

**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

LIST OF ROADWAY
STANDARDS

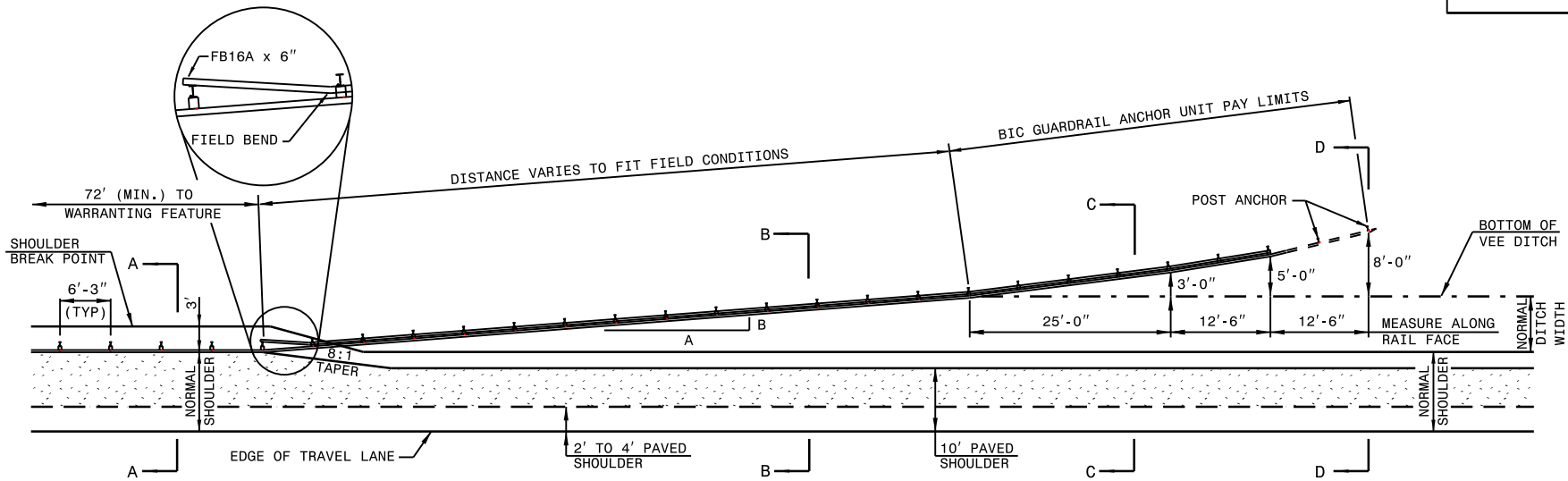
EFF. 01-16-2024
REV.

2024 ROADWAY STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit - N. C. Department of Transportation - Raleigh, N. C., Dated January 16, 2024 are applicable to this project and by reference here by are considered a part of these plans:

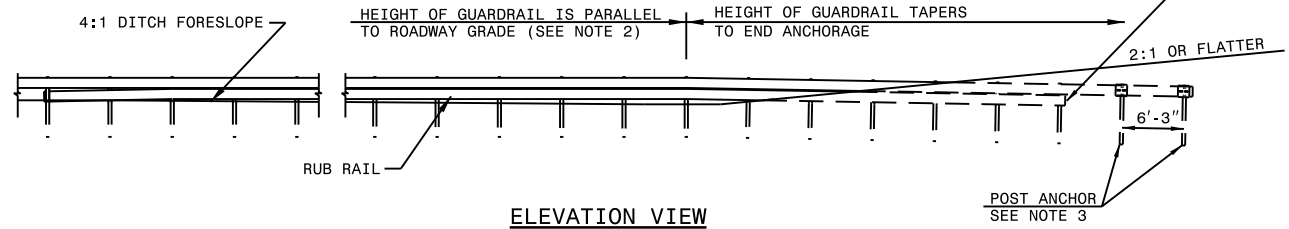
STD. NO.	TITLE
DIVISION 8 - INCIDENTALS	
862.01	Guardrail Placement (Use Details in Lieu of Standards for Sheets 4, 6, 12, and 14 of 15)
862.02	Guardrail Installation

5/14/98

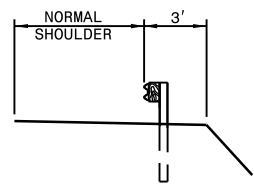


DESIGN SPEED mph	A:B
≥ 60	13:1
55	12:1
50	11:1
45	10:1
40	9:1
30 or less	7:1

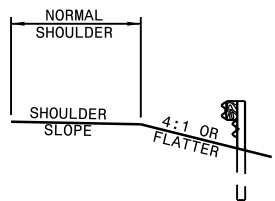
PLAN VIEW



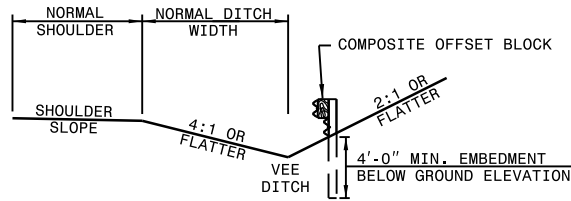
ELEVATION VIEW



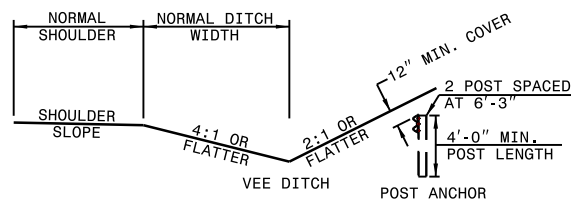
SECTION A-A



SECTION B-B
(WITH RUBRAIL)



SECTION C-C
(WITH RUBRAIL)



SECTION D-D

- NOTES:
- VARIABLE DITCH OFFSETS MAY BE USED TO FIT FIELD CONDITIONS.
 - HEIGHT OF GUARDRAIL MAY BE TAPERED DOWN IN ELEVATION TO MAINTAIN 3'-9" MAXIMUM HEIGHT.
 - ALL POSTS ARE 8'-0" IN LENGTH FROM WHERE THE GUARDRAIL FLARES AWAY FROM THE SHOULDER BACK TO THE DITCH FLOW LINE. GUARDRAIL POSTS BEYOND THE DITCH FLOW LINE MAY BE SHORTENED AS LONG AS A MINIMUM OF 4 FT. EMBEDMENT REMAINS BELOW THE EXISTING GROUND LINE. POST FOR POST ANCHOR MAY BE REDUCED TO 4 FT., ALL OF WHICH WILL BE BELOW GROUND.
 - REFER TO NCDOT STANDARD DRAWINGS 862.02 FOR GUARDRAIL INSTALLATION NOT COVERED IN THIS DETAIL AND INSTALL IN ACCORDANCE WITH SECTION 862 OF THE STANDARDS SPECIFICATIONS.
 - PAYMENT FOR ANY RUBRAIL INSTALLATION BEYOND BIC GUARDRAIL ANCHOR UNIT PAY LIMITS WILL BE INCIDENTAL TO PAYMENT FOR BIC ANCHOR UNIT.

CONTRACT STANDARDS
AND DEVELOPMENT UNIT

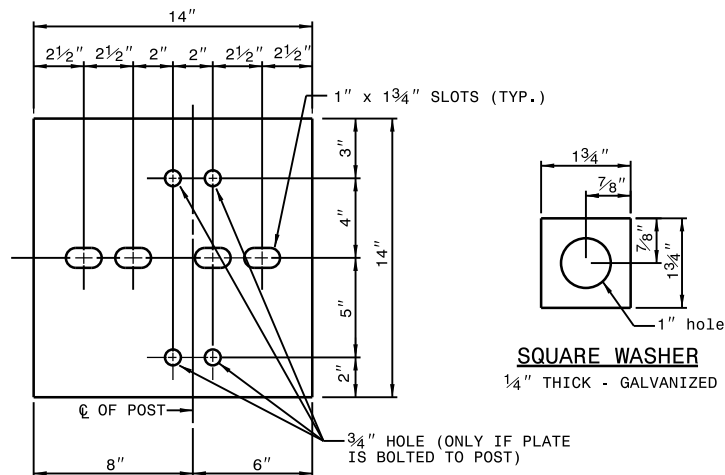
Office 919-707-6950 FAX 919-250-4119

DETAIL OF GUARDRAIL
BURIED IN CUT (BIC)

ORIGINAL BY: EFWA-G4 SYSTEM DATE: 8-13-98
MODIFIED BY: E.E. WARD DATE: 12-7-01
CHECKED BY: DATE:
FILE SPEC: e:\cward\misc. guardrail\BIC.dgn

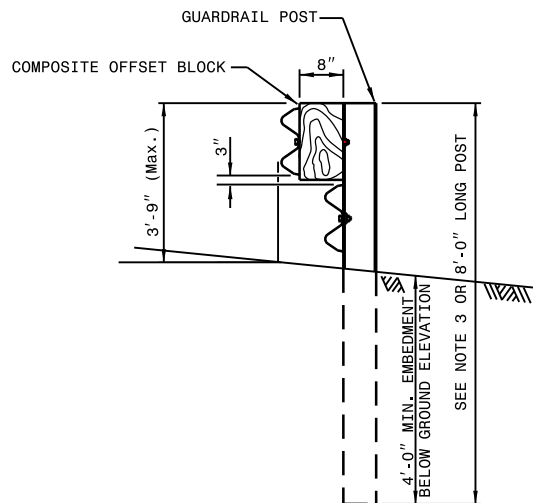
PROJECT: 206-445
C:\Users\mward\Documents\guardrail\end treatment.dgn
5/14/98

5/14/99

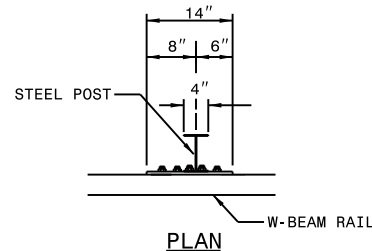


STEEL PLATE - 1/2"

GALVANIZED
WELDED OR BOLTED TO POST

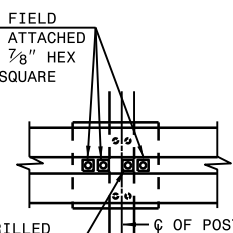
ELEVATION

RAIL ATTACHMENT DETAIL



PLAN

3 - $\frac{7}{8}$ " HOLES TO BE FIELD
DRILLED IN RAIL AND ATTACHED
TO STEEL PLATE WITH $\frac{7}{8}$ " HEX
BOLTS 2" LONG WITH SQUARE
WASHER

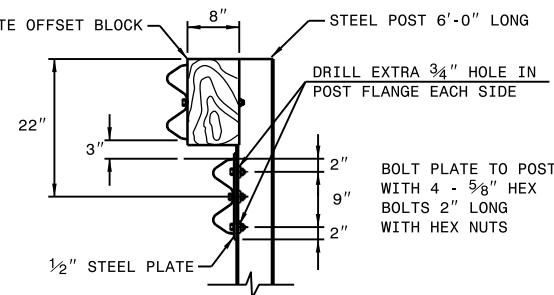


FRONT VIEW

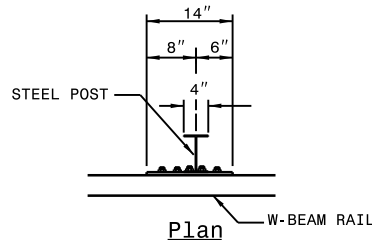
1" HOLES TO BE FIELD DRILLED
IN RAIL AND THROUGH POST FLANGE.
ATTACH TO STEEL PLATE WITH
 $\frac{7}{8}$ " HEX BOLTS 2" LONG
WITH SQUARE WASHER

FRONT VIEW

RUBRAIL ANCHOR DETAILS

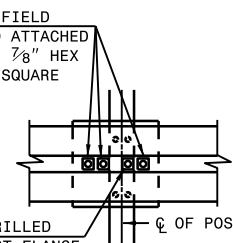
ELEVATION

BOLT PLATE TO POST
WITH 4 - 5/8" HEX
BOLTS 2" LONG
WITH HEX NUTS



Plan

3 - 1" HOLES TO BE FIELD
DRILLED IN RAIL AND ATTACHED
TO STEEL PLATE WITH $\frac{7}{8}$ " HEX
BOLTS 2" LONG WITH SQUARE
WASHER

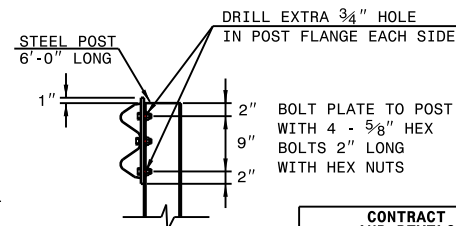


FRONT VIEW

1" HOLES TO BE FIELD DRILLED
IN RAIL AND THROUGH POST FLANGE.
ATTACH TO STEEL PLATE WITH 7/8"
HEX BOLTS 2" LONG WITH
SQUARE WASHER.

FRONT VIEW

POST ANCHOR DETAILS

ELEVATION

BOLT PLATE TO POST
WITH 4 - 5/8" HEX
BOLTS 2" LONG
WITH HEX NUTS

SHEET 2 OF 2

**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

ORIGINAL BY: FHWA-G4 SYSTEM DATE: 8-13-98
MODIFIED BY: E.E. WARD DATE: 12-7-01
CHECKED BY: _____ DATE: _____
FILE SPEC.: ericward/misc. guardrail/BIC.dgn

03-OCT-2016 14:17
C:\Users\bgse12\Desktop\buried-in-cut-and-treatment.dgn
bgse12