

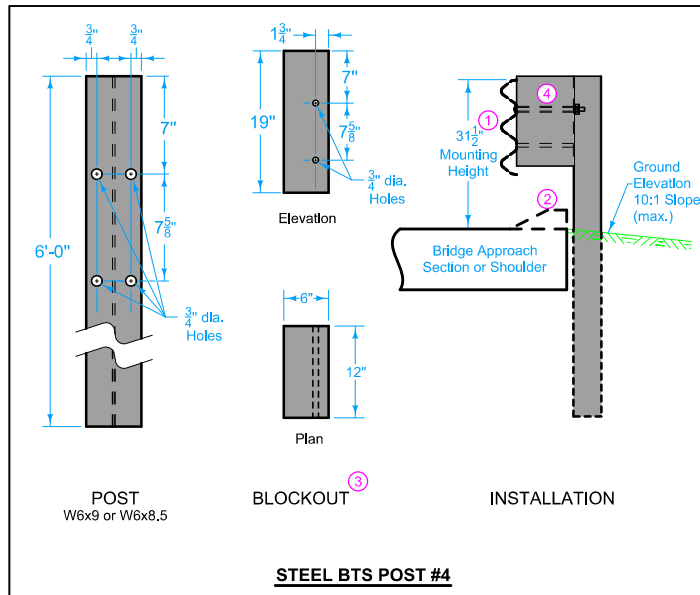
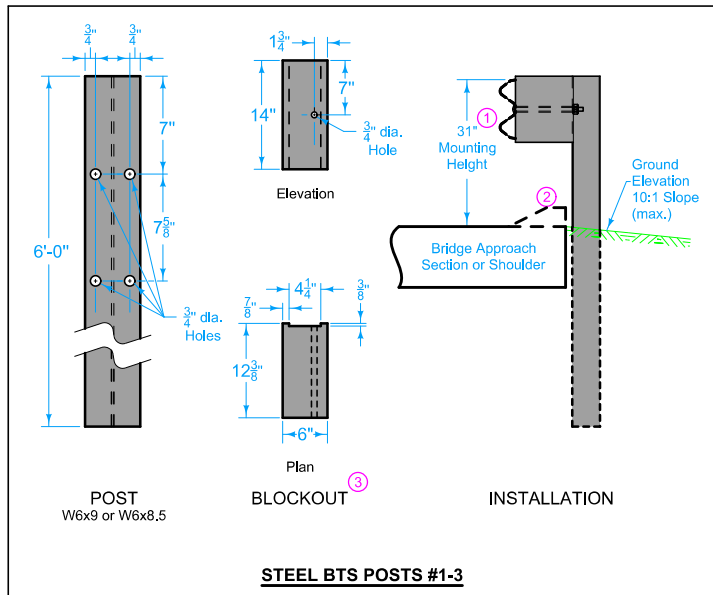
At Bridge End Drains, cut Scour Protection (Transition Mat and Turf Reinforcement Mat) or remove rock as required to place post(s) such that Bridge End Drains abut post(s).

- ① Guardrail mounting height at barrier connection is 32 inches. Transition guardrail mounting height down to 31 inches at BTS Post #3.
- ② Possible 4 inch sloped curb. See project plans.

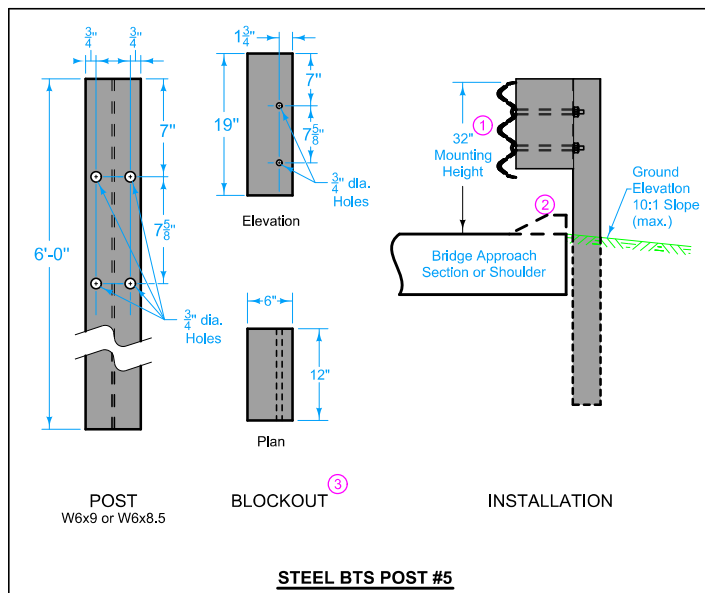
Possible Contract Item:  
Steel Beam Guardrail Barrier Transition Section, BA-221

- Materials included in the Contract Item:
- Steel Post Option:
- (5) 6" x 8" x 6'-0" posts
  - (2) 6" x 12" x 19" blockouts
  - (3) 6" x 12" x 14" blockouts
- Wood Post Option:
- (5) 6" x 8" x 6'-0" posts
  - (2) 6" x 12" x 19" blockouts
  - (3) 6" x 12" x 14" blockouts
- (1) Asymmetrical Transition Section
  - (2) 3'-1 1/2" Thrie-Beam rail sections
  - (2) 12'-6" W-Beam rail sections
- Approved bolts, nuts, and washers  
Refer to BA-200 for guardrail components

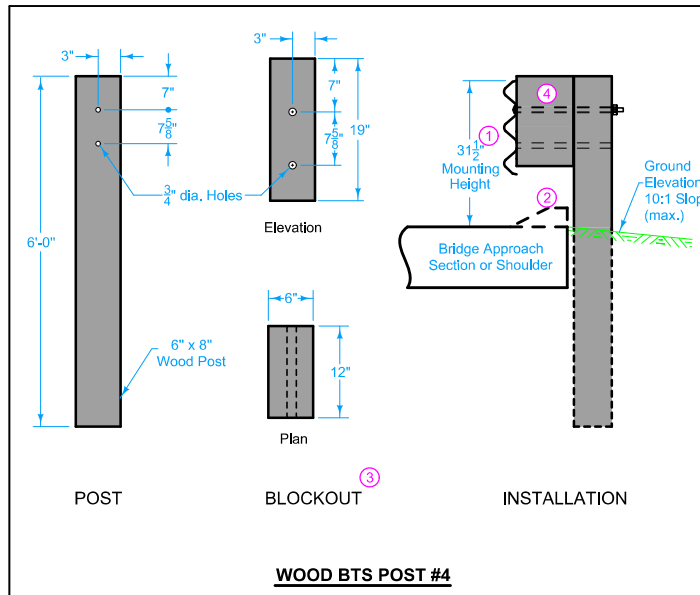
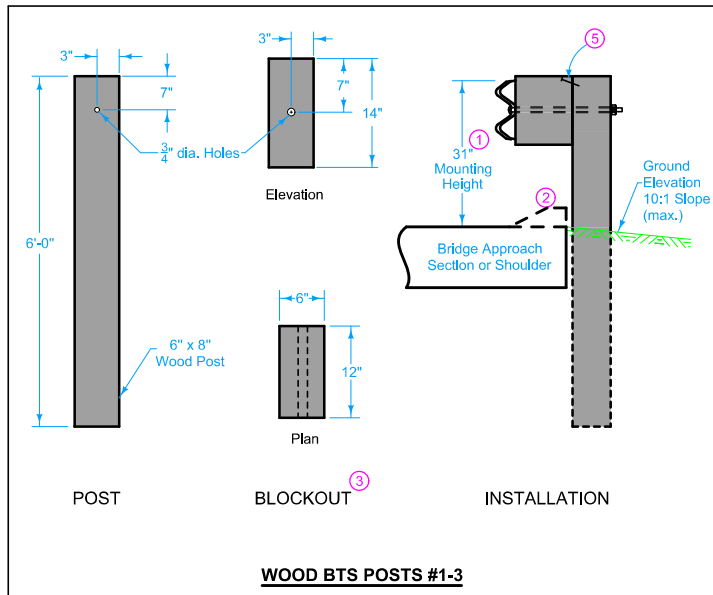
<p style="font-weight: bold; font-size: 1.2em;">STANDARD ROAD PLAN</p>	REVISION 1   04-18-17
	BA-221
	SHEET 1 of 3
REVISIONS: Removed bottom bolts on STEEL BTS POST #4 view on page 2 and on WOOD BTS POST #4 view on page 3.	
APPROVED BY DESIGN METHODS ENGINEER	
<p style="font-weight: bold; margin: 0;">STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION (MASH TL-2)</p>	



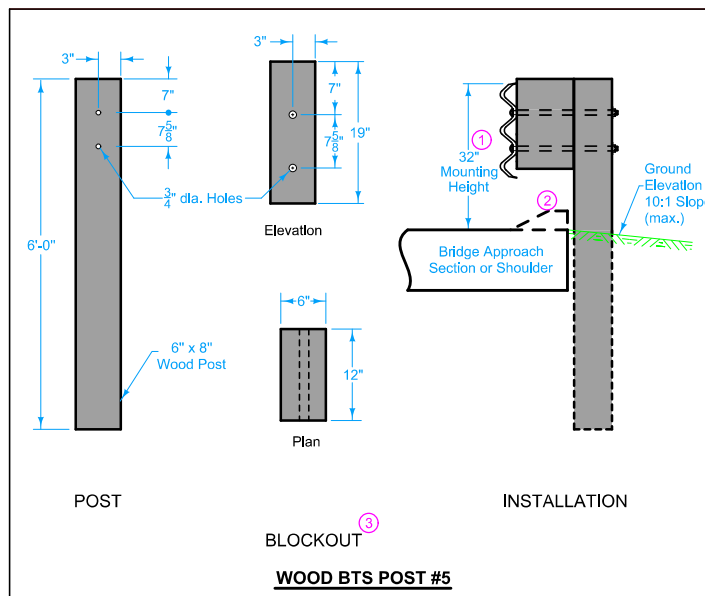
- ① Guardrail mounting height at barrier connection is 32 inches. Transition guardrail mounting height down to 31 inches at BTS Post #3.
- ② Possible 4 inch sloped curb. See project plans.
- ③ Wood or composite only. Steel blockouts will not be allowed.
- ④ Place bolt in top hole only.



<b>IOWA DOT</b>	REVISION
	1 04-18-17
	<b>STANDARD ROAD PLAN</b>
<b>BA-221</b>	
SHEET 2 of 3	
<small>REVISIONS: Removed bottom bolts on STEEL BTS POST #4 view on page 2 and on WOOD BTS POST #4 view on page 3.</small>	
<i>Brian Smith</i> <small>APPROVED BY DESIGN METHODS ENGINEER</small>	
<b>STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION (MASH TL-2)</b>	



- ① Guardrail mounting height at barrier connection is 32 inches. Transition guardrail mounting height down to 31 inches at BTS Post #3.
- ② Possible 4 inch sloped curb. See project plans.
- ③ Wood or composite only. Steel blockouts will not be allowed.
- ④ Place bolt in top hole only.
- ⑤ 16d nail to prevent blockout rotation.



 <b>STANDARD ROAD PLAN</b>	REVISION
	1   04-18-17
	<b>BA-221</b>
SHEET 3 of 3	
REVISIONS: Removed bottom bolts on STEEL BTS POST #4 view on page 2 and on WOOD BTS POST #4 view on page 3.	
 APPROVED BY DESIGN METHODS ENGINEER	
<b>STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION (MASH TL-2)</b>	