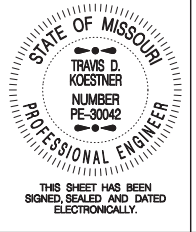


MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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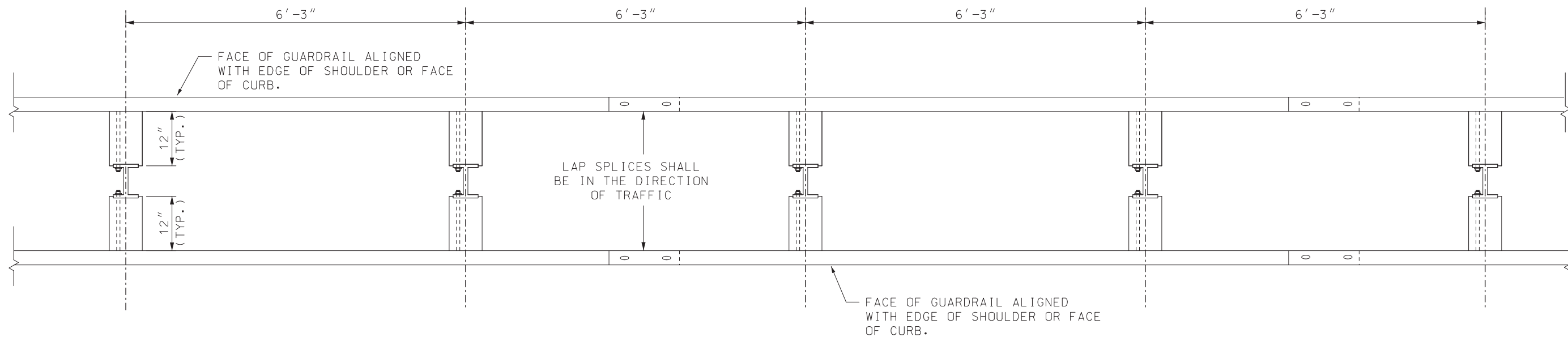


STATE OF MISSOURI
TRAVIS D. KOESTNER
NUMBER PE-30042
PROFESSIONAL ENGINEER

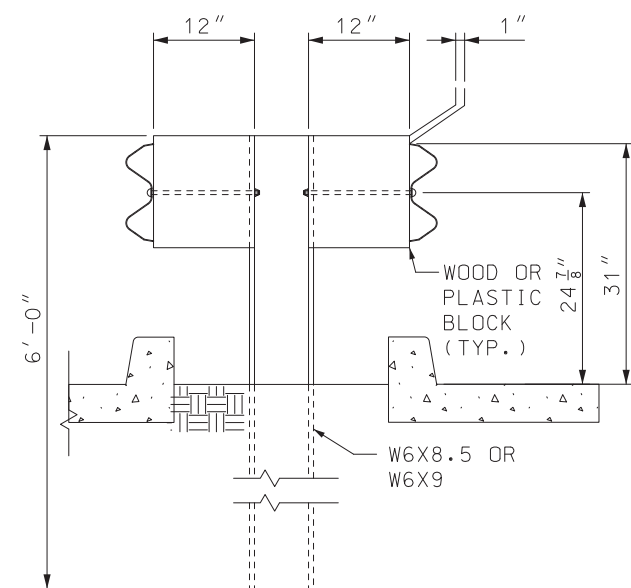
THIS SHEET HAS BEEN
SIGNED, SEALED AND DATED
ELECTRONICALLY.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

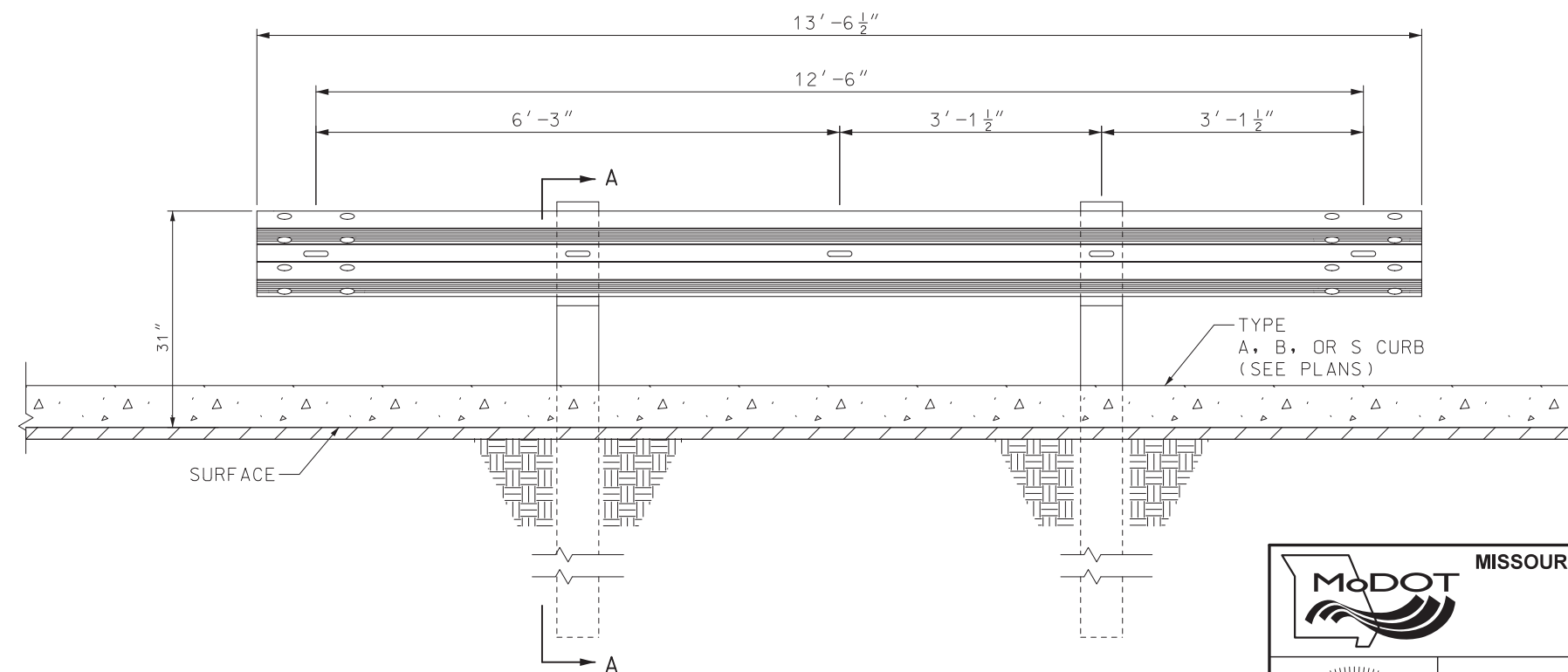
DATE EFFECTIVE:	01/01/2023	606.50E	SHEET NO. 1 OF 8
DATE PREPARED:	10/7/2022		




PLAN VIEW

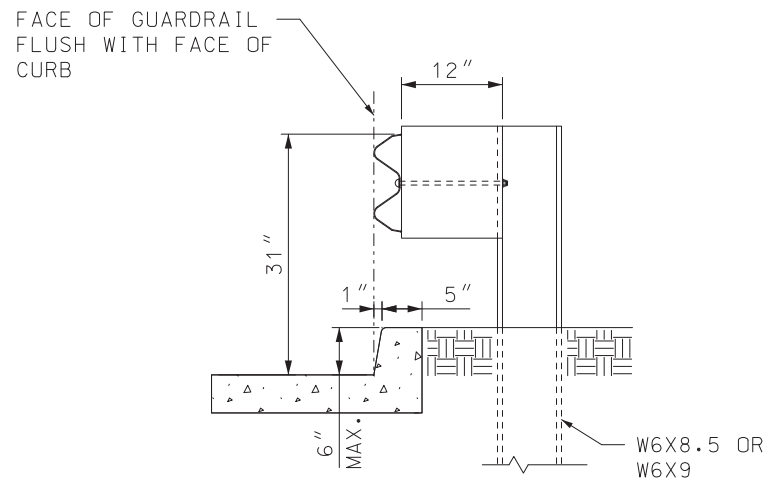


SECTION A-A

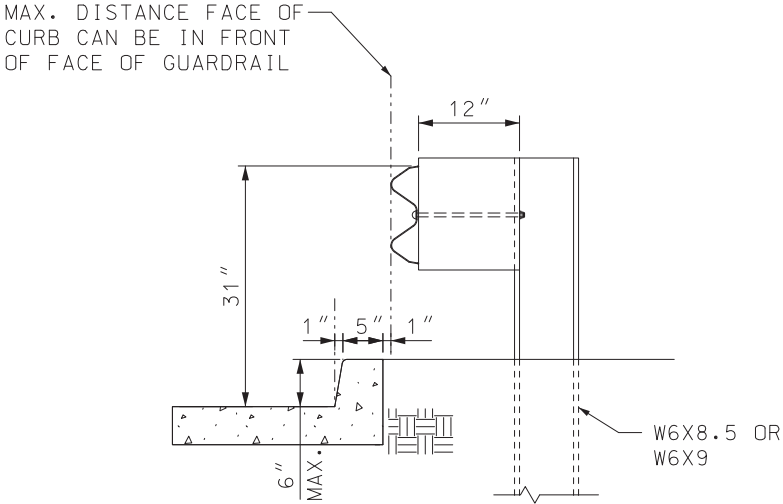


ELEVATION VIEW

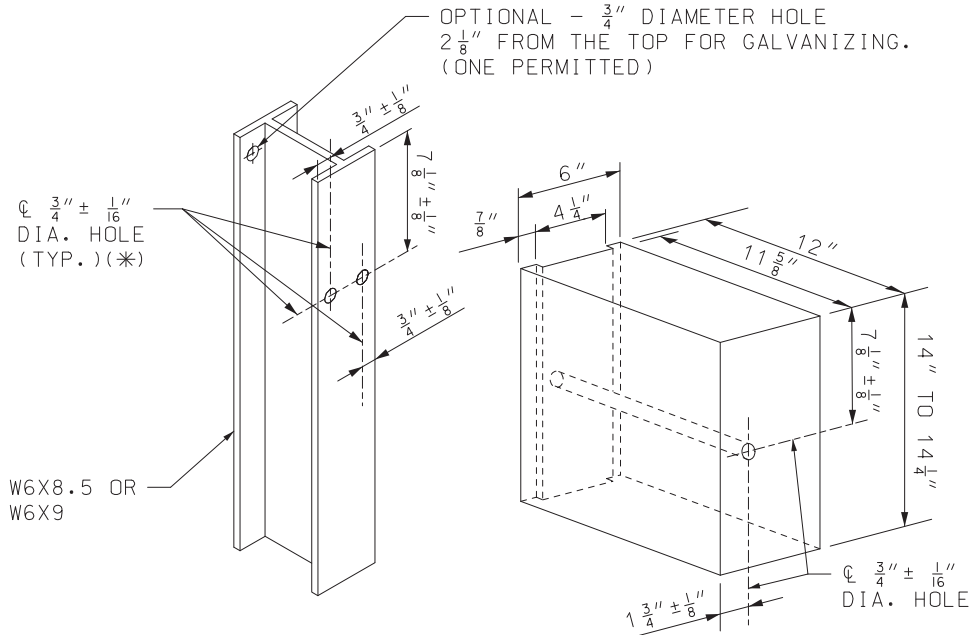
 MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
 <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	MIDWEST GUARDRAIL SYSTEM (MGS) DOUBLE FACED GUARDRAIL
DATE EFFECTIVE: 01/01/2023 DATE PREPARED: 10/7/2022	606.50E
SHEET NO. 2 OF 8	



MGS GUARDRAIL AT CURB

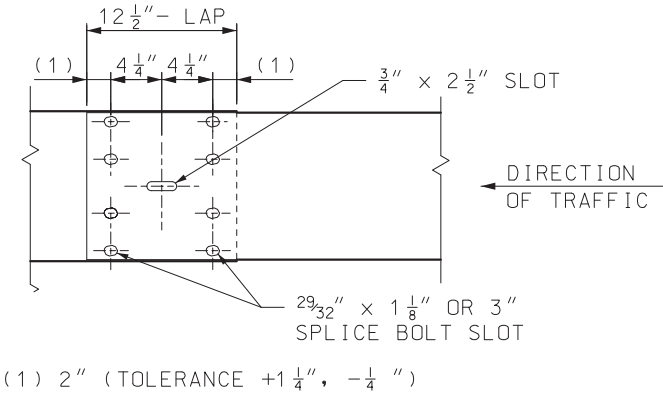


ALTERNATE MGS
AT CURB

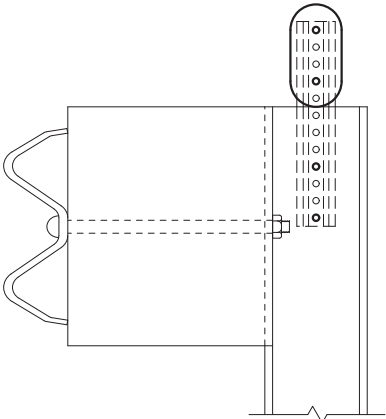


FOR STEEL POST AND NOTCHED WOOD OR PLASTIC BLOCK
HOLE PUNCHING DETAIL

(*) TWO HOLES CAN BE PROVIDED ON EACH FLANGE OF POST, ONLY ONE IS REQUIRED FOR FLANGE OF POST THAT HAS A BLOCK ATTACHMENT.



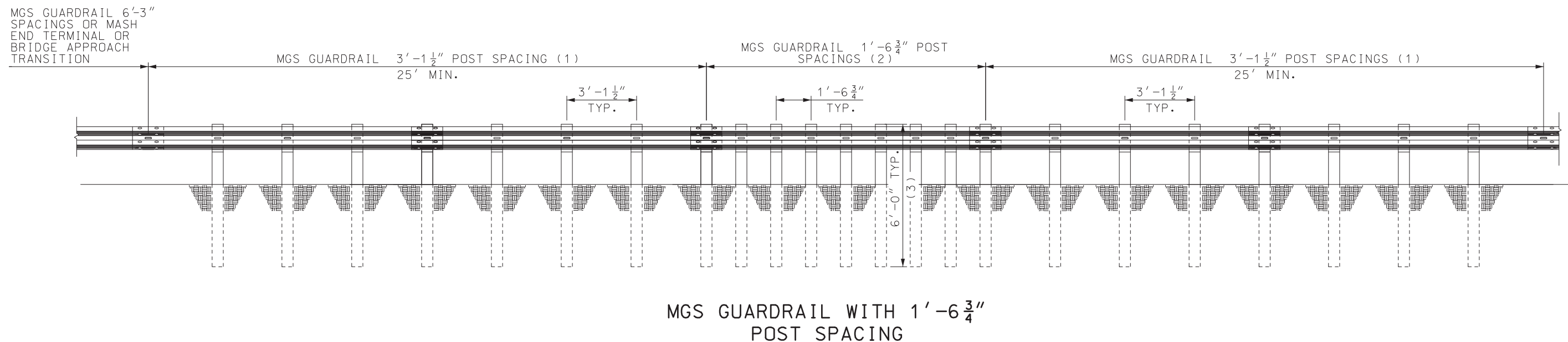
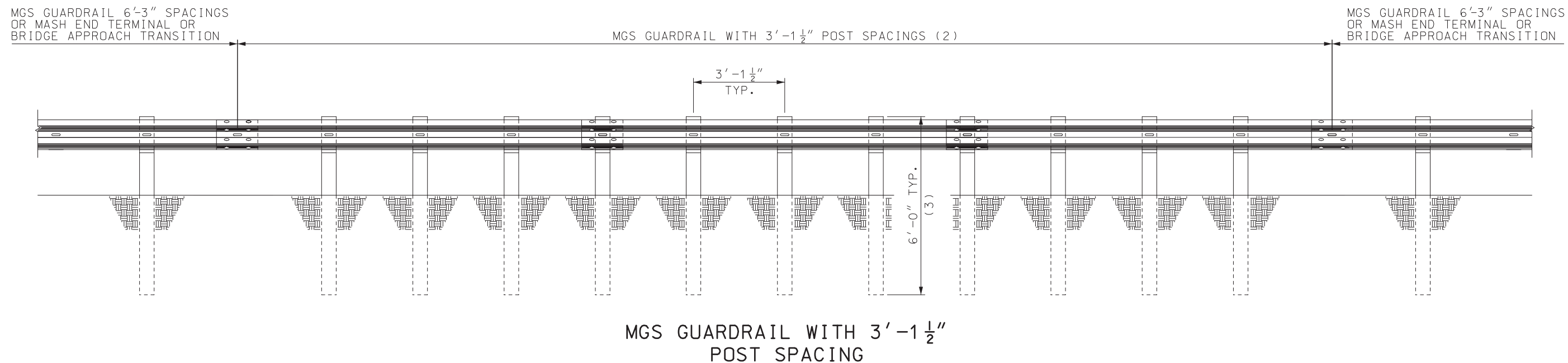
RAIL ELEMENT SPLICE
DETAIL



DELINEATORS ON GUARDRAIL

GENERAL NOTES:
FOR GUARDRAIL DELINEATION DETAILS SEE
STD PLAN 903.03.

<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</p> <p>105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)</p>	
<p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<p>MIDWEST GUARDRAIL SYSTEM (MGS) POST AND BLOCK</p>
<p>DATE EFFECTIVE: 01/01/2023 DATE PREPARED: 10/7/2022</p>	<p>606.50E</p>
<p>SHEET NO. 3 OF 8</p>	

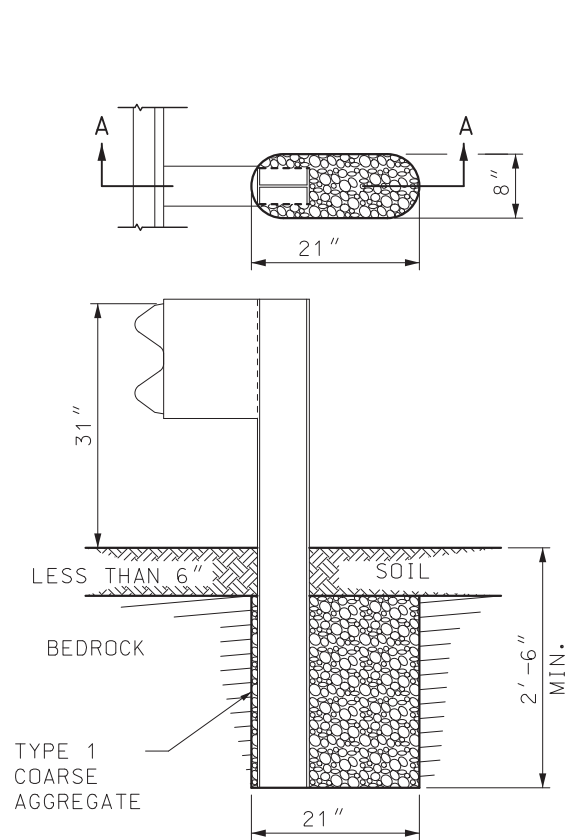


- (1) 25 FEET OF MGS 3'-1 1/2" POST SPACING GUARDRAIL IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF 1'-6 3/4" POST SPACING MGS GUARDRAIL.
- (2) USE AS MANY SEGMENTS AS NECESSARY TO SHIELD THE AREA OF CONCERN.
- (3) REDUCED POST SPACING SHALL USE 6'-0" POSTS MAX. ANY DEVIATION OF 6'-0" POSTS WILL ONLY BE ALLOWED IN ACCORDANCE WITH SPECIAL INSTALLATIONS AS SHOWN ON SHEET 5 OF 8.

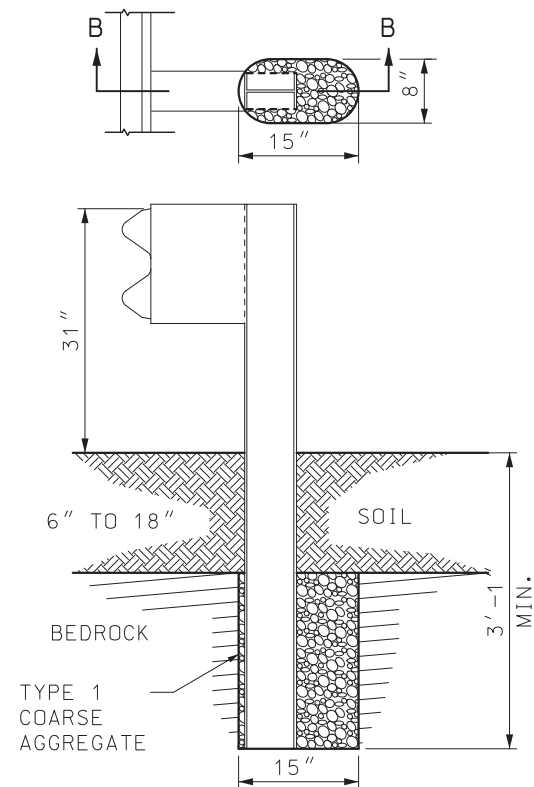
GENERAL NOTES:

- 8' POSTS CANNOT BE USED WHEN:
- POST SPACING IS LESS THAN 6'-3"
 - WITHIN CRASHWORTHY END TERMINALS (SEE MANUFACTURERS DRAWINGS)
 - WITHIN VERTICAL BARRIER TRANSITIONS (606.60)
 - WITHIN BRIDGE APPROACH TRANSITIONS (606.70)

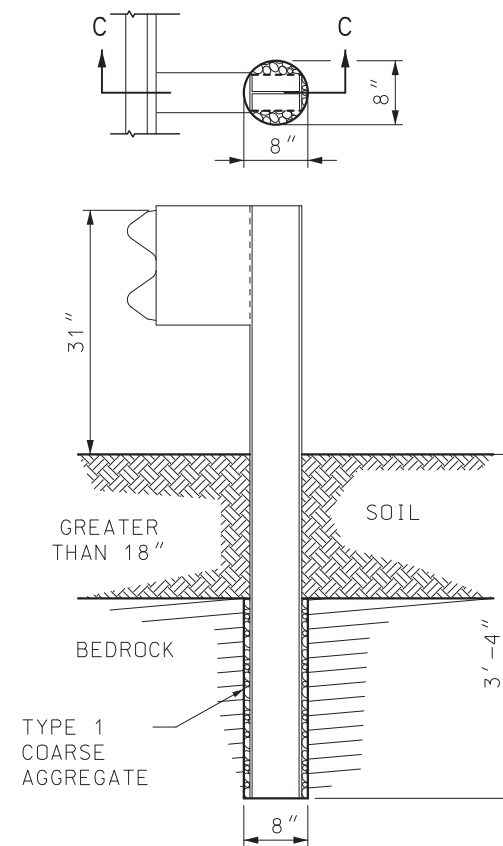
 MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
 <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	MIDWEST GUARDRAIL SYSTEM (MGS) REDUCED POST SPACINGS
	DATE EFFECTIVE: 01/01/2023 DATE PREPARED: 10/7/2022
606.50E	SHEET NO. 4 OF 8



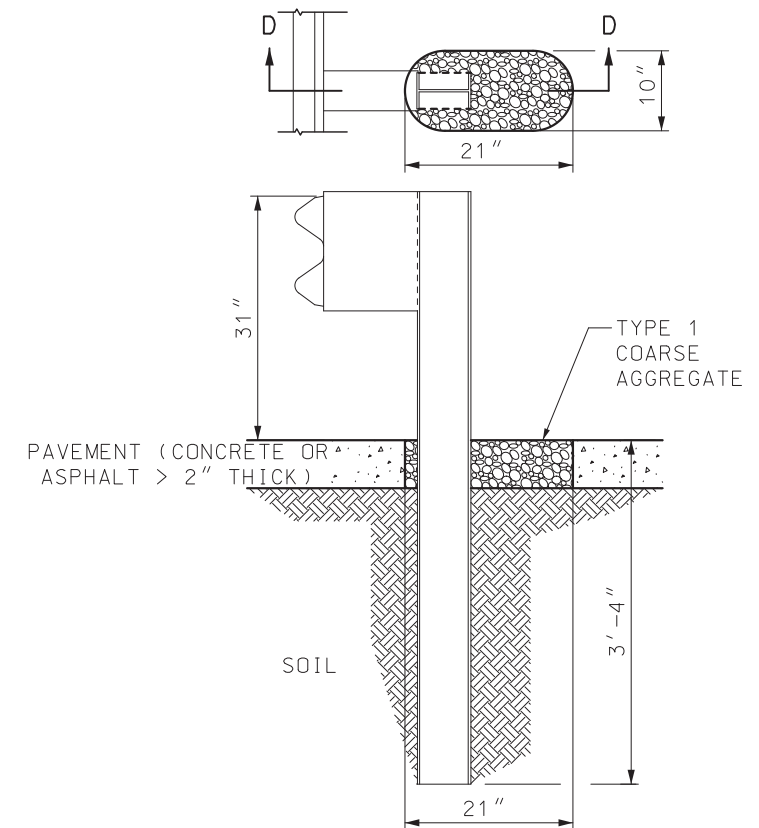
SECTION A-A
ROCK ENCOUNTERED
UP TO 6" BENEATH SURFACE



SECTION B-B
ROCK ENCOUNTERED
6" TO 18" BENEATH SURFACE

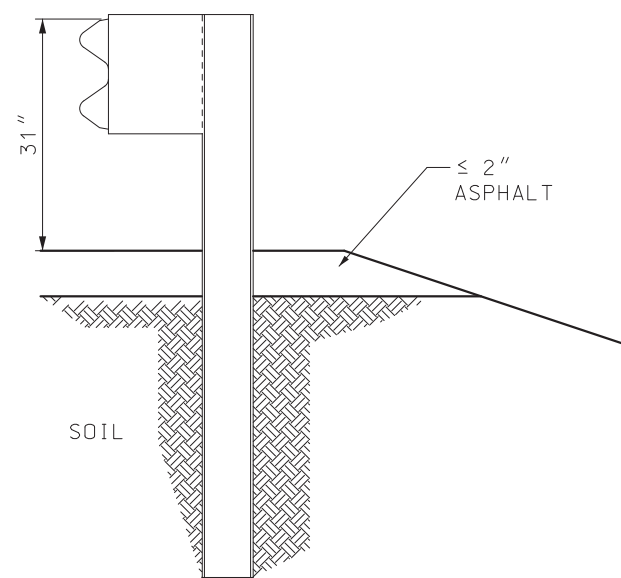


SECTION C-C
ROCK ENCOUNTERED MORE
THAN 18" BENEATH SURFACE



SECTION D-D
SETTING POST THROUGH PAVEMENT
(CONCRETE OR ASPHALT > 2" THICK)

SETTING POST IN SOLID ROCK



SETTING POST THROUGH ASPHALT $\leq 2"$ THICK

GENERAL NOTES:

HOLES IN SOLID ROCK SHALL PROVIDE A DIAMETER OF NOT LESS THAN 4 INCHES GREATER THAN THE MAXIMUM TRANSVERSE DIMENSION OF THE POST SECTION.

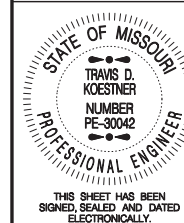
POST MAY BE SHORTER WHERE PLACED IN 2 FEET OF SOLID ROCK. STEEL POSTS MAY BE FLAME OR SAW CUT. REPAIR OF CUT SHALL BE IN ACCORDANCE WITH SEC 712 OF THE STANDARD SPECIFICATIONS.

NO ADDITIONAL PAYMENT WILL BE MADE FOR CUTTING THE OVERSIZED HOLES OR PLACING AGGREGATE IN THE HOLES, AS INDICATED IN THIS PLAN.



MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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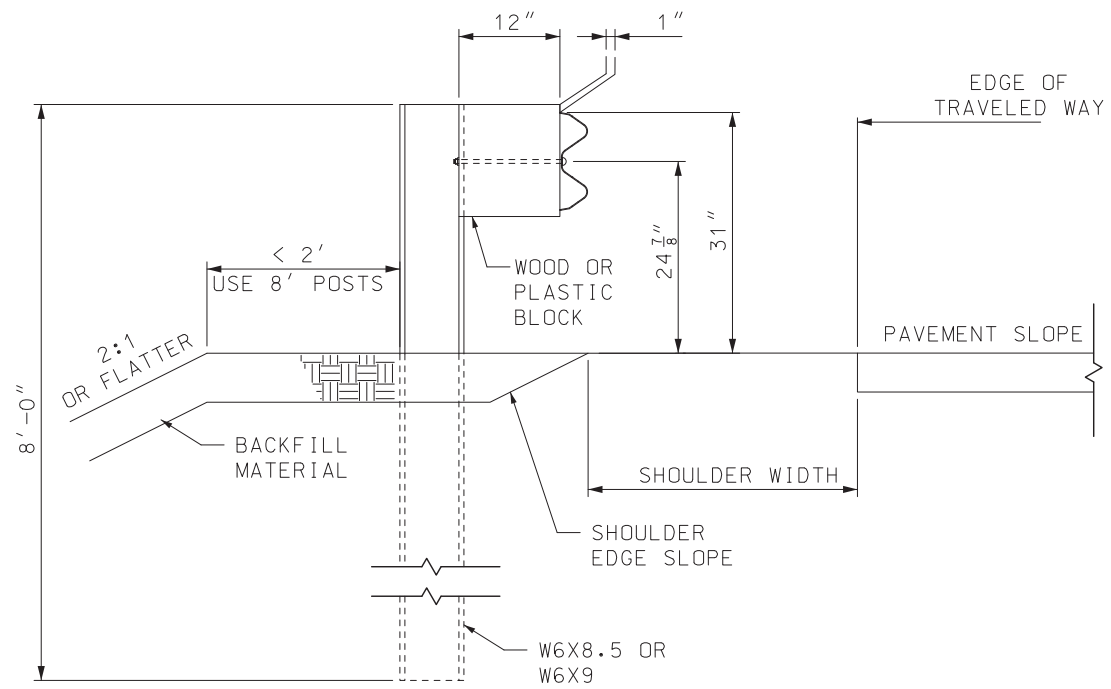
THIS SHEET HAS BEEN
SIGNED, SEALED AND DATED
ELECTRONICALLY.

MIDWEST GUARDRAIL SYSTEM
(MGS)
SPECIAL INSTALLATIONS

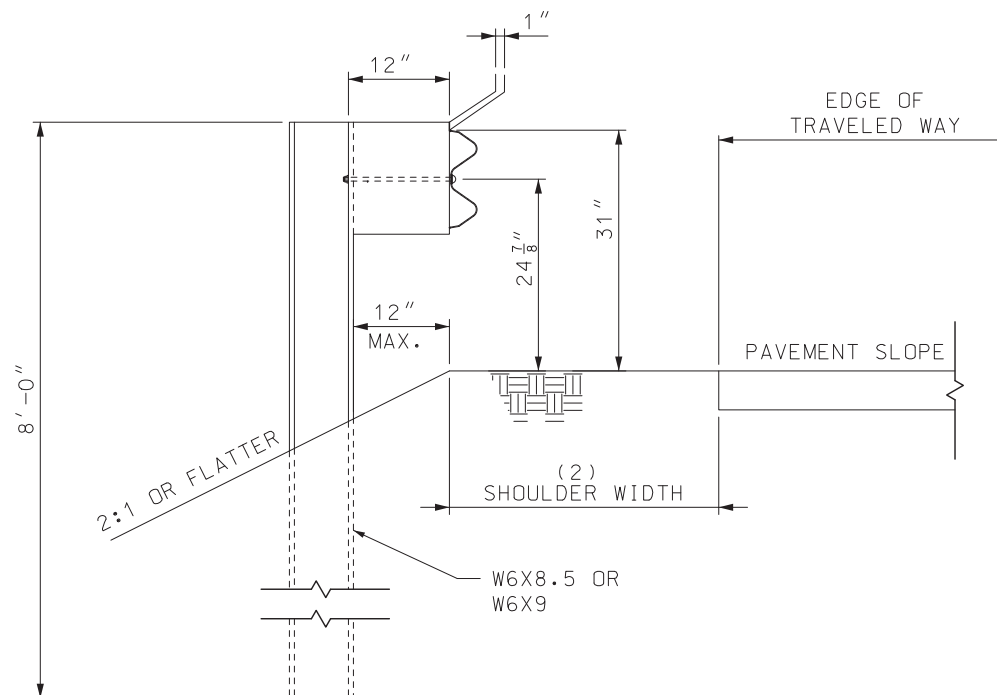
DATE EFFECTIVE: 01/01/2023
DATE PREPARED: 10/7/2022

606.50E

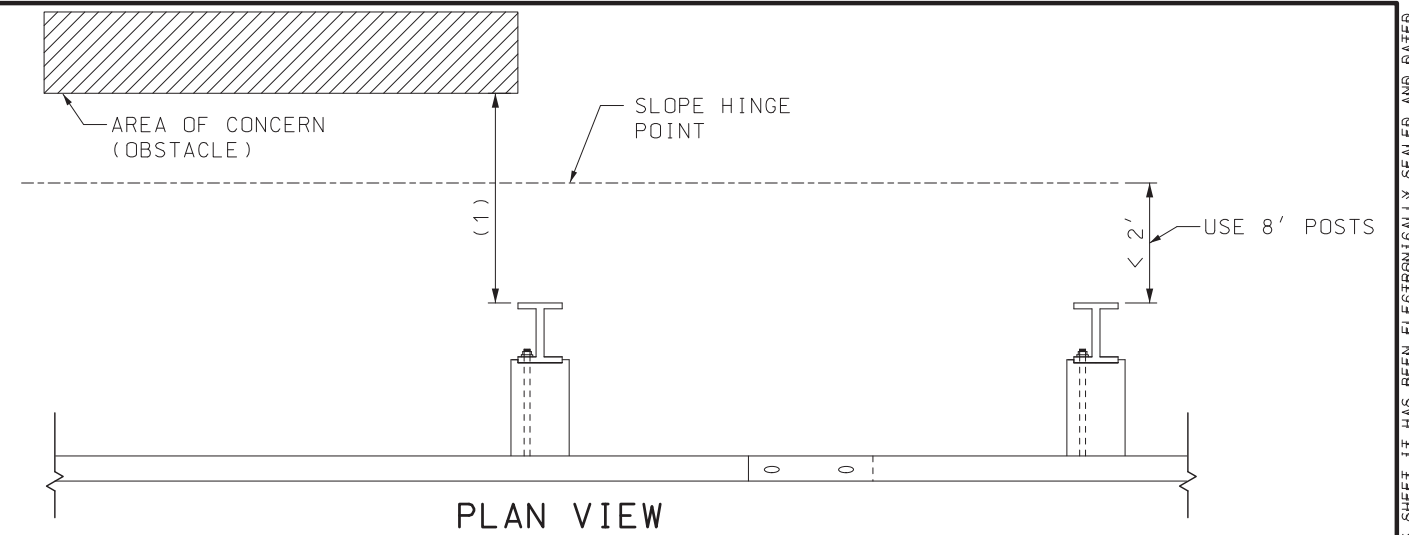
SHEET NO.
5 OF 8



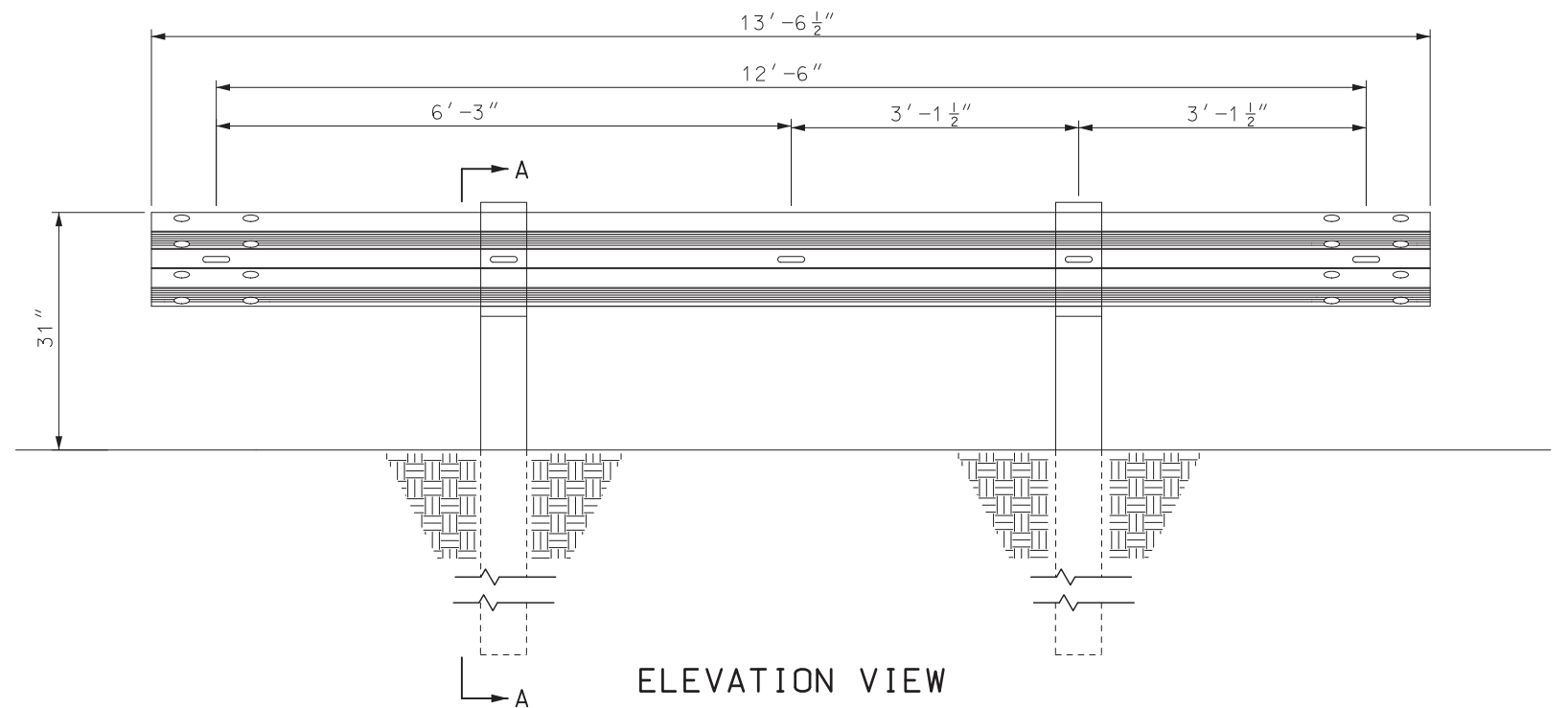
SECTION A-A
8' STEEL POST



ALTERNATE SECTION A-A
MAXIMUM LATERAL PLACEMENT OF
8' STEEL POSTS ADJACENT TO
SLOPES



PLAN VIEW



ELEVATION VIEW


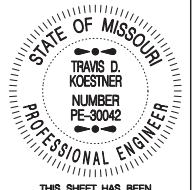
(1) 3'-6" MINIMUM CLEARANCE TO THE FACE OF OBSTACLE WITH 8' POSTS ADJACENT TO A 2:1 SLOPE.

(2) WHERE THERE IS NOT SUFFICIENT EMBANKMENT BEYOND THE SHOULDER TO PLACE THE GUARDRAIL POST, THE POSTS MAY BE PLACED A MAXIMUM OF 12" BEYOND THE SLOPE BREAK POINT OF A 2:1 OR FLATTER SLOPE.

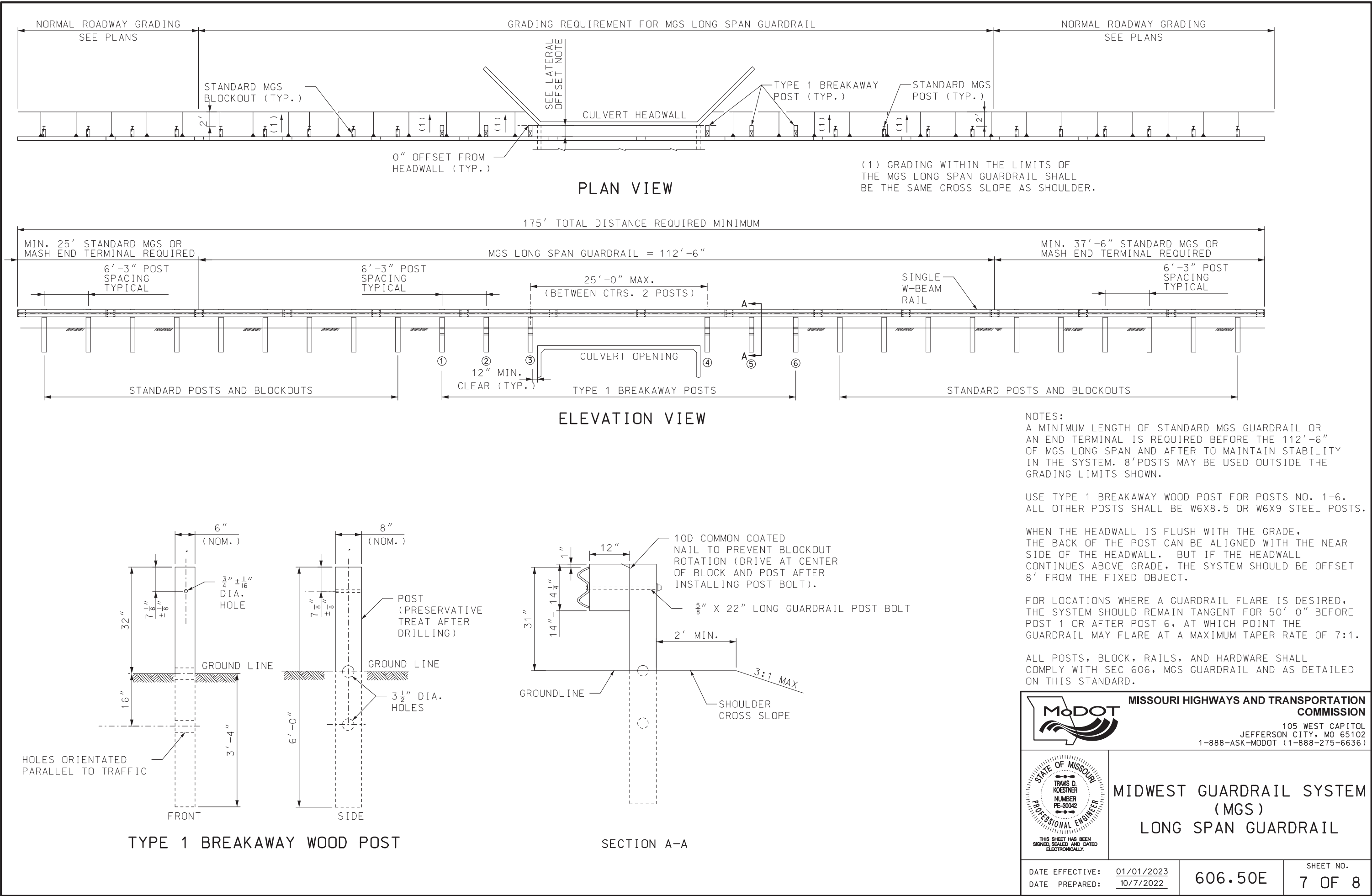
GENERAL NOTES:

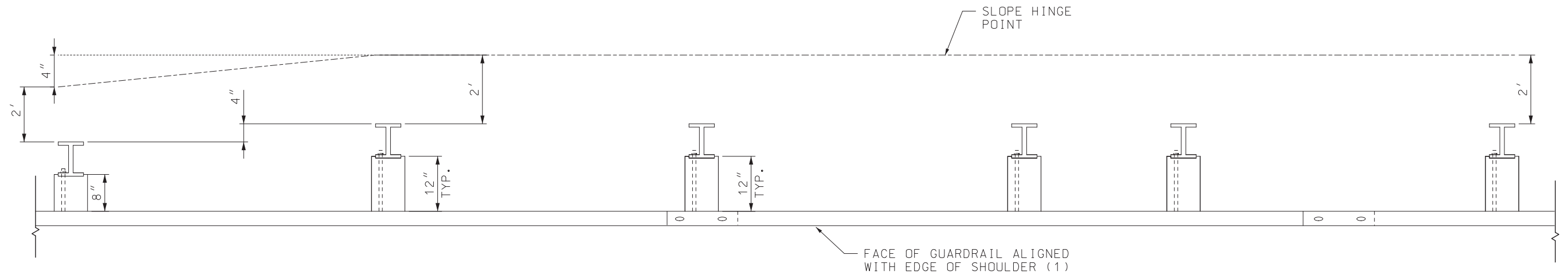
SEE STD. PLAN 606.81 FOR SITE GRADING REQUIREMENTS FOR CRASHWORTHY END TERMINALS.

8 FOOT POSTS SHALL BE USED WHEN LESS THAN 2 FEET OF EMBANKMENT IS PRESENT BETWEEN THE BACK OF THE GUARDRAIL POST AND THE SLOPE BREAK POINT. THE SUBSTITUTION OF 8 FOOT POSTS IN LIEU OF REQUIRED GRADING, TO CONSTRUCT LESS THAN THE DESIGNED TYPICAL SECTION, SHALL NOT BE ALLOWED.

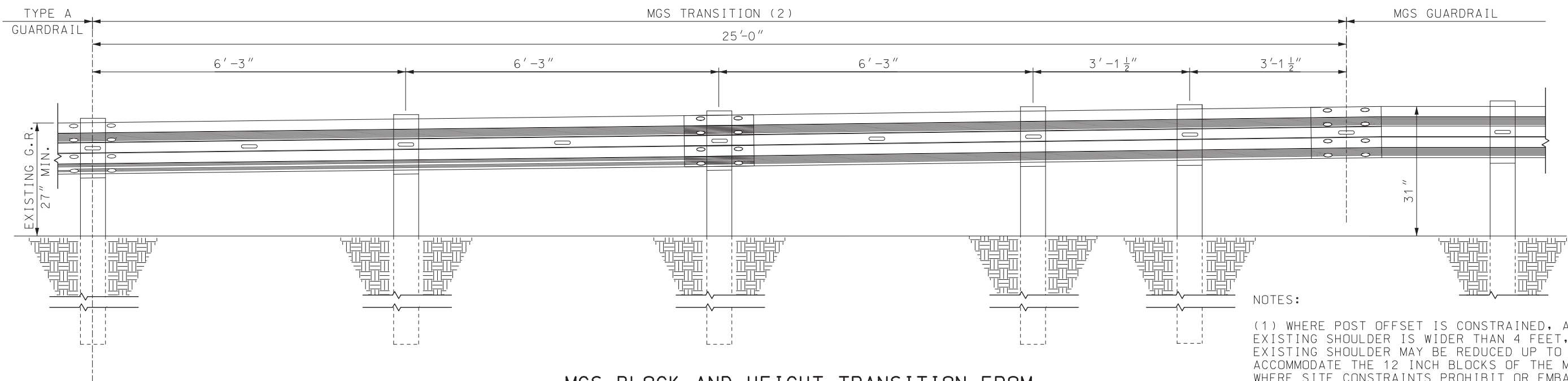
 MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	MIDWEST GUARDRAIL SYSTEM (MGS) 8 FT. POST
DATE EFFECTIVE: 01/01/2023 DATE PREPARED: 10/7/2022	SHEET NO. 606.50E 6 OF 8

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



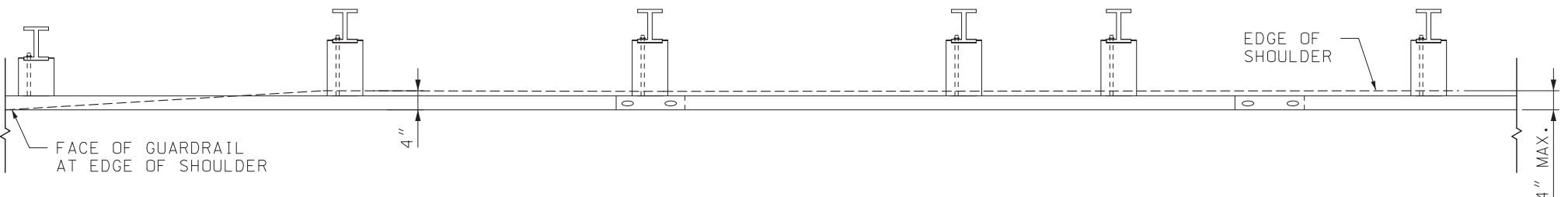


PLAN VIEW


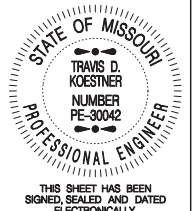


MGS BLOCK AND HEIGHT TRANSITION FROM
TYPE A GUARDRAIL TO MGS GUARDRAIL

- NOTES:
- (1) WHERE POST OFFSET IS CONSTRAINED, AND WHEN THE EXISTING SHOULDER IS WIDER THAN 4 FEET, THE EXISTING SHOULDER MAY BE REDUCED UP TO 4 INCHES TO ACCOMMODATE THE 12 INCH BLOCKS OF THE MGS GUARDRAIL. WHERE SITE CONSTRAINTS PROHIBIT OR EMBANKMENT CANNOT BE CONSTRUCTED TO PROVIDE A MINIMUM OF 2 FEET BETWEEN THE BACK OF THE GUARDRAIL POST AND SLOPE BREAK POINT, 8 FOOT POSTS SHALL BE USED (SEE SHEET 6 OF 8). THE SUBSTITUTION OF 8 FOOT POSTS FOR REQUIRED GRADING SHALL NOT BE ALLOWED.
 - (2) MGS TRANSITION FROM TYPE A GUARDRAIL SHALL BE COMPLETED OUTSIDE THE 50' MGS END TERMINAL LIMITS.



ALTERNATE PLAN VIEW - ALIGNMENT TAPER
SEE NOTE (1)

 MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	MIDWEST GUARDRAIL SYSTEM (MGS) BLOCK AND HEIGHT TRANSITION
DATE EFFECTIVE: 01/01/2023 DATE PREPARED: 10/7/2022	606.50E
SHEET NO. 8 OF 8	

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.