NOTES

THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF A $\frac{1}{4}''$ HOLD DOWN PLATE AND 7 - $\frac{7}{8}''$ ∅ 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 $\frac{7}{8}''$ ∅ 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 THE PARAPET. 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 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 $\frac{1}{4}''$ ∅ 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.
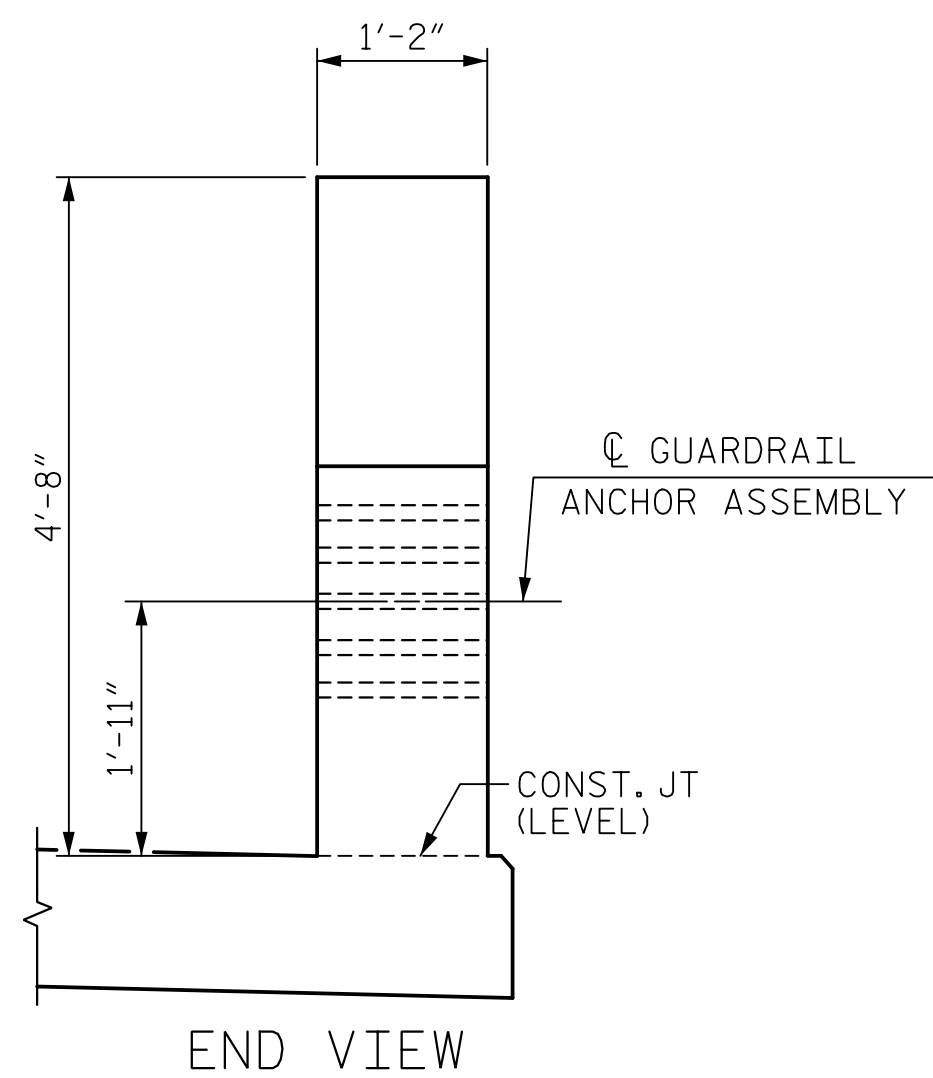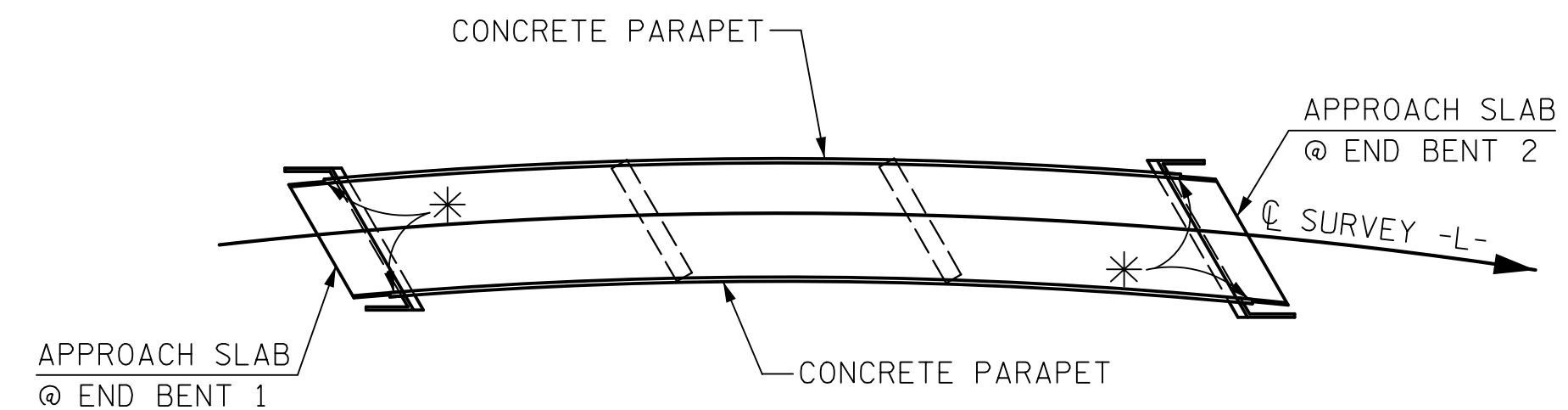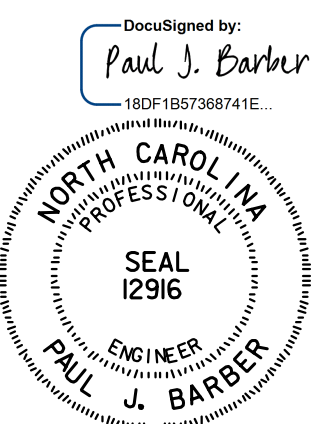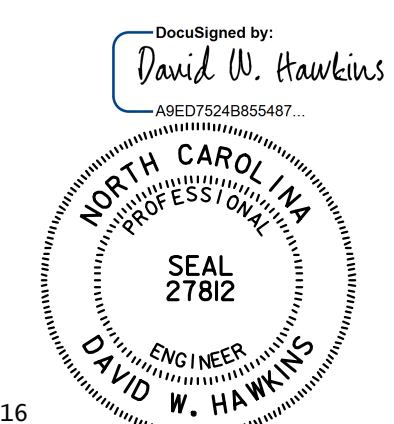
GUARDRAIL ANCHOR ASSEMBLY DETAILS
PLAN · END VIEW
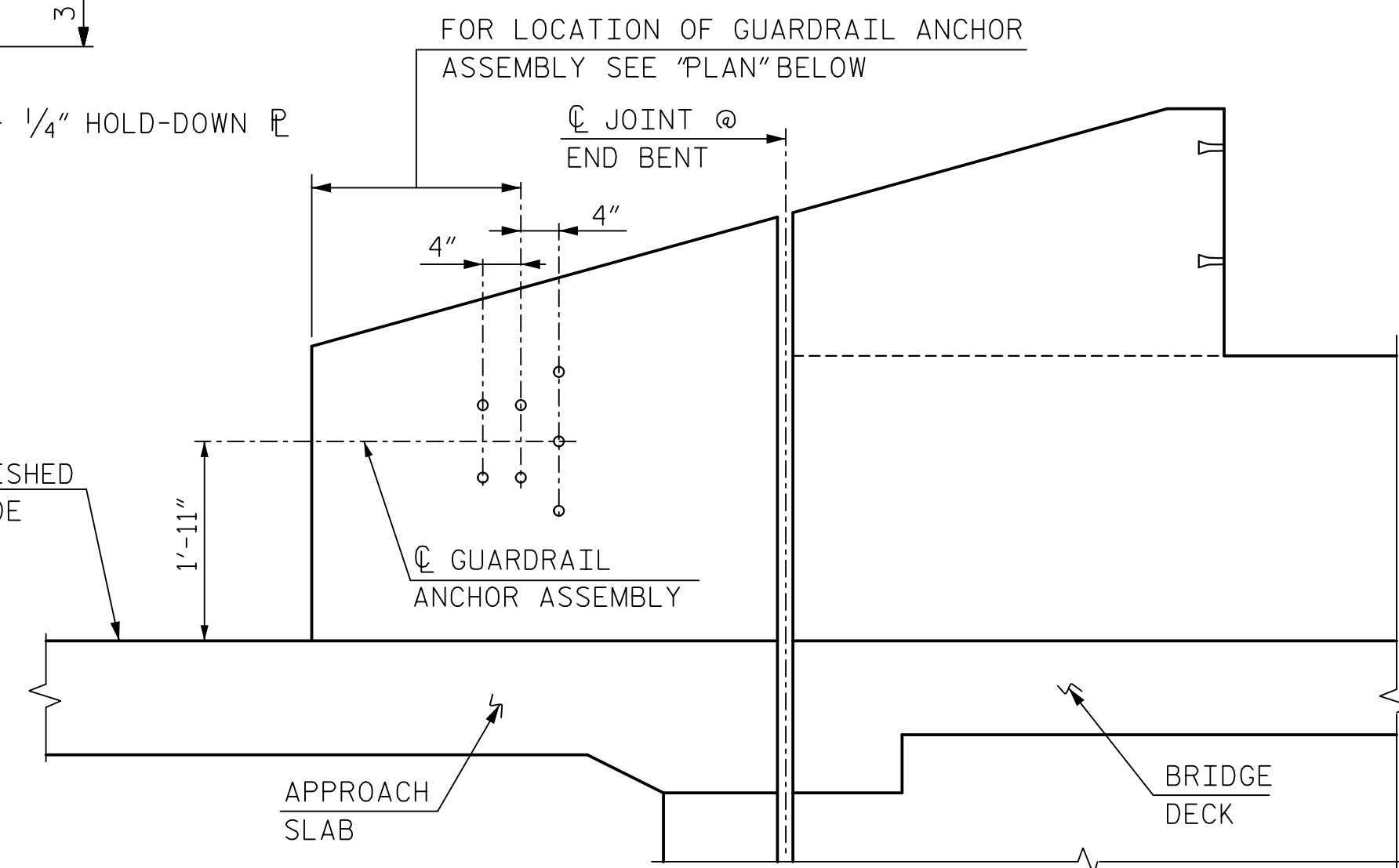
ELEVATION
(END BENT 1 SHOWN, END BENT 2 SIMILAR)
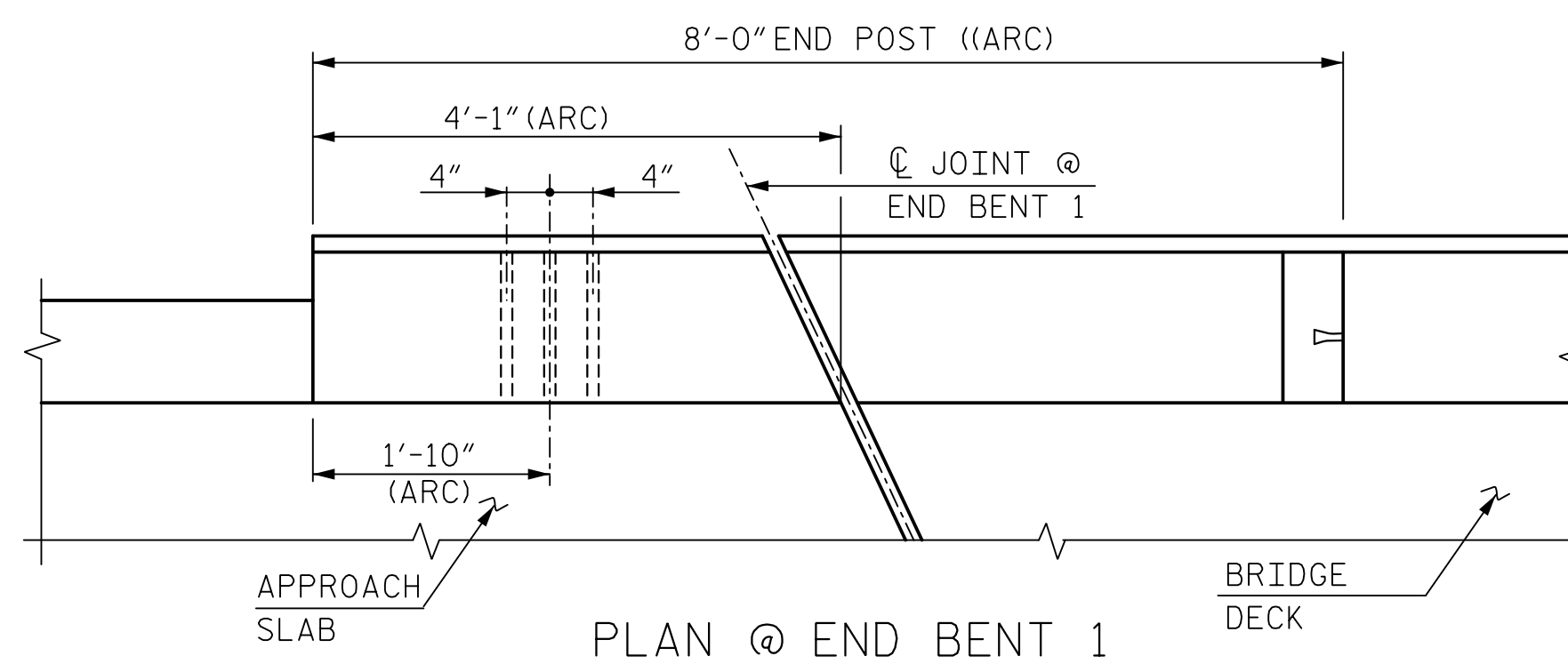
PLAN @ END BENT 1
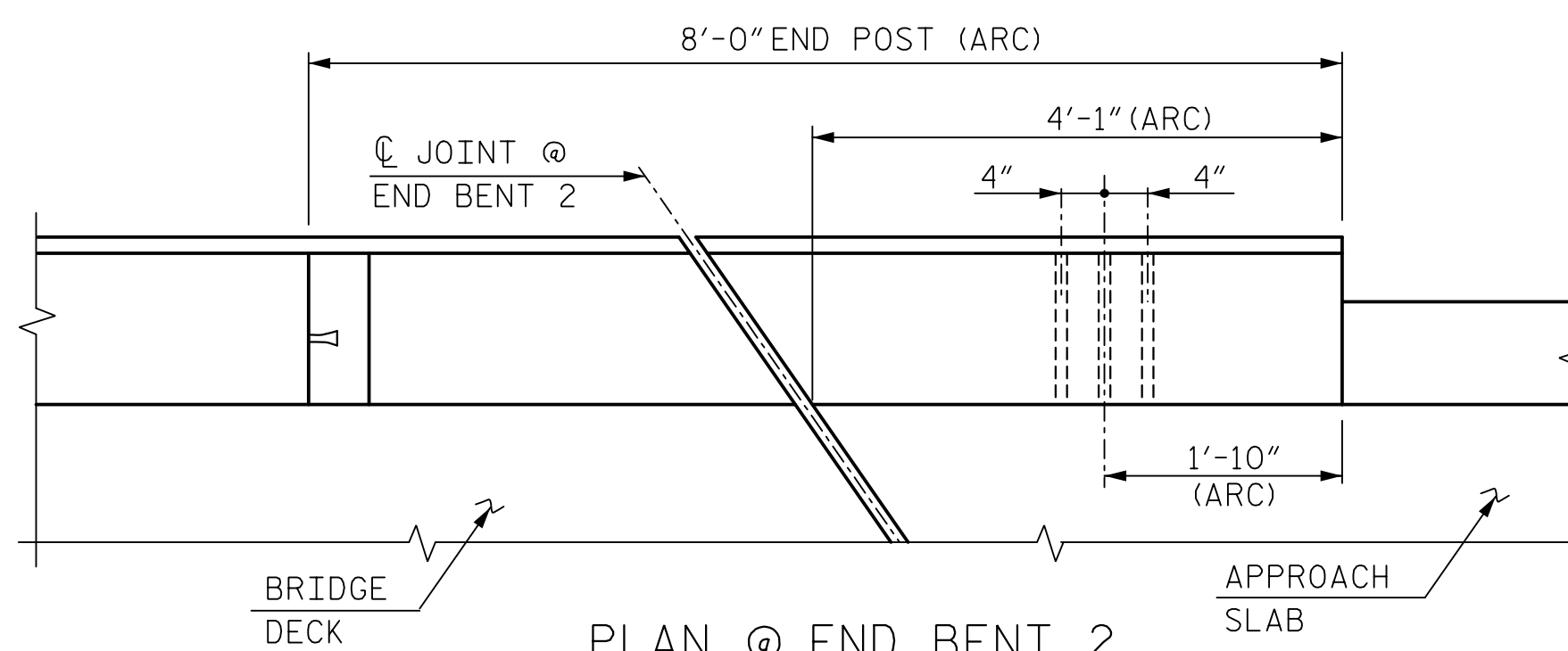
PLAN @ END BENT 2

LOCATION OF GUARDRAIL ANCHOR AT END POST
END VIEW

SKETCH SHOWING POINTS OF ATTACHMENT
✻ LOCATION OF GUARDRAIL ATTACHMENT (TYPE III)
(4 REQUIRED)

DocuSigned by:
David W. Hawkins
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 27812 DAVID W. HAWKINS
1/29/2016

DocuSigned by:
Paul J. Barber
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 12916 PAUL J. BARBER
1/29/2016

PROJECT NO. ___B-4811___

___RUTHERFORD___ COUNTY

STATION: ___POC 15+25.00 -L-___

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
GUARDRAIL ANCHORAGE DETAILS FOR METAL RAILS & VERTICAL CONCRETE BARRIER RAIL

ASSEMBLED BY : J. BAYNE	DATE : 3/15
CHECKED BY : D. RAGAN	DATE : 3/15
DRAWN BY : MAA 5/10	REV. 12/5/11 MAA/GM
CHECKED BY : GM 5/10	REV. 6/13 MAA/GM
	REV. 1/15 MAA/TMG

HNTB NORTH CAROLINA, P.C.
NC License No. C-1554
343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609

| DRAWN BY | J. BAYNE | DATE | 3/15 | DWG. NO. 24 |
| CHECKED BY | D. RAGAN | DATE | 3/15 | |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

SHEET NO. S01-24

TOTAL SHEETS 42

STD. NO. GRA3