

NOTES

THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF A $\frac{1}{4}$ " HOLD DOWN PLATE AND 7 - $\frac{7}{8}$ " Ø BOLTS WITH NUTS AND WASHERS.

THE HOLD-DOWN PLATE SHALL CONFORM TO AASHTO M270 GRADE 36. AFTER FABRICATION, THE HOLD-DOWN PLATE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M111.

BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307 AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M291. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. AT THE CONTRACTOR'S OPTION, STAINLESS STEEL BOLTS, NUTS AND WASHERS MAY BE USED AS AN ALTERNATE FOR THE 1/8" Ø GALVANIZED BOLTS, NUTS AND WASHERS. THEY SHALL CONFORM TO OR EXCEED THE MECHANICAL REQUIREMENTS OF ASTM A307. THE USE OF THIS ALTERNATE SHALL BE APPROVED BY THE ENGINEER.

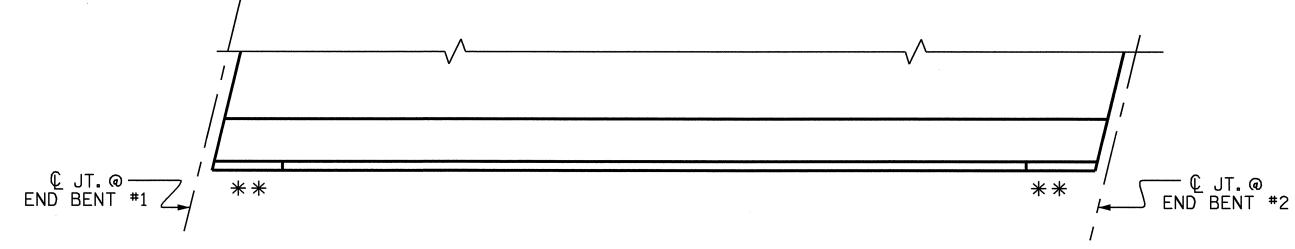
AFTER INSTALLATION, THE EXPOSED THREAD OF THE BOLT SHALL BE BURRED WITH A SHARP POINTED TOOL.

THE COST OF THE GUARDRAIL ANCHOR ASSEMBLIES WITH BOLTS, NUTS AND WASHERS COMPLETE IN PLACE, SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.

THE VERTICAL REINFORCING BARS MAY BE SHIFTED SLIGHTLY IN THE END POST TO CLEAR ASSEMBLY BOLTS.

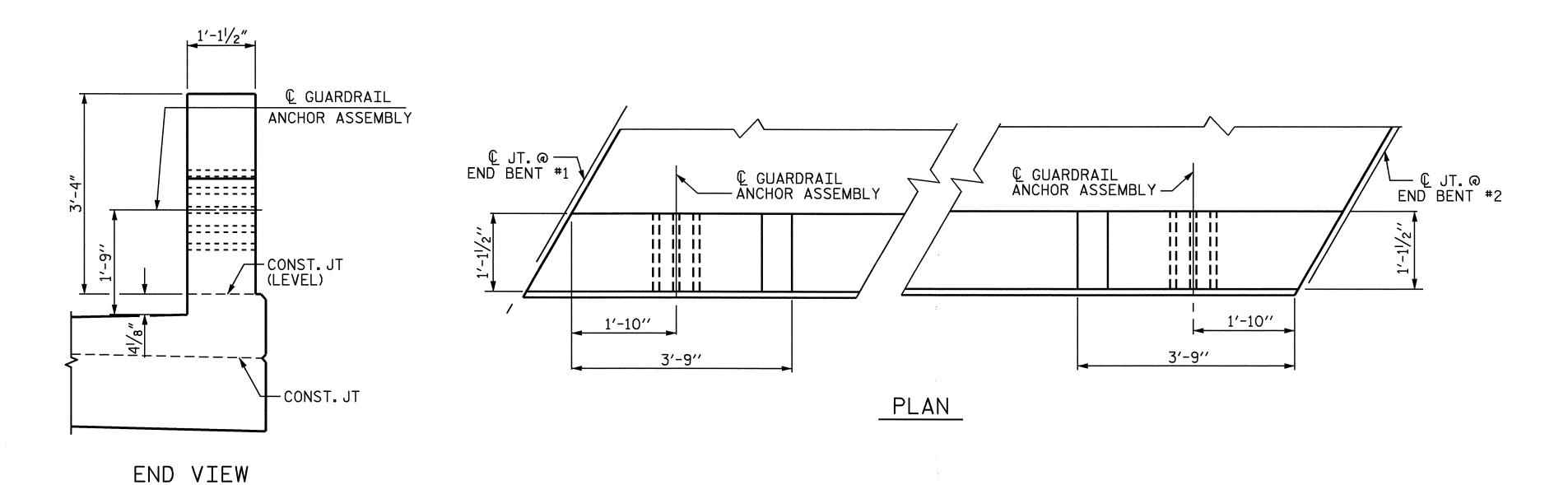
THE $1 \frac{1}{4}$ " Ø HOLES SHALL BE FORMED OR DRILLED WITH A CORE BIT. IMPACT TOOLS WILL NOT BE PERMITTED. ANY CONCRETE DAMAGED BY THIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.

GUARDRAIL ANCHOR ASSEMBLY DETAILS



SKETCH SHOWING POINTS OF ATTACHMENT

**LOCATION OF GUARDRAIL ATTACHMENT



PROJECT NO. U-0620

CUMBERLAND COUNTY

STATION: 161+95.29 -L-

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALFIGH

STANDARD
GUARDRAIL ANCHORAGE
DETAILS
FOR METAL RAILS
(RIGHT LANE)

REVISIONS

SHEET NO.
S-111

SHEET NO.
S-111

TOTAL
SHEETS
129

LOCATION OF GUARDRAIL ANCHOR AT END POST

ASSEMBLED BY: M. G. SHAIKH DATE: 11-17-03
CHECKED BY: D. A. GLADDEN DATE: 12-30-03

DRAWN BY: EEM 6/94
CHECKED BY: RGW 6/94

REV. 8/16/99
RWW/LES
REV. 10/17/00R
RWW/LES

(THREE BAR METAL RAIL)