



- NOTES:**
- 1). ALL W-BEAMS ARE 13'-6 $\frac{1}{2}$ " IN LENGTH.
  - 2). PLACE GUARDRAIL DELINEATORS IN ACCORDANCE WITH DETAIL B-13, SHEET 9.
  - 3). POSTS 1 THROUGH 6 ARE TO BE TYPE 31 LONG, WOOD BREAKAWAY POSTS. POST 7 IS TO BE A W6x9, 6'-0" STEEL POST.
  - 4). THE RAIL SHALL BE ATTACHED AT POSTS 1 THROUGH 6 WITH A  $\frac{5}{8}$ " x 22" GUARDRAIL BOLT, STEEL WASHER, AND RECESS NUT.
  - 5). CULVERT HEADWALL SHALL NOT EXTEND MORE THAN 2" ABOVE GRADE.
  - 6). THERE SHALL BE A MINIMUM OF 12" FROM THE BACK OF POST TO THE CULVERT WINGWALLS.
  - 7). IF CURB IS USED, IT SHALL BE A MAX 2" HEIGHT WITHIN THE LIMIT OF PAYMENT OF THE GUARDRAIL OVER CULVERT.
  - 8). MASH COMPLIANT SYSTEM - FHWA ELIGIBILITY LETTER B-189



*John C.*  
 ENGINEERING SUPPORT  
 RECOMMENDED  
 DATE 12/08/2021

GUARDRAIL OVER CULVERTS, TYPE 1-31  
 STANDARD NO. B-3 (2021)  
 SHT. 1 OF 3

REVIEWED *Mike Lee*  
 DEPUTY DIRECTOR - DESIGN  
 DATE 12/08/2021  
 APPROVED *Shrey*  
 CHIEF ENGINEER  
 DATE 12/20/2021