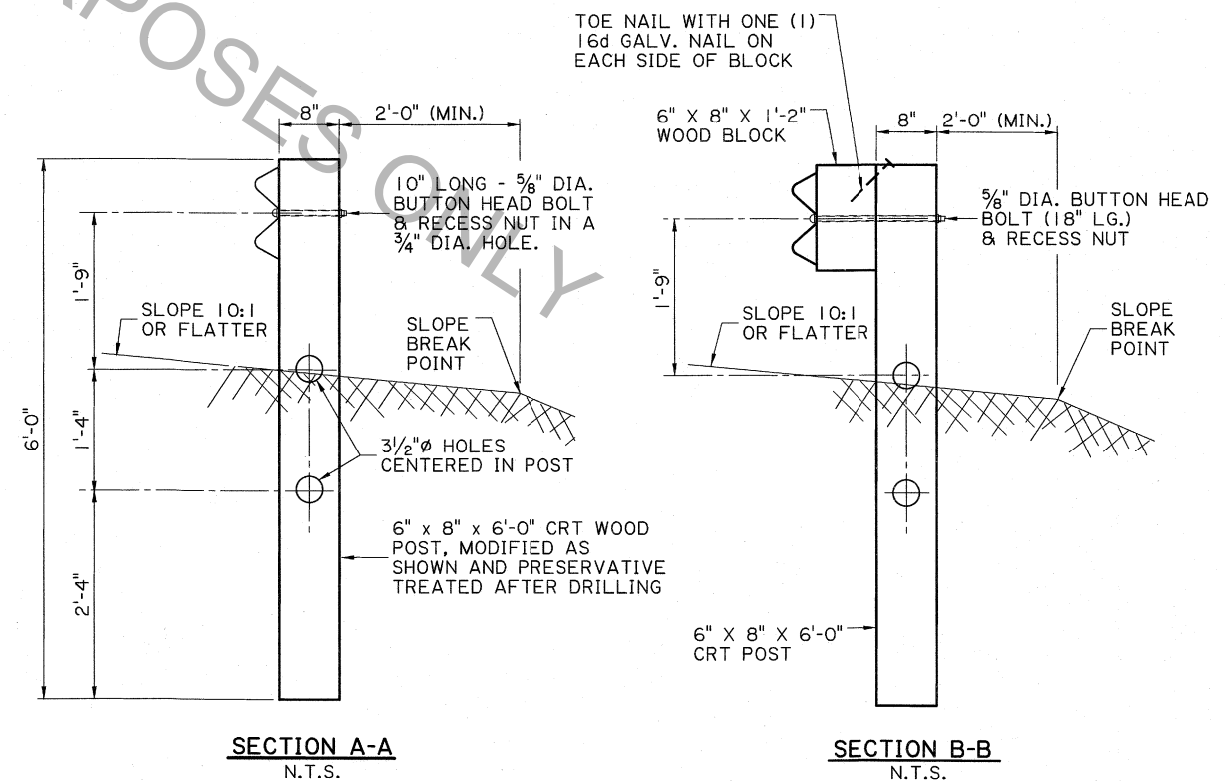
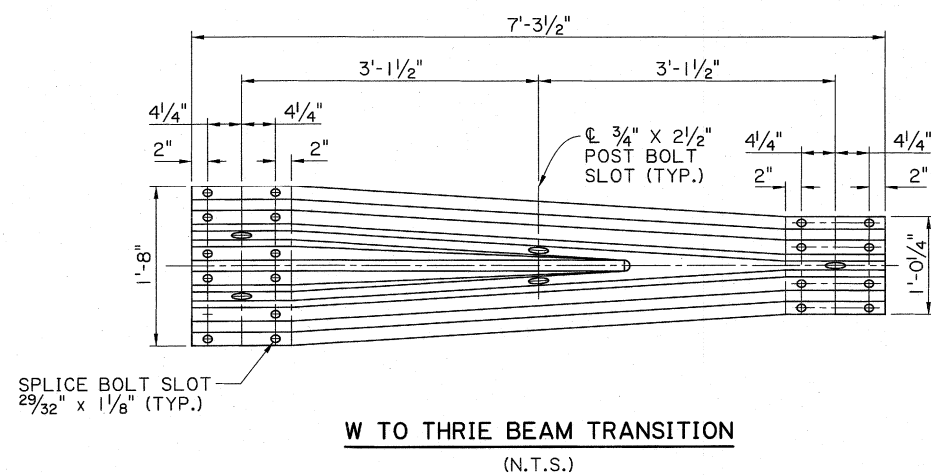
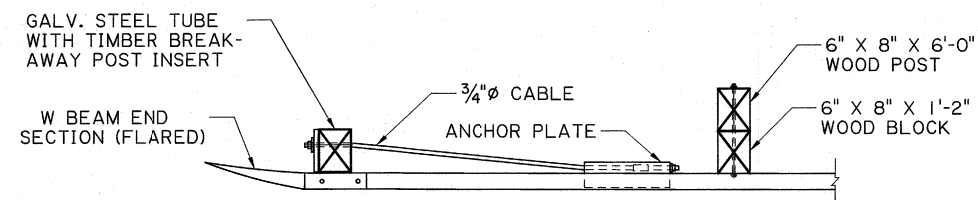
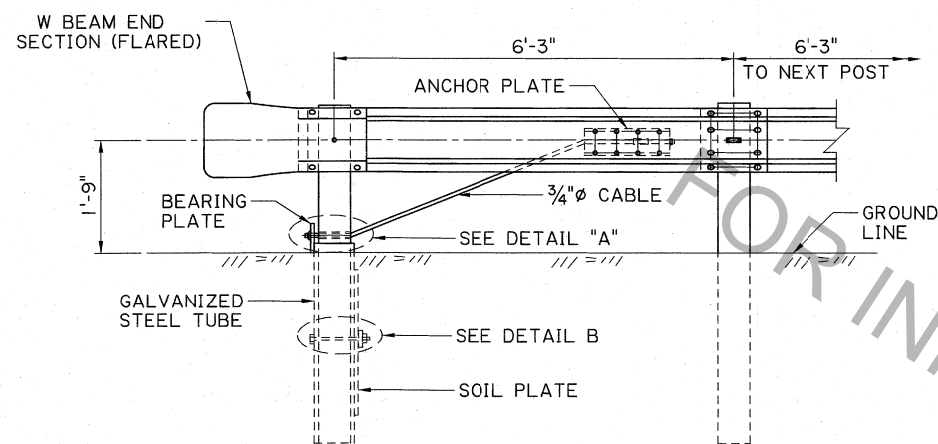


- NOTES:**
- THIS DETAIL SHALL NOT BE USED ON NHS ROUTES.
  - A DESIGN WAIVER IS REQUIRED TO USE THIS DETAIL.
  - THIS DETAIL SHALL BE USED ALONG WITH THE STANDARD PLANS FOR HIGHWAY GUARD RAIL (MASH) EXCEPT AS SHOWN.
  - THE USE OF THE W-BEAM TRAILING END SHALL BE LIMITED TO THE APPROACH ROADWAY SUCH AS A RESIDENTIAL OR BUSINESS DRIVEWAY OR OTHER SERVICE ROAD. IF THE APPROACH ROADWAY CARRIES NORMAL HIGHWAY TRAFFIC, A CRASHWORTHY NCHRP 350 GUARD RAIL END TREATMENT SELECTED FROM THE DOTD APPROVED MATERIALS LIST SHALL BE USED IN LIEU OF THE W-BEAM TRAILING END. (PAY ITEM 704-10-00100 OR 704-10-00200).
  - THE CURVED GUARD RAIL SECTION SHALL BE SHOP BENT.
  - THE RAIL IS NOT BOLTED TO THE CRT POST AT THE CENTER OF THE NOSE AS SHOWN.
  - NO WASHERS ARE USED ON THE 5/8" Ø BUTTON HEAD BOLTS CONNECTING THE RAIL TO THE CABLE RELEASE TERMINAL (CRT) POSTS.
  - BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 307 AND NUTS TO THE REQUIREMENTS OF ASTM A 563, GRADE A OR BETTER, AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.
  - ALL ANGLES, CHANNELS AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 36 AND STRUCTURAL TUBING TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE ANSI/AASHTO/AWS, BRIDGE WELDING CODE. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. NO PUNCHING, DRILLING, CUTTING OR WELDING WILL BE PERMITTED AFTER GALVANIZING.
  - THE WOOD BREAKAWAY POST SHALL BE S4S TIMBER WITH A STRESS GRADE OF 1200 PSI AND SHALL BE GRADE MARKED OR CERTIFIED BY A RECOGNIZED ASSOCIATION OR AGENCY WHICH IS CERTIFIED BY THE BOARD OF REVIEW, AMERICAN LUMBER STANDARDS COMMITTEE, TO GRADE THE SPECIES.
  - WOOD POST AND BLOCKS SHALL BE TREATED IN ACCORDANCE WITH SECTION 1014 OF DOTD STD. SPECIFICATIONS.
  - THE SLOPE IN FRONT OF THE INSTALLATION SHALL NOT EXCEED 10H:1V.
  - TOP OF GUARD RAIL TO BE INSTALLED 27" ABOVE GROUND LINE.
  - RAIL SPLICES SHALL BE AT THE POSTS.
- ☐ SEE W TO THRIE BEAM TRANSITION ON THIS SHEET.  
⊕ LENGTH OF W-BEAM SECTION MAY BE INCREASED TO MEET SITE CONSTRAINTS (MAINTAIN 6'-3" MIN. POST SPACING)  
⊙ TRANSITION SHALL BE AS SHOWN IN THE STANDARD PLANS FOR HIGHWAY GUARD RAIL (MASH) EXCEPT AS NOTED.

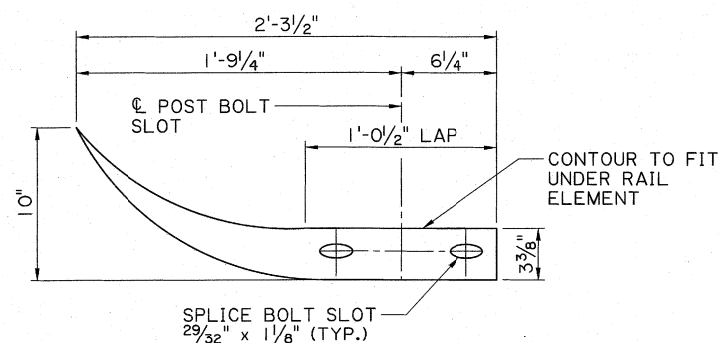




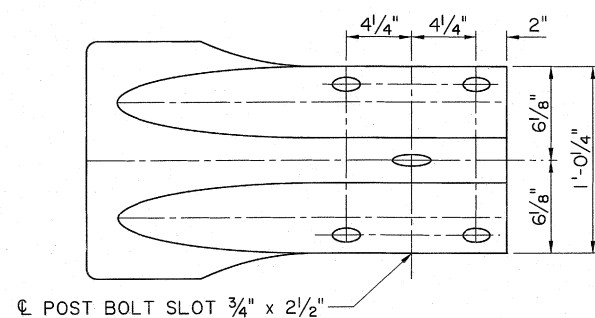
PLAN

ELEVATION

W BEAM TRAILING END  
N.T.S.

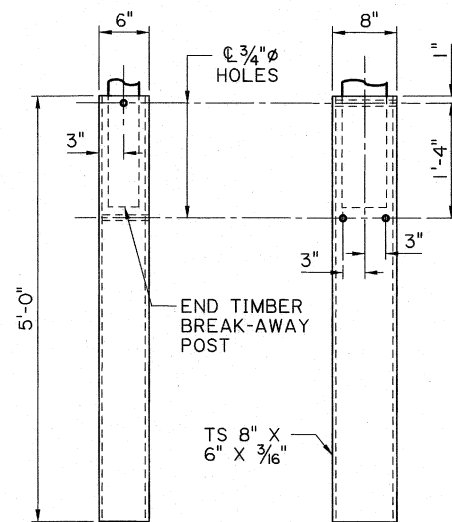


PLAN  
N.T.S.

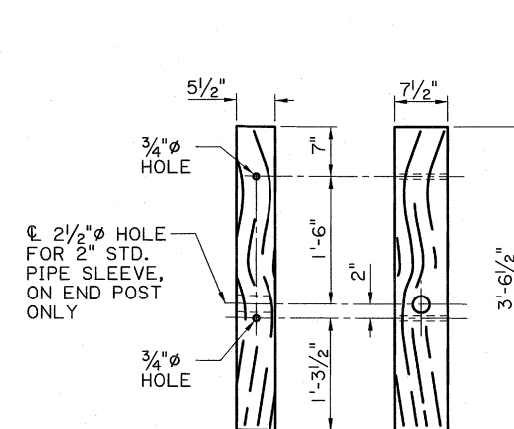


ELEVATION  
N.T.S.

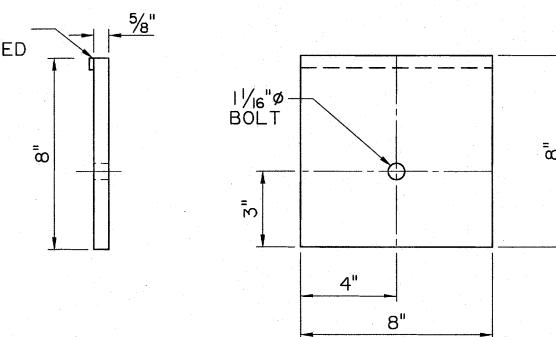
W BEAM END SECTION (FLARED)



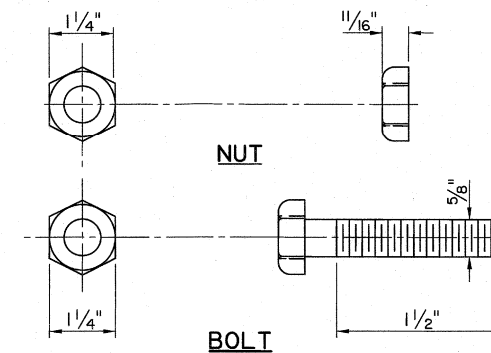
GALVANIZED STEEL TUBE  
N.T.S.



TIMBER BREAK-AWAY POST  
N.T.S.

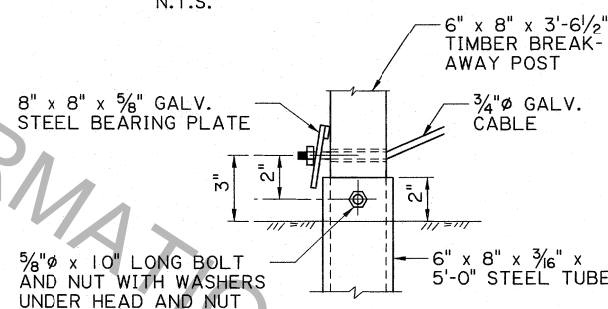


GALVANIZED STEEL BEARING PLATE  
N.T.S.

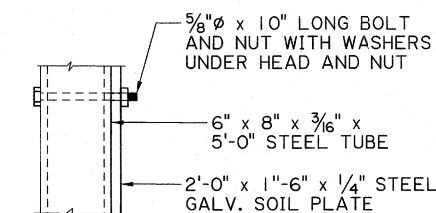


5/8" Ø HEX BOLT & HEX NUT

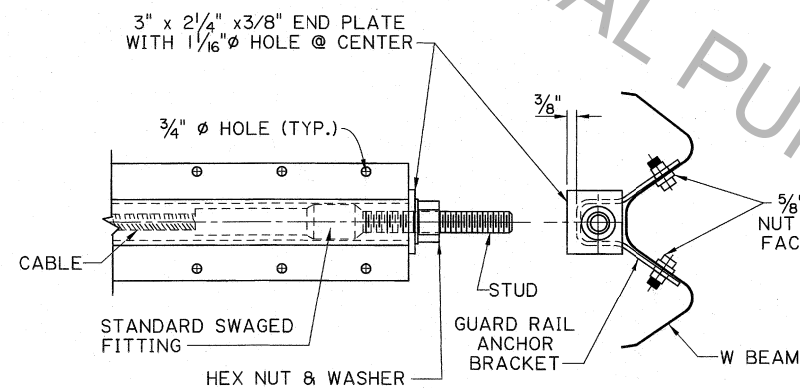
(FOR FASTENING THE ANCHOR PLATE TO RAIL OR POST)  
N.T.S.



DETAIL "A"  
N.T.S.

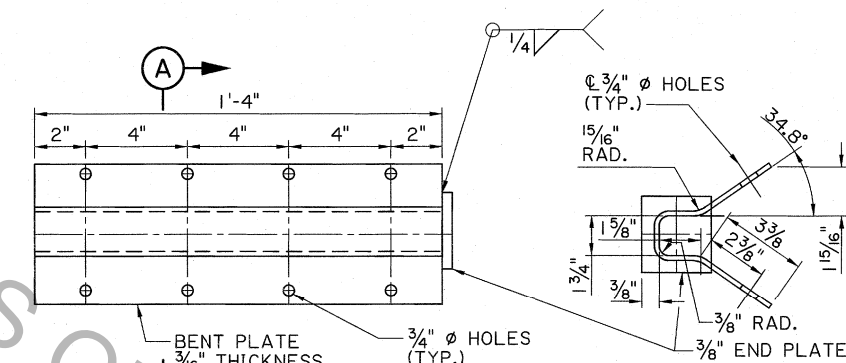


DETAIL "B"  
N.T.S.



ELEVATION

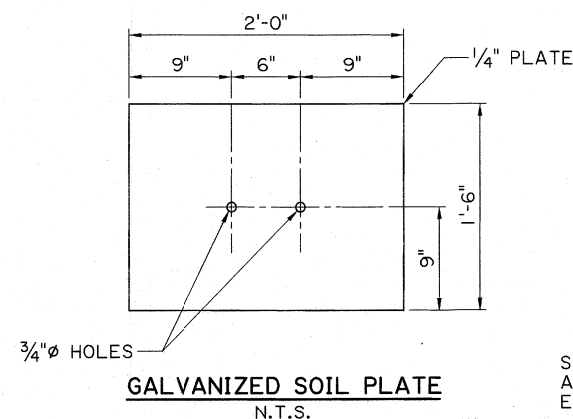
ELEVATION-BRACKET & FITTING  
N.T.S.



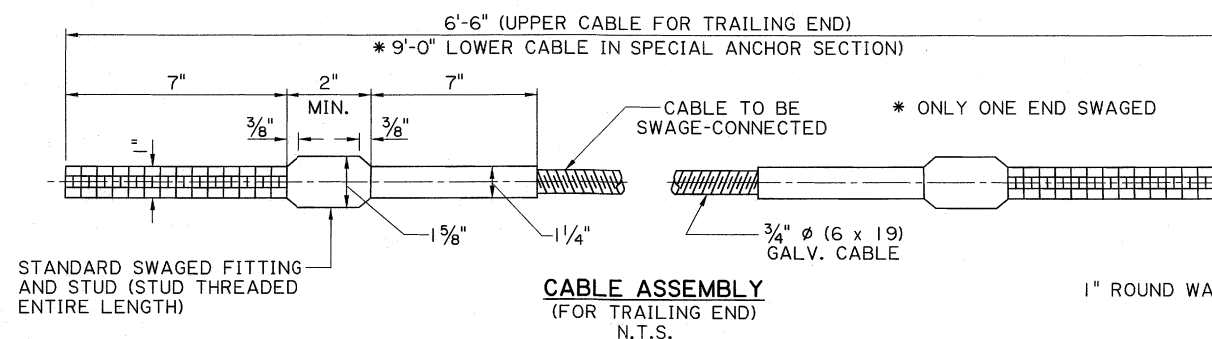
 ELEVATION

SECTION A-A

GUARD RAIL ANCHOR PLATE  
N.T.S.



GALVANIZED SOIL PLATE  
N.T.S.



CABLE ASSEMBLY  
(FOR TRAILING END)  
N.T.S.

