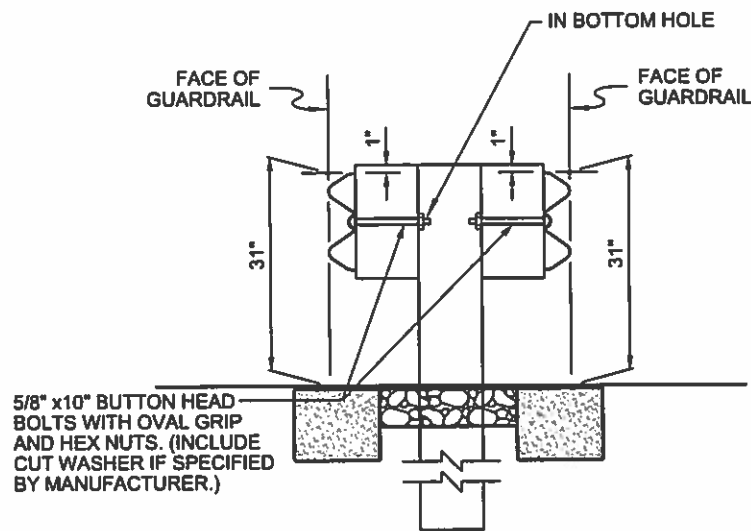
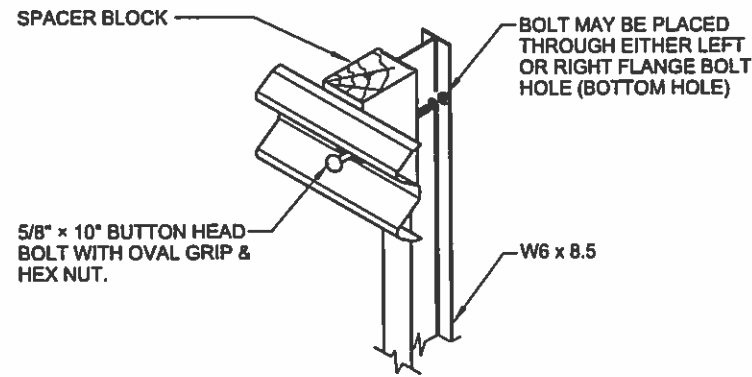


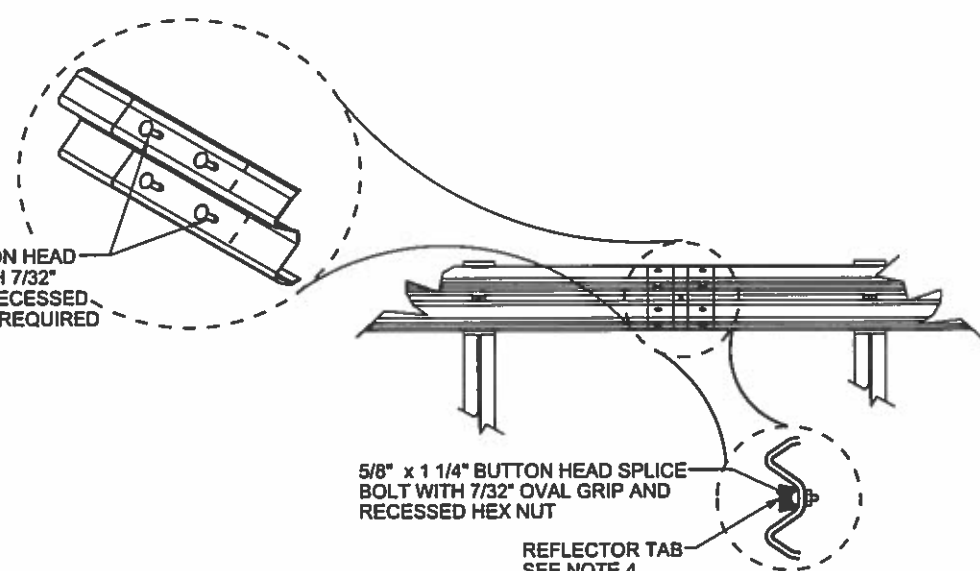
SINGLE FACE W-BEAM GUARDRAIL



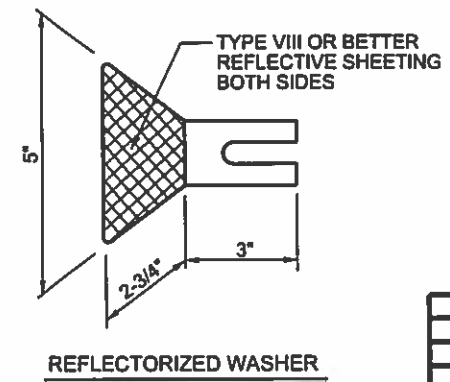
DOUBLE FACE W-BEAM GUARDRAIL



ASSEMBLY DETAIL  
W-BEAM



REFLECTOR TABS  
AT SPLICE



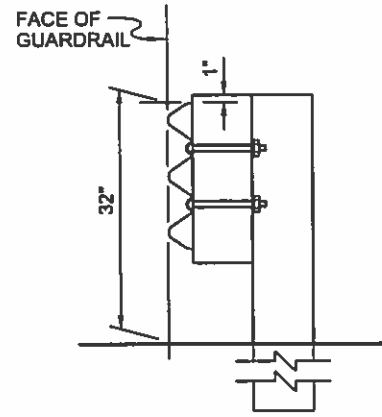
REFLECTORIZED WASHER

**NOTES**

1. SINGLE AND DOUBLE FACE W-BEAM GUARDRAIL POST SPACING SHALL BE 6'-3" ON CENTER.
2. SINGLE AND DOUBLE FACE W-BEAM GUARDRAIL SHALL USE W6 x 8.5 STEEL POSTS FOR SPACER BLOCK DETAILS.
3. EXISTING POSTS SHALL NOT BE RAISED. REPLACE POSTS AS NECESSARY TO ACHIEVE REQUIRED GUARDRAIL HEIGHT.
4. REFLECTOR TABS SHALL BE PLACED AT 25' INTERVALS (EVERY 25' AT SPLICE) ON ALL GUARDRAIL INSTALLATIONS (12'-6" ON 2 LANE HIGHWAY). THE COLOR OF THE REFLECTIVE SHEETING ON THE REFLECTOR TABS SHALL BE THE SAME AS THE COLOR OF THE SHOULDER LINE PAVEMENT MARKING IN FRONT OF THE BARRIER. TABS SHALL HAVE A MINIMUM OF 8.75 SQ. IN. OF TYPE VIII OR BETTER REFLECTIVE SHEETING ON BOTH SIDES AND SHALL ATTACH SECURELY UNDER HEAD OF 5/8" BUTTON HEAD BOLT.
5. SPLICES SHALL BE LAPPED SO THE FREE END DOES NOT FACE TRAFFIC FLOW.
6. CONSTRUCTION TOLERANCE SHALL BE ± 1" FOR GUARDRAIL HEIGHT FOR SINGLE OR DOUBLE FACE.
7. GUARDRAIL FACE MAY BE PLACED AT EDGE OF SHOULDER ONLY WHEN SLOPES BEHIND GUARDRAIL WILL NOT ALLOW FOR 2' TYPICAL SETBACK.
8. CONSTRUCT POST LEAVE OUT FOR EVERY W-BEAMS INSTALLATION.
9. LEAVE OUT SHALL BE USED IN CONCRETE AT ALL TIMES REGARDLESS OF POST FOR W-BEAM OR THRIE BEAM. LEAVE OUT SHALL BE REQUIRED ON ALL GUARDRAIL POSTS IN CONCRETE.

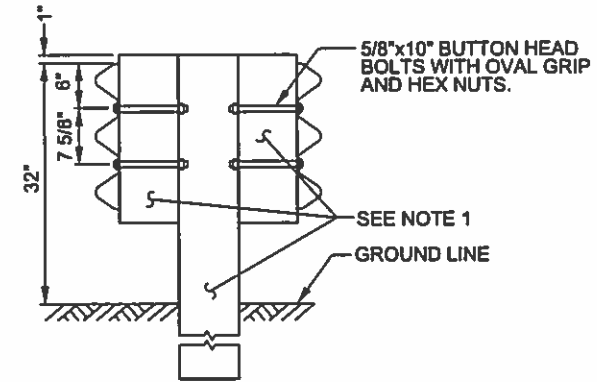
NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
W-BEAM GUARDRAIL			
APPROVED	DESIGN ENGINEER	DATE	
606-GR31-1/20			

DRAWING SCALE = NOT TO SCALE



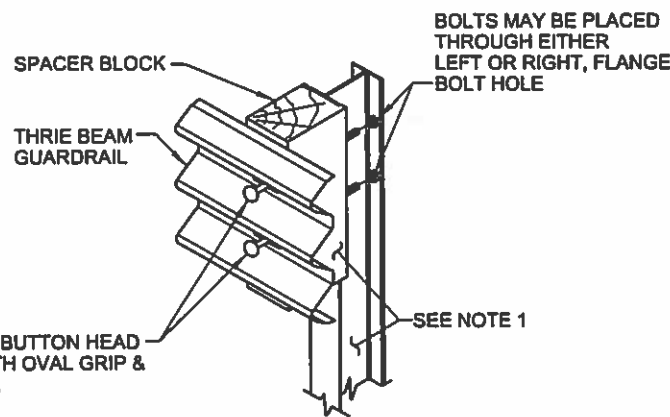
RAIL ASSEMBLY

**SINGLE FACE THRIE  
BEAM GUARDRAIL**  
(PAID BY LIN. FT.)

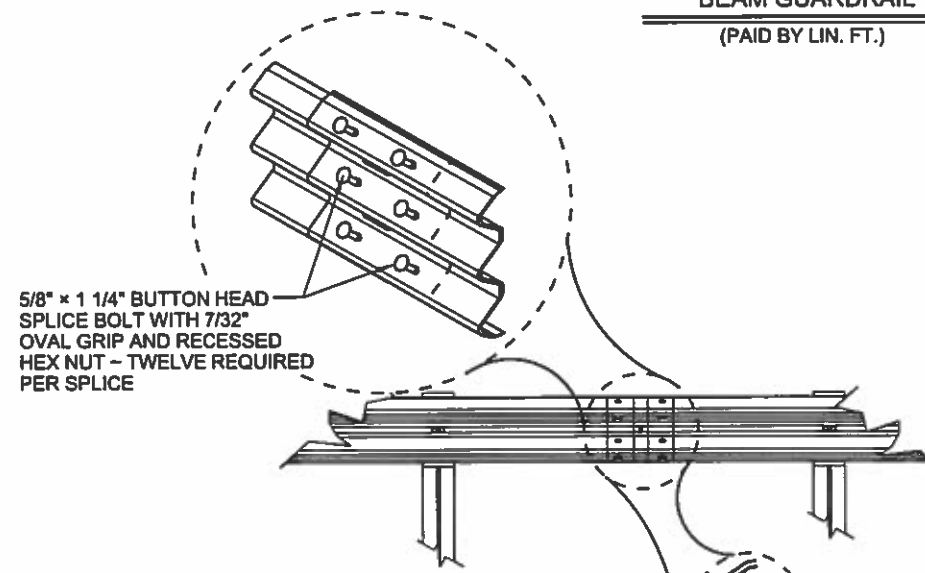


STEEL POST ASSEMBLY

**DOUBLE FACE THRIE  
BEAM GUARDRAIL**  
(PAID BY LIN. FT.)

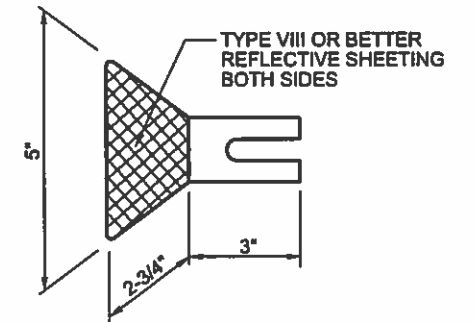


STEEL POST ASSEMBLY  
**ASSEMBLY DETAIL  
THRIE BEAM**



5/8" x 1 1/4" BUTTON HEAD SPLICE BOLT WITH 7/32" OVAL GRIP AND RECESSED HEX NUT

**REFLECTOR TAB  
AT SPLICE**



**REFLECTORIZED WASHER**

**NOTES**

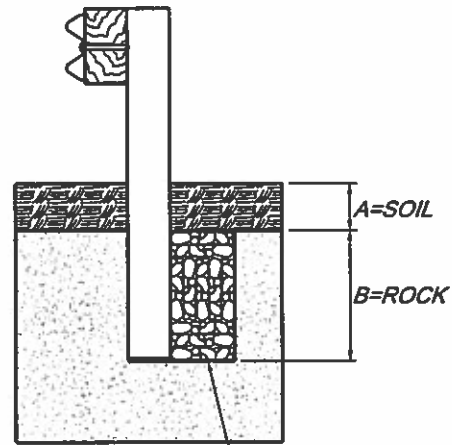
1. SINGLE AND DOUBLE FACE THRIE BEAM GUARDRAIL SHALL USE W6x15 STEEL POSTS. FOR ADDITIONAL DETAILS SEE SHEET 606-GR31-4/20.
2. UNLESS OTHERWISE SPECIFIED THRIE BEAM GUARDRAIL POST SPACING SHALL BE 6' - 3" ON CENTER.
3. BOLTS ARE TO BE INSTALLED AS SHOWN SO THAT THE THREADED END OF THE BOLTS AND NUTS ARE PLACED AWAY FROM TRAFFIC SIDE OF RAIL.
4. DO NOT PLACE ANY WASHERS UNDER THE BOLTS ON THE TRAFFIC SIDE OF THE BARRIER.
5. REFLECTOR TABS SHALL BE PLACED AT 25' INTERVALS (EVERY 25' AT SPLICE) ON ALL GUARDRAIL INSTALLATIONS (12'-6" ON 2 LANE HIGHWAY). THE COLOR OF THE REFLECTIVE SHEETING ON THE REFLECTOR TABS SHALL BE THE SAME AS THE COLOR OF THE SHOULDER LINE PAVEMENT MARKING IN FRONT OF THE BARRIER. TABS SHALL HAVE A MINIMUM OF 8.75 SQ. IN. OF TYPE VIII OR BETTER REFLECTIVE SHEETING ON BOTH SIDES AND SHALL ATTACH SECURELY UNDER HEAD OF 5/8" BUTTON HEAD BOLT.
6. SPLICES SHALL BE LAPPED SO THE FREE END DOES NOT FACE TRAFFIC FLOW.
7. CONSTRUCTION TOLERANCE SHALL BE +/- 1" FOR GUARDRAIL HEIGHT.
8. LEAVE OUT SHALL BE REQUIRED ON ALL GUARDRAIL POST IN CONCRETE.

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
<b>THRIE BEAM GUARDRAIL</b>			
APPROVED _____		DESIGN ENGINEER	DATE _____
606-GR31-2/20			

DRAWING SCALE = NOT TO SCALE

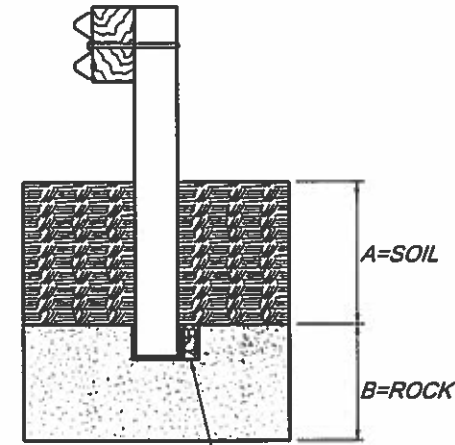
**W-BEAM GUARDRAIL POST RESTRAINED IN ROCK FORMATION DETAIL**

A = DEPTH OF SOIL OVER ROCK FORMATION  
B = DEPTH OF EMBEDMENT INTO ROCK FORMATION



BACKFILL WITH CLEAN COARSE AGGREGATE WITH AN AVERAGE PARTICLE DIAMETER BETWEEN 1/4" AND 1/2". PLACE IN LAYERS AND TAMP.

FOR OVERLYING SOIL DEPTHS (A), RANGING FROM 0" TO 18", THE DEPTH INTO ROCK (B) IS EQUAL TO 24 IN.



BACKFILL WITH CLEAN COARSE AGGREGATE WITH AN AVERAGE PARTICLE DIAMETER BETWEEN 1/4" AND 1/2". PLACE IN LAYERS AND TAMP.

FOR OVERLYING SOIL DEPTHS (A), RANGING FROM 18" TO FULL POST EMBEDMENT DEPTH, THE REQUIRED DEPTH INTO ROCK (B) IS EQUAL TO FULL POST EMBEDMENT DEPTH MINUS (A). FULL POST EMBEDMENT FOR W-BEAM IS ABOUT 41 IN.

**CASE 1**

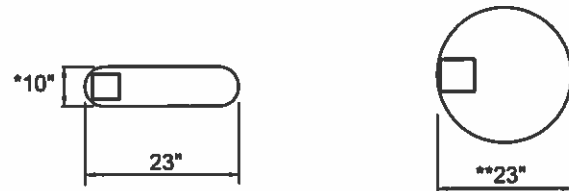


\* THIS WIDTH MAY BE INCREASED TO 15" TO ACCOMMODATE CONSTRUCTION TOLERANCES.  
\*\* 2' DIAMETER HOLE MAY BE USED.

**CASE 2**



**PLAN VIEW STEEL POSTS IN ROCK FORMATION**  
EITHER HOLE CONFIGURATION ACCEPTABLE



\* THIS WIDTH MAY BE INCREASED TO 15" TO ACCOMMODATE CONSTRUCTION TOLERANCES.  
\*\* 2' DIAMETER HOLE MAY BE USED.

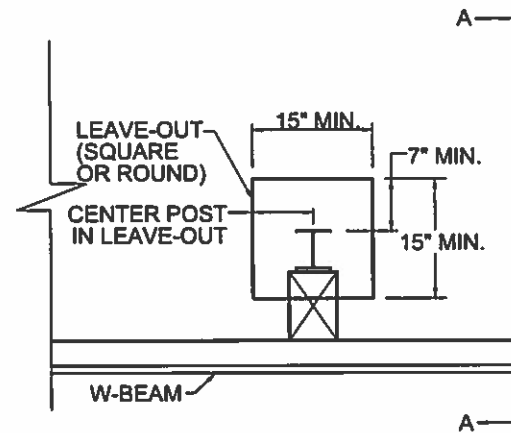


**PLAN VIEW WOOD POSTS IN ROCK FORMATION**  
EITHER HOLE CONFIGURATION ACCEPTABLE

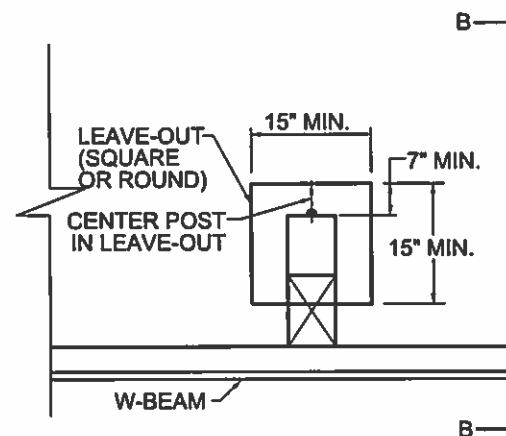
NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
W-BEAM GUARDRAIL POST DETAILS IN ROCK FORMATION			
APPROVED _____		DESIGN ENGINEER	DATE _____
606-GR31-5/20			

DRAWING SCALE = NOT TO SCALE

W-BEAM GUARDRAIL POST RESTRAINED IN PAVEMENT DETAIL



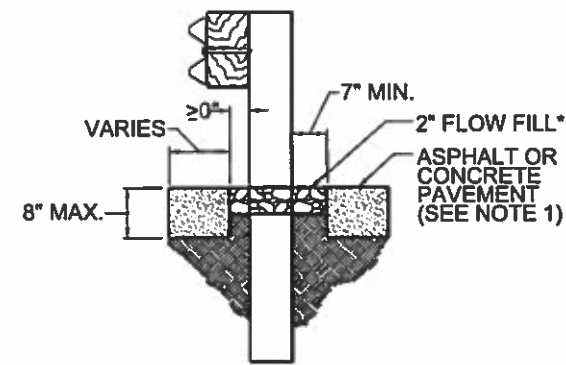
STEEL POST DETAIL



WOOD POST DETAIL

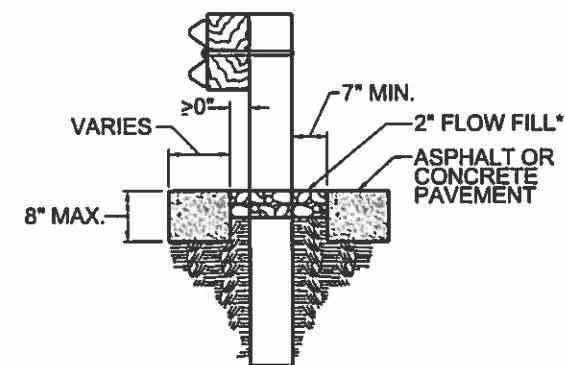
NOTE:

1. CONSTRUCTION OF LEAVE-OUTS SHALL BE CONSIDERED INCIDENTAL TO THE GUARDRAIL.



\*FLOW FILL HAS A 28-DAY COMPRESSIVE STRENGTH OF 120 PSI OR LESS.

SECTION A-A

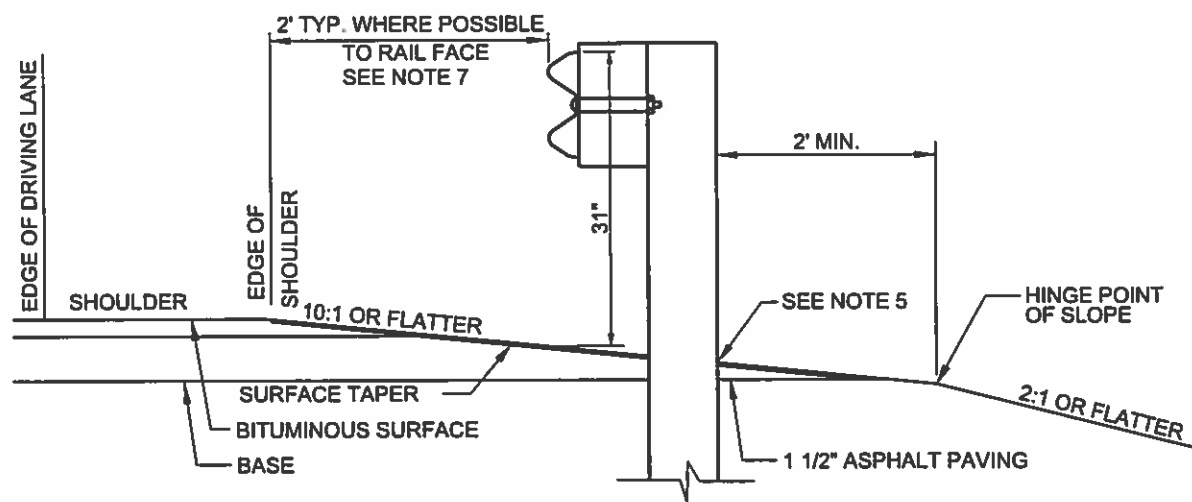


\*FLOW FILL HAS A 28-DAY COMPRESSIVE STRENGTH OF 120 PSI OR LESS.

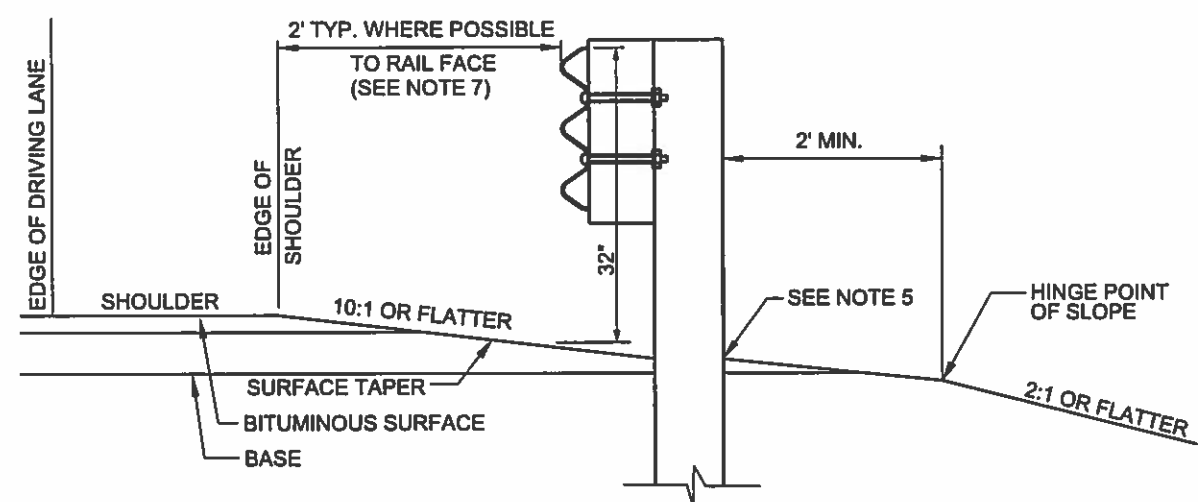
SECTION B-B

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
W-BEAM GUARDRAIL POST DETAILS IN PAVEMENT			
APPROVED	DESIGN ENGINEER	DATE	
606-GR31-5A/20			

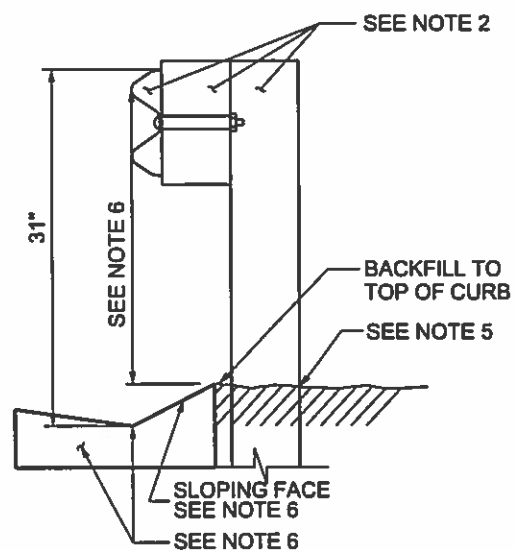
DRAWING SCALE = NOT TO SCALE



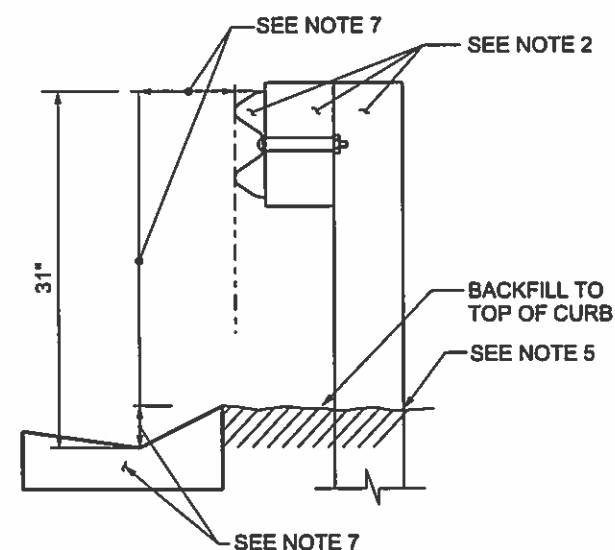
**W-BEAM GUARDRAIL STANDARD  
INSTALLATION AND SURFACING DETAILS**



**THRIE BEAM GUARDRAIL STANDARD  
INSTALLATION AND SURFACING DETAILS**



**W-BEAM GUARDRAIL  
AT FACE OF CURB  
ALL DESIGN SPEEDS**



**W-BEAM GUARDRAIL  
AWAY FROM CURB FACE  
DESIGN SPEEDS LESS THAN  
45 MPH AND 45 TO 50 MPH**

**NOTES**

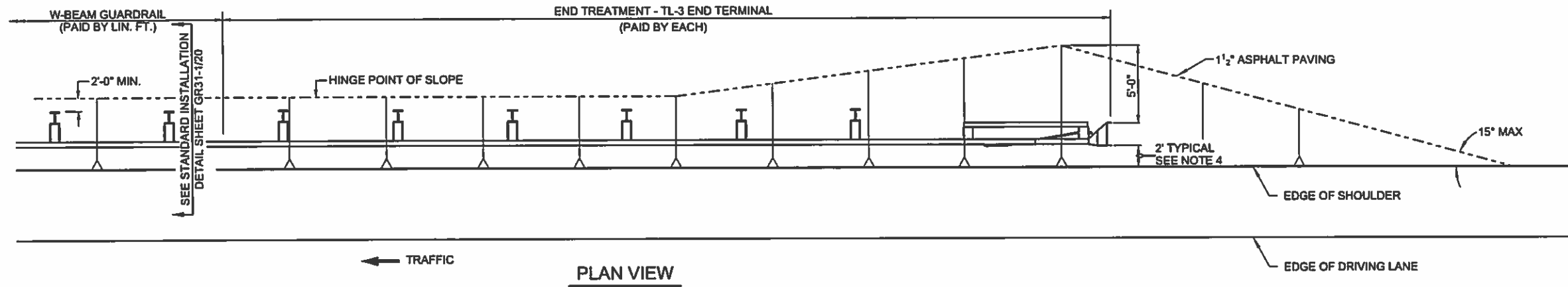
1. STANDARD BEAM GUARDRAIL POST SPACING FOR SINGLE AND DOUBLE FACE W-BEAM AND THRIE BEAM SHALL BE 6'-3" ON CENTER.
2. FOR POST AND BLOCK DETAILS, SEE SHEET 606-GR31-4/20.
3. CONSTRUCTION TOLERANCE SHALL BE  $\pm 1/2"$  FOR GUARDRAIL HEIGHT.
4. GUARDRAIL FACE MAY BE PLACED AT EDGE OF SHOULDER WHEN SLOPES BEHIND GUARDRAIL WILL NOT ALLOW FOR 2' TYPICAL SETBACK WHILE MAINTAINING THE MINIMUM 2' DISTANCE FROM THE SLOPE HINGE POINT.
5. CONSTRUCT POST LEAVE-OUT FOR W-BEAM WHEN POSTS ARE RESTRAINED BY ROCK, ASPHALT OR CONCRETE ON W-BEAM POSTS.
6. SINGLE FACE GUARDRAIL CAN BE USED WITH ANY COMBINATION OF SLOPING FACED CURB THAT IS 6" OR SHORTER IF INSTALLED FLUSH WITH THE FACE OF THE GUARDRAIL ON ROADS WITH DESIGN SPEEDS UP TO 50 MPH. FOR DESIGN SPEEDS FROM 50 MPH TO 60 MPH A 4" OR SHORTER SLOPING CURB IS RECOMMENDED FOR INSTALLATION WHERE THE FACE OF THE CURB IS FLUSH WITH THE FACE OF THE GUARDRAIL. FOR DESIGN SPEEDS ABOVE 60 MPH THE SLOPING FACE OF THE CURB SHALL BE 1V:3H OR FLATTER AND NO TALLER THAN 4" HIGH. THE GUTTER LINE OF THE CURB SHALL BE CONSIDERED TO BE THE SAME LOCATION AS THE FACE OF THE CURB AND SHALL ALSO BE THE LOCATION FROM WHERE GUARDRAIL HEIGHT IS MEASURED.
7. SINGLE FACE GUARDRAIL MAY BE USED WITH 6" HIGH OR SHORTER SLOPING FACED CURB AS LONG AS THE FACE OF THE GUARDRAIL IS LOCATED AT LEAST 8 FT. BEHIND THE FACE OF THE CURB ON ROADS WHERE THE DESIGN SPEED IS UP TO 45 MPH. FOR DESIGN SPEEDS FROM 45 TO 50 MPH GUARDRAILS MAY BE USED WITH 4" HIGH OR SHORTER SLOPING CURBS AS LONG AS THE FACE OF THE METAL BARRIER IS LOCATED AT LEAST 13 FT. BEHIND THE CURB. THE GUTTER LINE OF THE CURB SHALL BE WHERE OFFSET TO RAIL FACE AND RAIL HEIGHT IS MEASURED.

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
TYPICAL INSTALLATION AND SURFACING DETAILS			
APPROVED _____		DESIGN ENGINEER	DATE _____
606-GR31-6/20			

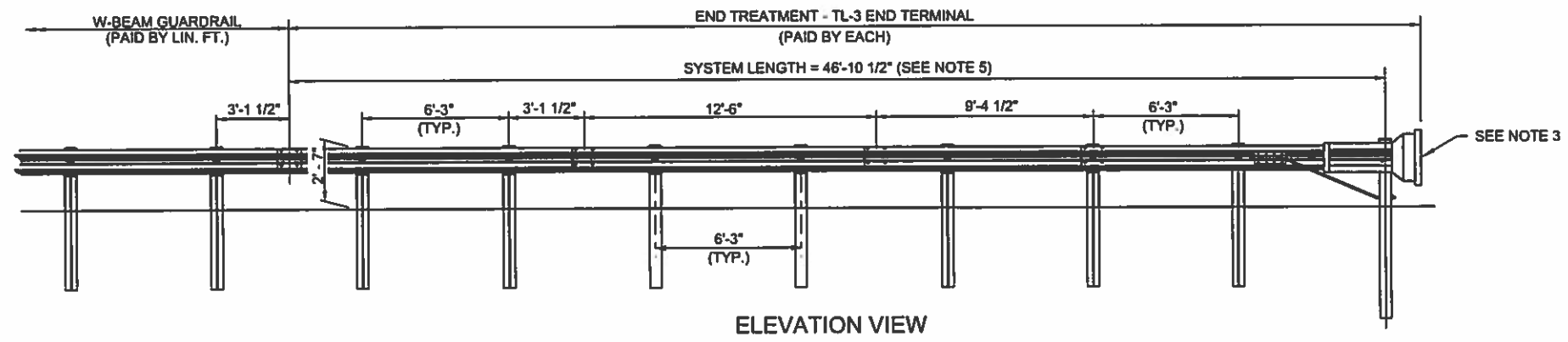
DRAWING SCALE = NOT TO SCALE

**NOTES:**

1. END TREATMENT SHOWN IS A GENERAL DEPICTION OF A NOMINAL 50' NMDOT ACCEPTED END TERMINAL THAT IS FHWA ACCEPTED AS CRASHWORTHY AT TEST LEVEL 3 (TL-3) AND MAY BE USED FOR ALL POSTED SPEEDS.
2. ACCEPTED SYSTEMS, ON THE DEPARTMENT'S APPROVED PRODUCT LIST, SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' INSTALLATION INSTRUCTIONS.
3. A REFLECTORIZED OBJECT MARKER SHALL BE INSTALLED. ADHESIVE BACKED REFLECTIVE SHEETING MAY BE APPLIED DIRECTLY TO GUARDRAIL END TREATMENT IMPACT HEAD AS PER THE MANUFACTURER'S RECOMMENDATION. DIRECT APPLIED SHEETING SHALL PROVIDE A SMOOTH SURFACE AND HAVE NO WRINKLES, AIR BUBBLES, CUTS OR TEARS. REFLECTIVE MATERIAL SHALL BE TYPE VIII OR BETTER WITH YELLOW BACK GROUND AND BLACK CHEVRON STRIPES. STRIPES SHALL BE ORIENTED WITH THEIR TOPS AWAY FROM TRAFFIC AND ANGLED DOWN AT 45° TOWARDS TRAFFIC.
4. THESE END TREATMENTS DO NOT REQUIRE AN OFFSET AT THE END. END TREATMENTS SHALL BE INSTALLED ENSURING THAT THE END PIECE IS 2' OFF THE SHOULDER. A MAXIMUM FLARE OF 25:1 OR FLATTER OVER THE LENGTH OF THE TREATMENT IS ALLOWED.
5. END TREATMENTS SHALL BE OF THE LENGTH AND TEST LEVEL SPECIFIED IN THESE DRAWINGS AND AS SPECIFIED BY THE THE MANUFACTURER FOR THE INTENDED END TREATMENT TYPE AND TEST LEVEL. ONLY END TREATMENTS CURRENTLY ON THE NMDOT APPROVED PRODUCT LIST WILL BE ACCEPTED FOR INSTALLATION. FOR SPECIFIC END TREATMENT DETAILS, SEE MANUFACTURERS' DRAWINGS.
6. SHOP DRAWINGS AND MANUFACTURERS' INSTALLATION INSTRUCTIONS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE PROJECT MANAGER A MINIMUM OF FIVE DAYS PRIOR TO INSTALLATION TO ENSURE THAT THE COMPONENTS DELIVERED AND INSTALLED BY THE CONTRACTOR ARE IN ACCORDANCE WITH THE MANUFACTURERS' DRAWINGS, SPECIFICATIONS, AND INSTALLATION INSTRUCTIONS.
7. WARP ALL GRADE TRANSITIONS TO CREATE SMOOTH SURFACE CONTOURS.
8. CONSTRUCT POST LEAVE OUTS FOR W-BEAMS WHEN THEY ARE RESTRAINED BY ROCK, ASPHALT, OR CONCRETE. REFER TO MANUFACTURER'S MANUAL FOR MORE DETAIL ON LEAVE-OUT REQUIREMENTS.



**PLAN VIEW**



**ELEVATION VIEW**

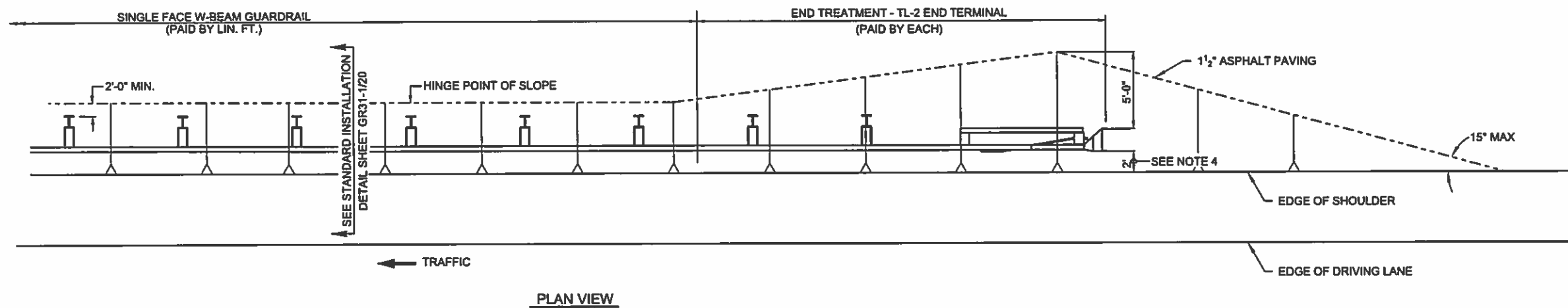
NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
END TREATMENT TL-3 END TERMINAL			
APPROVED	DESIGN ENGINEER	DATE	

DRAWING SCALE = NOT TO SCALE

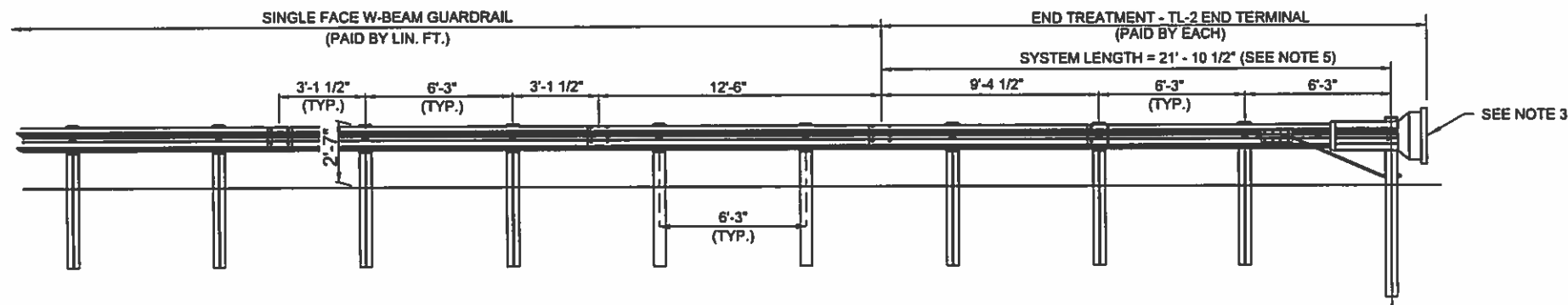
606-GR31-7/20

**NOTES:**

1. END TREATMENT SHOWN IS A GENERAL DEPICTION OF A NOMINAL 37'-6" NMDOT ACCEPTED END TERMINAL THAT IS FHWA ACCEPTED AS CRASHWORTHY AT TEST LEVEL 2 (TL-2) AND MAY BE USED IN APPLICATIONS WITH SPEEDS OF 40 MPH OR LESS.
2. ACCEPTED END TERMINALS, ON THE DEPARTMENT'S APPROVED PRODUCT LIST SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' INSTALLATION INSTRUCTIONS.
3. A REFLECTORIZED OBJECT MARKER SHALL BE INSTALLED. ADHESIVE BACKED REFLECTIVE SHEETING MAY BE APPLIED DIRECTLY TO GUARDRAIL END TREATMENT IMPACT HEAD AS PER THE MANUFACTURERS RECOMMENDATION. DIRECT APPLIED SHEETING SHALL PROVIDE A SMOOTH SURFACE AND HAVE NO WRINKLES, AIR BUBBLES, CUTS OR TEARS. REFLECTIVE MATERIAL SHALL BE TYPE VIII OR BETTER WITH YELLOW BACK GROUND AND BLACK CHEVRON STRIPES. STRIPES SHALL BE ORIENTED WITH THEIR TOPS AWAY FROM TRAFFIC AND ANGLED DOWN AT 45° TOWARDS TRAFFIC.
4. THESE END TREATMENTS DO NOT REQUIRE AN OFFSET AT THE END. END TREATMENTS SHALL BE INSTALLED ENSURING THE END PIECE IS 2' OFF THE SHOULDER. A MAXIMUM FLARE OF 25:1 OR FLATTER OVER THE LENGTH OF THE TREATMENT IS ALLOWED.
5. END TREATMENTS SHALL BE OF THE LENGTH AND TEST LEVEL SPECIFIED IN THESE DRAWINGS AND AS SPECIFIED BY THE MANUFACTURER FOR THE INTENDED END TREATMENT TYPE TEST LEVEL. ONLY END TREATMENTS CURRENTLY ON THE NMDOT APPROVED PRODUCTS LIST WILL BE ACCEPTED FOR INSTALLATION. FOR SPECIFIC END TREATMENT DETAILS, SEE MANUFACTURERS' DRAWINGS.
6. SHOP DRAWINGS AND MANUFACTURERS' INSTALLATION INSTRUCTIONS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE PROJECT MANAGER A MINIMUM OF FIVE DAYS PRIOR TO INSTALLATION TO ENSURE THAT THE COMPONENTS DELIVERED AND INSTALLED BY THE CONTRACTOR ARE IN ACCORDANCE WITH THE MANUFACTURER'S DRAWINGS, SPECIFICATIONS, AND INSTALLATION INSTRUCTIONS.
7. WARP ALL GRADE TRANSITIONS TO CREATE SMOOTH SURFACE CONTOURS.
8. CONSTRUCT POST LAVE OUTS FOR W-BEAMS WHEN THEY ARE RESTRAINED BY ROCK, ASPHALT, OR CONCRETE SHALL USE LEAVE-OUT. REFER TO MANUFACTURE'S MANUAL FOR MORE DETAIL ON LEAVE-OUT REQUIREMENTS.



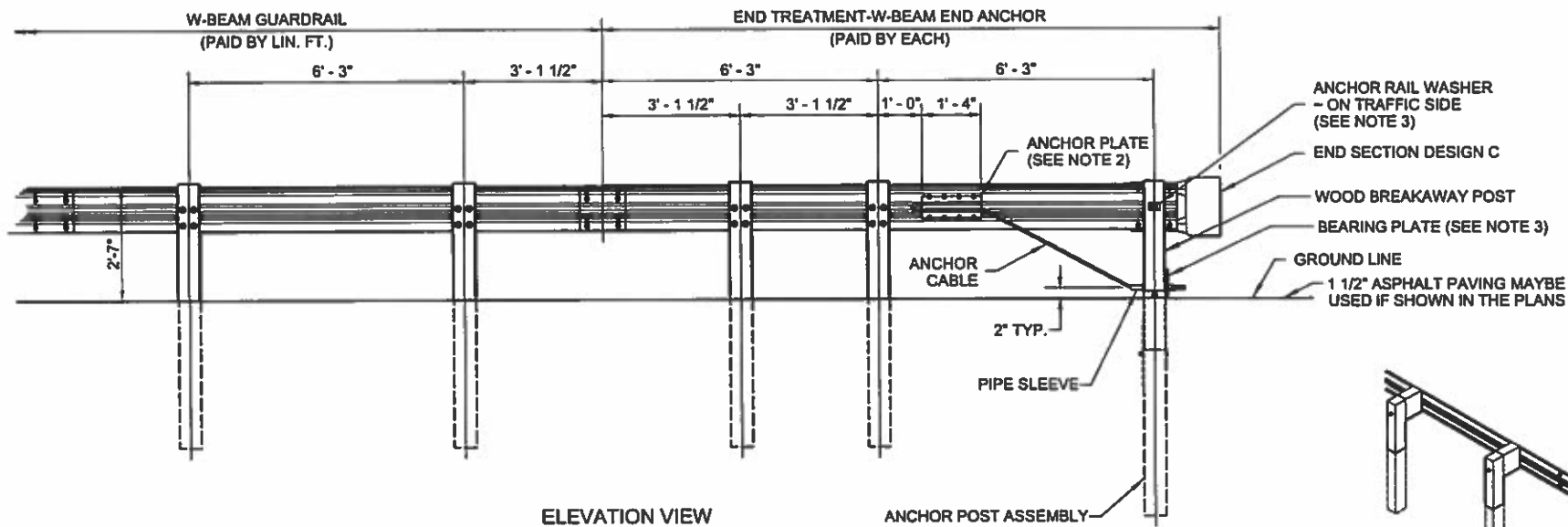
PLAN VIEW



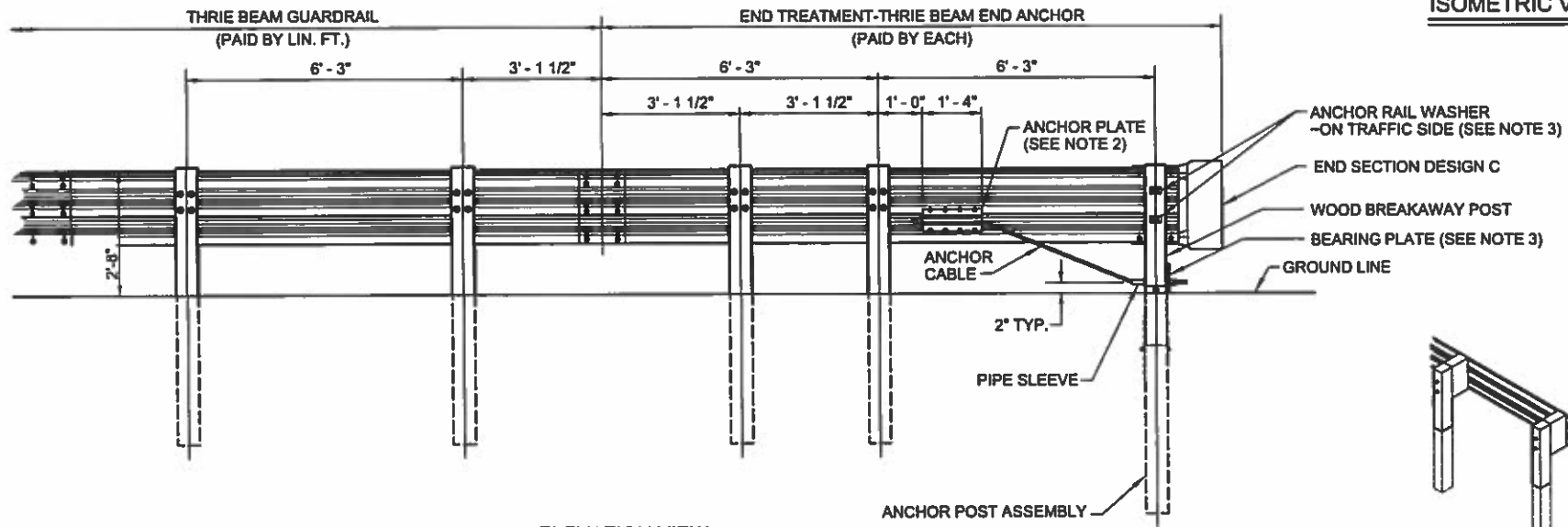
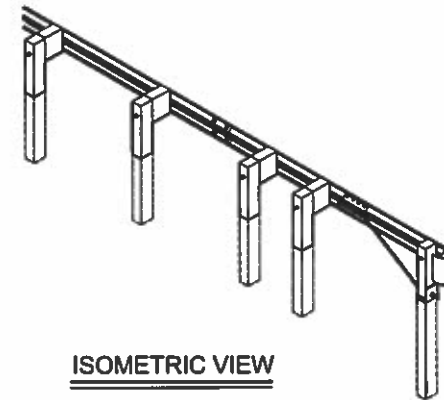
ELEVATION VIEW

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
END TREATMENT TL-2 END TERMINAL			
APPROVED _____		DESIGN ENGINEER	DATE _____
606-GR31-8/20			

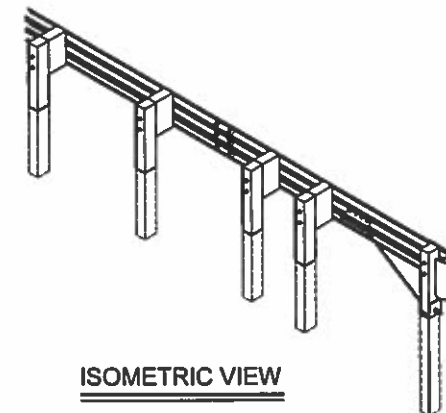
DRAWING SCALE = NOT TO SCALE



**ELEVATION VIEW**  
END TREATMENT  
W-BEAM END ANCHOR  
PAID AS EACH



**ELEVATION VIEW**  
END TREATMENT  
THRIE BEAM END ANCHOR  
PAID AS EACH



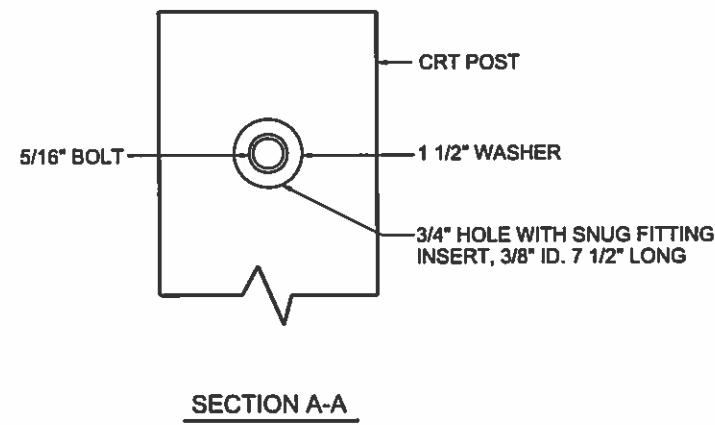
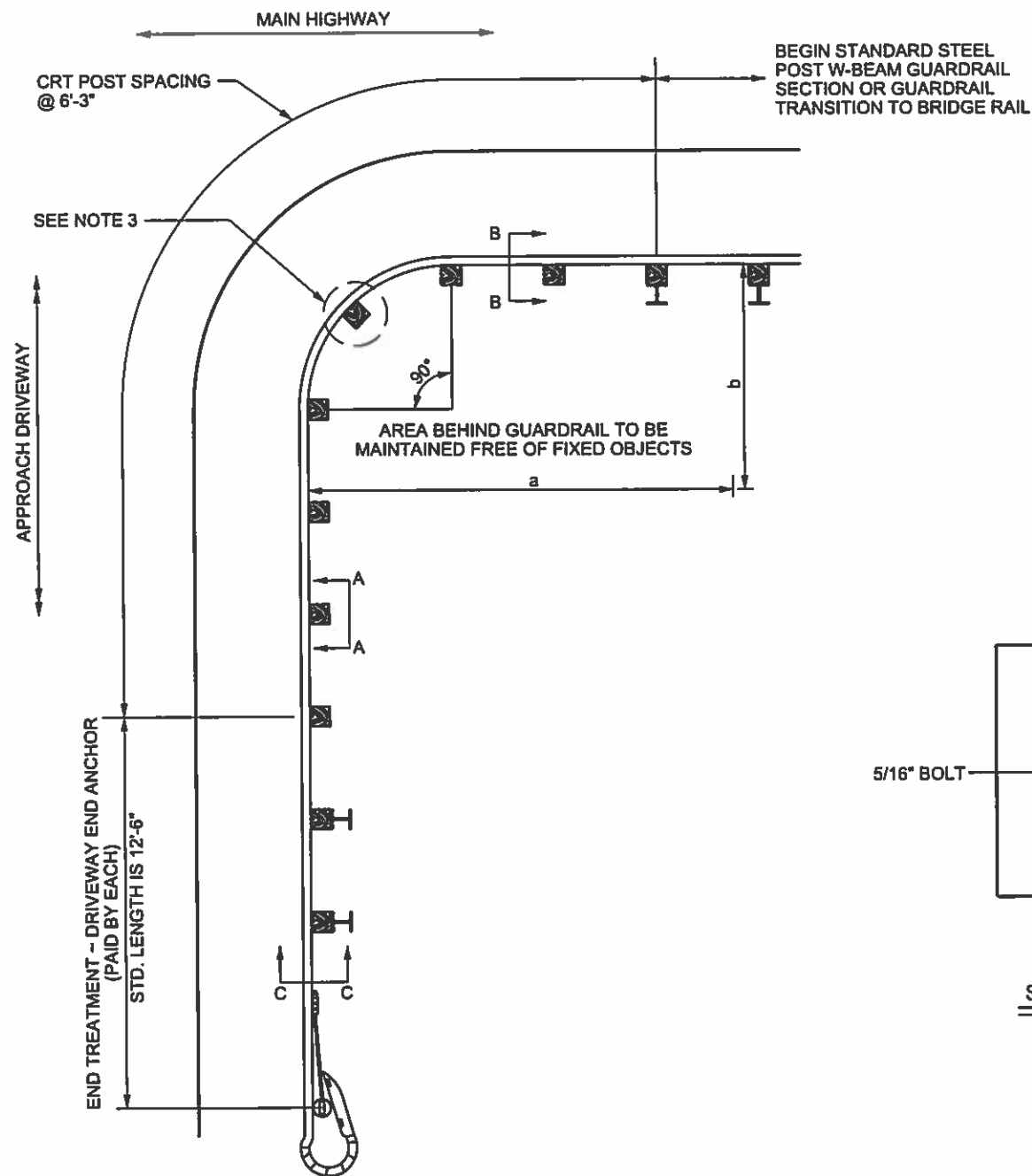
**NOTES:**

1. FOR USE ON THE DOWNSTREAM END OF GUARDRAIL RUNS, WHEN A CRASHWORTHY TL-3 OR TL-2 END TERMINAL IS NOT REQUIRED.
2. ACCEPTED ANCHOR SYSTEMS ON THE DEPARTMENT'S APPROVED PRODUCTS LIST SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' INSTALLATION INSTRUCTIONS.
3. SHOP DRAWINGS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE PROJECT ENGINEER A MINIMUM OF FIVE DAYS PRIOR TO INSTALLATION.
4. FOR ADDITIONAL DETAILS NOT SHOWN, SEE SHEET 606-GR31-11/20 AND SHEET 606-GR31-12/20.
5. END TREATMENT DOES NOT ADDRESS LENGTH OF NEED (LON). PROVIDE GUARDRAIL ADDRESSING (LON) BY THE 6TH POST FROM THE END.
6. CONSTRUCT POST LEAVE OUTS FOR W-BEAMS WHEN THEY ARE RESTRAINED BY ROCK, ASPHALT, OR CONCRETE, REFER TO THE MANUFACTURER'S MANUAL FOR MORE DETAIL ON LEAVE OUT REQUIREMENTS.

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
END TREATMENT W-BEAM END ANCHOR & THRIE BEAM END ANCHOR			
APPROVED _____		DESIGN ENGINEER	DATE _____
606-GR31-9/20			

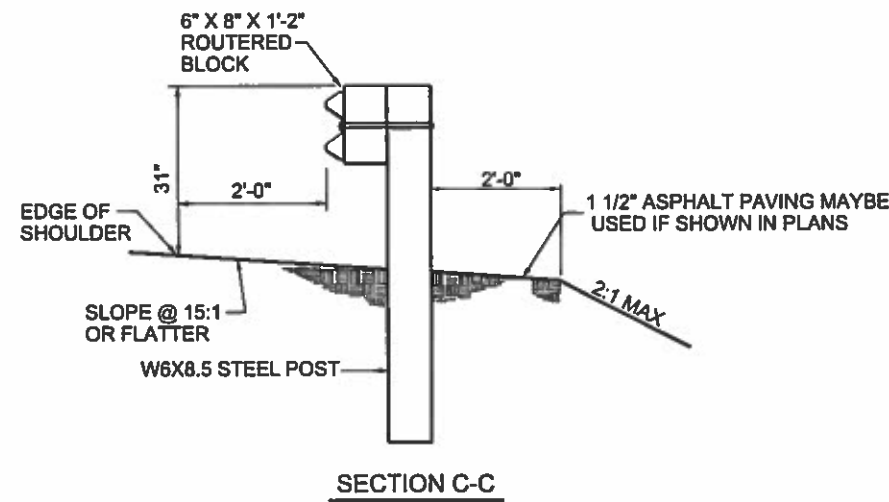
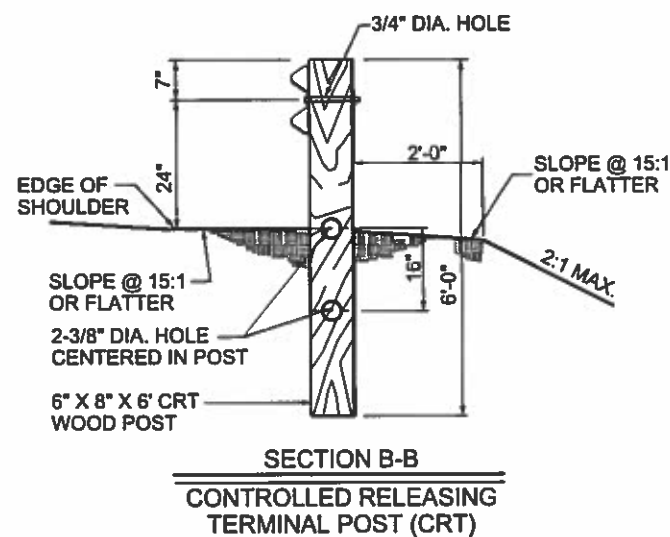
DRAWING SCALE = NOT TO SCALE





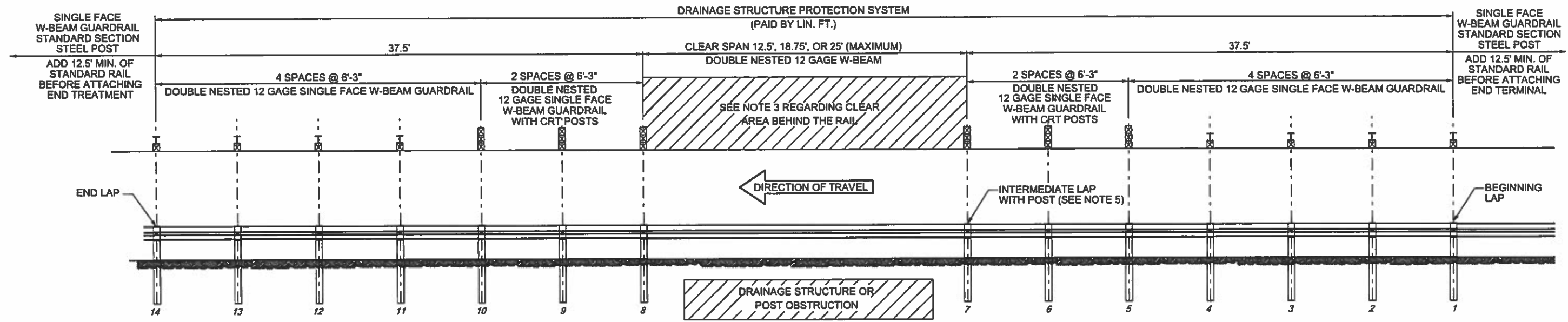
1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION (CURRENT EDITION).
2. ALL HARDWARE SHALL MEET FHWA CRASHWORTHINESS REQUIREMENT AS PER NCHRP 350 AND MASH GUIDELINES AND SHALL BE ON THE DEPARTMENT'S APPROVED PRODUCT LIST.
3. THE RAIL NOT BOLTED TO THE CRT POST AT THE CENTER OF THE NOSE FOR THE 8'-6" RADIUS INSTALLATION ONLY.
4. NO WASHERS ARE USED ON THE 5/8" BUTTON HEAD BOLTS CONNECTING THE RAIL TO THE CRT POSTS.
5. THE CURVED GUARDRAIL SECTION SHALL BE SHOP FABRICATED.
6. THE SLOPE IN FRONT OF THE CURVED GUARDRAIL SHOULD NOT EXCEED 15:1.
7. CURVED GUARDRAIL SHALL ONLY BE USED ON OPERATING SPEEDS OF 60 MPH OR LESS. 35' RADIUS CURVED GUARDRAIL SHOULD ONLY BE USED ON OPERATING SPEEDS OF 50 MPH OR LESS.
8. CURVED GUARDRAIL SHALL BE PAID AS SINGLE FACE W-BEAM GUARDRAIL.
9. CONSTRUCT POST LEAVE OUTS FOR W-BEAMS.

RADIUS	NO. OF CRT POINTS	NOMINAL LENGTH OF BENT RAIL	REQUIRED AREA FREE OF FIXED OBJECTS
			a x b
8' - 6"	5	12'-6"	25' X 15'
17'	6	25'	30' X 15'
25'-6"	8	37'-6"	40' X 20'
35'	11	50'	50' X 20'

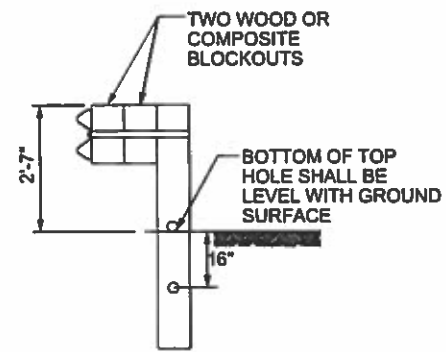


NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
CURVED GUARDRAIL DETAILS			
APPROVED _____		DESIGN ENGINEER	DATE _____
606-GR31-14/20			

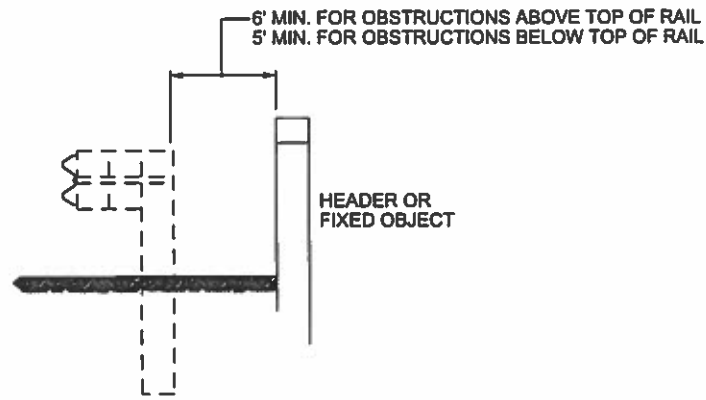
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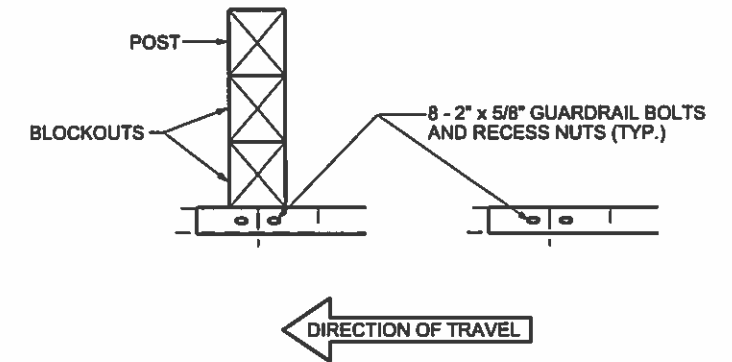
**DRAINAGE STRUCTURE PROTECTION SYSTEM**  
(PAID BY LIN. FT.)



**CRT WOOD POSTS**  
SEE NOTE 2



**DYNAMIC DEFLECTION IN CLEAR SPAN AREA**  
SEE NOTE 3



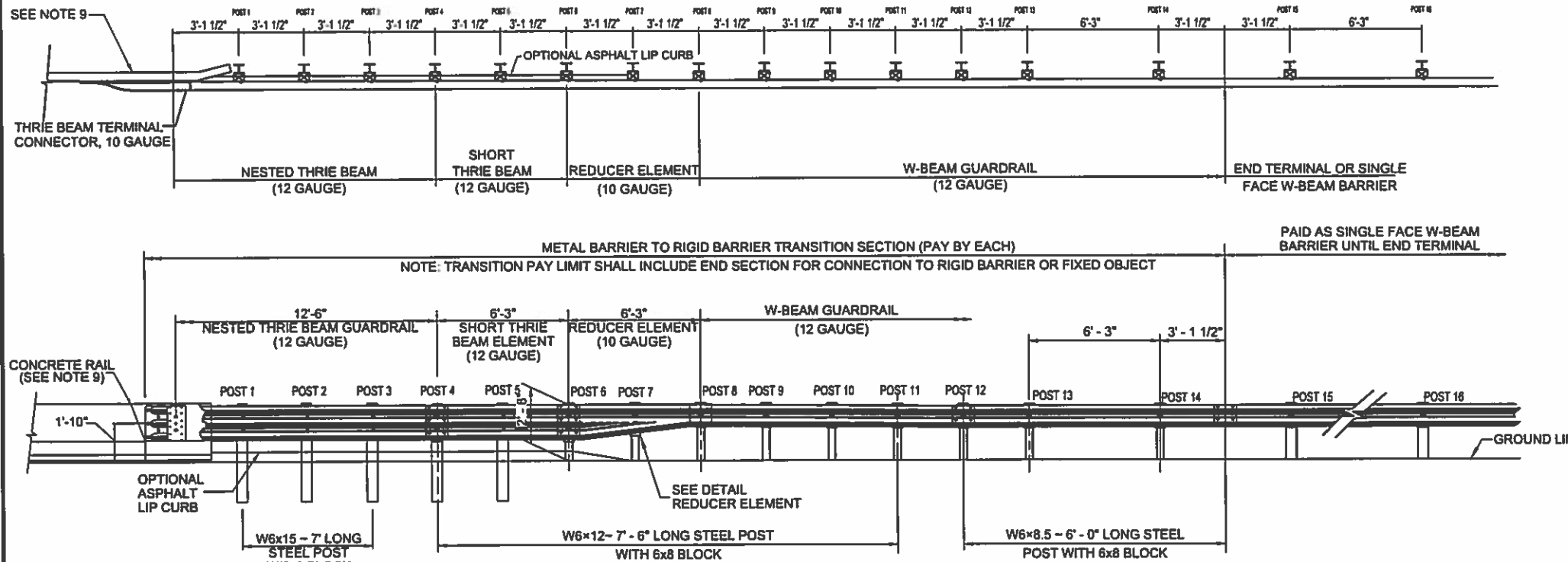
**LAP SPLICES**  
SEE NOTE 4

**NOTES:**

- POSTS 1-4 AND 11-14 STANDARD STEEL POSTS WITH BLOCKOUTS. (SEE SHEET 606-GR31-1/20).
- POSTS 5-10 ARE CRT WOOD POSTS WITH TWO WOOD OR COMPOSITE BLOCKOUTS. ONLY CRT POSTS SHALL BE WOOD.
- CLEAR AREA BEHIND BACK OF RAIL SHALL BE: 5 FEET MINIMUM FOR OBSTRUCTIONS LESS THAN OR EQUAL TO THE HEIGHT OF THE TOP OF RAIL. 6 FEET MINIMUM FOR OBSTRUCTIONS TALLER THAN THE TOP OF RAIL.
- LAP SPLICES IN THE DIRECTION OF ADJACENT TRAFFIC.
- 25'-0" RAIL LENGTHS MAY BE USED TO ELIMINATE THE INTERMEDIATE LAP WITHOUT A POST. DO NOT PLACE A 25' RAIL WITHOUT A POST UNLESS NEEDED DUE TO THE LENGTH OF GAP.
- DESIGN MUST MEET NCHRP 350 AND MASH TEST LEVEL 3 FHWA ACCEPTANCE.
- IF DRAINAGE STRUCTURE IS GREATER THAN 25', PROTECTION SYSTEM MUST BE SPECIFICALLY DESIGNED ON A CASE BY CASE BASIS.
- CONSTRUCT POST LEAVE OUTS FOR W-BEAMS. REFER TO MANUFACTURER'S MANUAL FOR MORE DETAIL ON LEAVE OUT REQUIREMENTS.

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
DRAINAGE STRUCTURE PROTECTION SYSTEM			
APPROVED _____		DESIGN ENGINEER	DATE _____
606-GR31-16/20			

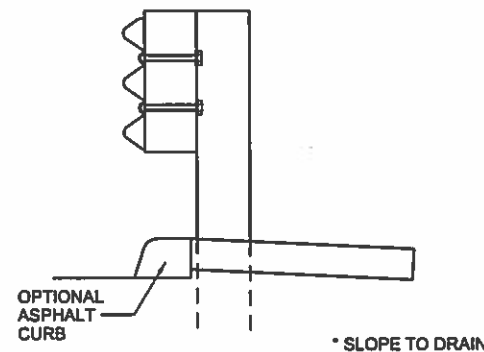
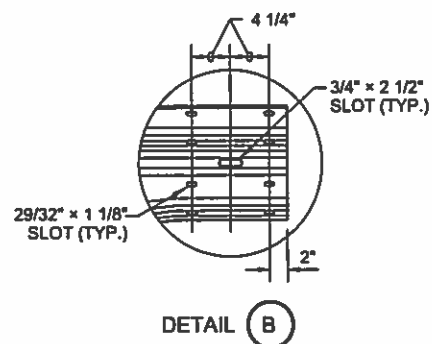
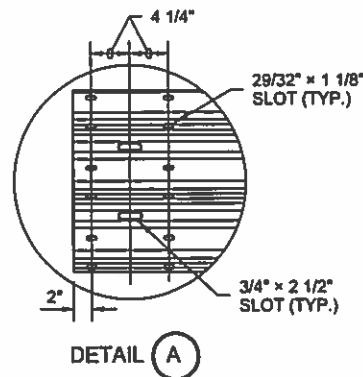
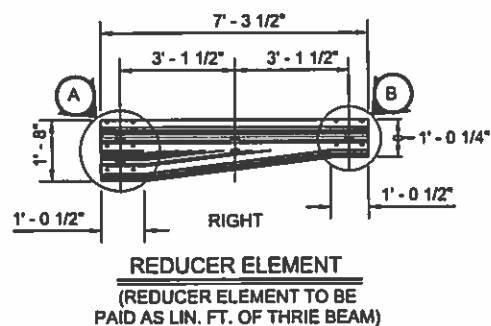
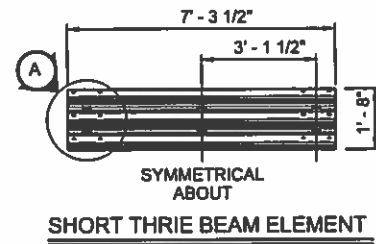
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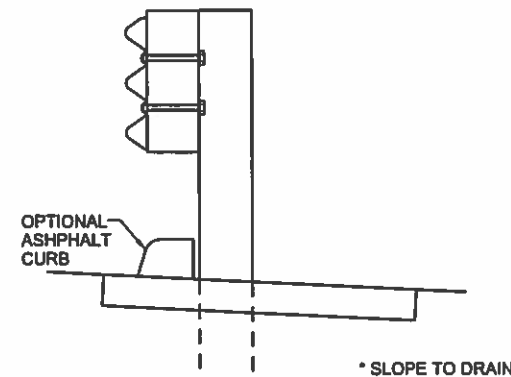
ELEVATION VIEW

NOTES:

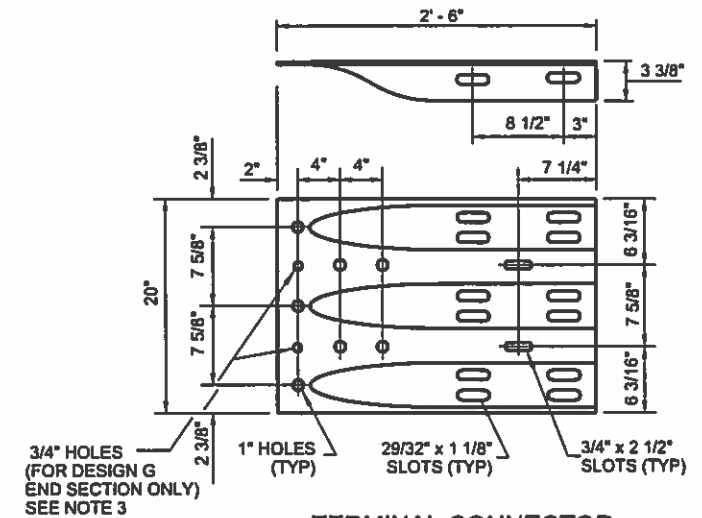
- ALL HARDWARE SHALL MEET FHWA CRASHWORTHINESS REQUIREMENTS AS PER NCHRP 350 AND MASH GUIDELINES AND SHALL BE ON THE DEPARTMENTS APPROVED PRODUCT LIST.
- A MINIMUM OF FIVE 7/8" H.T.S. BOLTS ARE REQUIRED FOR THE ATTACHMENT OF THE THRIE BEAM TERMINAL CONNECTOR TO THE CONCRETE BARRIER WITH THIN SLAB FERRULE INSERTS OR RESIN BONDED ANCHORS. ENSURE THAT THE BOLT HEADS OR NUTS PROTRUDE NO MORE THAN 3/4" FROM THE CONNECTION PLATE. HOLES FOR BOLTS SHALL BE 1" DIA. AND SHALL BE EITHER FORMED OR CORE DRILLED IN A MANNER THAT DOES NOT DISTURB CONCRETE BARRIER STEEL REINFORCEMENT.
- FURNISHING AND PLACING OF BOLTS, WASHERS, AND BEARING PLATE SHALL BE CONSIDERED INCIDENTAL TO THE COST OF METAL BARRIER.
- INSTALL THRIE BEAM TERMINAL CONNECTOR BETWEEN NESTED GUARDRAIL ELEMENTS ON THE APPROACH SECTION.
- INSTALL THRIE BEAM TERMINAL CONNECTOR OUTSIDE OF THE NESTED GUARDRAIL ELEMENTS ON THE APPROACH SECTION.
- IN CASES WHERE END SECTION IS PLACED ON THE OUTSIDE OF THE GUARDRAIL, INSTALL A GALVANIZED 1" ID, 2" OD, 0.134" THICK FLAT WASHER UNDER SPLICE BOLT HEADS.
- ASPHALT LIP CURB, IF SPECIFIED, SHALL BE CONSIDERED INCIDENTAL TO THE TRANSITION. LENGTH OF THE CURB SHALL BE AS SPECIFIED FOR DRAINAGE.
- CONSTRUCTION OF LEAVEOUTS SHALL BE CONSIDERED INCIDENTAL TO THE TRANSITION.
- FOR 32" BRIDGE BARRIER CONNECTION, REFER TO STANDARD DRAWING 514-01-4/6 FOR DETAILS. FOR 42" BRIDGE BARRIER CONNECTION, REFER TO STANDARD DRAWING 514-03-4/6 FOR DETAILS.
- CONSTRUCT POST LEAVE OUTS FOR THRIE BEAMS WHEN THEY ARE RESTRAINED BY ROCK, OR CONCRETE. REFER TO MANUFACTURER'S MANUAL FOR CONCRETE LEAVE OUT.



CURB OPTION (A)  
THIS OPTION WILL INCREASE THE POST EMBEDMENT THROUGHOUT THE SYSTEM



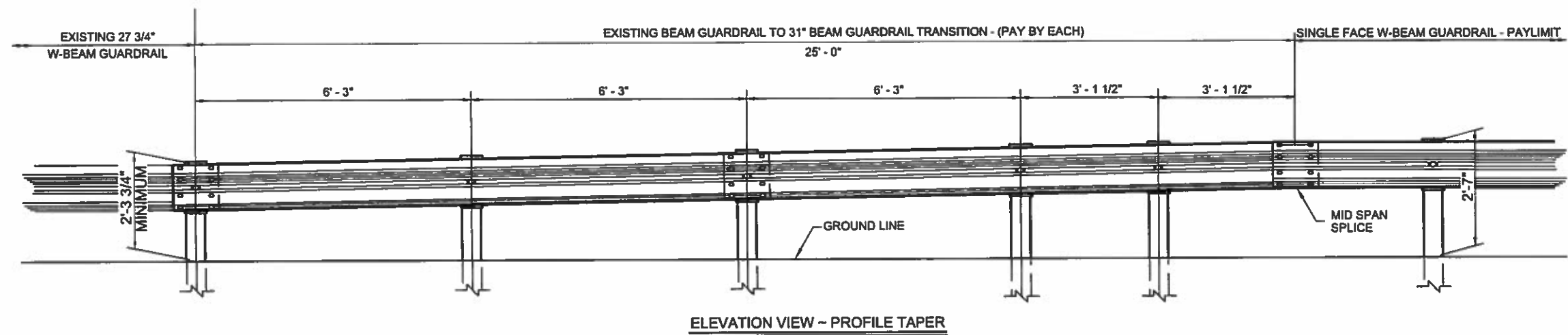
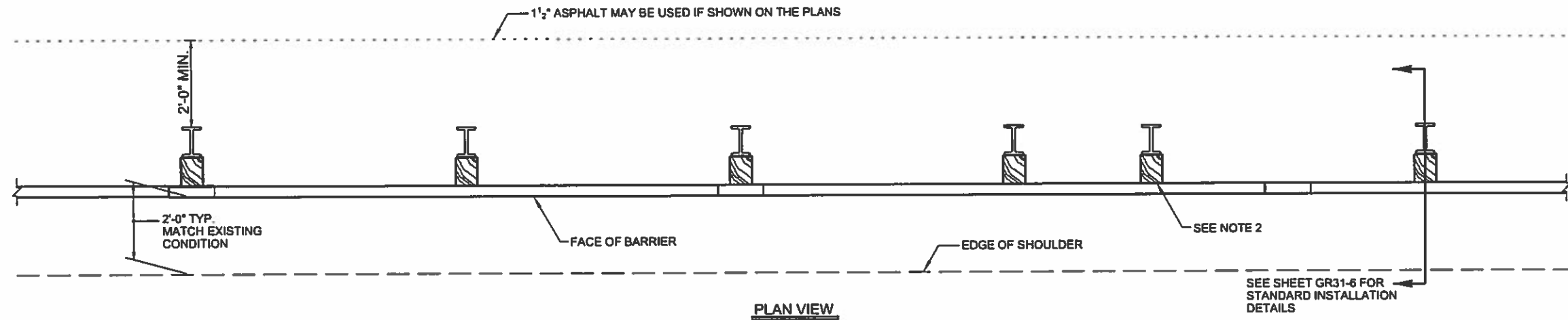
CURB OPTION (B)  
CURB SHOWN ON TOP OF MOW STRIP



TERMINAL CONNECTOR THRIE BEAM

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
TRANSITION - METAL BARRIER TO RIGID BARRIER			
APPROVED	DESIGN ENGINEER		11/05/13 DATE
606-GR31-17/20			

DRAWING SCALE = NOT TO SCALE



**NOTES:**

1. REFER TO SHEET 606-GR31-1/20 AND 606-GR31-2/20 FOR COMPONENT DETAILS FOR SINGLE FACE W-BEAM GUARDRAIL NOT SHOWN ON THIS PLAN.
2. SPACER BLOCKS MAY CONSIST OF WOOD, PLASTIC, OR COMPOSITE MATERIAL ON THE APPROVED PRODUCTS LIST.

NO.	DATE	REV. BY	DESCRIPTION
REVISIONS ( OR CHANGE NOTICES )			
NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING			
EXISTING BEAM GUARDRAIL TO 31" BEAM GUARDRAIL TRANSITION			
APPROVED _____		DESIGN ENGINEER	DATE _____
			606-GR31-18/20

DRAWING SCALE = NOT TO SCALE