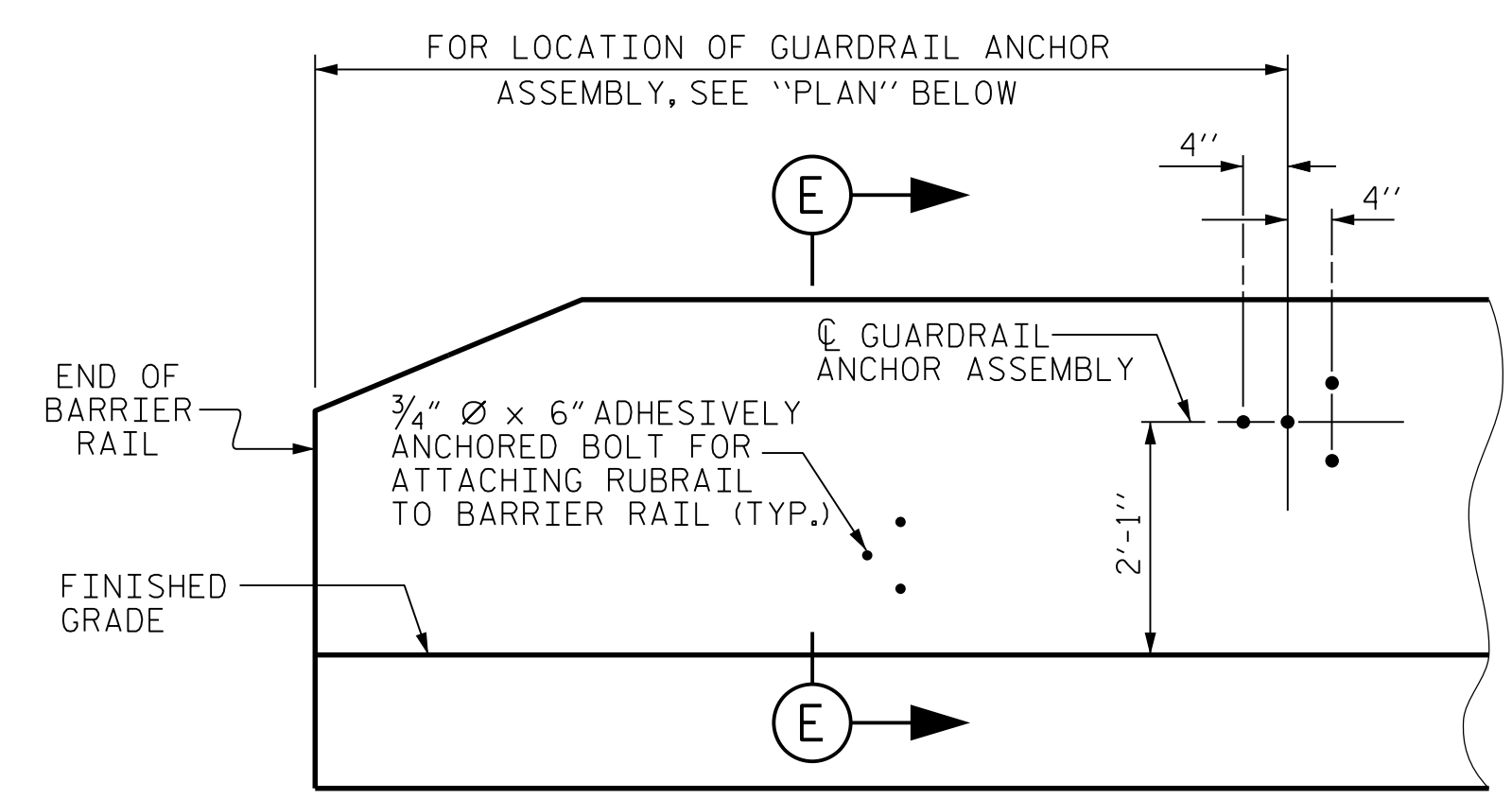


PLAN



ELEVATION

(END BENT 1 SHOWN, END BENT 2 SIMILAR)

NOTES

THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF A 1/4" HOLD DOWN PLATE AND 4 - 1/8" Ø BOLTS WITH NUTS AND WASHERS, RUBRAIL, AND ADHESIVELY ANCHORED BOLTS.

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.)

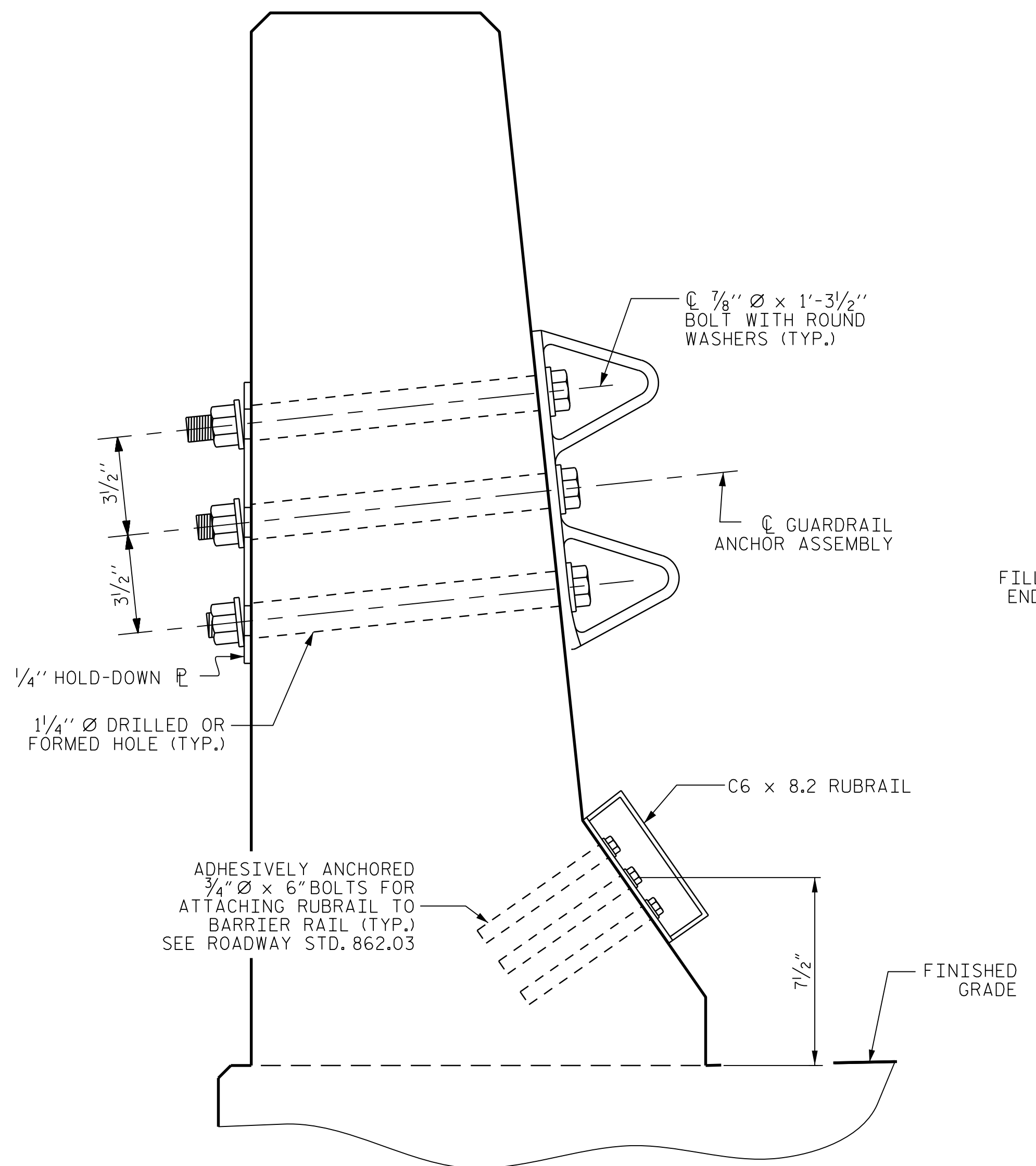
THE GUARDRAIL ANCHOR ASSEMBLY IS REQUIRED AT ALL POINTS WHERE APPROACH GUARDRAIL IS TO BE ATTACHED TO THE END OF BARRIER RAIL. FOR POINTS OF ATTACHMENT, SEE SKETCH.

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

THE COST OF THE GUARDRAIL ANCHOR ASSEMBLY SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR CONCRETE BARRIER RAIL.

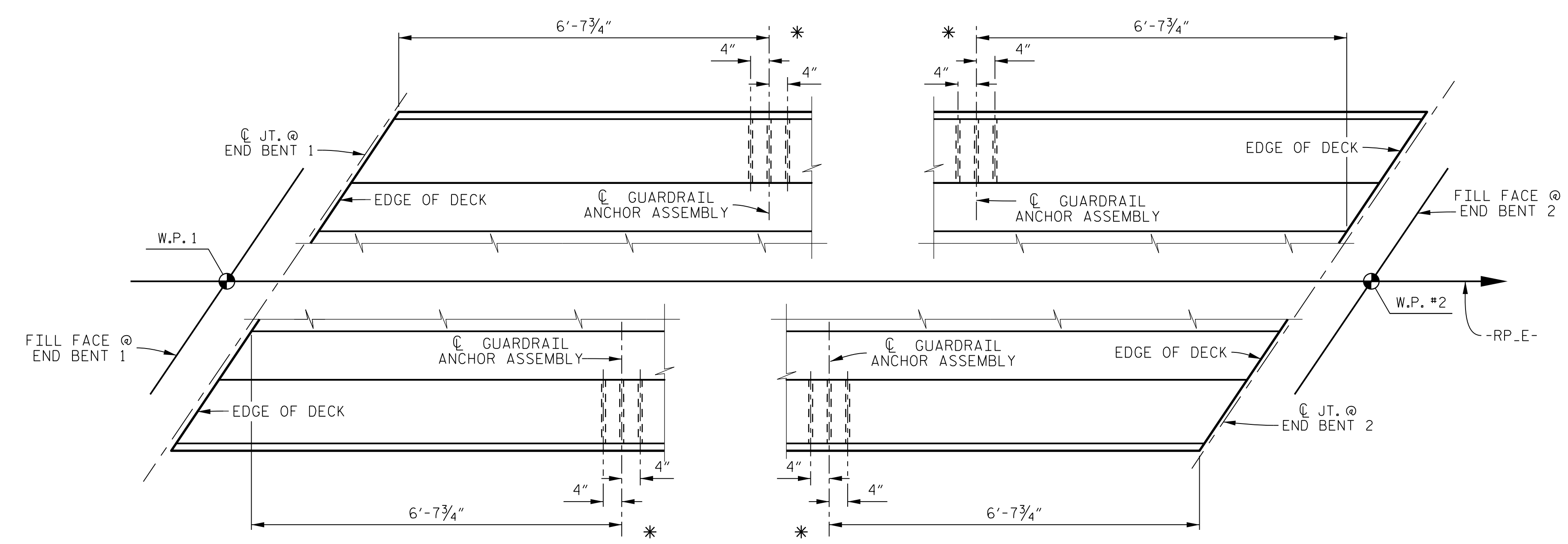
THE 1/4" Ø HOLES SHALL BE FORMED OR DRILLED WITH A CORE BIT. IMPACT TOOLS WILL NOT BE PERMITTED. ANY CONCRETE DAMAGED BY THIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.

THE C6 x 8.2 RUBRAIL IS TO BE ADHESIVELY ANCHORED TO THE RAIL USING THREE 3/4" Ø x 6" BOLTS WITH WASHERS. LEVEL ONE FIELD TESTING IS REQUIRED, AND THE YIELD LOAD OF THE 3/4" Ø BOLT IS 12 KIPS. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE STANDARD SPECIFICATIONS. SEE ROADWAY STANDARD 862.03 FOR DETAILS AND LOCATION OF THE RUBRAIL.



SECTION E-E

GUARDRAIL ANCHOR ASSEMBLY DETAILS



SKETCH SHOWING POINTS OF ATTACHMENT

* LOCATION OF GUARDRAIL ATTACHMENT

PROJECT NO. **I-4729A**
POLK COUNTY
 STATION: **22 + 87.20 -RP_E-**

FILE: I:\Projects\Instruments\Drawings\Final\RP_E-I-4729A.dwg, user: srt, gpl, dgn DATE: 8/10/2017 10:20:32 AM

ASSEMBLED BY :	K. E. LOFTON	DATE :	5-17
CHECKED BY :	A. D. SHAH	DATE :	7-17
DRAWN BY :	TLA	5/06	REV. 10/1/11
CHECKED BY :	GM	5/06	REV. 7/12
			REV. 6/13
			MAA/GM
			MAA/GM
			MAA/GM

DRAWN BY :	K. E. LOFTON	DATE :	5-17
CHECKED BY :	A. D. SHAH	DATE :	7-17
DESIGN ENGINEER :	A. D. SHAH	DATE :	8-17

PLANS PREPARED BY :
PARSONS
 5540 CenterView Drive, Suite 217
 Raleigh, NC 27606-3386
 NC LICENSE No. F-0246
 FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**STANDARD
 GUARDRAIL ANCHORAGE
 FOR BARRIER RAIL**

REVISIONS					
No.	BY:	DATE:	No.	BY:	DATE:
1			3		
2			4		

SHEET No. **51-13**
 TOTAL SHEETS **24**

STD. No. GRA2 STR. #1