Specification	Hardware Guide
d9	9	16D Double Head Nail	—	—	—
e1	12	1/2" [13] Dia., 92" [2,337] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e2	1	1/2" [13] Dia., 65 3/4" [1,670] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e3	1	1/2" [13] Dia., 63 1/2" [1,612] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e4	1	1/2" [13] Dia., 62 1/4" [1,581] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e5	1	1/2" [13] Dia., 80 3/4" [2,051] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e6	3	1/2" [13] Dia., 40 1/4" [1,022] Long Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e7	2	1/2" [13] Dia., 80 5/16" [2,039] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e8	4	1/2" [13] Dia., 85 1/2" [2,171] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e9	5	1/2" [13] Dia., 80" [2,032] Long Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
e10	1	1/2" [13] Dia., 80 1/2" [2,045] Long Bent Rebar	ASTM A615 Gr. 60	**Epoxy-Coated	—
f1	19	5/8" [16] Dia. UNC, 14" [356] Long Guardrail Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBB06
f2	8	5/8" [16] Dia. UNC, 10" [254] Long Guardrail Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBB03
f3	52	5/8" [16] Dia. UNC, 1 1/4" [32] Long Guardrail Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBB01
f4	2	5/8" [16] Dia. UNC, 10" [254] Long Hex Head Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBX16a
f5	8	5/8" [16] Dia. UNC, 1 1/2" [38] Long Hex Head Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBX16a
f6	5	7/8" [22] Dia. UNC, 14" [356] Long Heavy Hex Bolt and Nut	Bolt — ASTM A325 Type 1 or ASTM A449 or SAI J429 Gr. 5 Nut — ASTM A563DH or ASTM A194 Gr. 2H	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBX22b
f7	2	7/8" Dia. [22] UNC, 8" [203] Long Hex Head Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBX22a
f8	24	5/8" [16] Dia. UNC, 2" [51] Long Guardrail Bolt and Nut	Bolt — ASTM A307 Gr. A Nut — ASTM A563A	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FBB02
g1	34	5/8" [16] Dia. Plain Round Washer	ASTM F844	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	FWC16a
g2	4	7/8" [22] Dia. Plain Round Washer	ASTM F844	AASHTO M232 (ASTM A153) for Class C or AASHTO M298 (ASTM B695) for Class 50	—
g3	5	3"x3"x1/4" [76x76x6] or 3 1/2"x3 1/2"x1/4" [89x89x6] Square Plate Washer	ASTM A572 Gr. 50	*AASHTO M111 (ASTM A123)	FWR10

\* Component does not need to be galvanized for testing purposes.

\*\* Rebar does not need to be epoxy-coated for testing purposes.



Midwest Roadside  
Safety Facility

34" Thrie-Beam AGT to  
Concrete Buttress

Bill of Materials

DWG. NAME.  
Thrie\_Buttress-2\_R2

SCALE: None  
UNITS: in.[mm]

SHEET:  
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DATE:  
1/18/2017

DRAWN BY:  
JEK

REV. BY:  
KAL/JCH

REV.	DATE OF ISSUE	Page	NATURE OF CHANGES	REVIEWER	REVISED BY
0	11/18/2016	–	Originated from drawing Thrie_Buttress-1_R4. Impact location change.	–	JEK
1	11/18/2016	2	Note added.	KAL	JEK
		7	Sheet title.		
		8	Sheet title.		
		9	Sheet title. Note added.		
		10	Sheet title. Note added. Note edit.		
2	1/18/2017	1	Note 5 edit.	JCH	JEK
		8	Part d3 change.		
		20	Gauge thickness dim added.		
		21	Gauge thickness dim added.		
		23	Description edit: g3. Material edit: f6.		