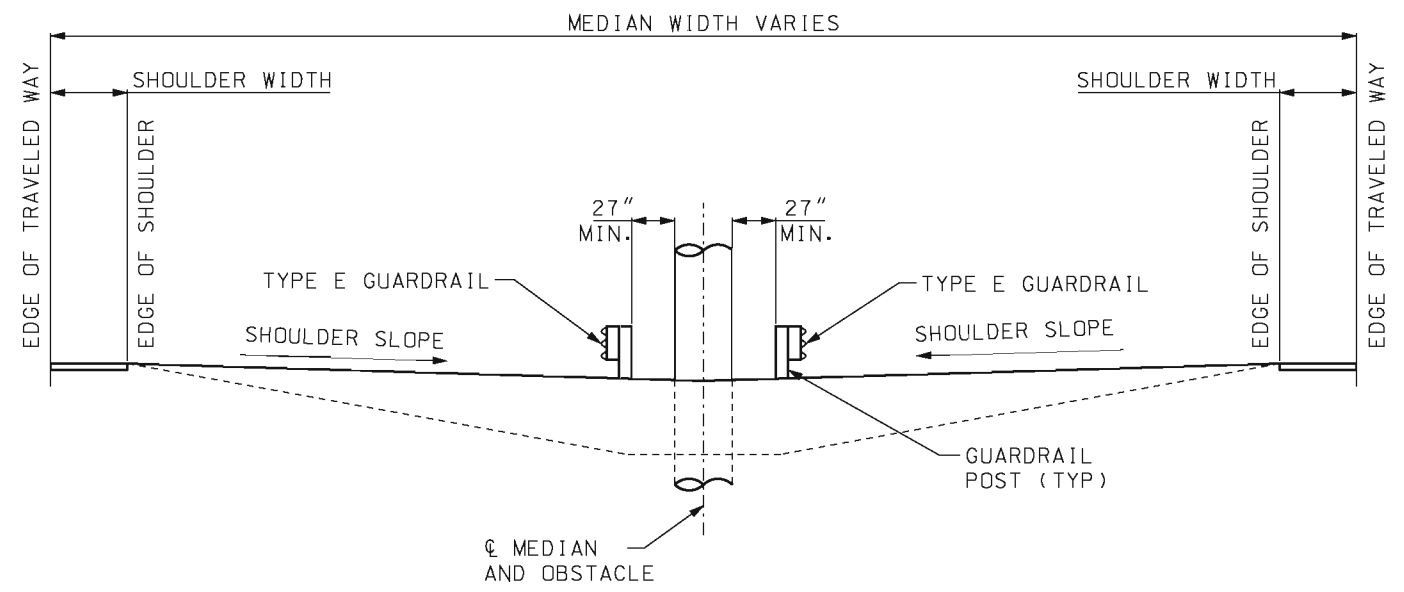


**PIER AT C OF MEDIAN
PLAN VIEW**





SECTION A-A

GENERAL NOTES:

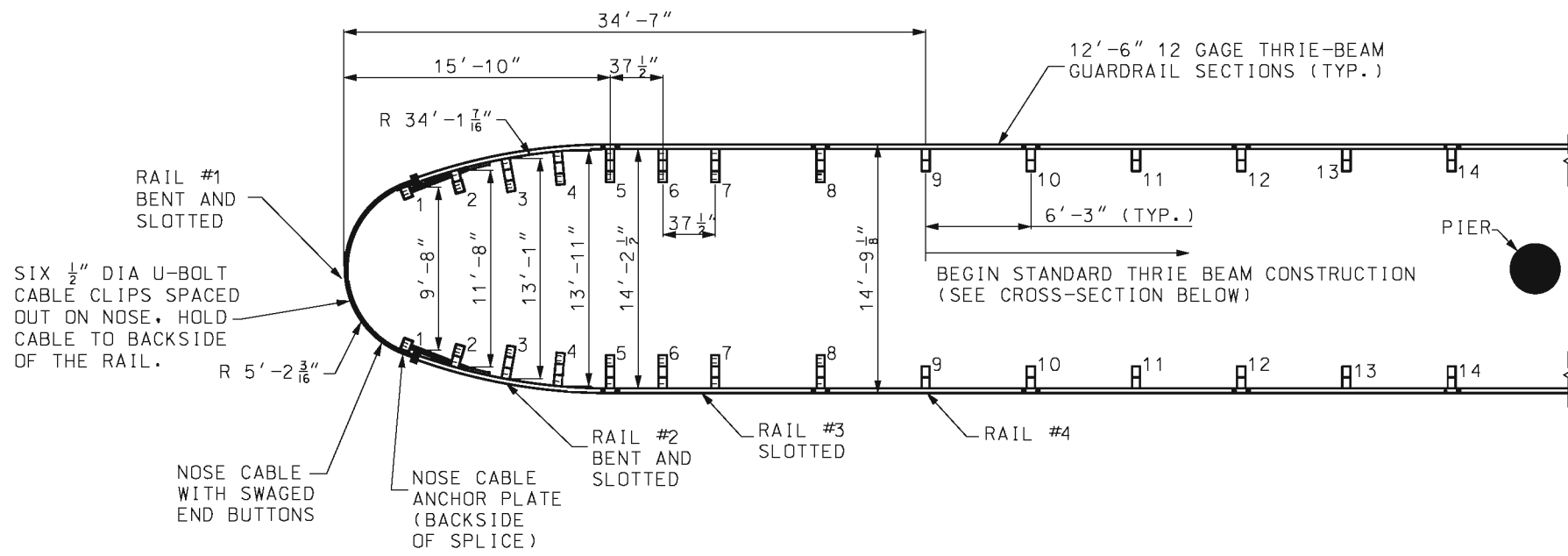
WOOD POSTS AND WOOD BLOCKS MAY BE USED ON TYPE E GUARDRAIL.

THE BULLNOSE GUARDRAIL PAY ITEM INCLUDES THE STRUCTURE BETWEEN POST 10 AND THE NOSE. THE REMAINING GUARDRAIL WILL BE PAID FOR AS STANDARD GUARDRAIL ITEMS.

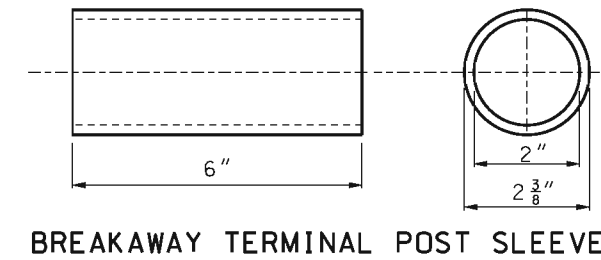
SUITABLE DRAINAGE MUST BE PROVIDED WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
		MEDIAN PIER PROTECTION BULLNOSE GUARDRAIL SYSTEM
DATE EFFECTIVE: 08/01/2012 DATE PREPARED: 7/27/2012	606.01F	SHEET NO. 1 OF 9

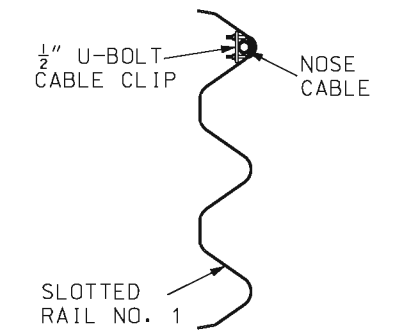
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



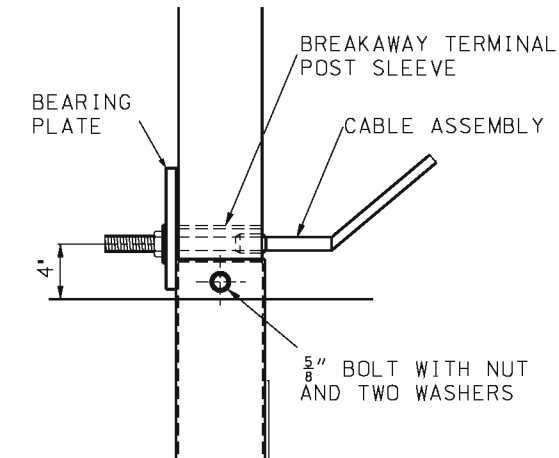
DETAIL A



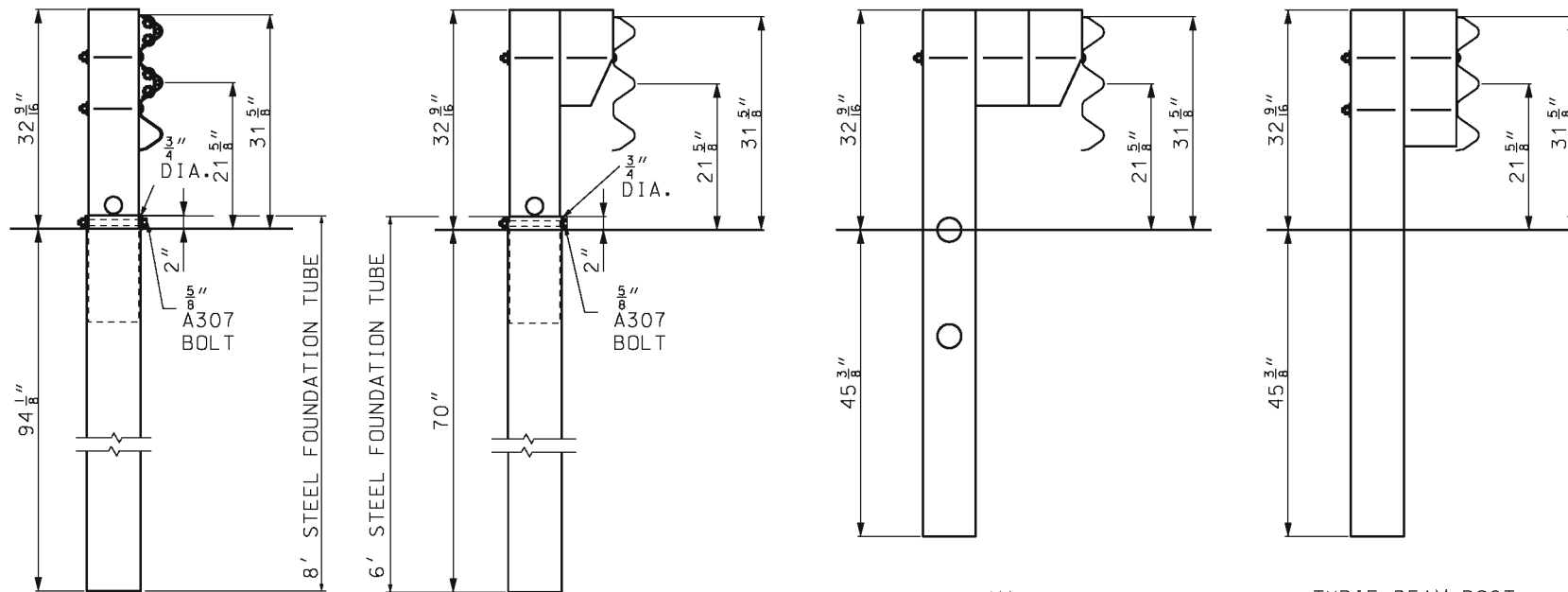
BREAKAWAY TERMINAL POST SLEEVE



U-BOLT CABLE CLIP DETAIL



POST 1 DETAIL



THRIE BEAM BCT POST WITH 96 1/16\"/>

THRIE BEAM BCT POST WITH 72\"/>

THRIE BEAM CRT POST 78\"/>

THRIE BEAM POST 78\"/>

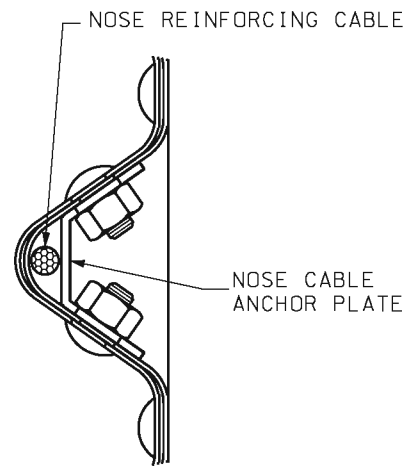
POST DETAILS

GENERAL NOTE:

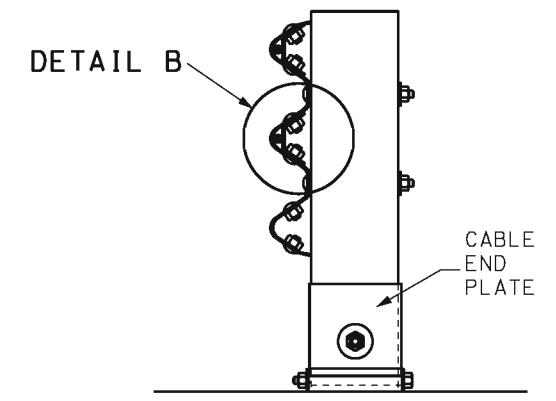
RAILS NUMBERS 1, 2, 3 AND 4 ARE TYPE E GUARDRAIL. RAIL NUMBER 4 IS A STANDARD THRIE BEAM, NOT SLOTTED.

		MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
		MEDIAN PIER PROTECTION BULLNOSE GUARDRAIL SYSTEM	
DATE EFFECTIVE: 08/01/2012 DATE PREPARED: 7/27/2012	606.01F	SHEET NO. 2 OF 9	

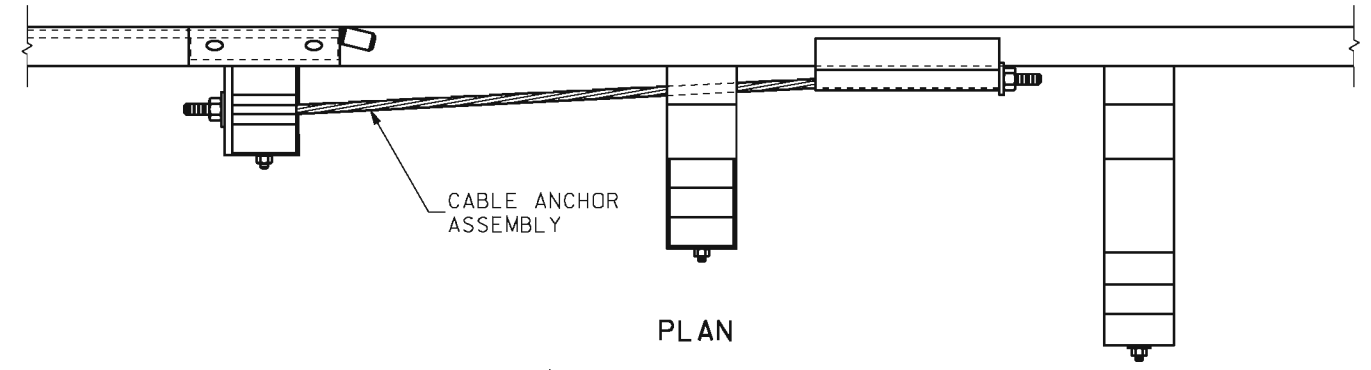
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



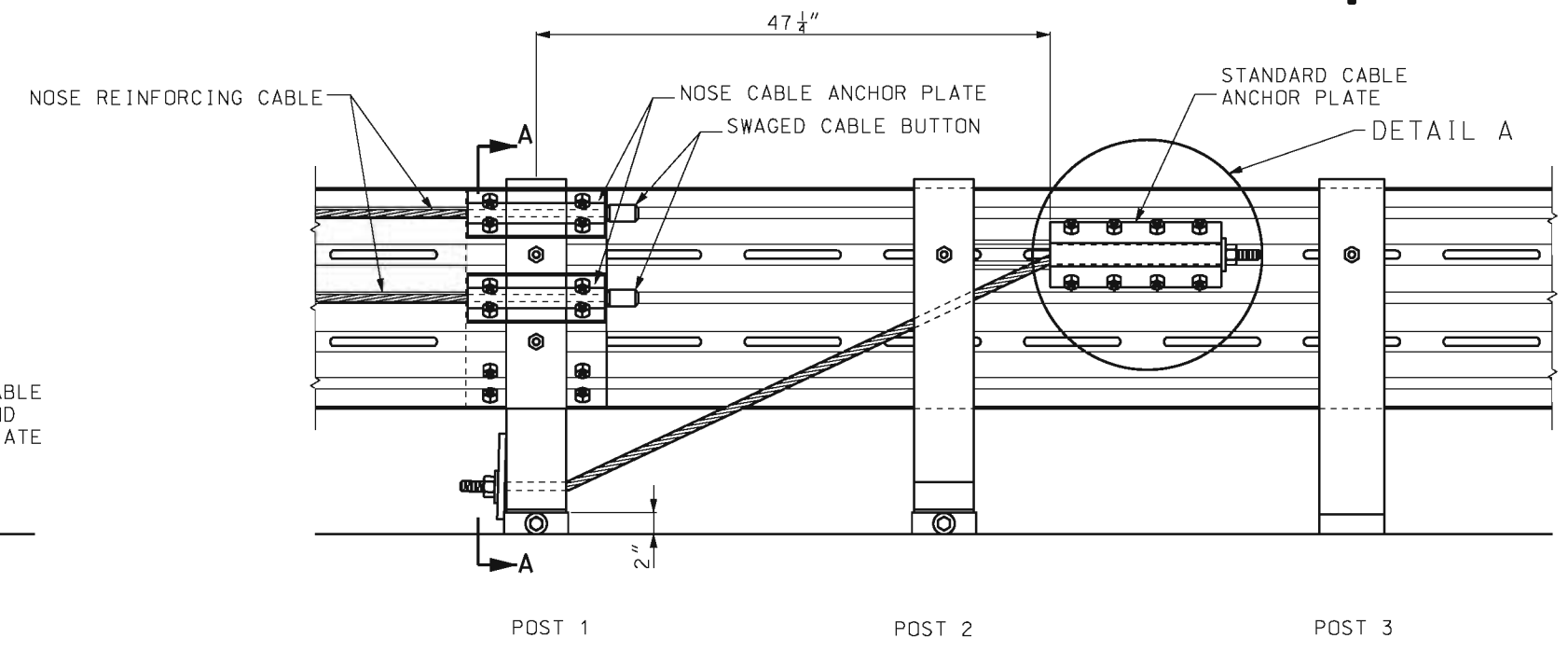
DETAIL B



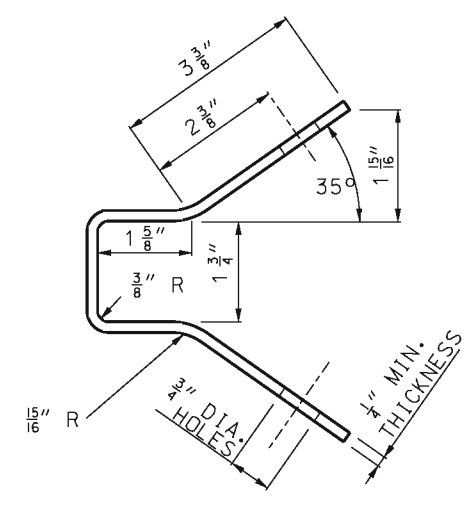
SECTION A-A



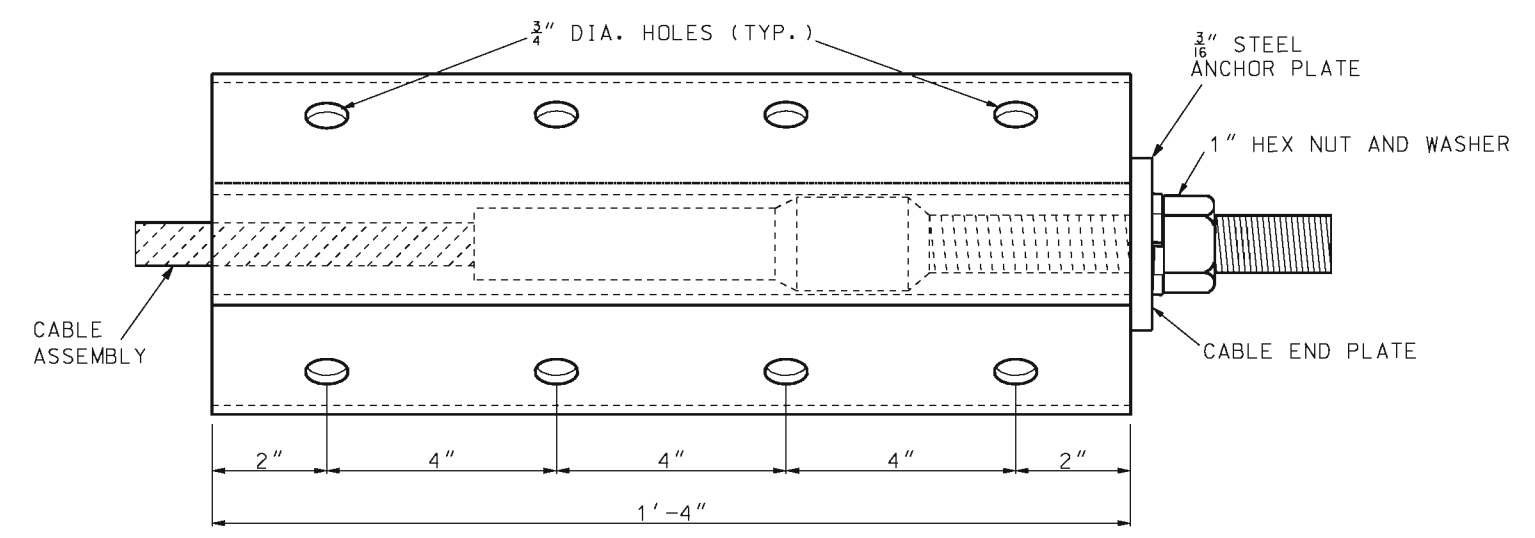
PLAN



ELEVATION
CABLE ANCHOR ASSEMBLY



END VIEW



DETAIL A

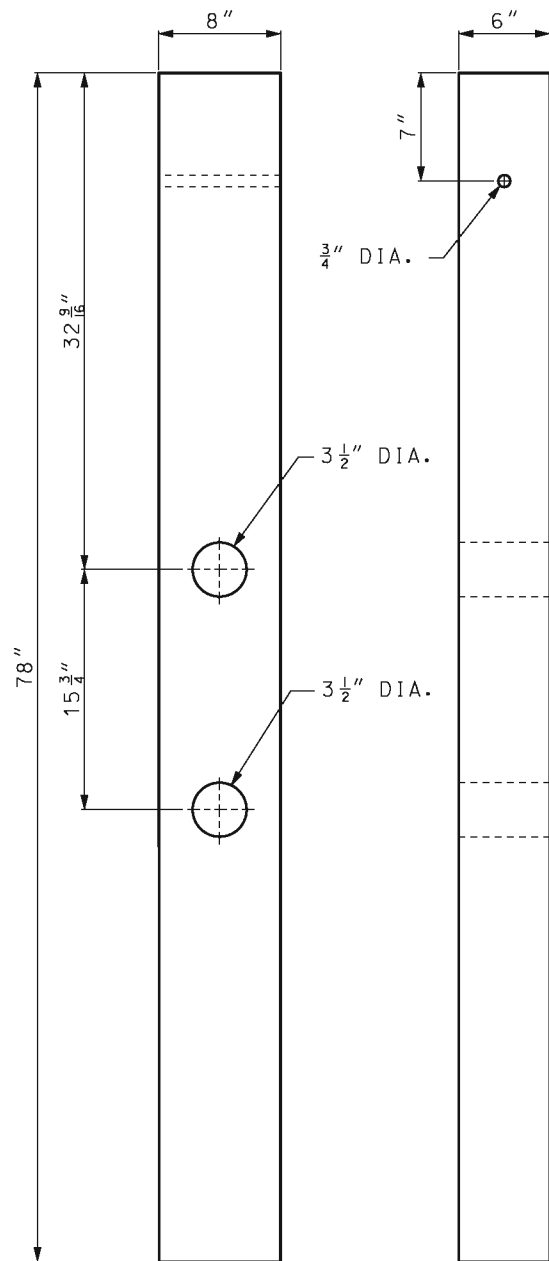
MoDOT MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
 KATHRYN PHILLIPS HARVEY
 NUMBER PE-23751
 PROFESSIONAL ENGINEER
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

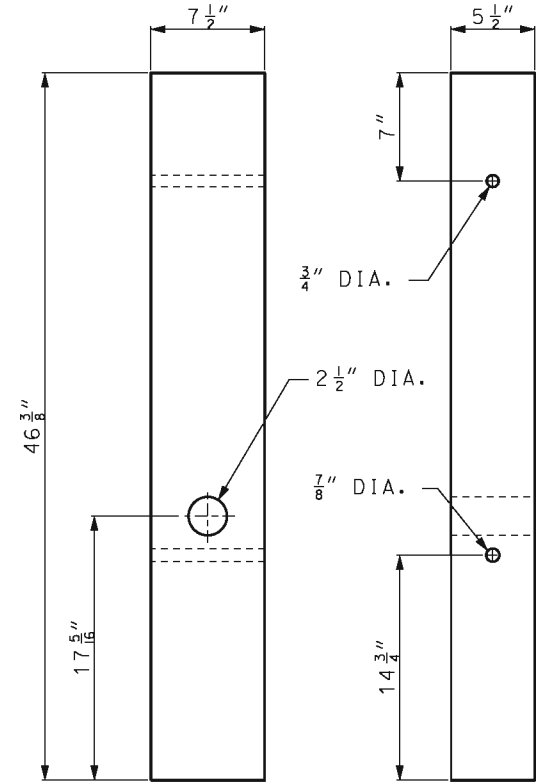
**MEDIAN PIER PROTECTION
 BULLNOSE GUARDRAIL SYSTEM
 CABLE ANCHOR**

DATE EFFECTIVE: 08/01/2012	606.01F	SHEET NO. 3 OF 9
DATE PREPARED: 7/27/2012		

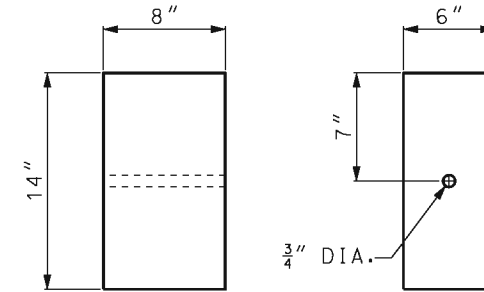
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



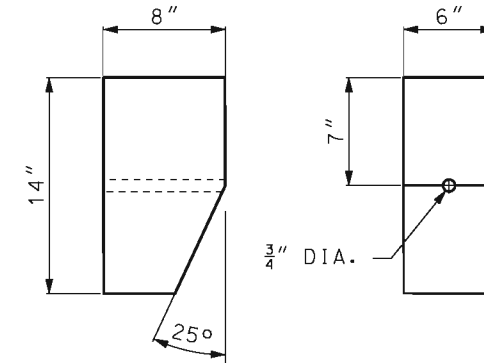
THRIE BEAM CRT POSTS



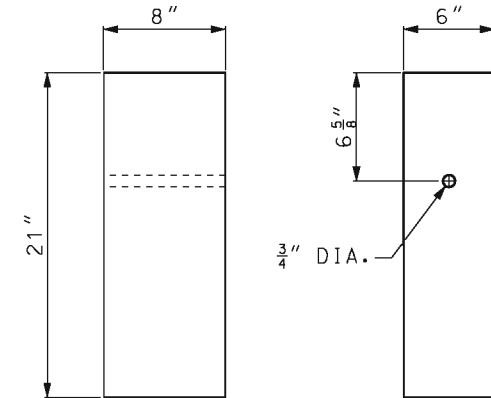
THRIE BEAM ANCHOR POSTS





**POSTS 2 THROUGH 8
STANDARD BLOCKS**



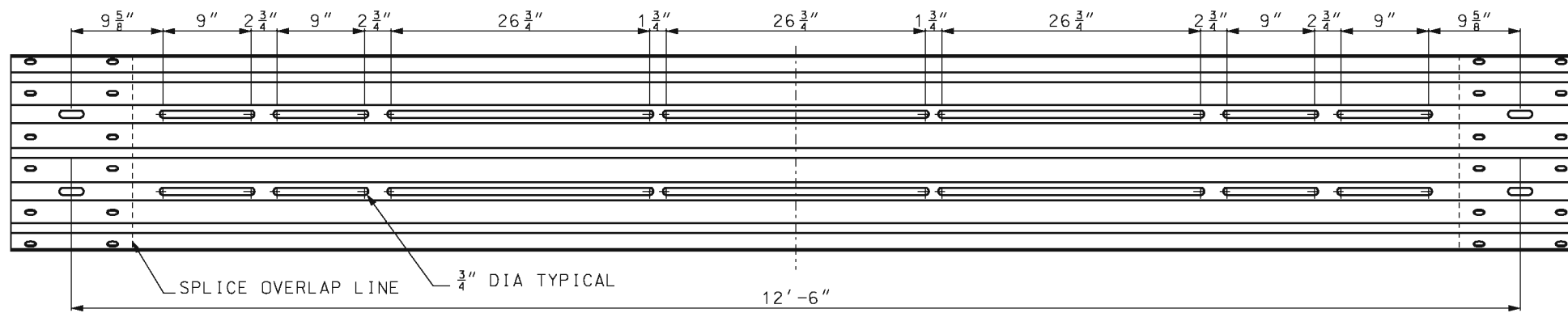
TAPERED BLOCK



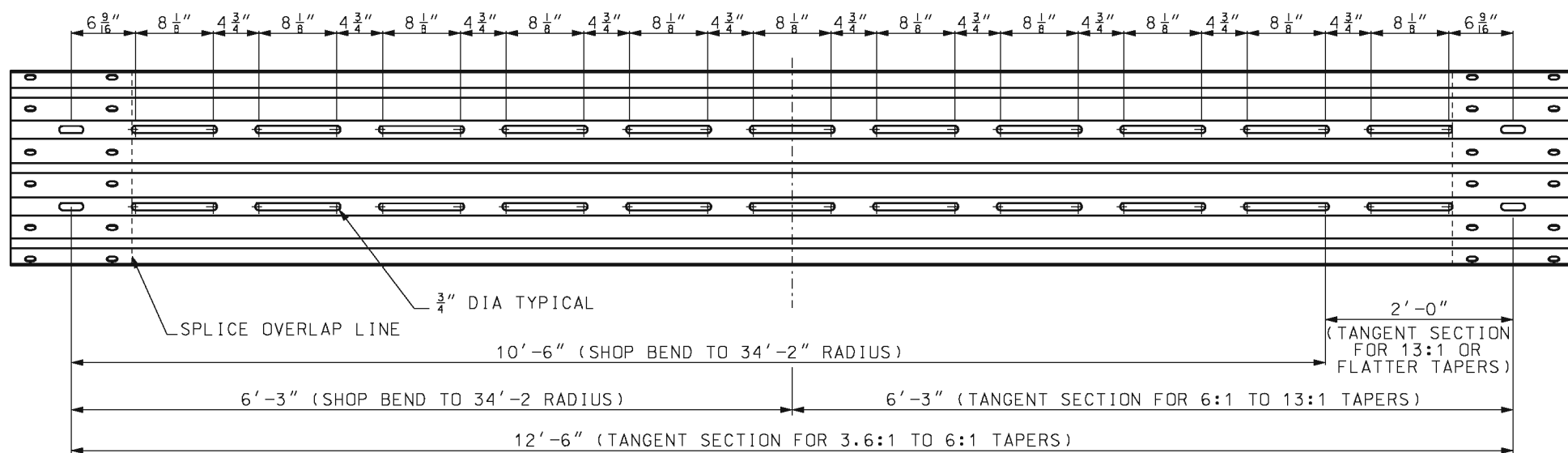
**BLOCKS FOR POSTS 9 AND 10
STANDARD BLOCKS**

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		MEDIAN PIER PROTECTION BULLNOSE GUARDRAIL SYSTEM POST AND BLOCKS
DATE EFFECTIVE: 08/01/2012 DATE PREPARED: 7/27/2012	606.01F	SHEET NO. 4 OF 9

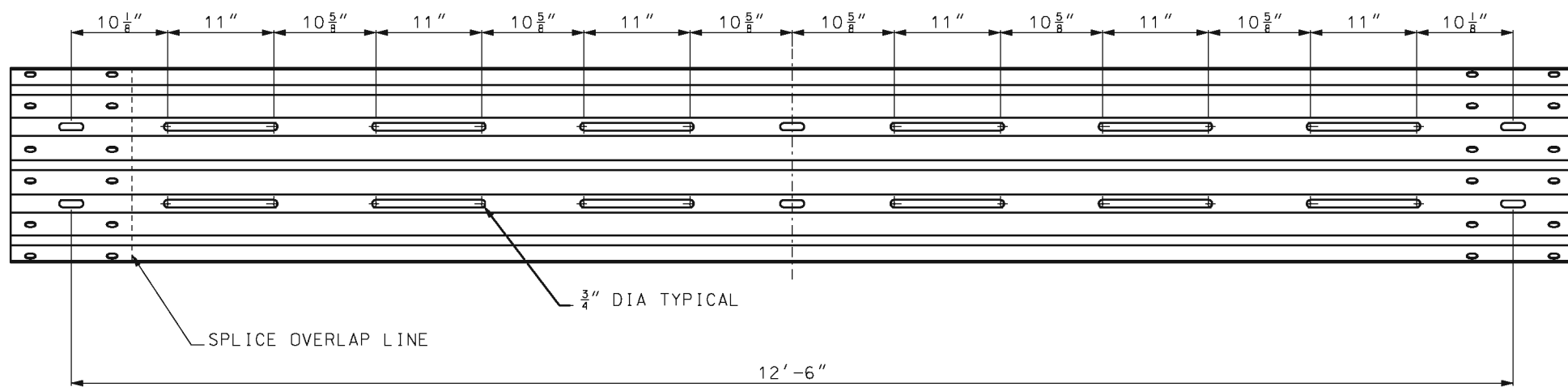
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



RAIL SECTION 1 (NOSE SECTION)



RAIL SECTION 2



RAIL SECTION 3

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STATE OF MISSOURI
 KATHRYN PHILLIPS HARVEY
 NUMBER PE-23751
 PROFESSIONAL ENGINEER
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

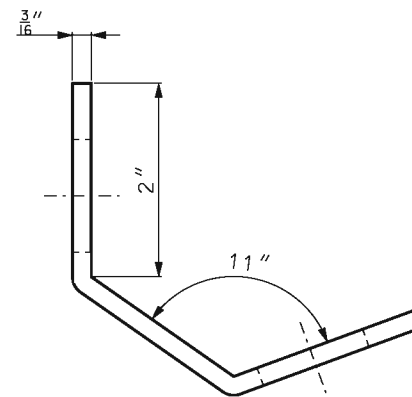
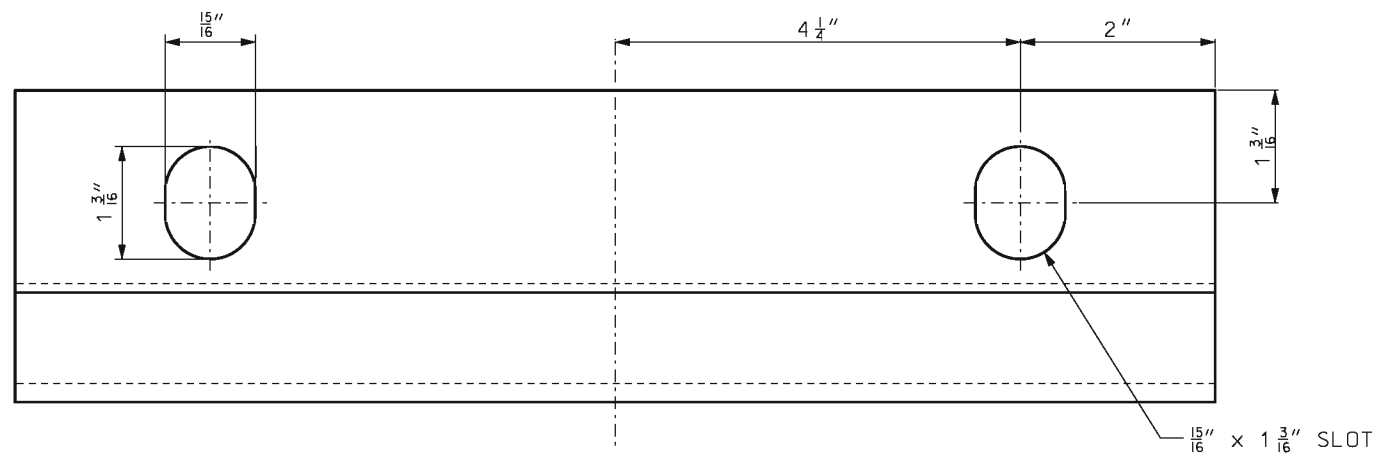
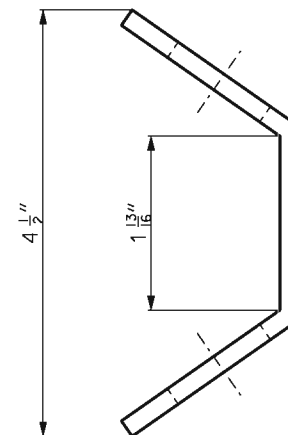
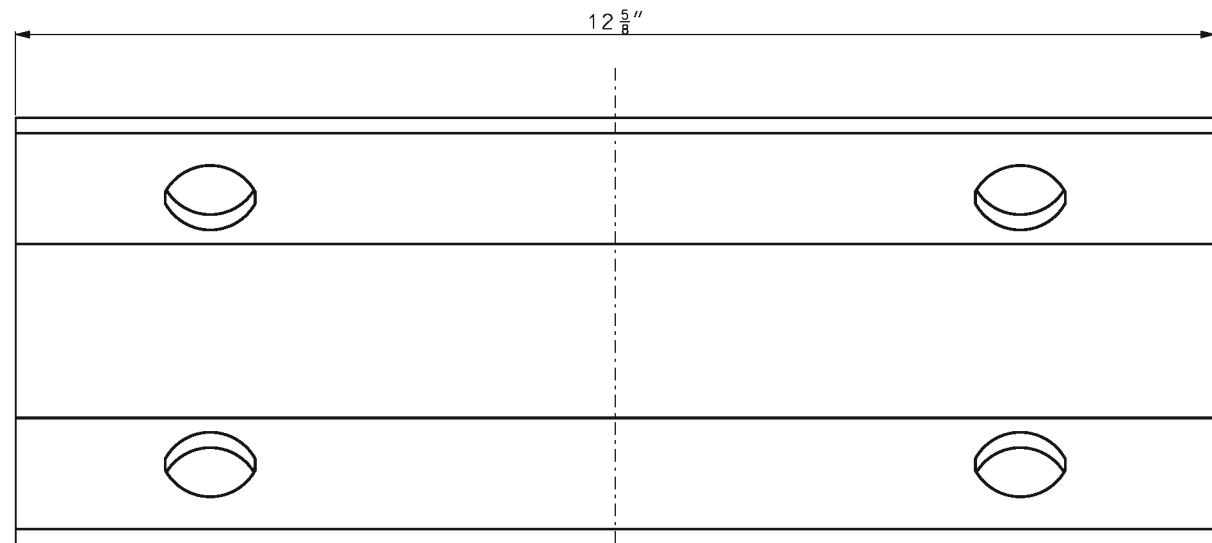
MEDIAN PIER PROTECTION
 BULLNOSE GUARDRAIL SYSTEM
 RAIL SECTION 1, 2 AND 3

DATE EFFECTIVE: 08/01/2012
 DATE PREPARED: 7/27/2012

606.01F

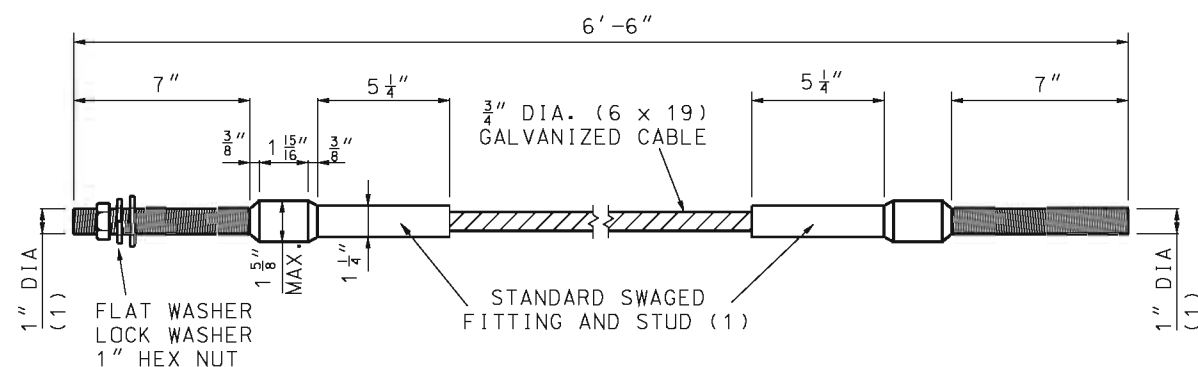
SHEET NO.
 5 OF 9

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

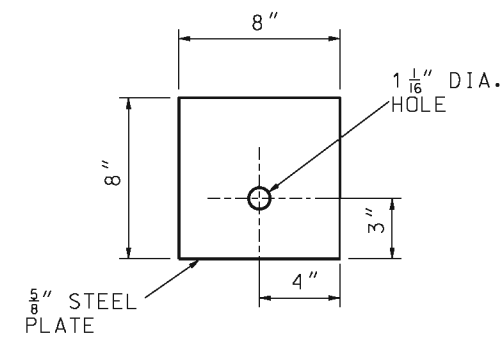


STEEL PLATE, A306
12 5/8" x 5 7/8" x 3/16"

(1) STUD, THREADED ENTIRE LENGTH.



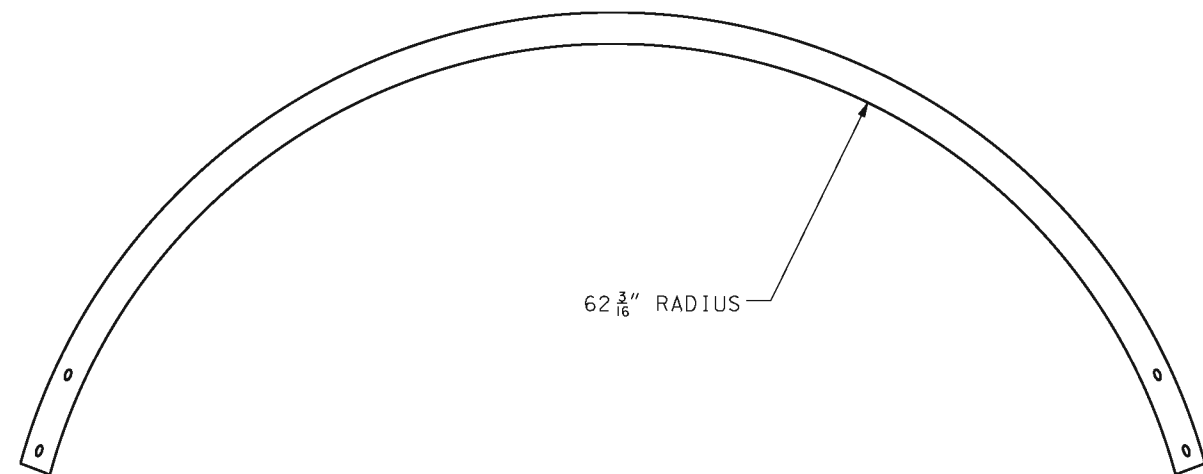
DETAIL OF CABLE ASSEMBLY



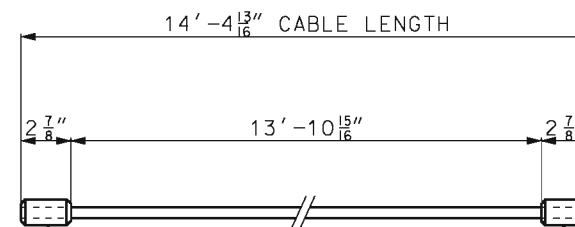
DETAIL OF STEEL BEARING PLATE

	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
		MEDIAN PIER PROTECTION BULLNOSE GUARDRAILS SYSTEM PLATES AND CABLE ASSEMBLY
DATE EFFECTIVE: 08/01/2012 DATE PREPARED: 7/27/2012	606.01F	SHEET NO. 6 OF 9

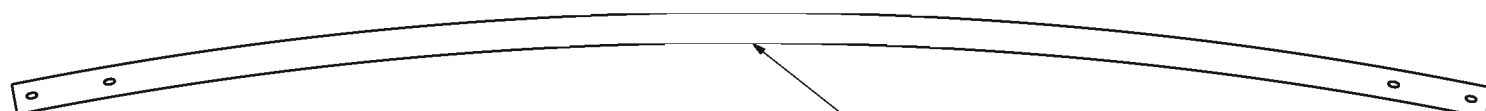
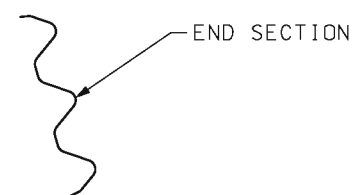
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



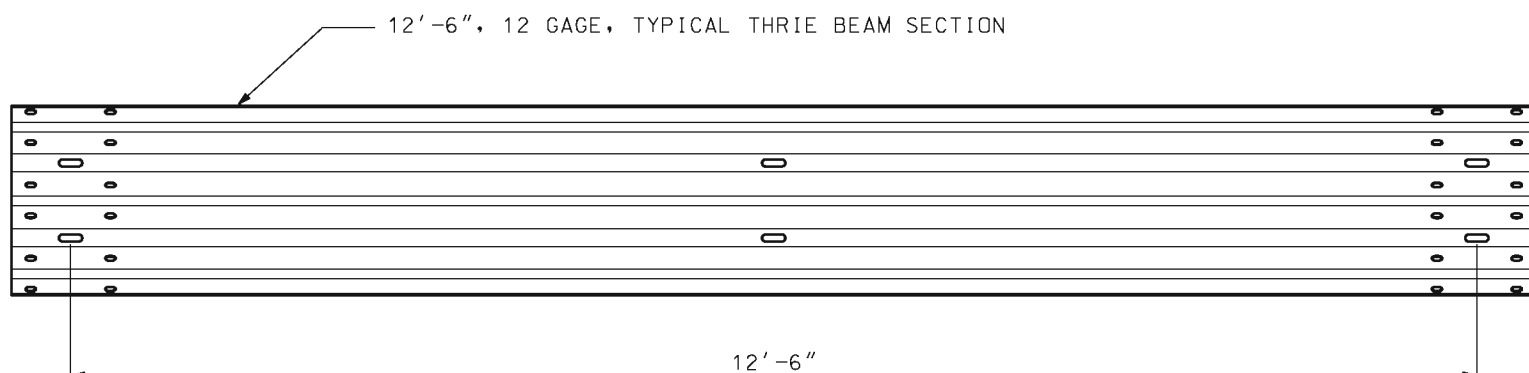
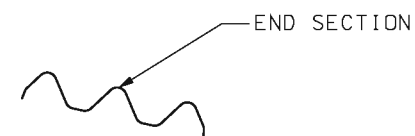
TOP VIEW, RAIL #1



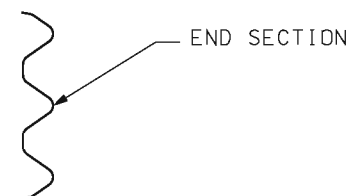
"COLD TUFF" BUTTON, S-409 SIZE NO. 12 SB 2 $\frac{7}{8}$ "
STOCK NO. 1040395 FOR $\frac{5}{8}$ " DIA (6 x 25) WIRE ROPE
(OR ANY SIMILARLY SIZED SWAGE-GRIP BUTTON FERRULES)



TOP VIEW, RAIL #2



FRONT VIEW (UNBENT)



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STATE OF MISSOURI
KATHRYN PHILLIPS HARVEY
NUMBER PE-23751
PROFESSIONAL ENGINEER

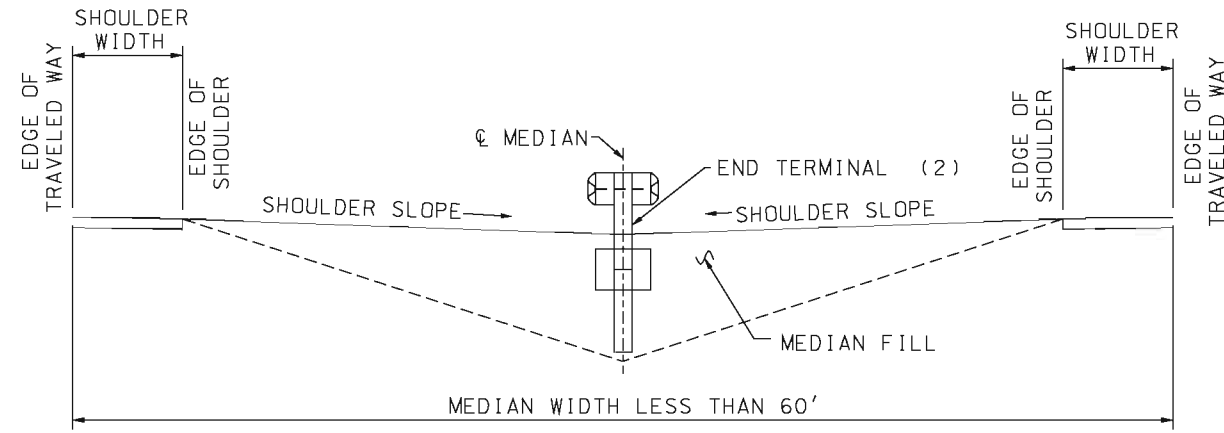
MEDIAN PIER PROTECTION
BULLNOSE GUARDRAIL SYSTEM
THRIE BEAM AND
CABLE LENGTH

DATE EFFECTIVE: 08/01/2012
DATE PREPARED: 7/27/2012

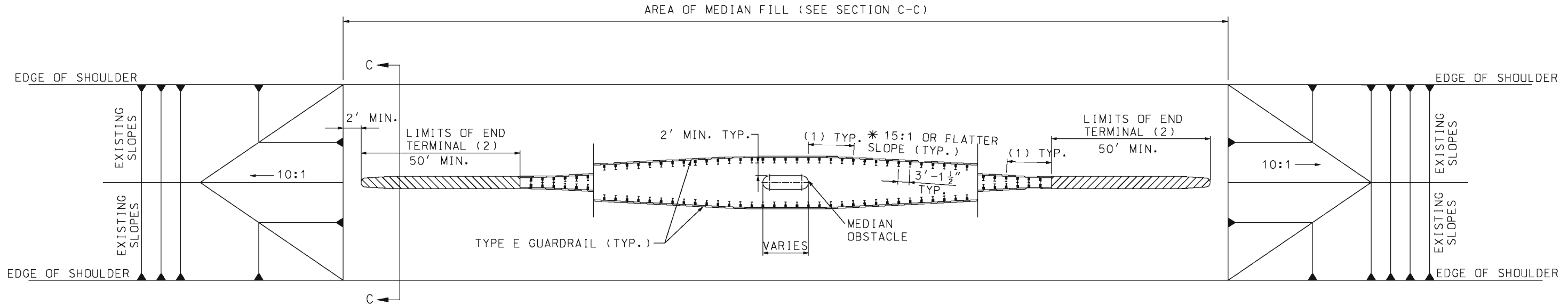
606.01F

SHEET NO.
7 OF 9

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



SECTION C-C



- (1) TYPE E GUARDRAIL 12'-6" IN LENGTH AND FACTORY FORMED TO THE REQUIRED RADIUS.
- (2) PAYMENT FOR THE END TERMINAL WILL BE CONSIDERED FULL COMPENSATION FOR ANY TRANSITION SECTIONS, BACKUP ASSEMBLIES, OR OTHER ITEMS NECESSARY FOR PROPER INSTALLATION AS REQUIRED BY THE MANUFACTURER.
- * VARY SLOPE NO STEEPER THAN 15:1 TO UTILIZE A FULL 12.5' LENGTH OF GUARDRAIL WHEN ATTACHING TO THE CRASHWORTHY END TERMINAL.

GENERAL NOTES:
 TYPE B CRASHWORTHY END TERMINAL SHALL BE LATEST VERSION AND SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMENDATIONS.

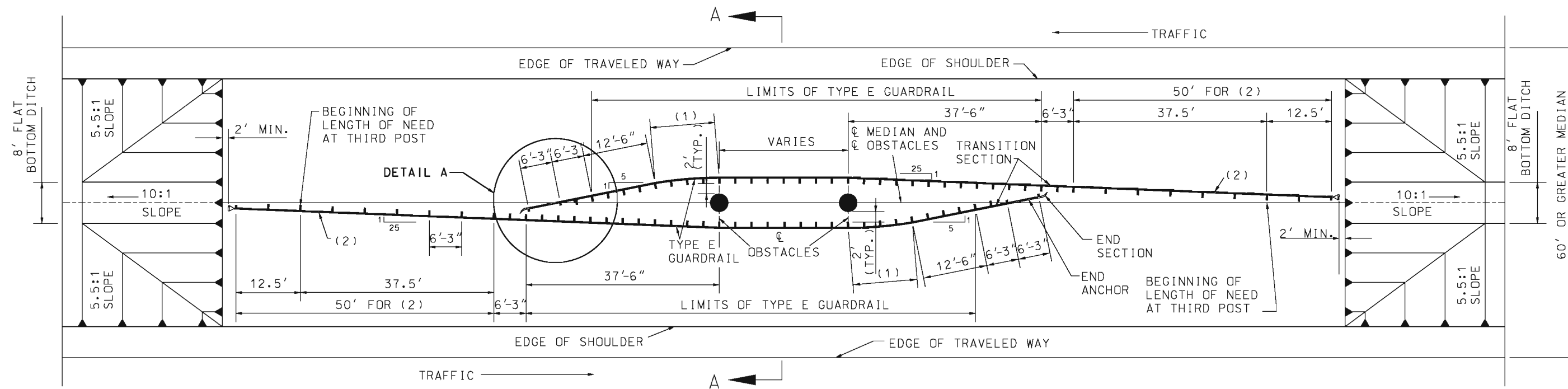
MoDOT MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 105 WEST CAPITOL JEFFERSON CITY, MO 65102
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STATE OF MISSOURI
 KATHRYN PHILLIPS HARVEY
 NUMBER PE-23751
 PROFESSIONAL ENGINEER
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TYPE E MEDIAN PIER PROTECTION
 MEDIAN LESS THAN 60'

DATE EFFECTIVE: 08/01/2012	606.01F	SHEET NO. 8 OF 9
DATE PREPARED: 7/27/2012		

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



PIER AT ϕ OF MEDIAN

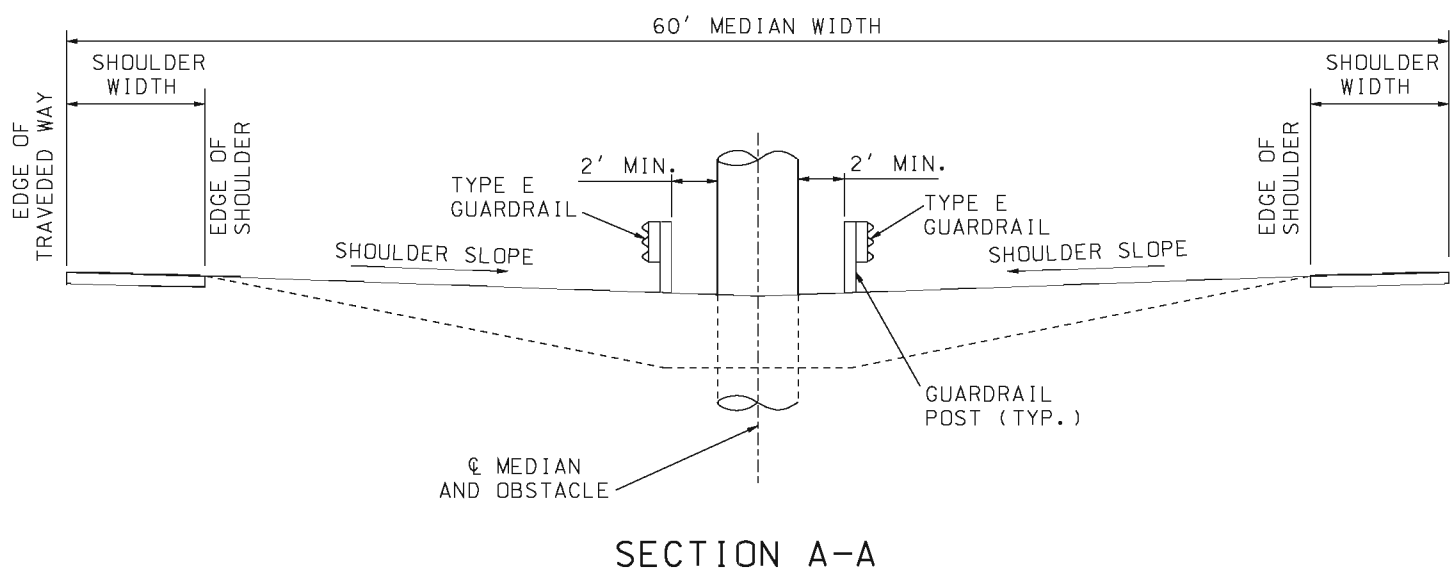
- (1) TYPE E GUARDRAIL IN THIS REGION SHALL BE 12'6" IN LENGTH AND FACTORY FORMED TO A 75' RADIUS.
- (2) TYPE A NON-FLARED CRASHWORTHY END TREATMENT.

GENERAL NOTES:

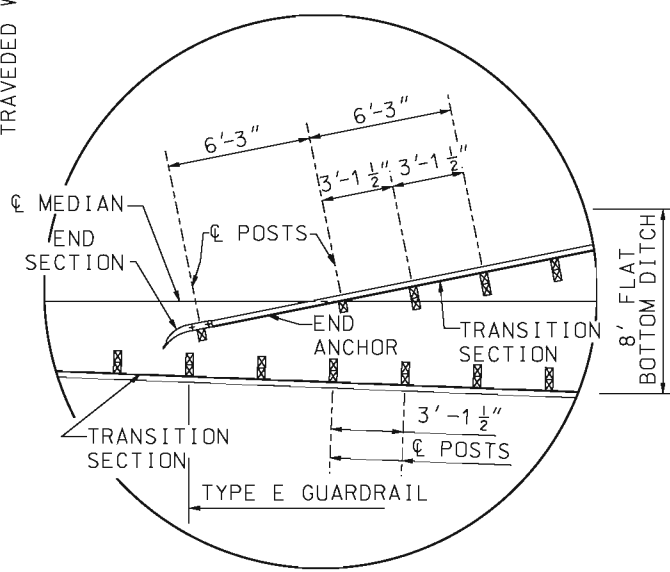
WOOD POSTS AND WOOD BLOCKS MAY BE USED ON TYPE E GUARDRAIL. END ANCHOR SECTION TO BE USED ON TERMINAL END OF TYPE E GUARDRAIL.

END ANCHOR TO BE LOCATED BEYOND THE LONGITUDINAL LIMITS OF TYPE A NON-FLARED CRASHWORTHY END TERMINAL.

TYPE A NON-FLARED CRASHWORTHY END TERMINAL SHALL BE THE LATEST VERSION AND SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.



SECTION A-A



DETAIL A

MoDOT MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
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STATE OF MISSOURI
 KATHRYN PHILLIPS HARVEY
 NUMBER PE-23751
 PROFESSIONAL ENGINEER
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TYPE E MEDIAN PIER PROTECTION
 60' MEDIAN OR GREATER

DATE EFFECTIVE: 08/01/2012	606.01F	SHEET NO. 9 OF 9
DATE PREPARED: 7/27/2012		