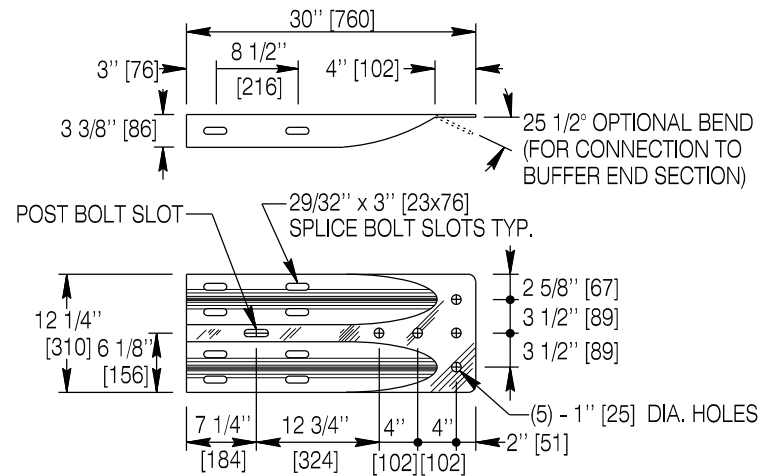


CORRUGATED BEAM FABRICATION STANDARD SHEETS

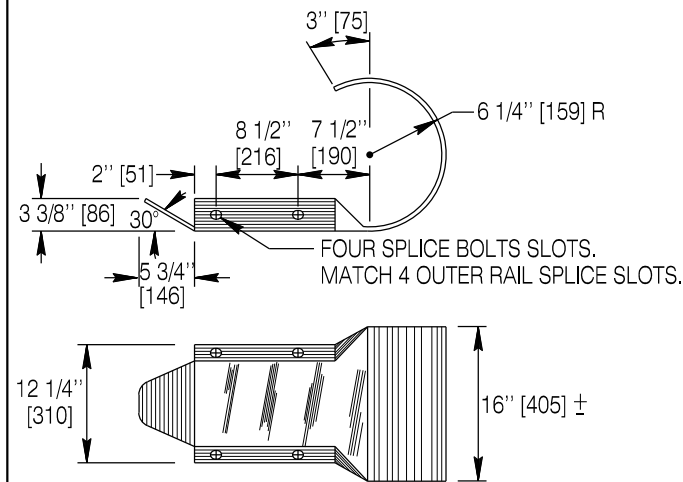
INDEX OF SHEETS

1. MGS Rail End Sections and Hole Details
2. Standard Rail Elements
3. Transition Rail Elements
4. Special MSKT, FLEAT, and SOFTSTOP Rail Elements
5. Post Details
6. Blockouts and Reflective Tab
7. Transition A & B SBR Connectors
8. Transition A & B Lower Angle Assembly
9. Transition A Upper Angle Assembly
10. Transition B Upper Angle Assembly
11. Transition C Connector Plate
12. Transition C Connector Plate (Con't.)
13. Transition D Connector Plate
14. Transition D Connector Plate (Con't.)



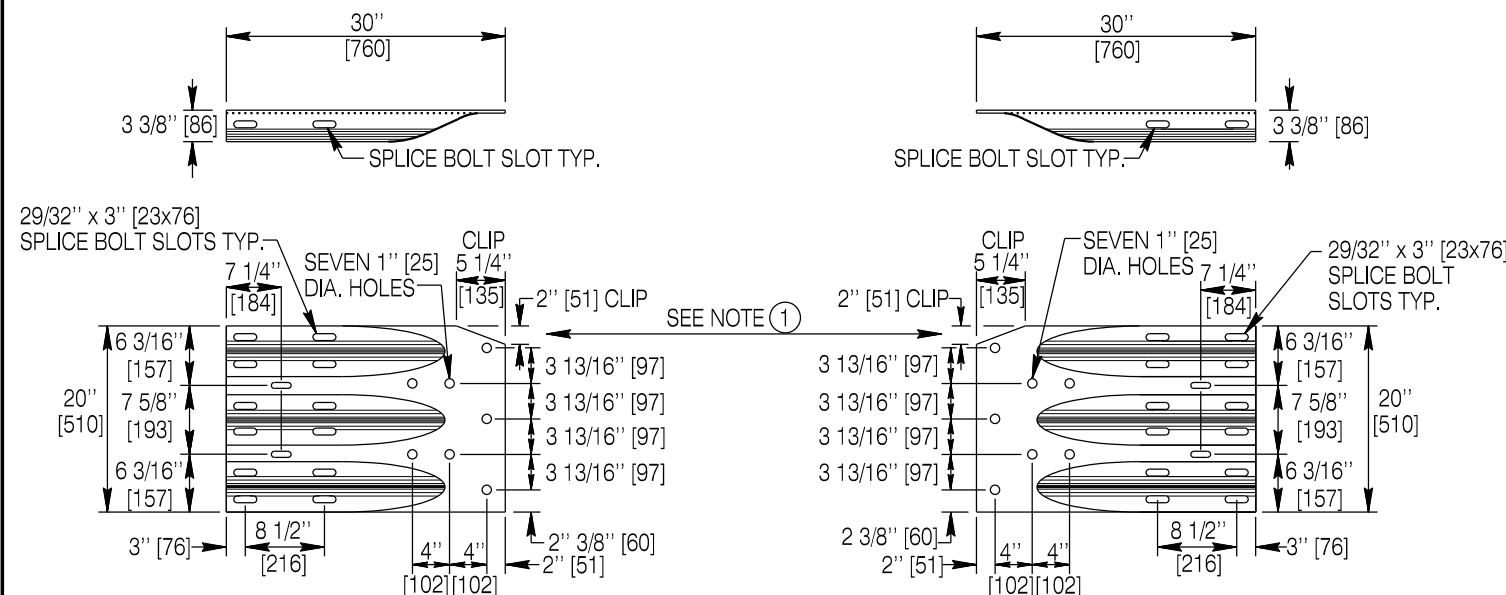
W-BEAM CONNECTOR (END SHOE)

10 Gauge [3.5 Thick]



ROUNDED END SECTION

10 Gauge [3.5 Thick]



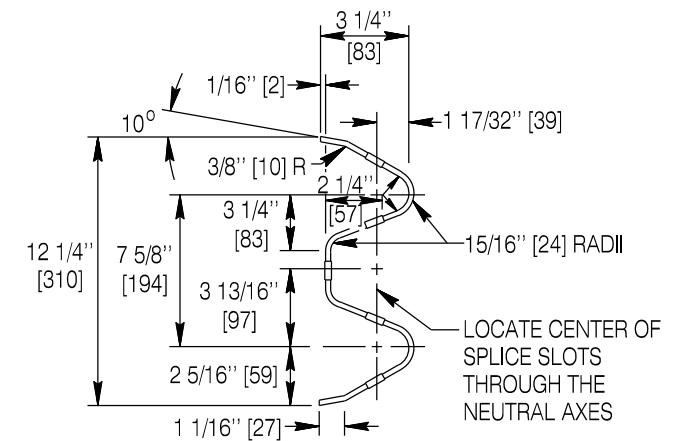
TL-3 & TL-4 LEFT HAND RAIL

TL-3 & TL-4 RIGHT HAND RAIL

THRIE BEAM CONNECTOR (END SHOE)

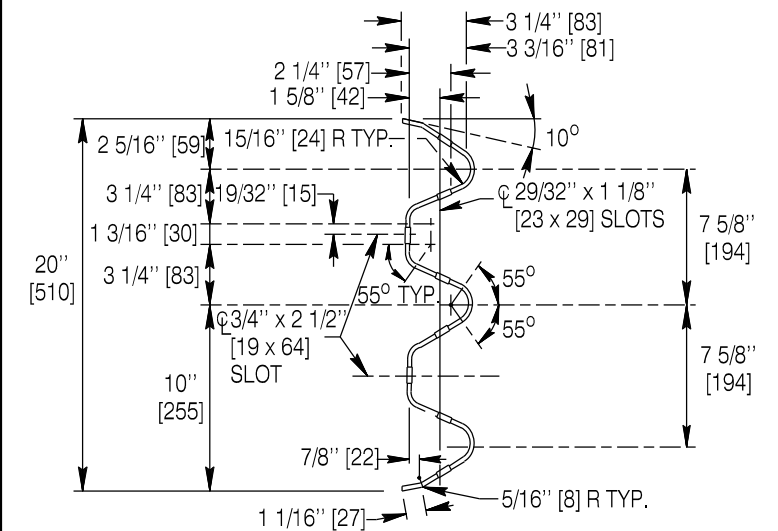
10 Gauge [3.5 Thick]

NOTE: ① Clip the corners as shown, **only** when connecting to WYDOT's TL-3 (uses two, 2" x 6" [51 x 152] rails) Steel Tube Bridge Rail.



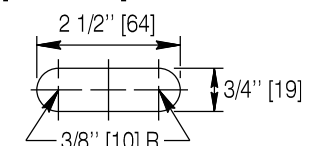
W-BEAM SECTION VIEW

12-Gauge [2.8 Thick] unless otherwise specified.

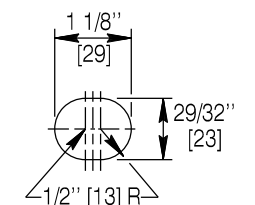


THRIE-BEAM SECTION VIEW

12-Gauge [2.8 Thick] unless otherwise specified.



TYPICAL POST BOLT SLOT



TYPICAL SPLICE BOLT SLOT

STANDARD CORRUGATED BEAM DETAILS

Designed by: VWBW
 Drawn by: JK
 Checked by: VWBW
 Previous Dwg. No.: 606-3

MGS RAIL END SECTIONS AND HOLE DETAILS



MGS FABRICATION STANDARDS

STANDARD PLAN

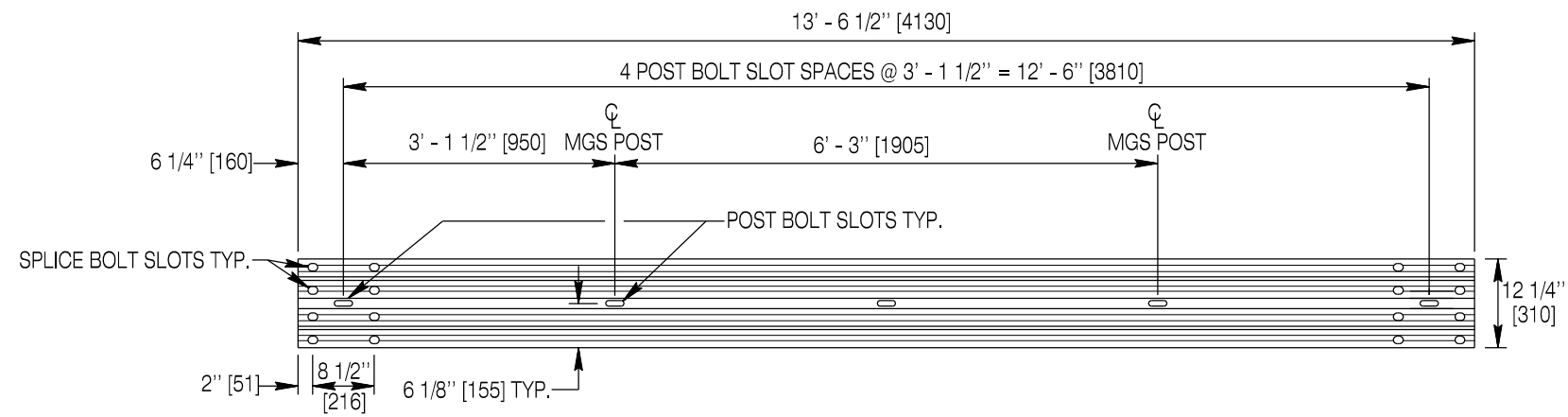
STANDARD PLAN NUMBER

606-3A

SHEET 1 of 14

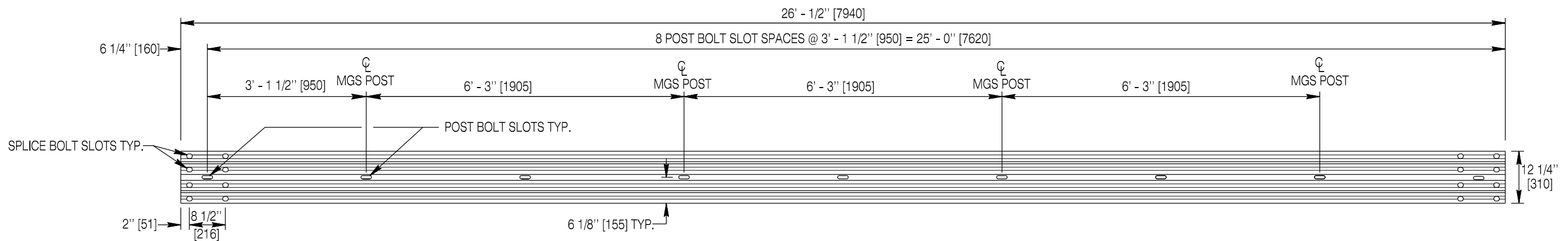
Issued by: ENGINEERING SERVICES
 Date Issued: JULY 2018

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



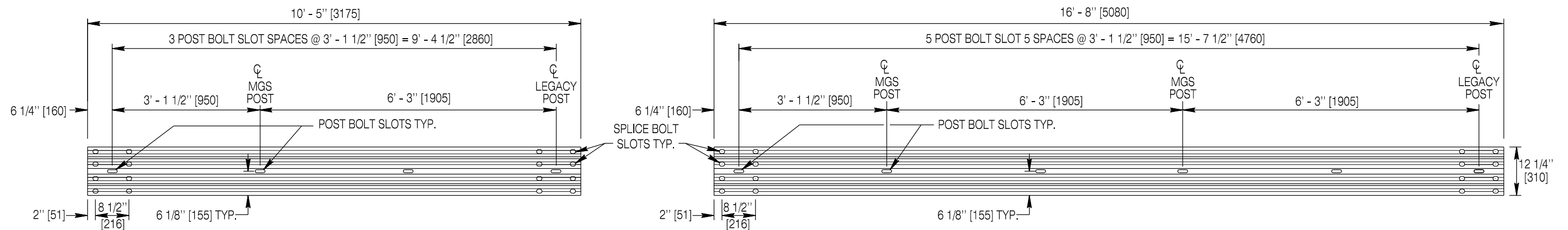
STANDARD MGS TWO POST BAY 12' - 6" [3810] W-BEAM RAIL

12 Gauge [2.8 Thick]



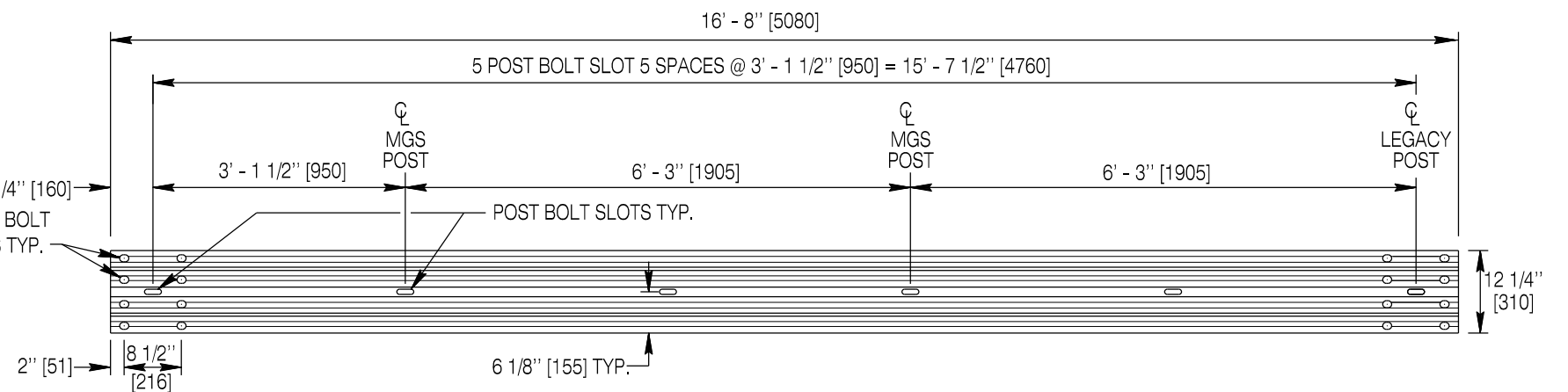
STANDARD MGS FOUR POST BAY 25' - 0" [7620] W-BEAM RAIL

12 Gauge [2.8 Thick]



MGS TO LEGACY RAIL 9'-4 1/2" [2860] (1 1/2 STD. SPACE)

12 Gauge [2.8 Thick]



MGS TO LEGACY RAIL 15' - 7 1/2" [4760] (2 1/2 STD. SPACE)

12 Gauge [2.8 Thick]

Designed by: WBW
 Drawn by: JK
 Checked by: WBW
 Previous Dwg. No. 606-3

STANDARD RAIL ELEMENTS



MGS FABRICATION STANDARDS

STANDARD PLAN NUMBER

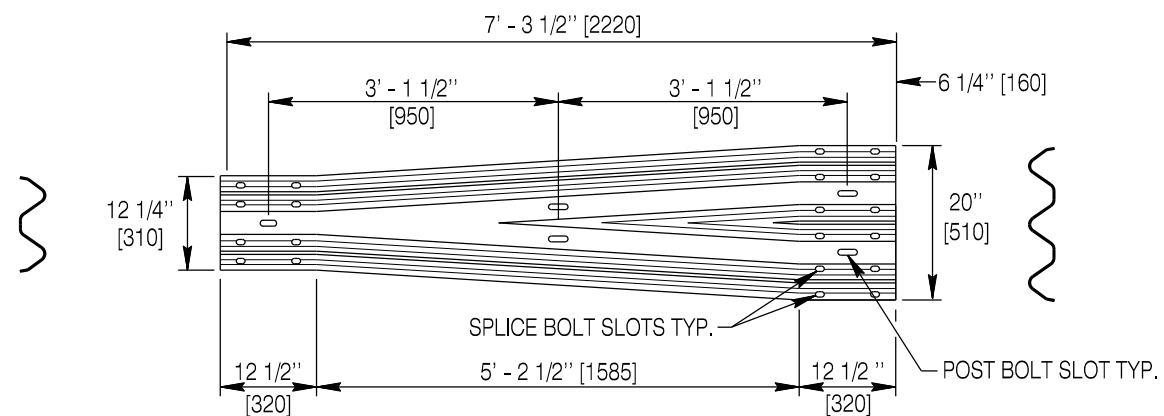
606-3A

SHEET 2 of 14

Issued by: ENGINEERING SERVICES
 Date Issued: JULY 2018

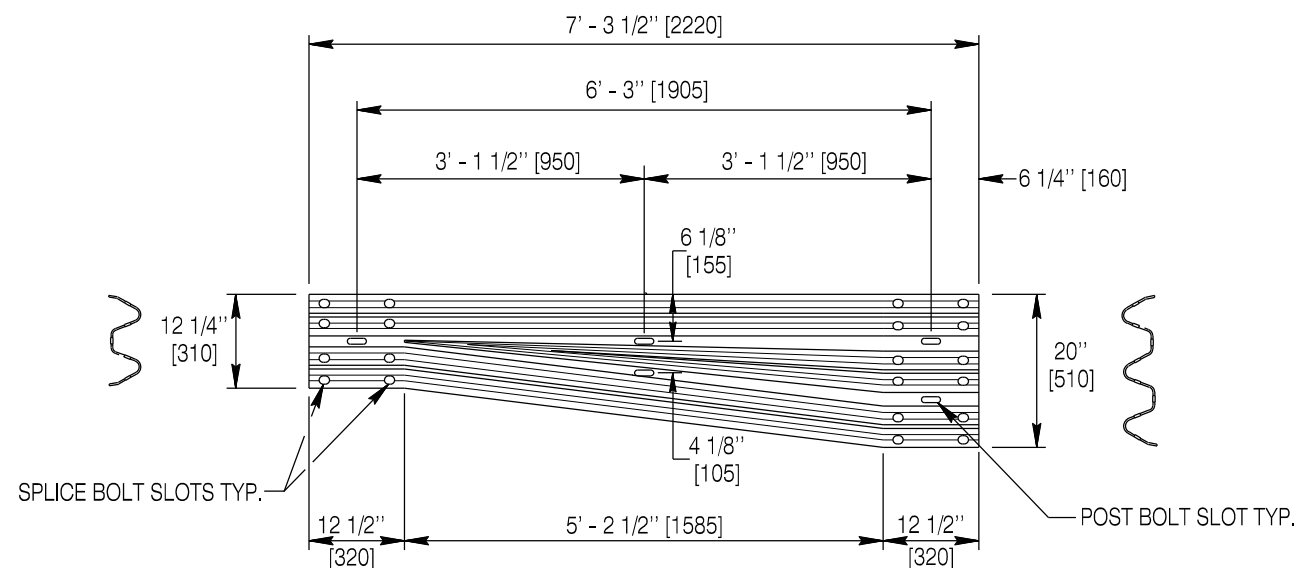
Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.

STANDARD PLAN



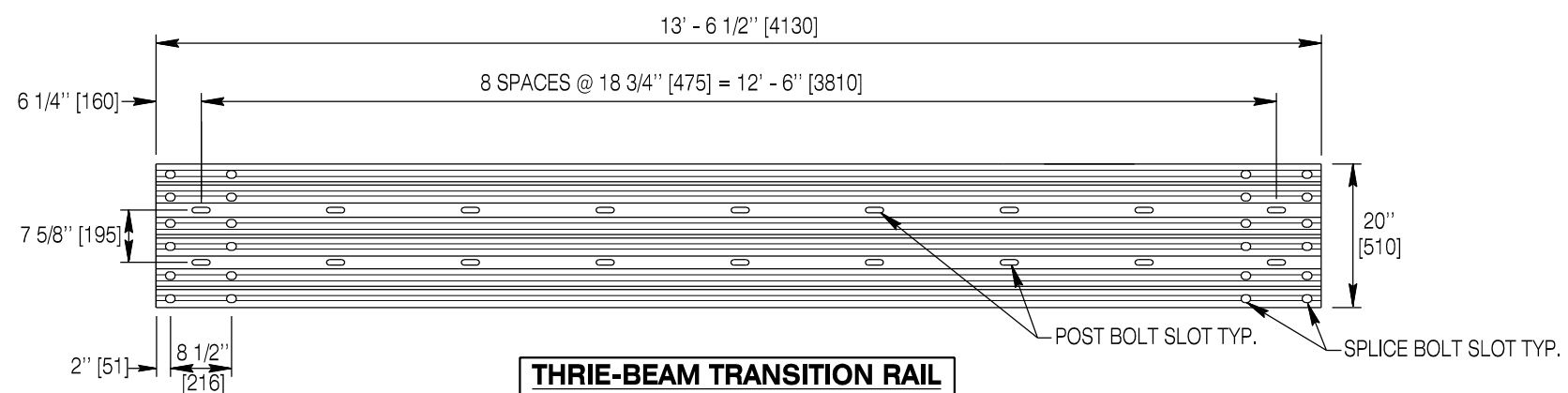
SYMMETRICAL TRANSITION RAIL

12 - Gauge [2.8] Thick



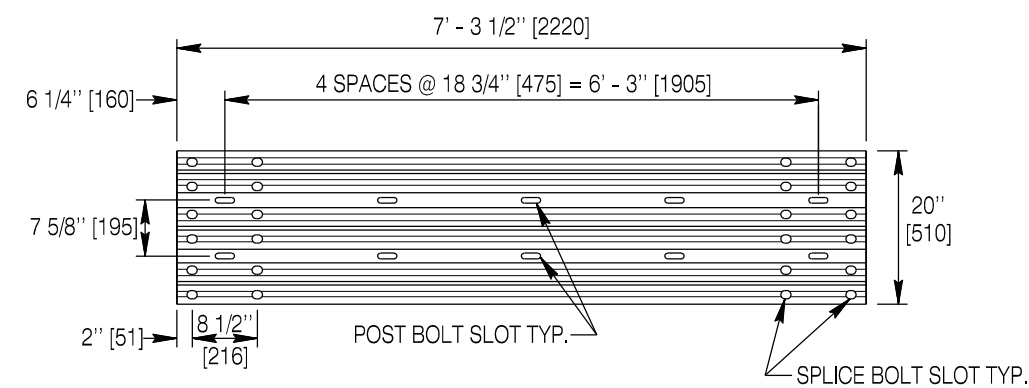
MGS ASYMMETRICAL TRANSITION RAIL

10 - Gauge [3.5] Thick



THRIE-BEAM TRANSITION RAIL

12 - Gauge [2.8] Thick



THRIE BEAM MGS SHORT TRANSITION RAIL

12 - Gauge [2.8] Thick

Designed by: WBW
 Drawn by: JK
 Checked by: WBW
 Previous Dwg. No. 606-3

TRANSITION RAIL ELEMENTS

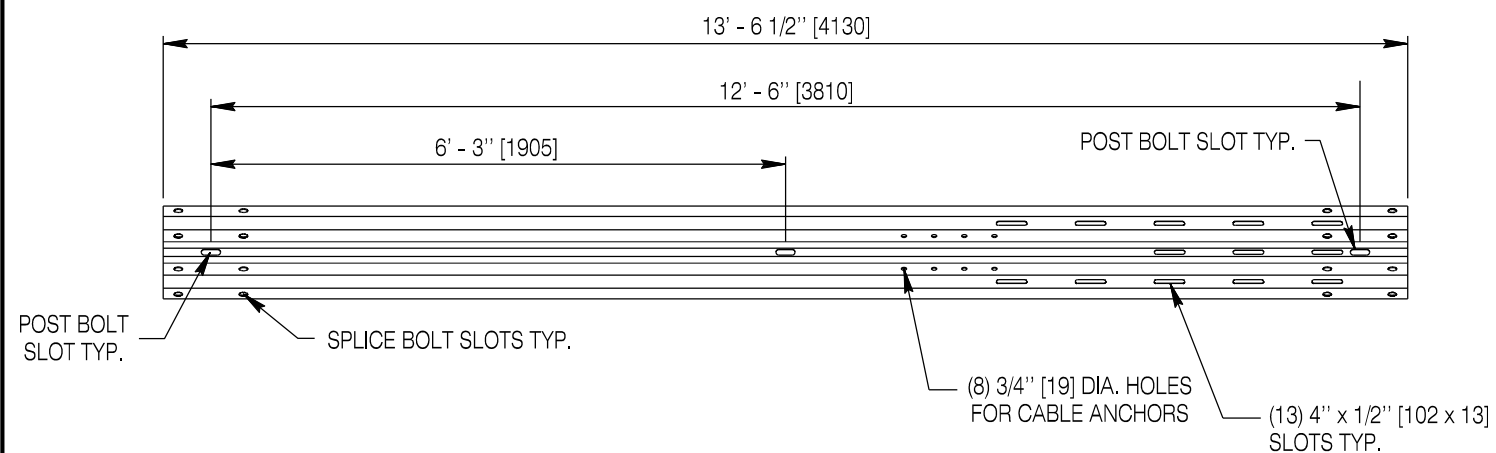
Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



MGS FABRICATION STANDARDS

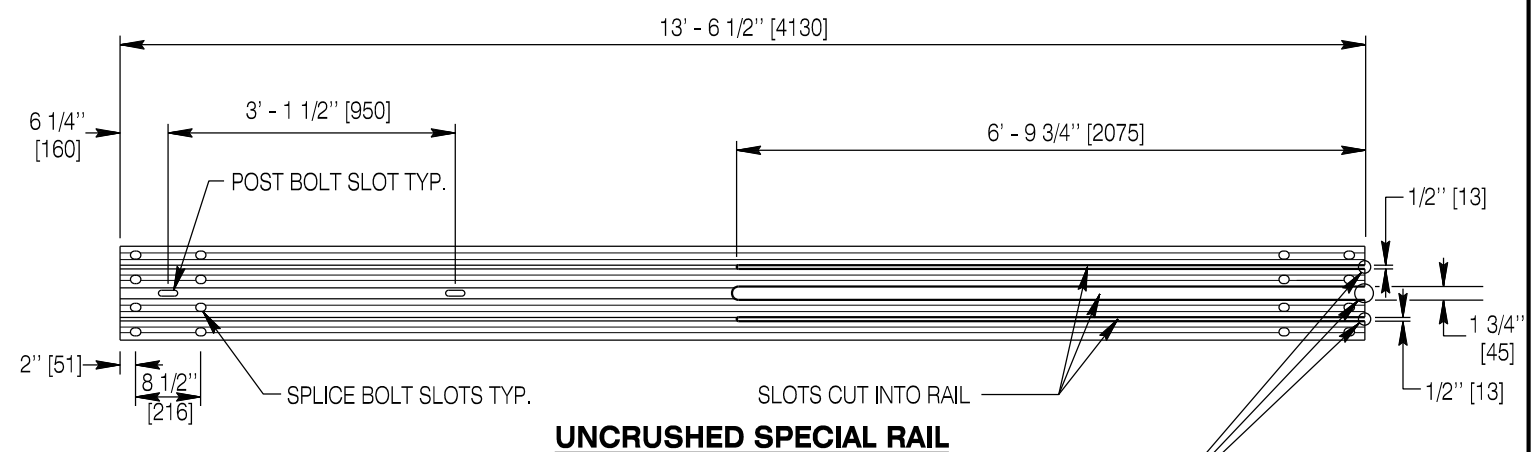
STANDARD PLAN

STANDARD PLAN NUMBER
606-3A
 SHEET 3 of 14
 Issued by: ENGINEERING SERVICES
 Date Issued: JULY 2018



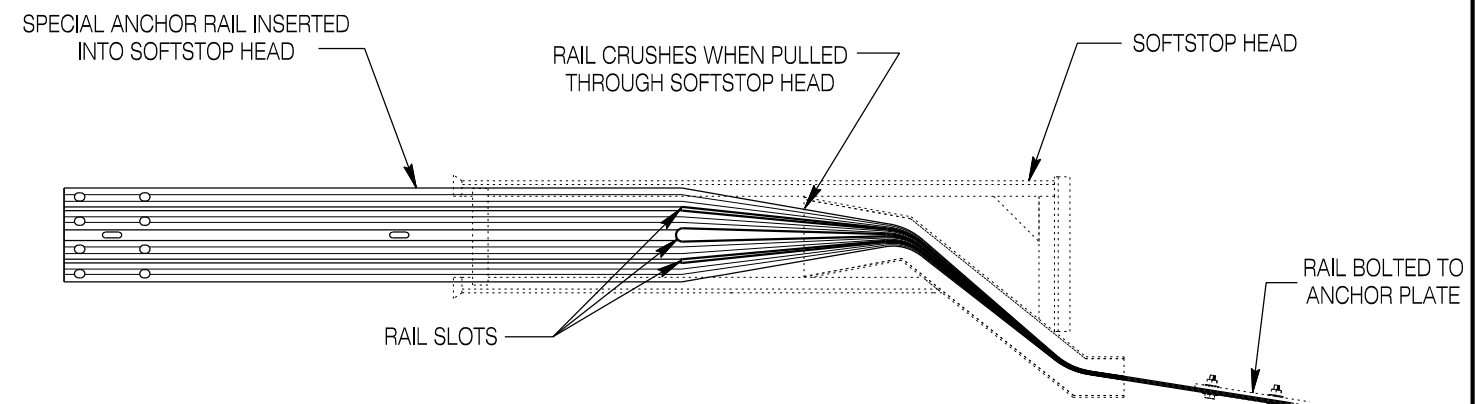
FLEAT AND MSKT RAIL ELEMENT (12' - 6" [3810])

This rail element is the first rail element in the FLEAT and MSKT Terminals (POSTS 1 - 3). Details shown above are approximate. The special MSKT/FLEAT MGS Terminal rail element shown herein is proprietary and can only be manufactured and sold by Road Systems Inc. or its duly authorized representative.



UNCRUSHED SPECIAL RAIL

REMOVE SHIPPING TABS IF PRESENT AND INSTALL RAIL INTO HEAD IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS (UNLESS SHIPPED WITH RAIL ALREADY CRUSHED).



SPECIAL SOFTSTOP ANCHOR RAIL ELEMENT (13' - 6 5/8\" [4130])

This rail element is the first rail element in the SoftStop Terminal, it also acts as an anchor to hold the system in tension.

Details shown above are approximate. The special SoftStop Terminal rail element shown herein is proprietary and can only be manufactured and sold by Trinity Highway Products, LLC. or its duly authorized representative.

Designed by: WBW
 Drawn by: RCS
 Checked by: WBW
 Previous Dwg. No. 606-3

SPECIAL MGS MSKT, FLEAT, AND SOFTSTOP RAIL ELEMENTS

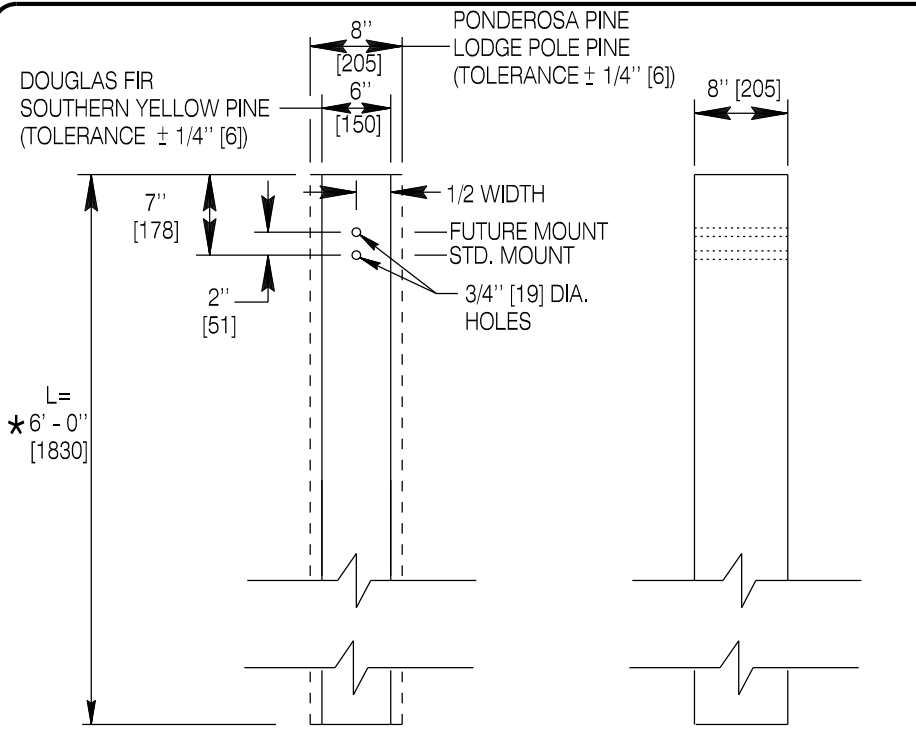
Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



MGS FABRICATION STANDARDS

STANDARD PLAN

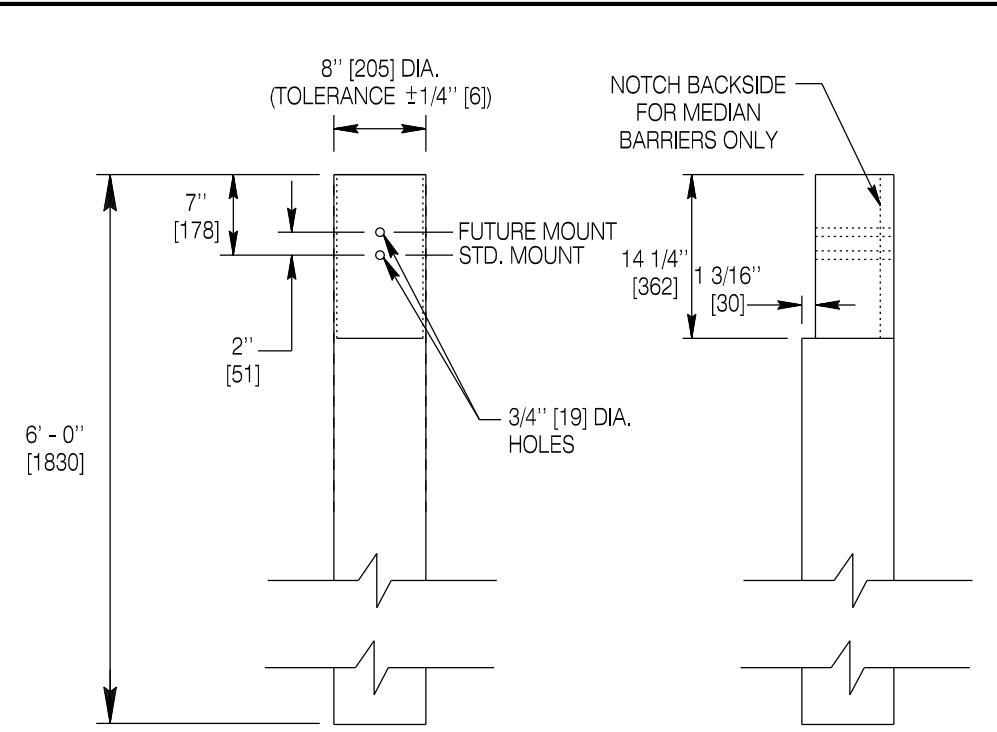
STANDARD PLAN NUMBER
606-3A
 SHEET 4 of 14
 Issued by: ENGINEERING SERVICES
 Date Issued: JULY 2018



STANDARD MGS RECTANGULAR WOOD POST

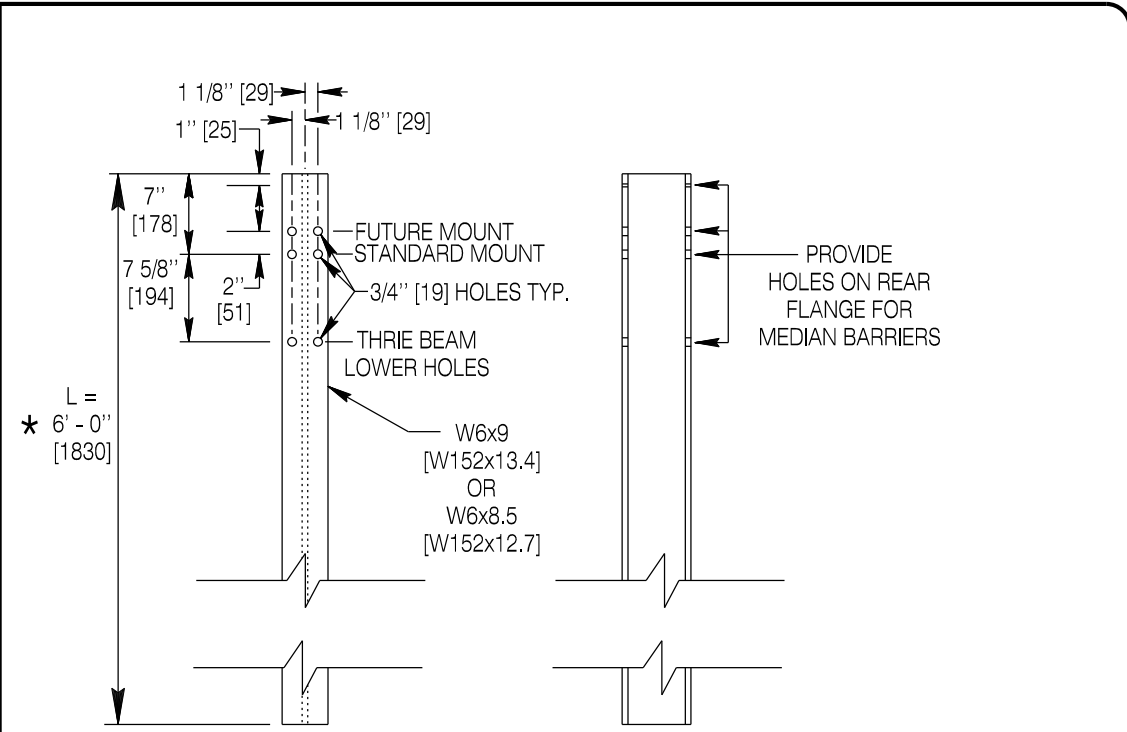
Uses: Std. MGS Guardrail Post
Std. Legacy W-Beam Guardrail Post

★NOTE: For MGS Long Post, L=7 1/2 ft [2285]



STANDARD MGS ROUND WOOD POST

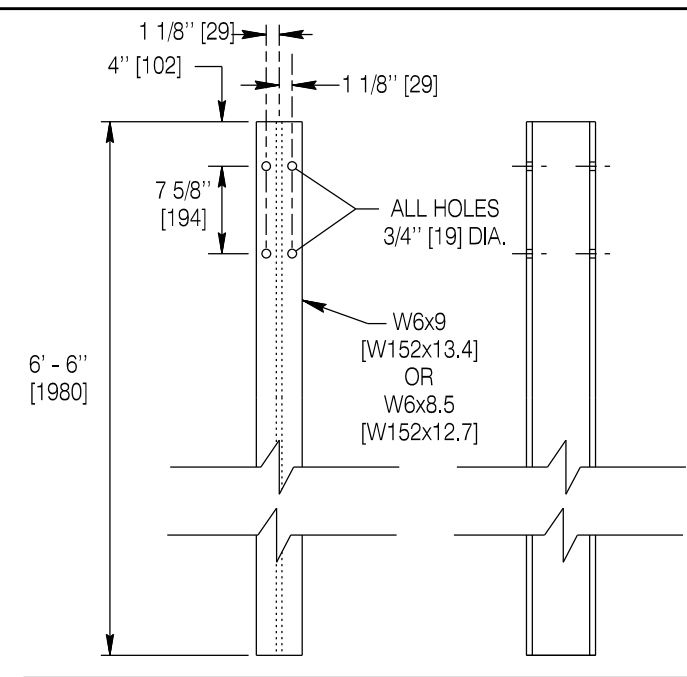
Uses: Std. MGS Guardrail Post
Std. Legacy W-Beam Guardrail Post



STANDARD MGS STEEL POST

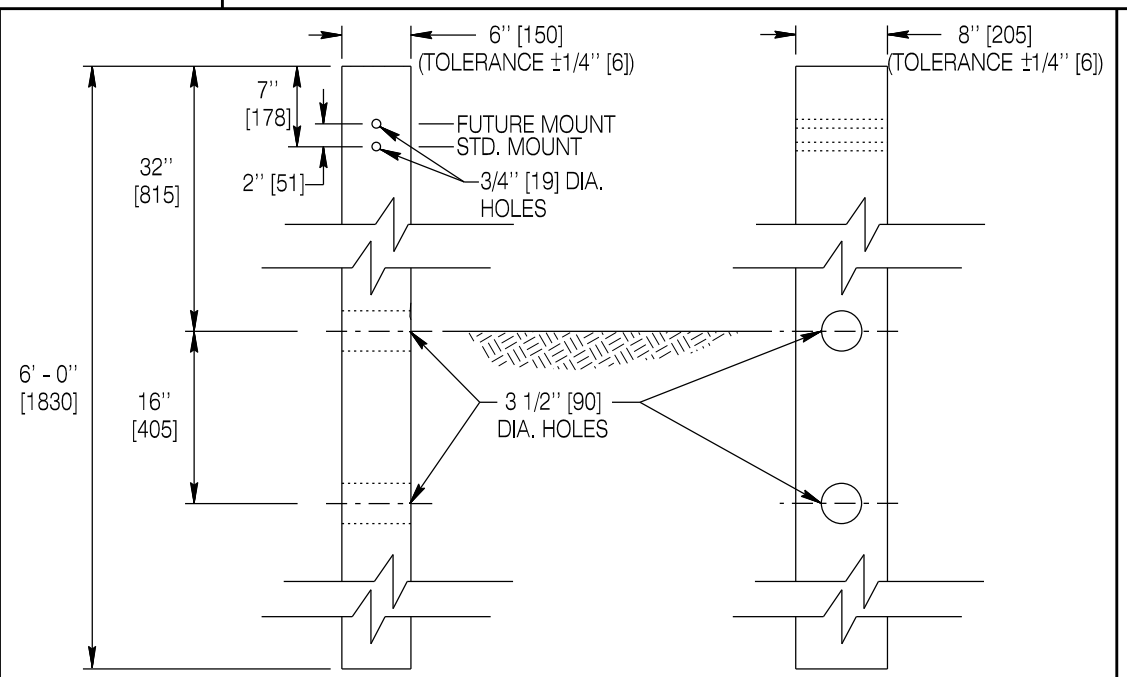
Uses: Std. MGS Guardrail Post
Std. Legacy W-Beam Guardrail Post
MGS Transitions A-D, post T7-T12

★NOTE: For MGS Long Post, L=9 ft [2745]



6' - 6" [1980] THRIE BEAM TRANSITION POST

Uses: Transitions A - D, Post T1 -T6



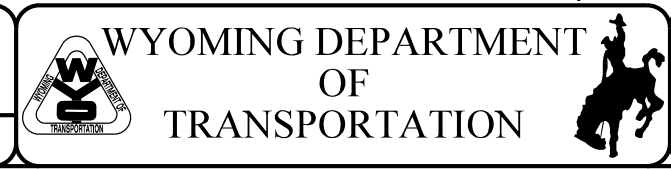
STANDARD MGS CRT WOOD POST

Southern Yellow Pine or Douglas Fir Only!

Designed by:	WBW
Drawn by:	JK
Checked by:	WBW
Previous Dwg. No.	606-3

POST DETAILS

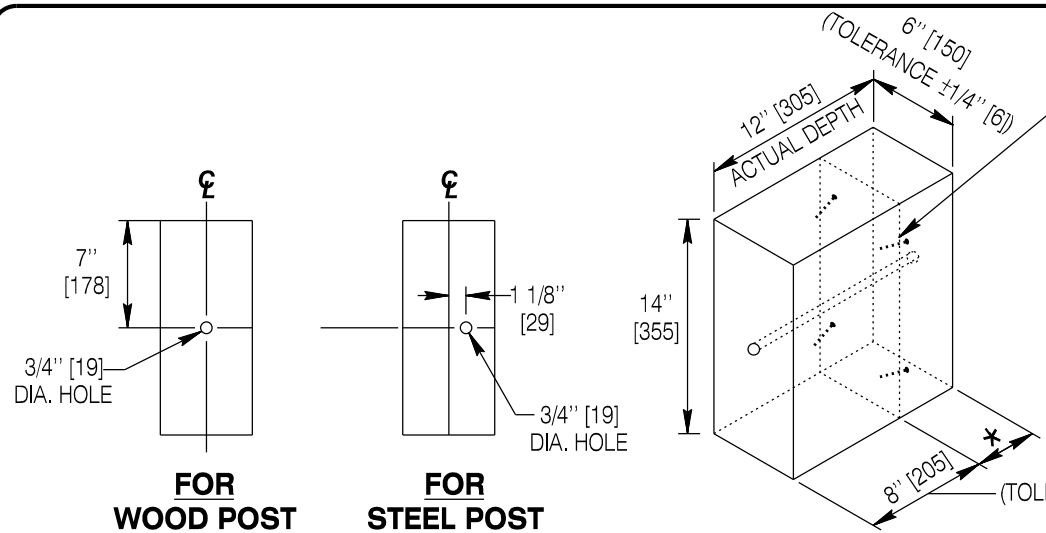
Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



MGS FABRICATION STANDARDS

STANDARD PLAN

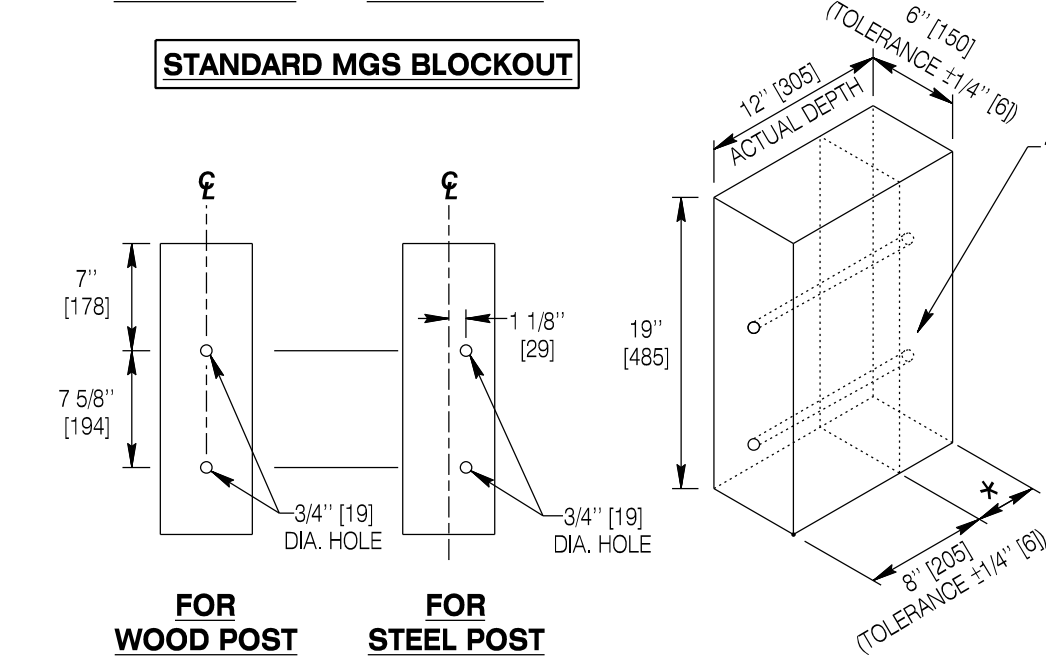
STANDARD PLAN NUMBER	606-3A
SHEET	5 of 14
Issued by:	ENGINEERING SERVICES
Date Issued:	JULY 2018



*The standard MGS blockout can be formed with one single piece of wood, or using a standard wood 6" x 8" x 14" [150 x 205 x 355] blockout and an additional blockout 6" x x 14" [150 x x 355] of sufficient depth to form a 2-piece wood blockout 12" [305] actual depth. If a 2-piece wood blockout is provided, toe nail the first block to the second block with four 20d [105 long] nails to prevent rotation. Toe nail blockouts to the post in a similar fashion.

FOR WOOD POST FOR STEEL POST

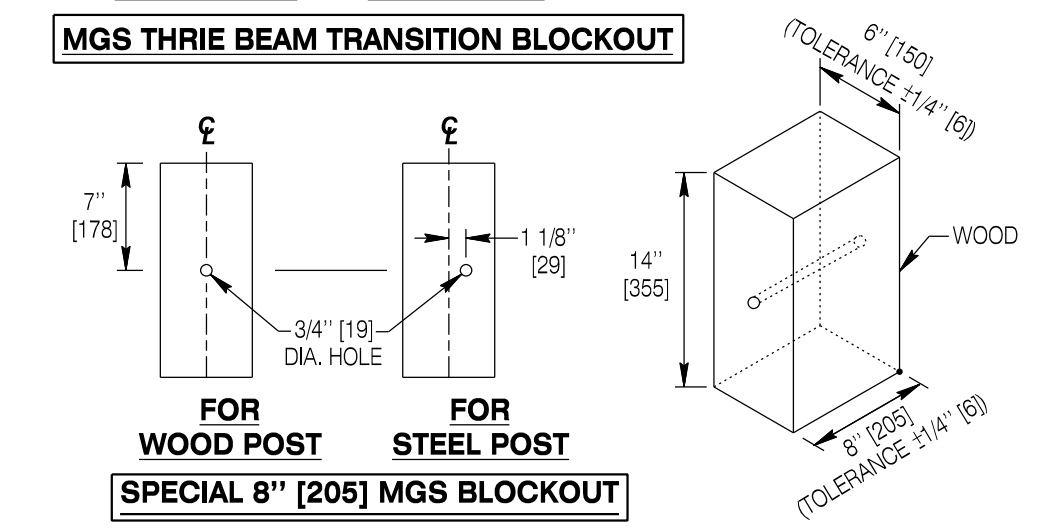
STANDARD MGS BLOCKOUT



*The standard MGS Thrie-Beam blockout can be formed with one single piece of wood, or using a standard wood 6" x 8" x 19" [150 x 205 x 485] blockout and an additional blockout 6" x x 19" [150 x x 485] of sufficient depth to form a 2-piece blockout 12" [305] actual depth.

FOR WOOD POST FOR STEEL POST

MGS THRIE BEAM TRANSITION BLOCKOUT



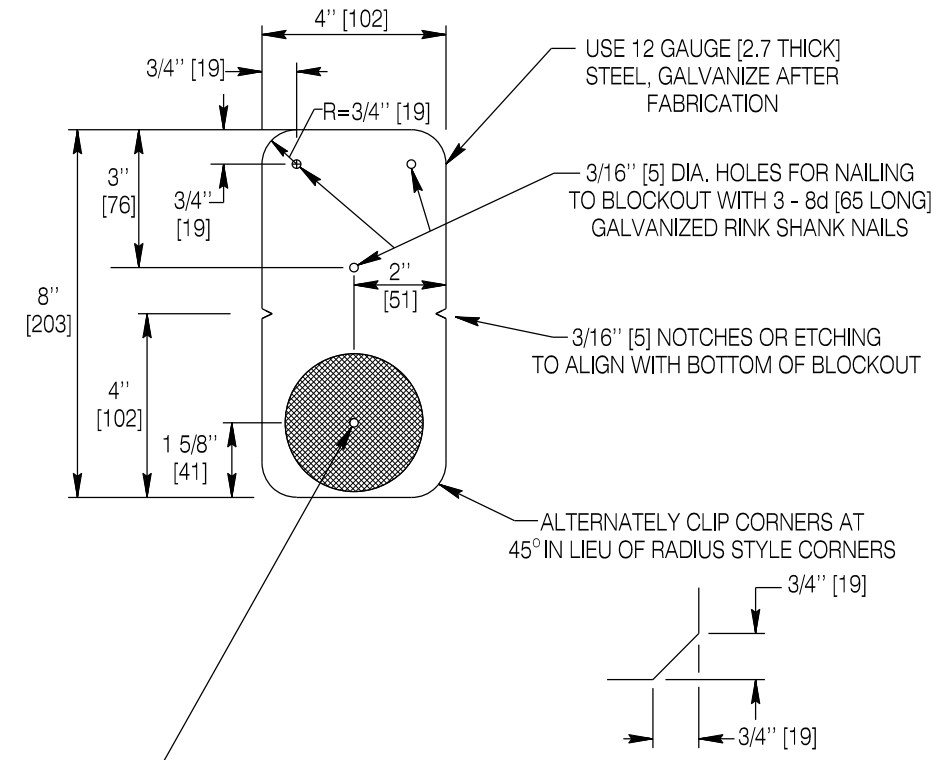
FOR WOOD POST FOR STEEL POST

SPECIAL 8" [205] MGS BLOCKOUT

USE ONLY WHEN SPECIFIED IN THE CONTRACT

PLASTIC COMPOSITE BLOCKOUTS

One piece plastic composite blocks which have been crash tested to MASH, have FHWA Eligibility or Acceptance Letters and are of the same overall dimensions shown herein, may be substituted for wood blocks with steel posts only. Provide routing in blocks to prevent rotation on post. Attach reflective tabs to composite blockouts by pre-drilling blockouts and using three #8 Screws 1 1/4" [32] long.



3/16" [5] DIA. HOLE, ATTACH 3" [76] DIA. REFLECTIVE BUTTON WITH 3/16" DIA. X 1/2" [5 DIA. X 13] ALUMINUM BLIND RIVET WITH STEEL MANDREL

REFLECTIVE BUTTON COLOR:
CRYSTAL (WHITE) FOR OUTSIDE SHOULDERS
AMBER (YELLOW) FOR MEDIANS
(MATCH ROADWAY EDGELINE STRIPE COLOR)

REFLECTIVE TAB

Attach to blockout every 25 ft [7.6 m] of guardrail.

Designed by: WBW
Drawn by: JK
Checked by: WBW
Previous Dwg. No. 606-3

BLOCKOUTS AND REFLECTIVE TAB

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.

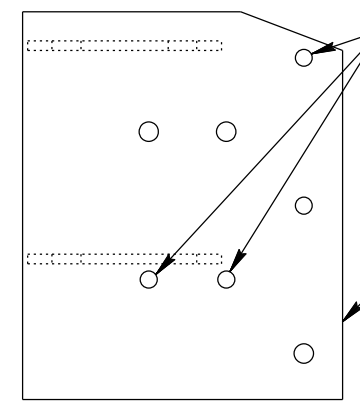
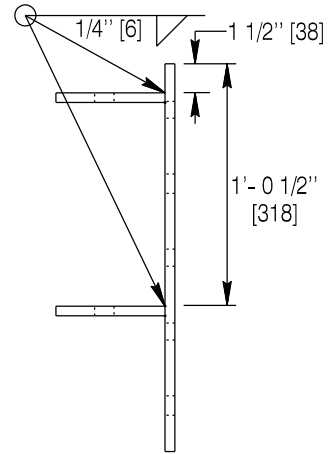
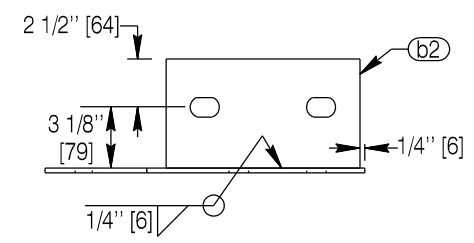
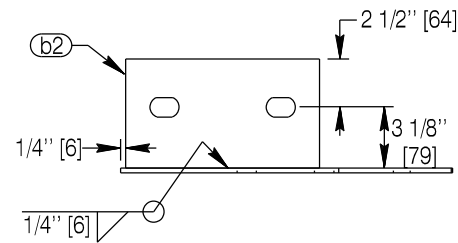


MGS FABRICATION STANDARDS

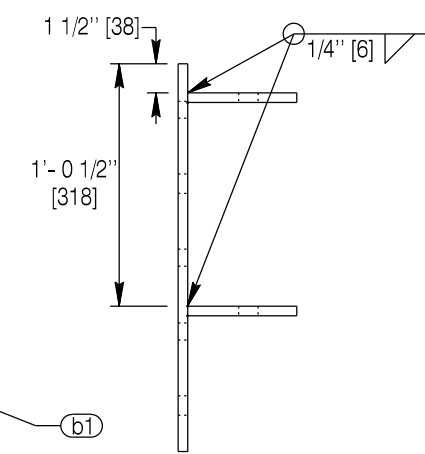
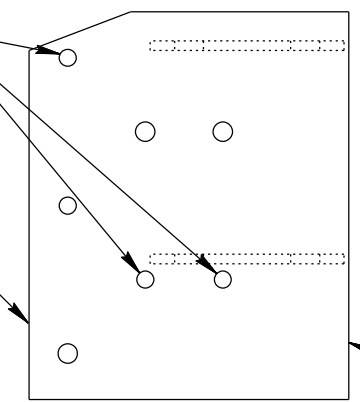
STANDARD PLAN

STANDARD PLAN NUMBER
606-3A
SHEET 6 of 14
Issued by: ENGINEERING SERVICES
Date Issued: JULY 2018

ITEM	QTY	DESCRIPTION	MATERIAL
AL/AT	1	THRIE-BEAM END SHOE	10 GAGE
BL/BR	1	MOUNTING PLATE	
b1	1	FACE PLATE	1/2" [13] A36 PLATE
b2	2	BACK PLATE	1/2" [13] A36 PLATE



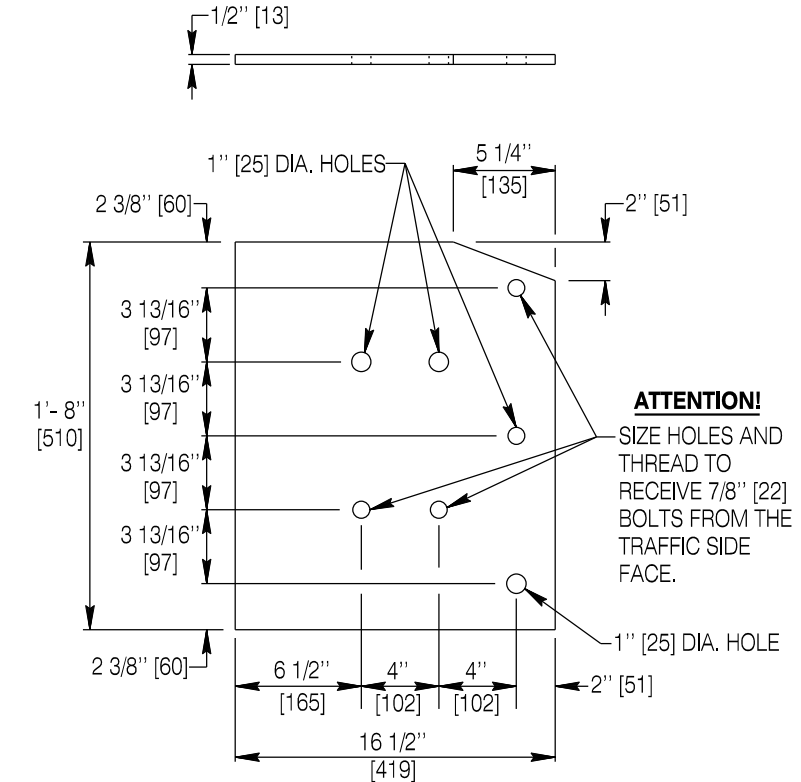
THESE THREE LOCATIONS ONLY, ENSURE HOLES ARE THREADED TO RECEIVE BOLTS FROM THE TRAFFIC SIDE FACE, BRUSH THREADS AFTER GALVANIZING AND GREASE



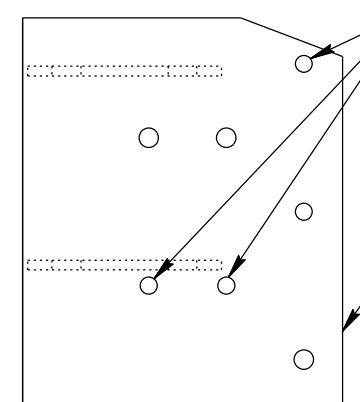
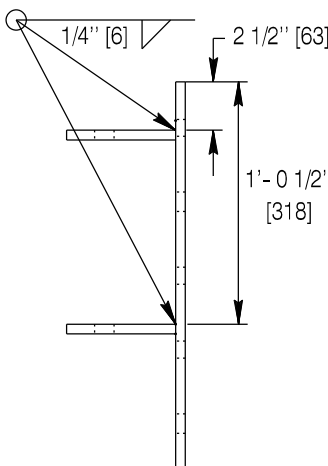
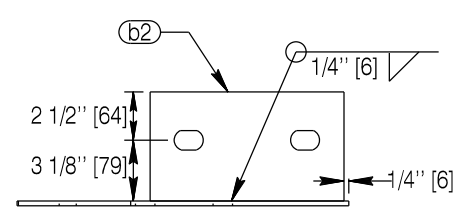
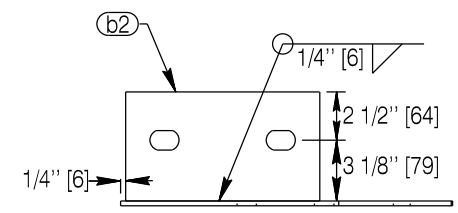
BL - TL-3 SBR CONNECTOR (LEFT HAND RAIL) BACKSIDE

TL-3

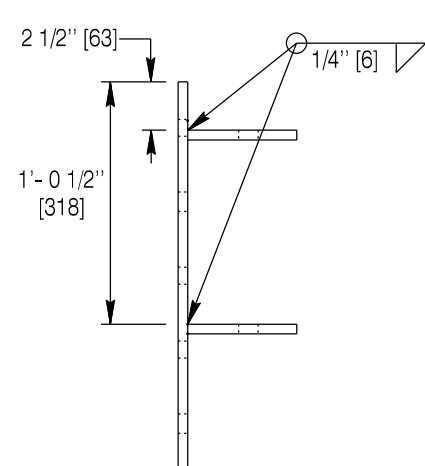
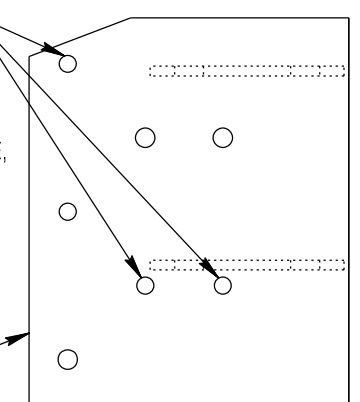
BR - TL-3 SBR CONNECTOR (RIGHT HAND RAIL) BACKSIDE



b1 - FACE PLATE



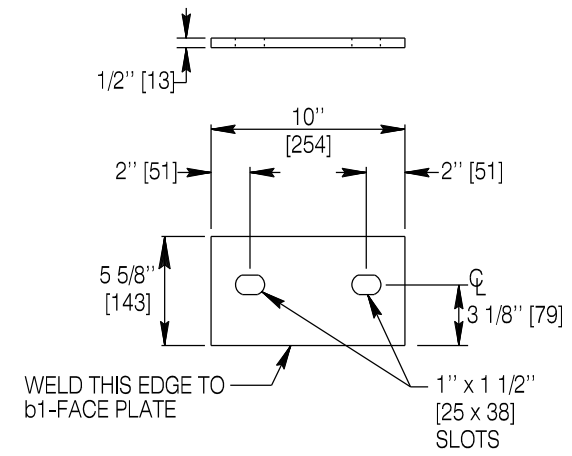
THESE THREE LOCATIONS ONLY, ENSURE HOLES ARE THREADED TO RECEIVE BOLTS FROM THE TRAFFIC SIDE FACE, BRUSH THREADS AFTER GALVANIZING AND GREASE



BL - TL-4 CONNECTOR (LEFT HAND RAIL) BACKSIDE

TL-4

BR - TL-4 SBR CONNECTOR (RIGHT HAND RAIL) BACKSIDE



b2 - BACK PLATE

Designed by: WBW
 Drawn by: JK
 Checked by: WBW
 Previous Dwg. No. 606-3

TRANSITION A & B SBR CONNECTORS

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.

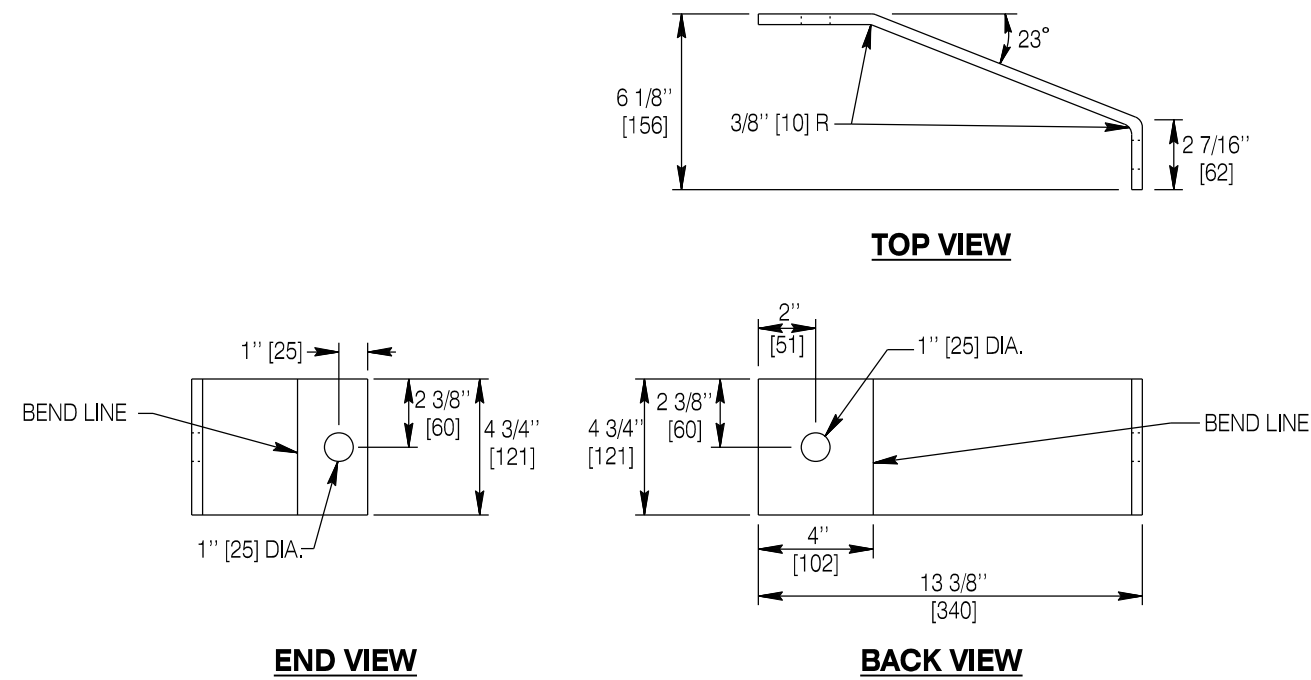


MGS FABRICATION STANDARDS

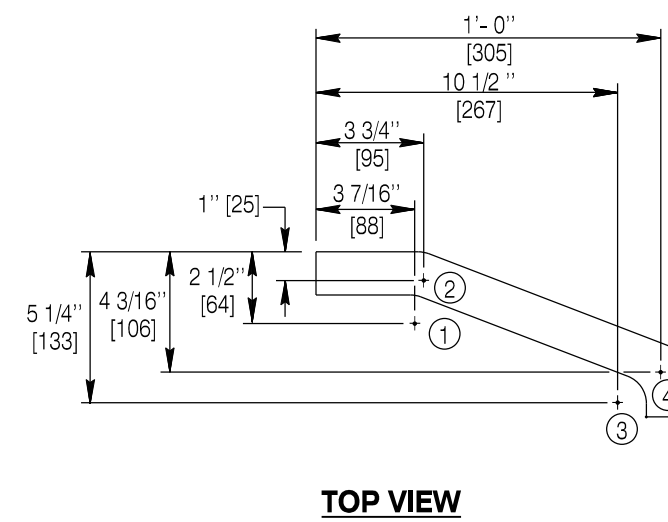
STANDARD PLAN

STANDARD PLAN NUMBER
606-3A
 SHEET 7 of 14
 Issued by: ENGINEERING SERVICES
 Date Issued: JULY 2018

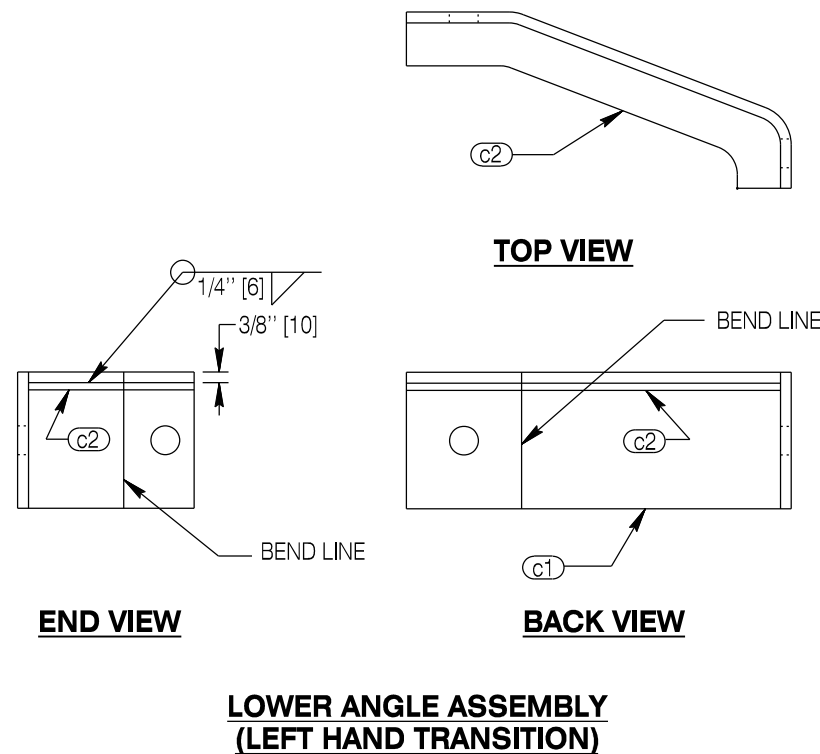
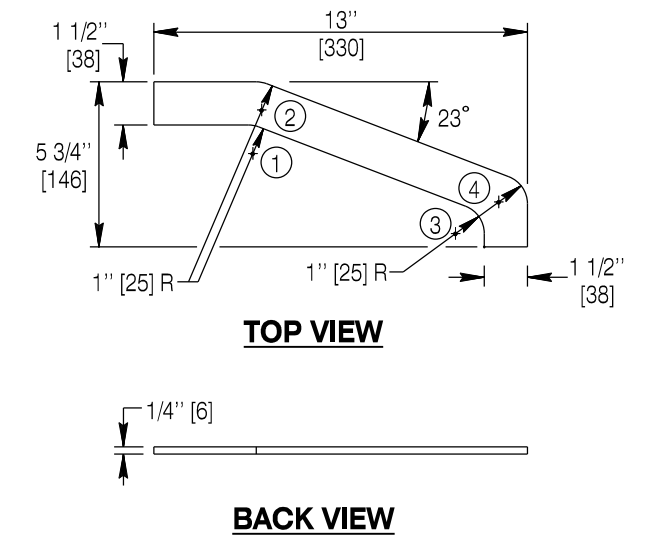
ITEM	QTY	DESCRIPTION	MATERIAL
	1	LOWER ANGLE ASSEMBLY	
c1	1	LOWER ANGLE PLATE	3/8" [10] A36 PLATE
c2	1	GUSSET	1/4" [6] A36 PLATE



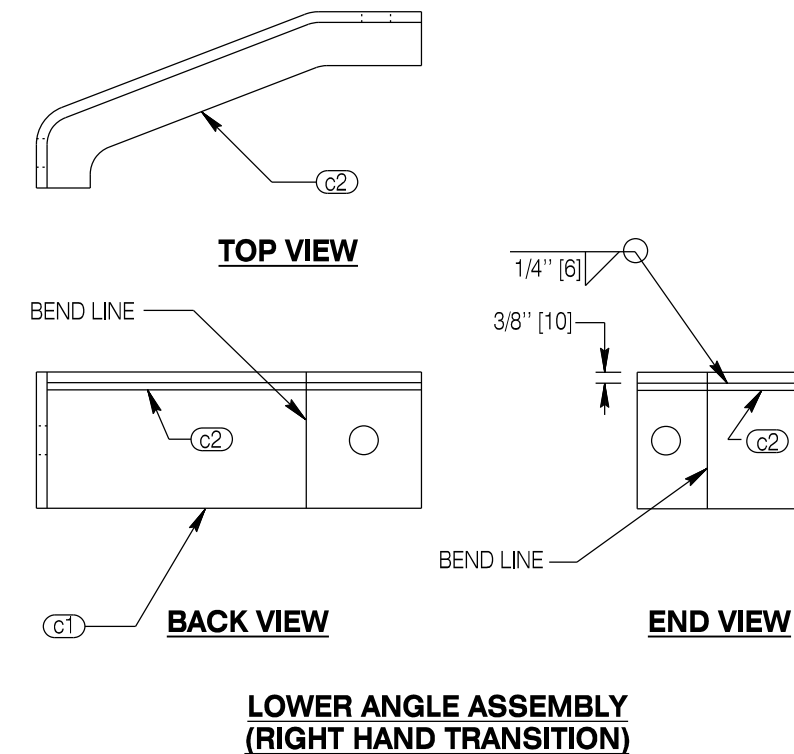
c1 - LOWER ANGLE PLATE



c2 - GUSSET



LOWER ANGLE ASSEMBLY (LEFT HAND TRANSITION)



LOWER ANGLE ASSEMBLY (RIGHT HAND TRANSITION)

Designed by: WBW
 Drawn by: JK
 Checked by: WBW
 Previous Dwg. No. 606-3

TRANSITION A & B LOWER ANGLE ASSEMBLY

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



MGS FABRICATION STANDARDS

STANDARD PLAN

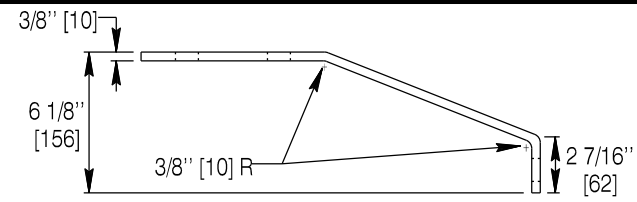
STANDARD PLAN NUMBER

606-3A

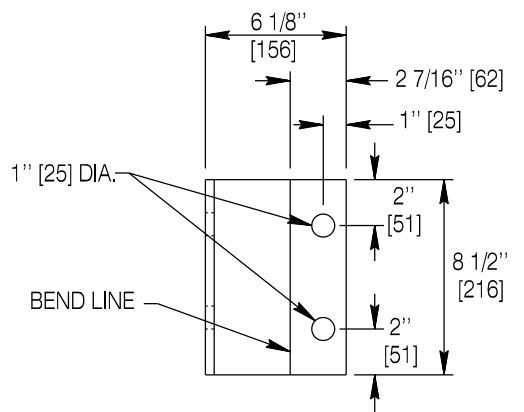
SHEET 8 of 14

Issued by: ENGINEERING SERVICES
 Date Issued: JULY 2018

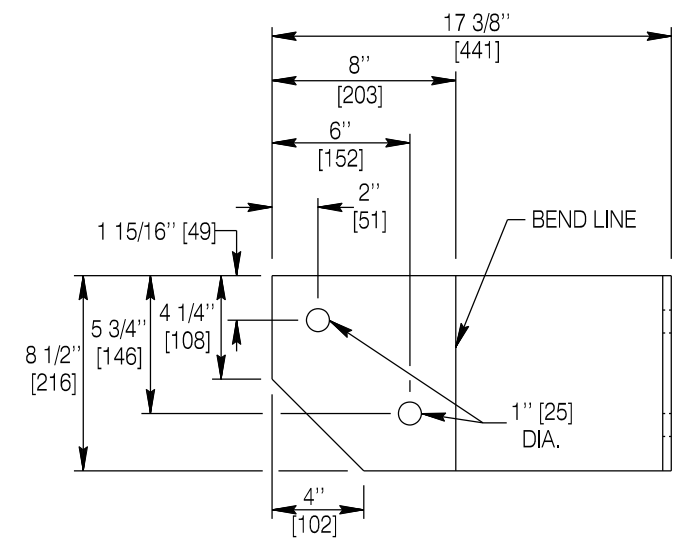
ITEM	QTY	DESCRIPTION	MATERIAL
c2	2	SEE LOWER ASSEMBLY SHEET	
	1	UPPER ANGLE ASSEMBLY	
d1L/d1R	1	UPPER ANGLE PLATE	3/8" [10] A36 PLATE



TOP VIEW

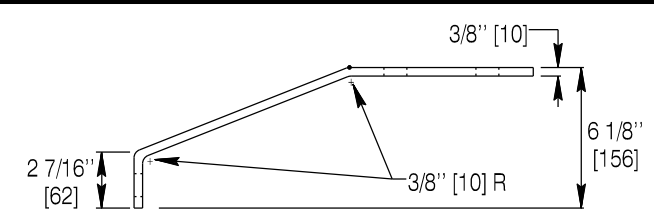


END VIEW

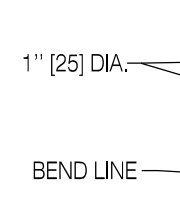


BACK VIEW

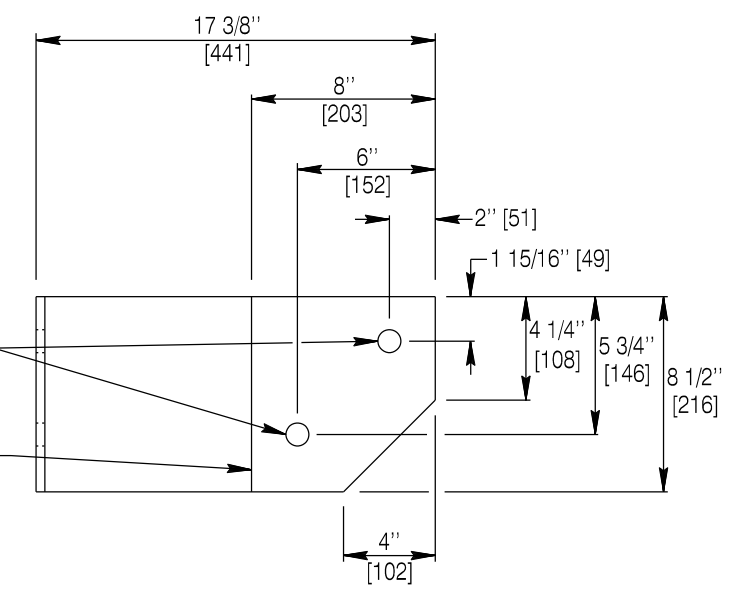
**d1L - UPPER ANGLE PLATE
(LEFT HAND TRANSITION)**



TOP VIEW

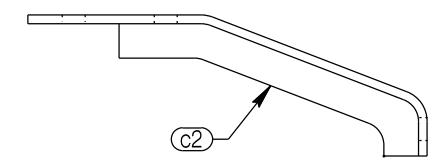


END VIEW

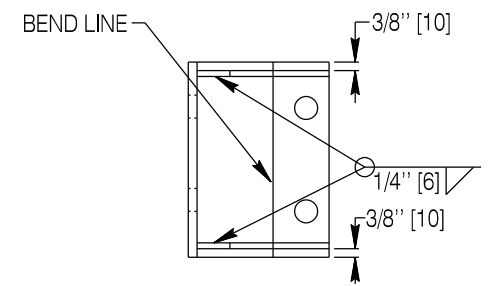


BACK VIEW

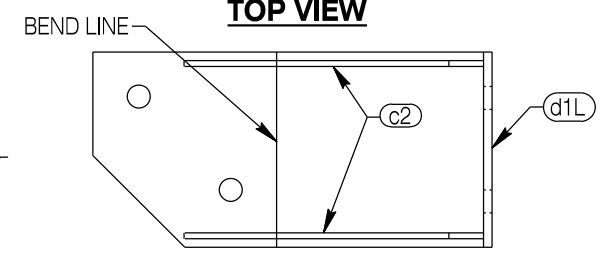
**d1R- UPPER ANGLE PLATE
(RIGHT HAND TRANSITION)**



TOP VIEW

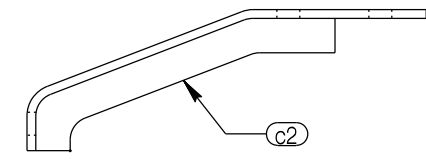


END VIEW

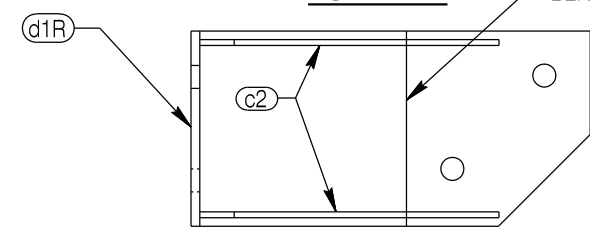


BACK VIEW

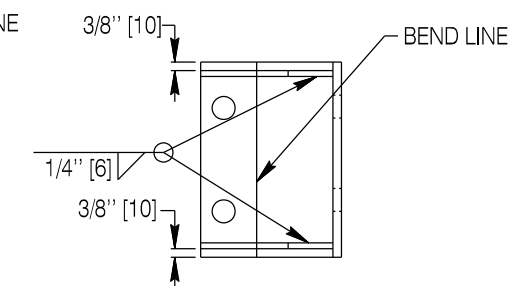
**TL-3 UPPER ANGLE ASSEMBLY
(LEFT HAND TRANSITION)**



TOP VIEW



BACK VIEW



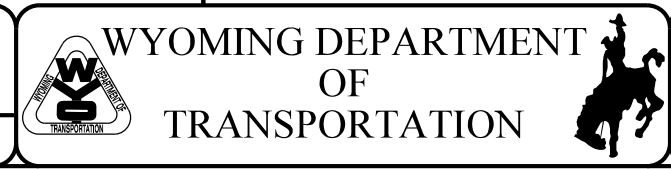
END VIEW

**TL-3 UPPER ANGLE ASSEMBLY
(RIGHT HAND TRANSITION)**

Designed by: WBW
 Drawn by: JK
 Checked by: WBW
 Previous Dwg. No. 606-3

TRANSITION A UPPER ANGLE ASSEMBLY

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.

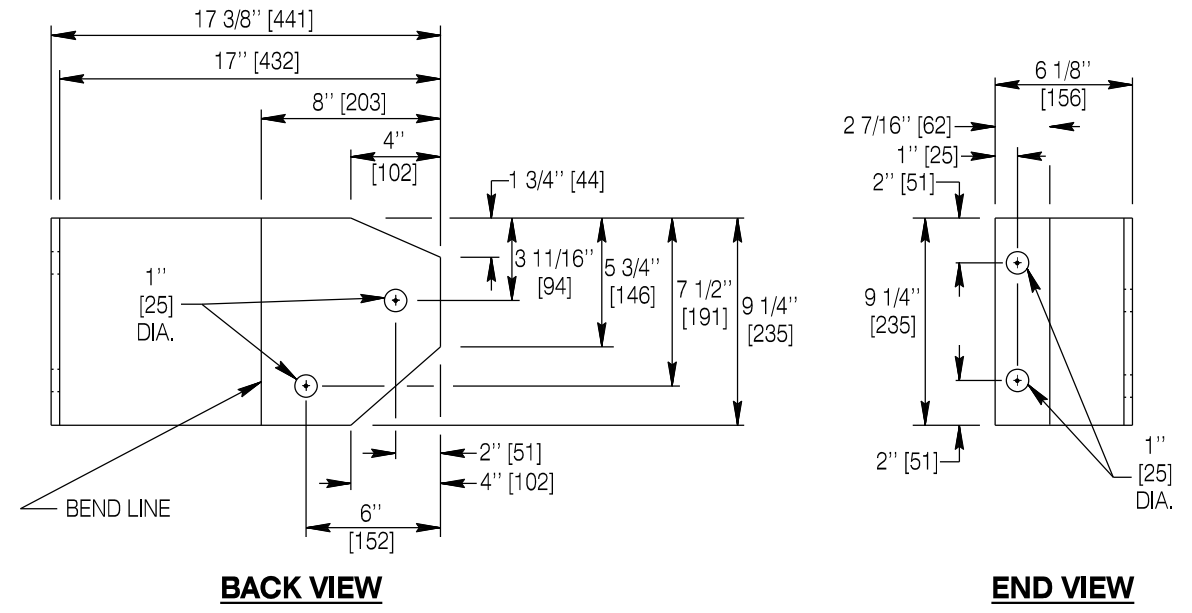
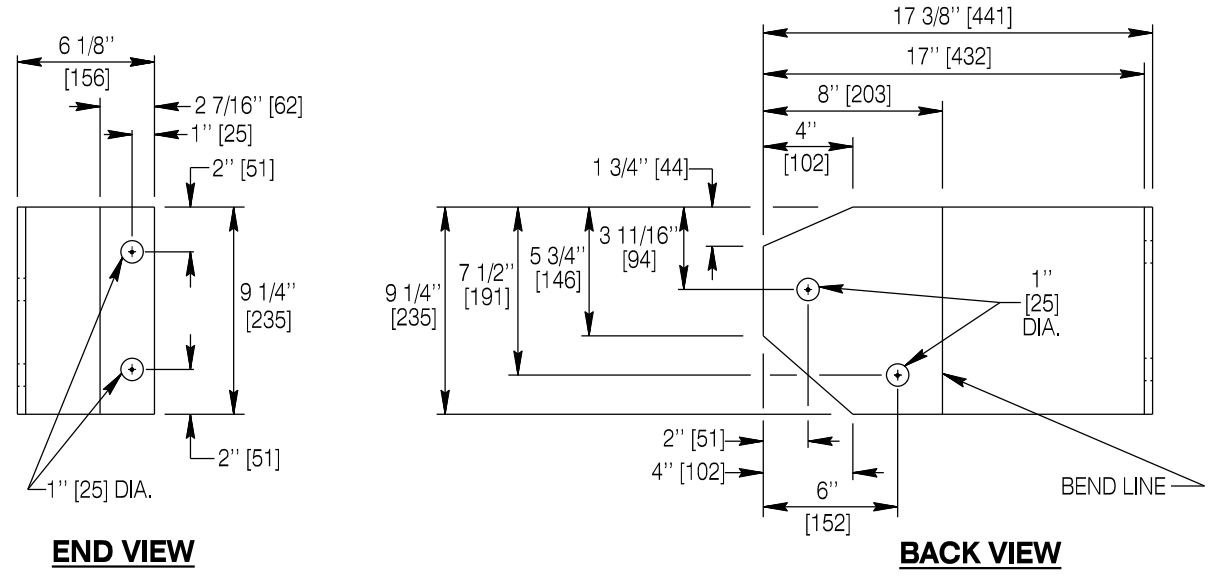
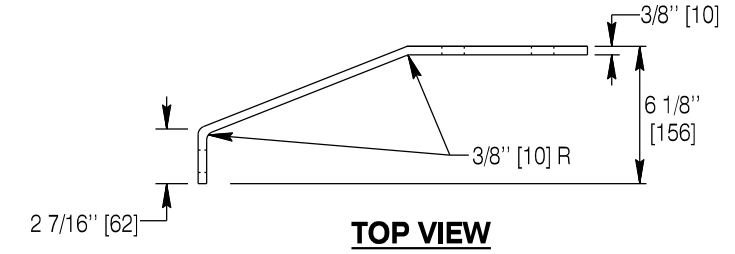
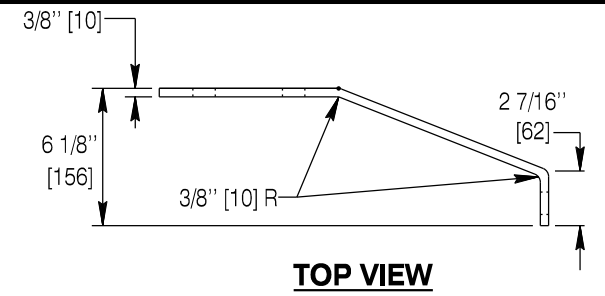


MGS FABRICATION STANDARDS

STANDARD PLAN

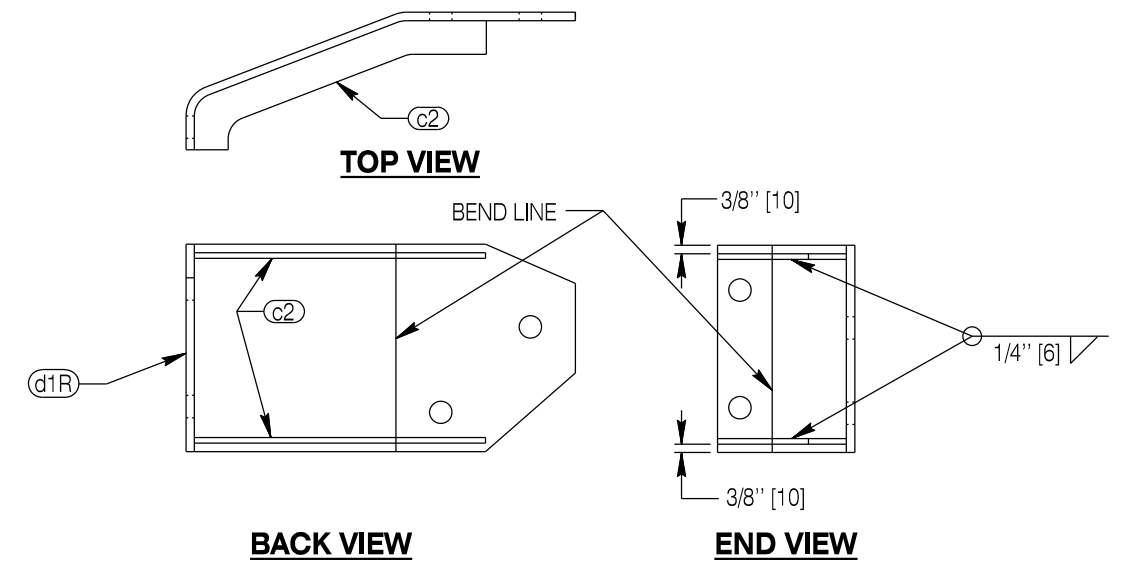
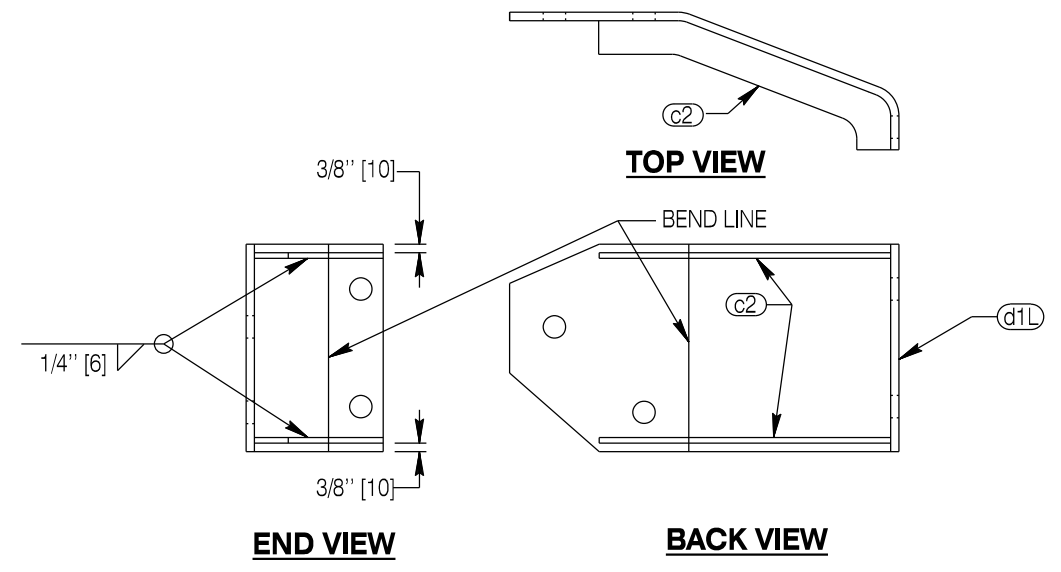
STANDARD PLAN NUMBER
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ITEM	QTY	DESCRIPTION	MATERIAL
c2	2	SEE LOWER ASSEMBLY SHEET	
	1	UPPER ANGLE ASSEMBLY	
d2L/d2R	1	UPPER ANGLE PLATE	3/8" [10] A36 PLATE



**d2L - UPPER ANGLE PLATE
(LEFT HAND TRANSITION)**

**d2R - UPPER ANGLE PLATE
(RIGHT HAND TRANSITION)**

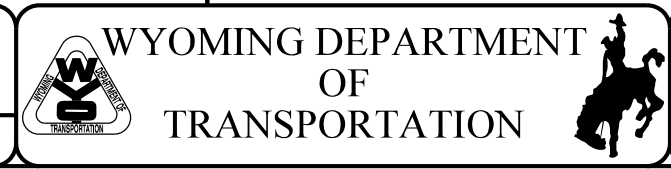


**TL-4 UPPER ANGLE ASSEMBLY
(LEFT HAND TRANSITION)**

**TL-4 UPPER ANGLE ASSEMBLY
(RIGHT HAND TRANSITION)**

Designed by: WBW
 Drawn by: JK
 Checked by: WBW
 Previous Dwg. No. 606-3

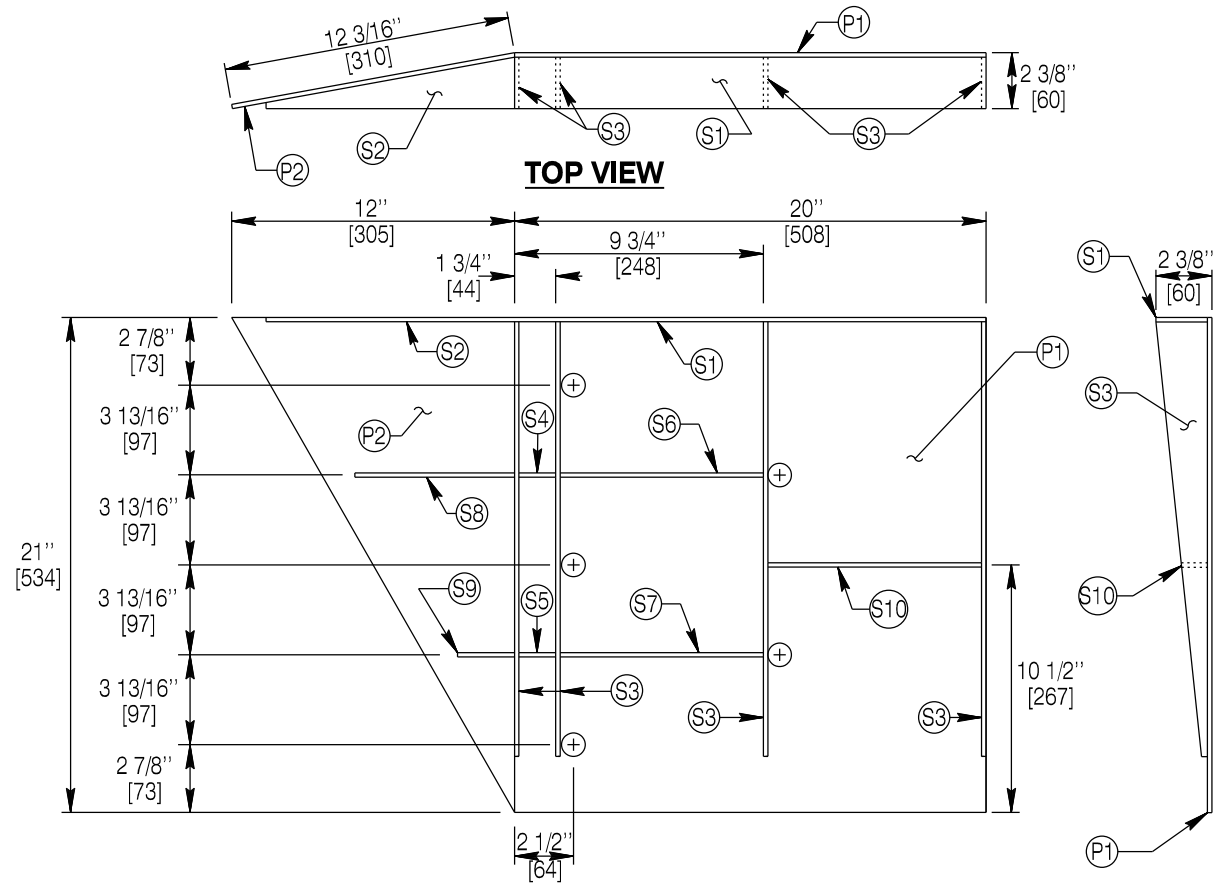
TRANSITION B UPPER ANGLE ASSEMBLY



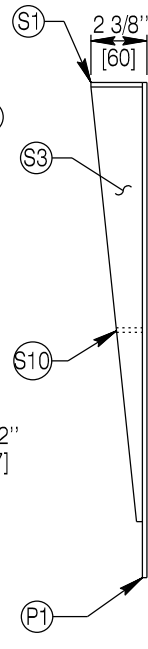
MGS FABRICATION STANDARDS

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 Date Issued: JULY 2018

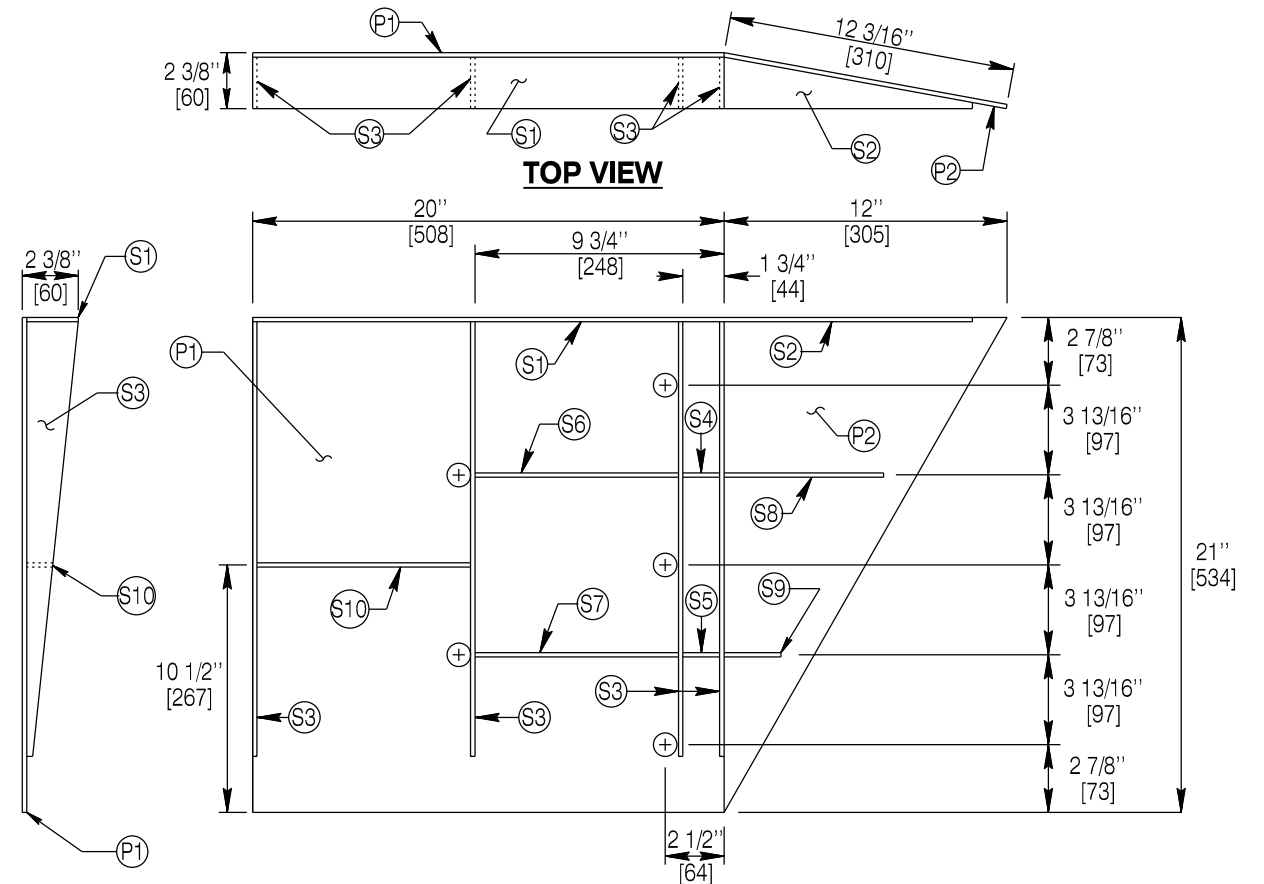
Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



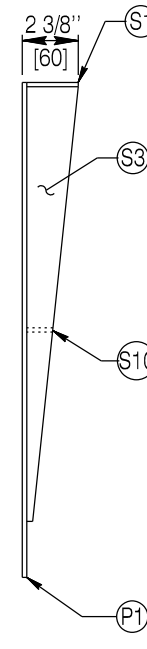
**ELEVATION VIEW
(BACK SIDE)**



END VIEW

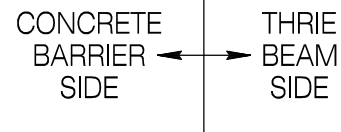


**ELEVATION VIEW
(BACK SIDE)**

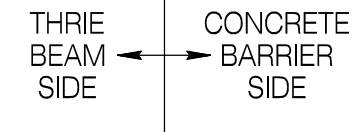


END VIEW

**LEFT HAND NEW JERSEY
CONNECTION PLATE**

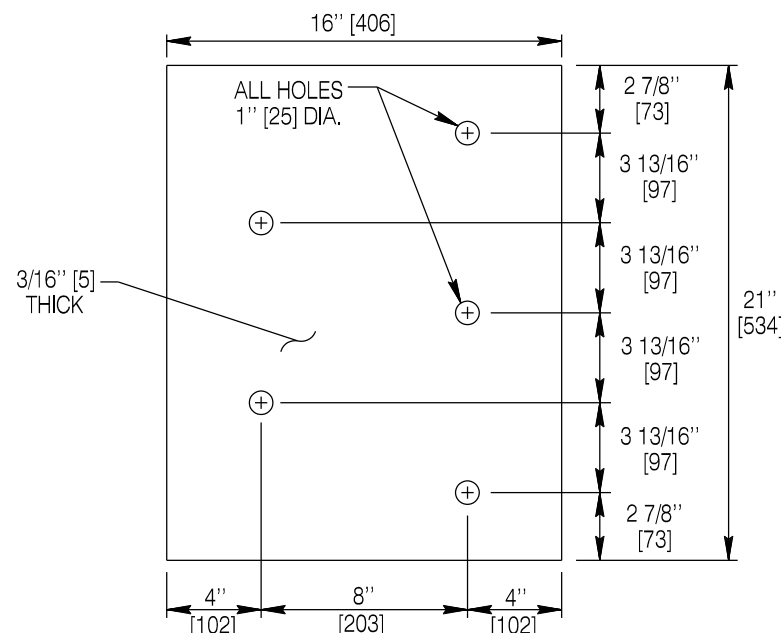


**RIGHT HAND NEW JERSEY
CONNECTION PLATE**



WELDING INSTRUCTIONS:

- (A) Weld stiffeners located on the outside edges of the cover plates as follows: 3/16" [5] continuous back weld on external sides and 3/16" [5] fillet weld by 1" [25] long spaced at 2" [51] on internal sides.
- (B) Weld stiffeners located on the inside of the cover plates as follows: 3/16" [5] fillet weld by 1" [25] long spaced at 2" [51] both sides.
- (C) Weld rectangular and triangular cover plates together with a full penetration groove weld.



BACKING PLATE

Install on back side of concrete barrier.

GENERAL NOTES

- 1. Provide steel in accordance with ASTM A36.
- 2. Weld components with E60 rod.
- 3. Galvanize in accordance with the Standard Specifications for Road and Bridge Construction.

Designed by: WBW
 Drawn by: JK
 Checked by: WBW
 Previous Dwg. No. 606-3

TRANSITION C CONNECTOR PLATE

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



MGS FABRICATION STANDARDS

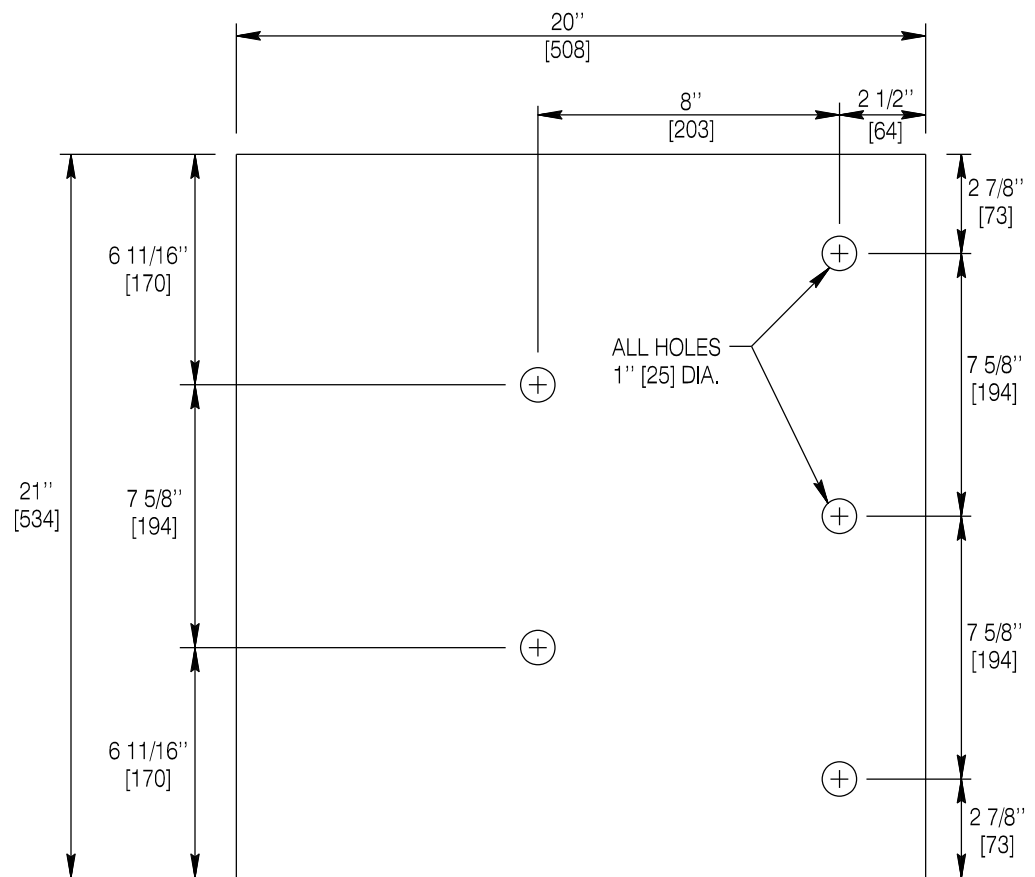
STANDARD PLAN

STANDARD PLAN NUMBER

606-3A

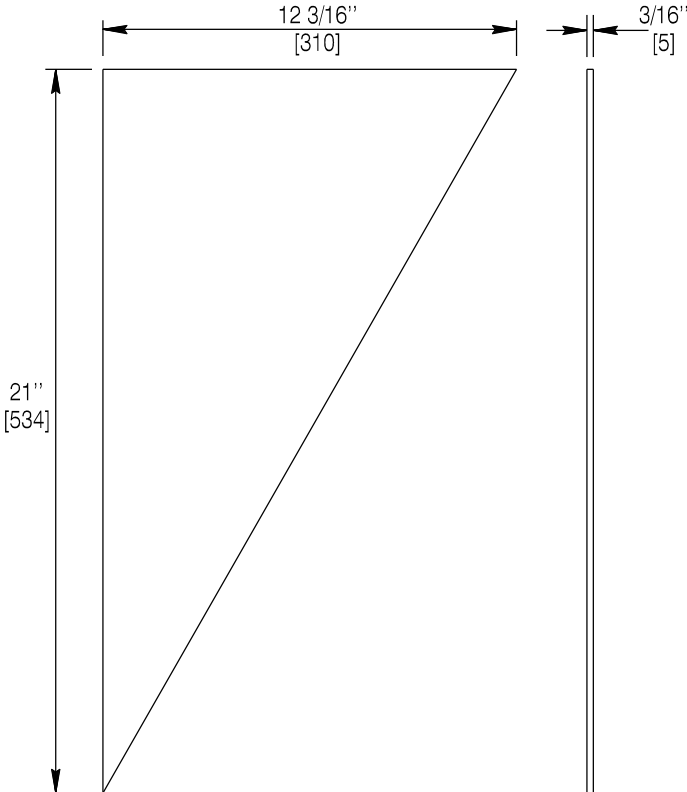
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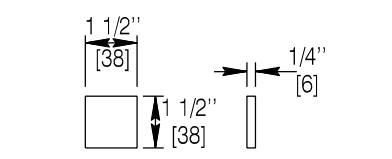
COVER PLATE #1

(P1)



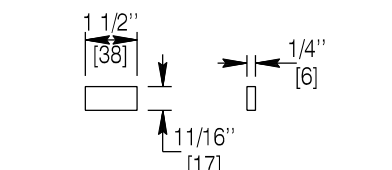
COVER PLATE #2

(P2)



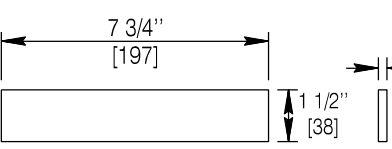
STIFFENER #4 - 1 EACH

(S4)



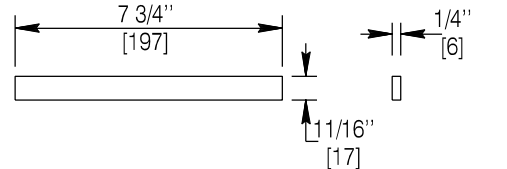
STIFFENER #5 - 1 EACH

(S5)



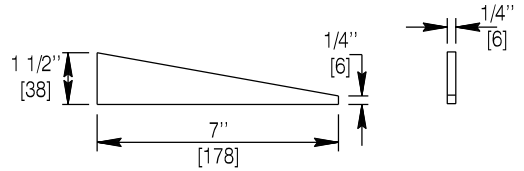
STIFFENER #6 - 1 EACH

(S6)



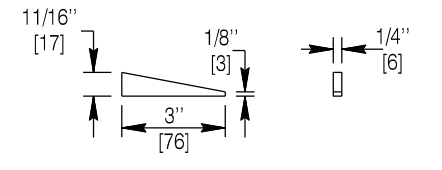
STIFFENER #7 - 1 EACH

(S7)



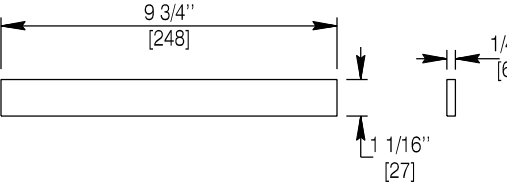
STIFFENER #8 - 1 EACH

(S8)



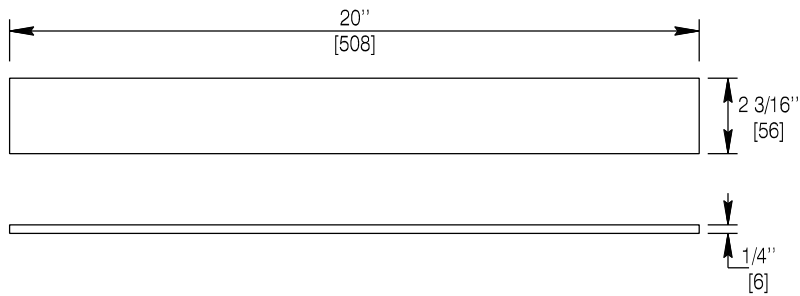
STIFFENER #9 - 1 EACH

(S9)



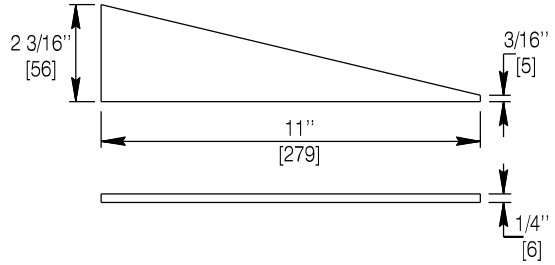
STIFFENER #10 - 1 EACH

(S10)



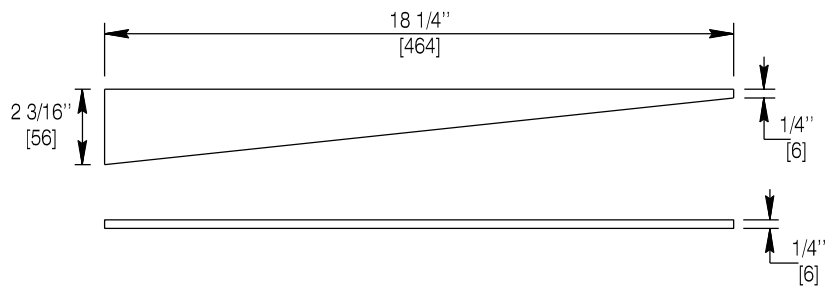
STIFFENER #1 - 1 EACH

(S1)



STIFFENER #2 - 1 EACH

(S2)



STIFFENER #3 - 4 EACH

(S3)

SEE NOTES ON PREVIOUS SHEET

Designed by: WBW
 Drawn by: JK
 Checked by: WBW
 Previous Dwg. No. 606-3

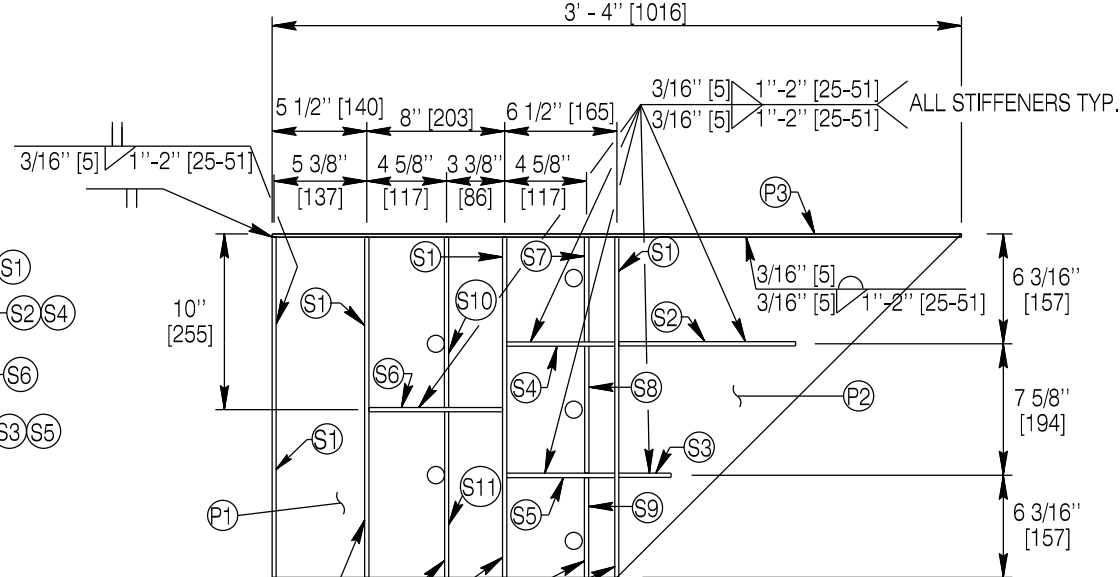
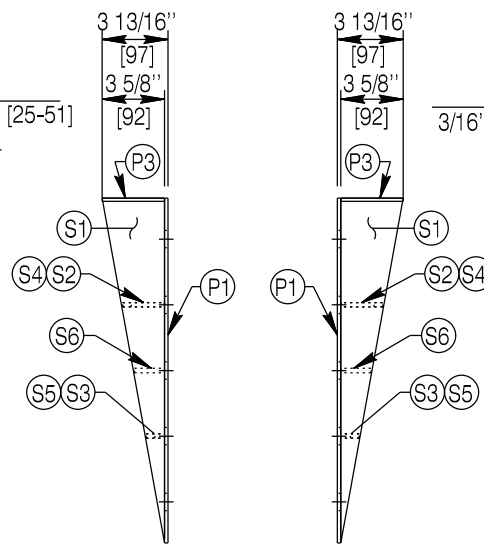
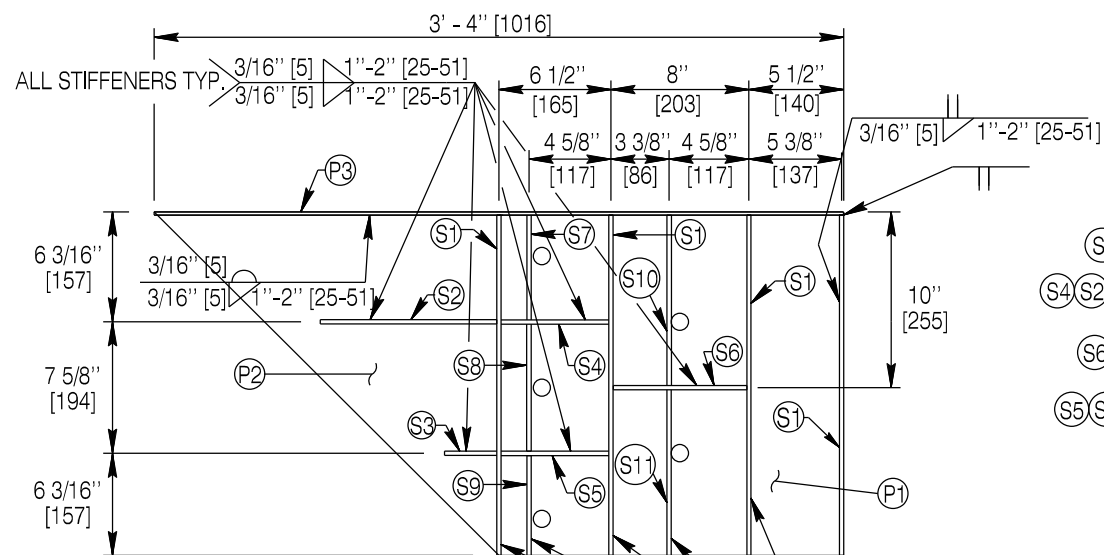
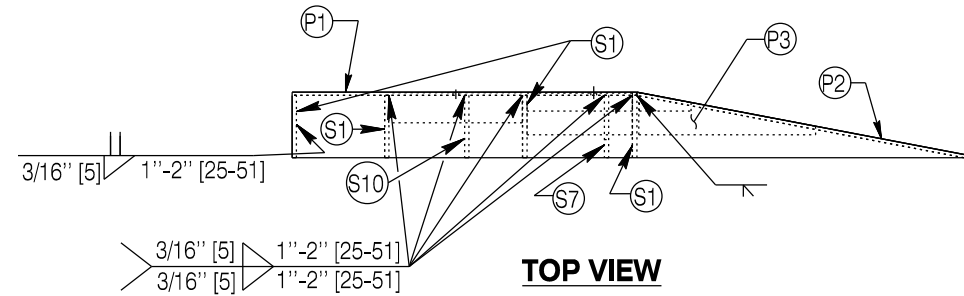
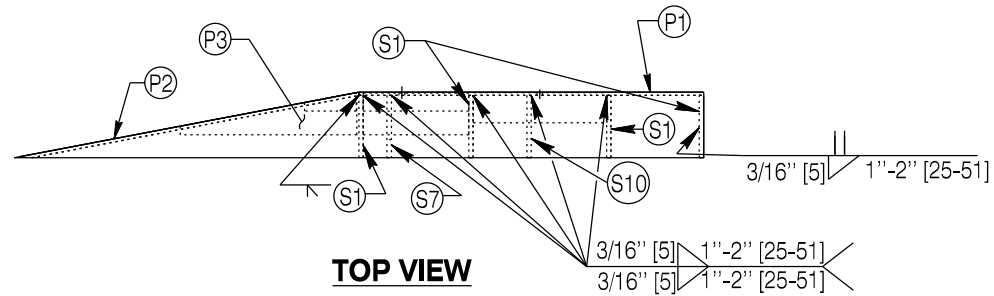
TRANSITION C CONNECTOR PLATE (CONT.)



MGS FABRICATION STANDARDS

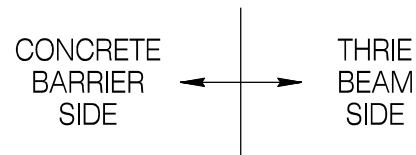
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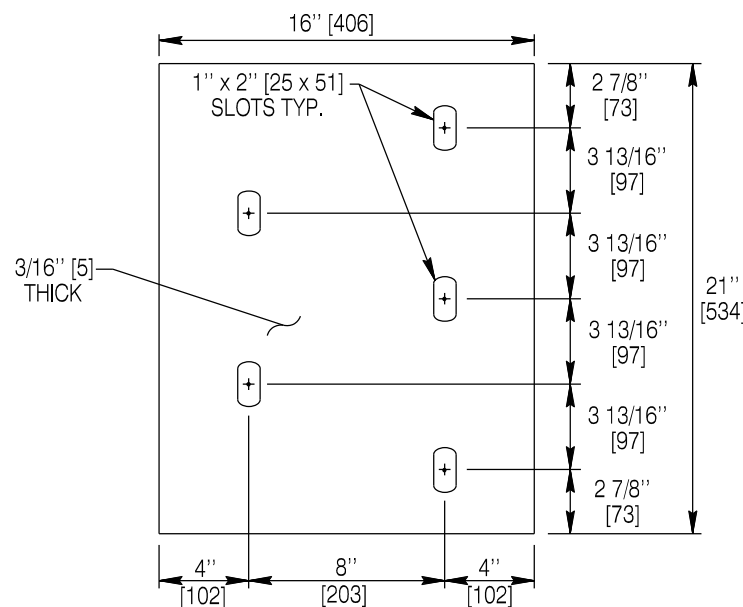
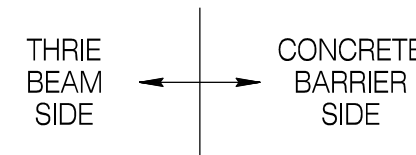
**ELEVATION VIEW
(BACK SIDE)**

**LEFT HAND SINGLE SLOPE
CONNECTION PLATE**



**ELEVATION VIEW
(BACK SIDE)**

**RIGHT HAND SINGLE SLOPE
CONNECTION PLATE**



BACKING PLATE

Install on back side of concrete barrier.

WELDING INSTRUCTIONS

1. Weld plate P3 as follows: 3/16" [5] continuous back weld on exterior sides and 3/16" [5] fillet weld 1" [25] long spaced at 2" [51] on interior sides.
2. Weld stiffeners located on the inside of the cover plates as follows: 3/16" [5] fillet weld 1" [25] long spaced at 2" [51] both sides.
3. Weld together cover plates P1 and P2 with full penetration groove weld.

NOTES

1. P1, P2 and P3 will be fabricated of 3/16" [5] thick A36 grade structural steel.
2. Galvanize connector plates in accordance with AASHTO M111.
3. Fabricate stiffener plates of 1/4" [6] thick A36 Grade structural steel.

Designed by: WBW
Drawn by: JK
Checked by: WBW
Previous Dwg. No. 606-3

TRANSITION D CONNECTOR PLATE

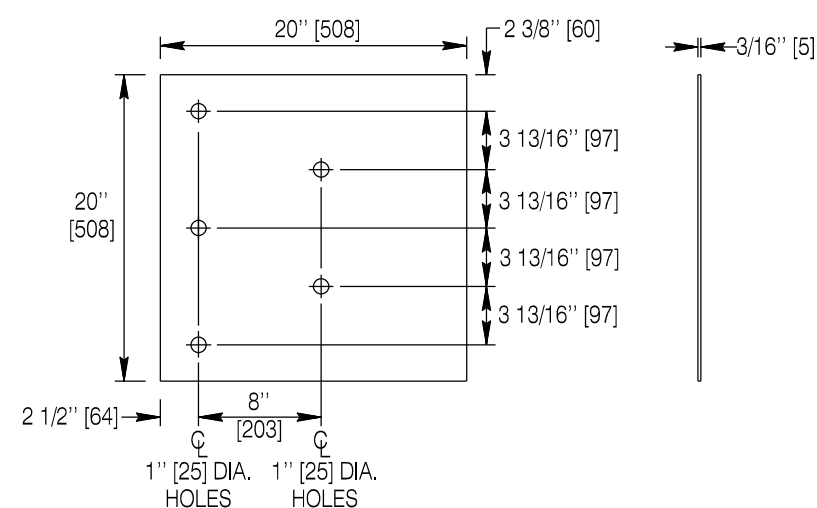
Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



MGS FABRICATION STANDARDS

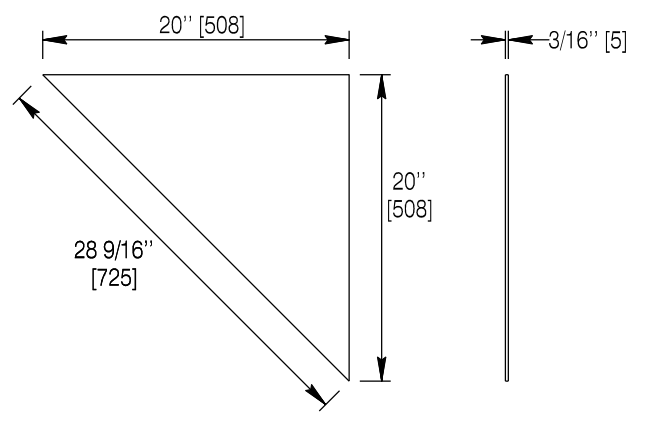
STANDARD PLAN

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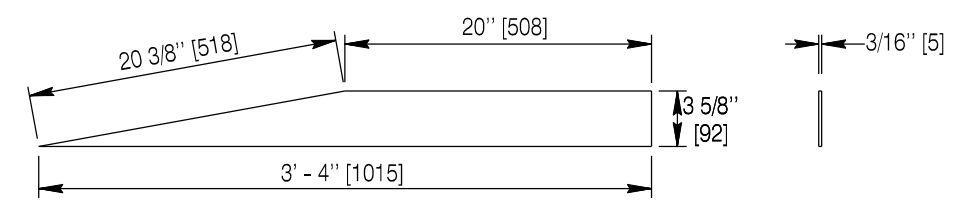
COVER PLATE #1

(P1)



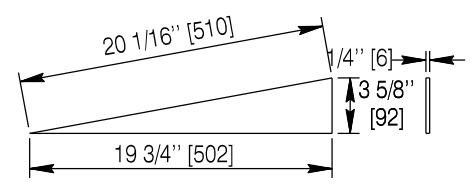
COVER PLATE #2

(P2)



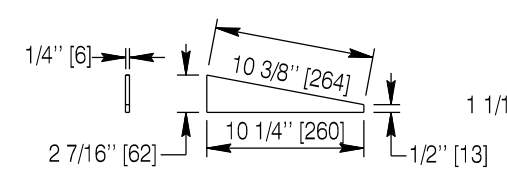
COVER PLATE #3

(P3)



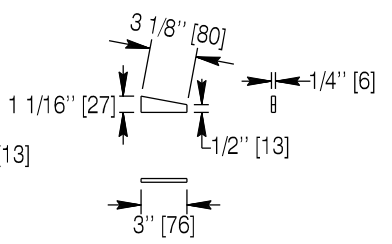
STIFFENER #1 - 4 EACH

(S1)



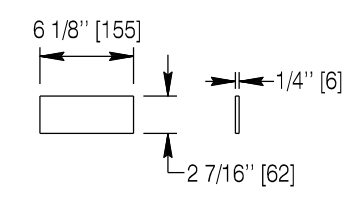
STIFFENER #2 - 1 EACH

(S2)



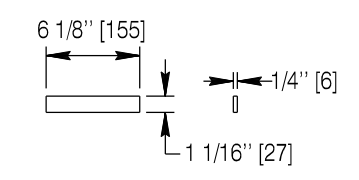
STIFFENER #3 - 1 EACH

(S3)



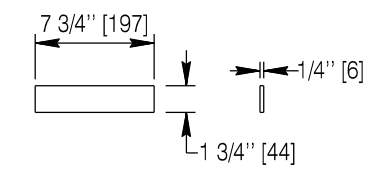
STIFFENER #4 - 1 EACH

(S4)



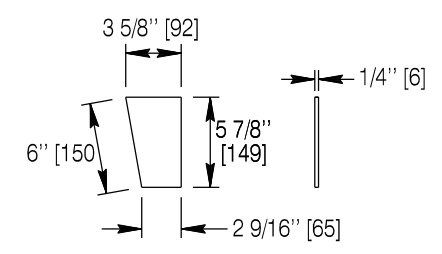
STIFFENER #5 - 1 EACH

(S5)



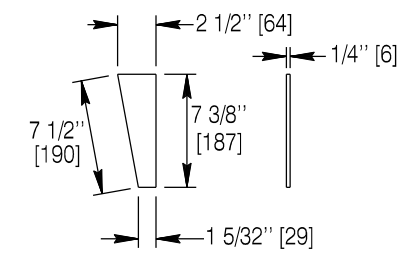
STIFFENER #6 - 1 EACH

(S6)



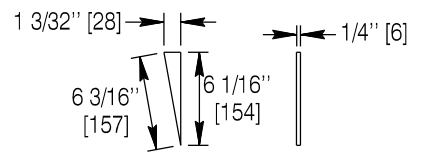
STIFFENER #7 - 1 EACH

(S7)



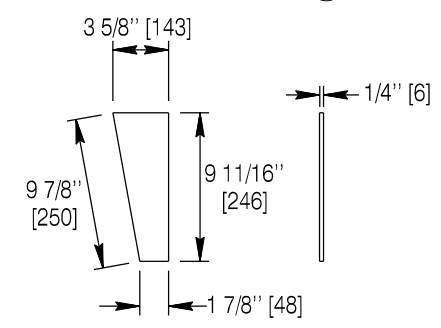
STIFFENER #8 - 1 EACH

(S8)



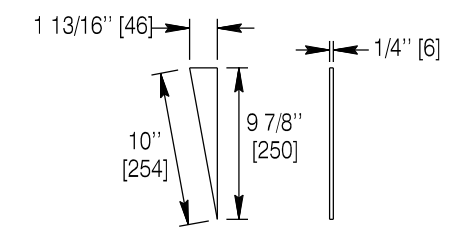
STIFFENER #9 - 1 EACH

(S9)



STIFFENER #10 - 1 EACH

(S10)



STIFFENER #11 - 1 EACH

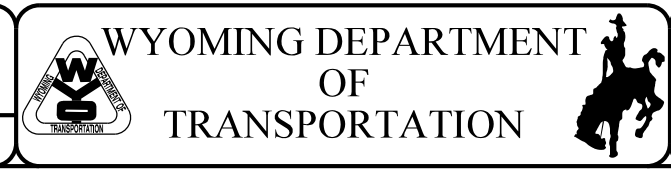
(S11)

NOTE
P - Cover Plate
S - Stiffener Plate

Designed by: WBW
Drawn by: JK
Checked by: WBW
Previous Dwg. No. 606-3

TRANSITION D CONNECTOR PLATE (CONT.)

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



MGS FABRICATION STANDARDS

STANDARD PLAN

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