

McDowell County
Contract# DM00421
TIP# HS-2013M
WBS# 49333.3.14
FA# 4933(302)

Guardrail Installation on SR 1135 (Old Fort/Sugarhill Rd) from SR 1103 to SR 1001.

Sheet 1

- All Surveyed NC HPO Resource Points
- Project Extents
- NC HPO Historic Districts
- Interstate
- US Route
- NC Route
- Secondary Route

Credits: State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS; Print date: 6/1/2023; Author: nbharvey

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

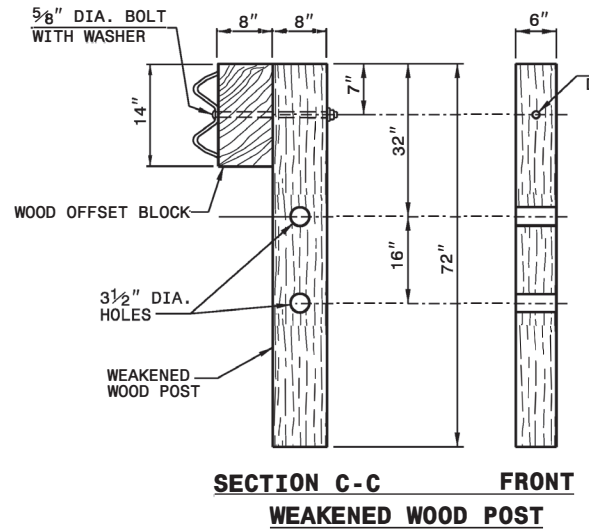
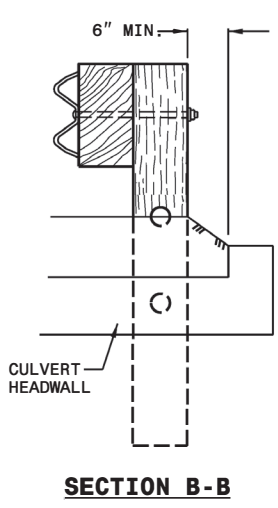
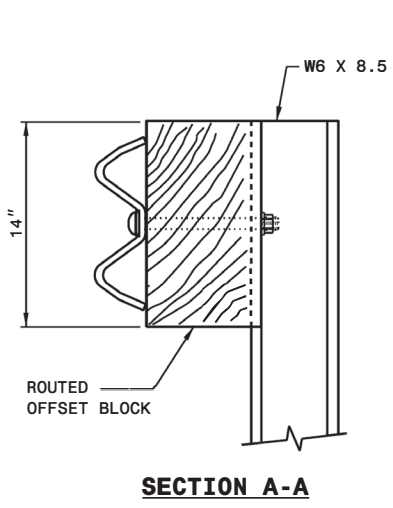
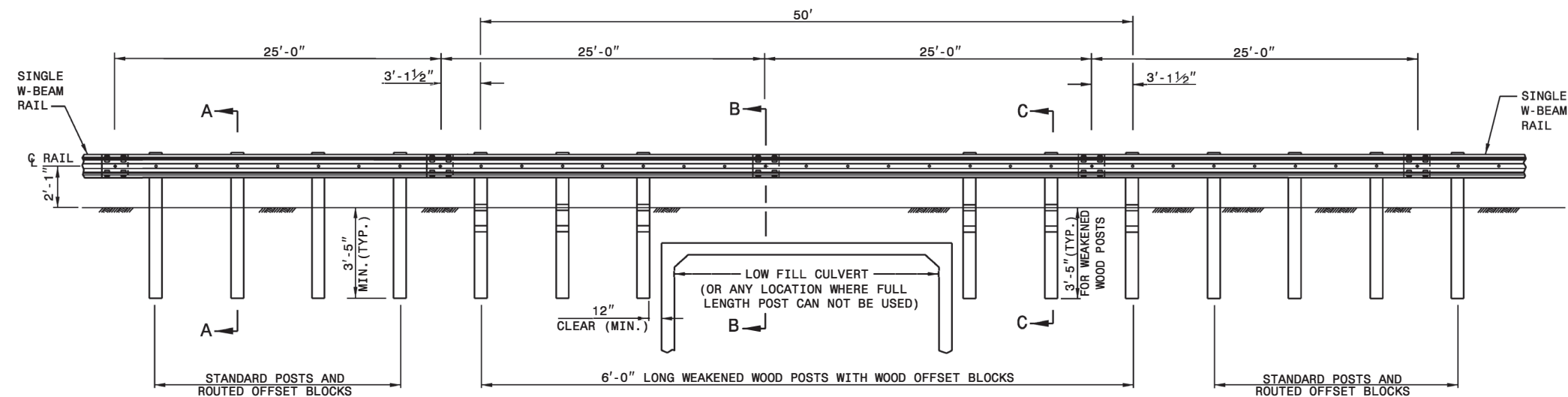
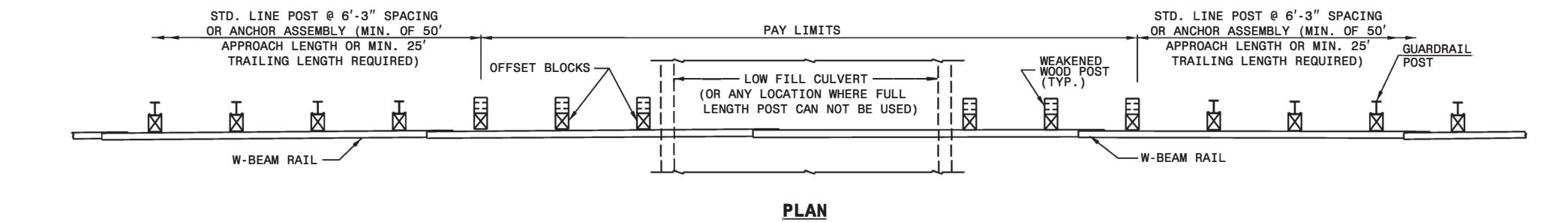
SPECIAL DETAIL FOR
GUARDRAIL PLACEMENT
25'-0" CLEAR SPAN

SHEET - OF -
862D01

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SPECIAL DETAIL FOR
GUARDRAIL PLACEMENT
25'-0" CLEAR SPAN

SHEET - OF -
862D01



- GENERAL NOTES:
1. LAP RAIL IN THE DIRECTION OF TRAFFIC FLOW.
 2. SEE ROADWAY PLANS FOR LOCATIONS AND CONTINUATION OF RAIL OR END SECTIONS.
 3. MINIMUM DISTANCE OF 5 FEET BEHIND THE GUARDRAIL SHOULD BE CLEAR OF ANY FIXED-OBJECT HAZARDS THAT COULD SNAG AN IMPACTING VEHICLE.



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

25'-0" CLEAR SPAN GUARDRAIL PLACEMENT

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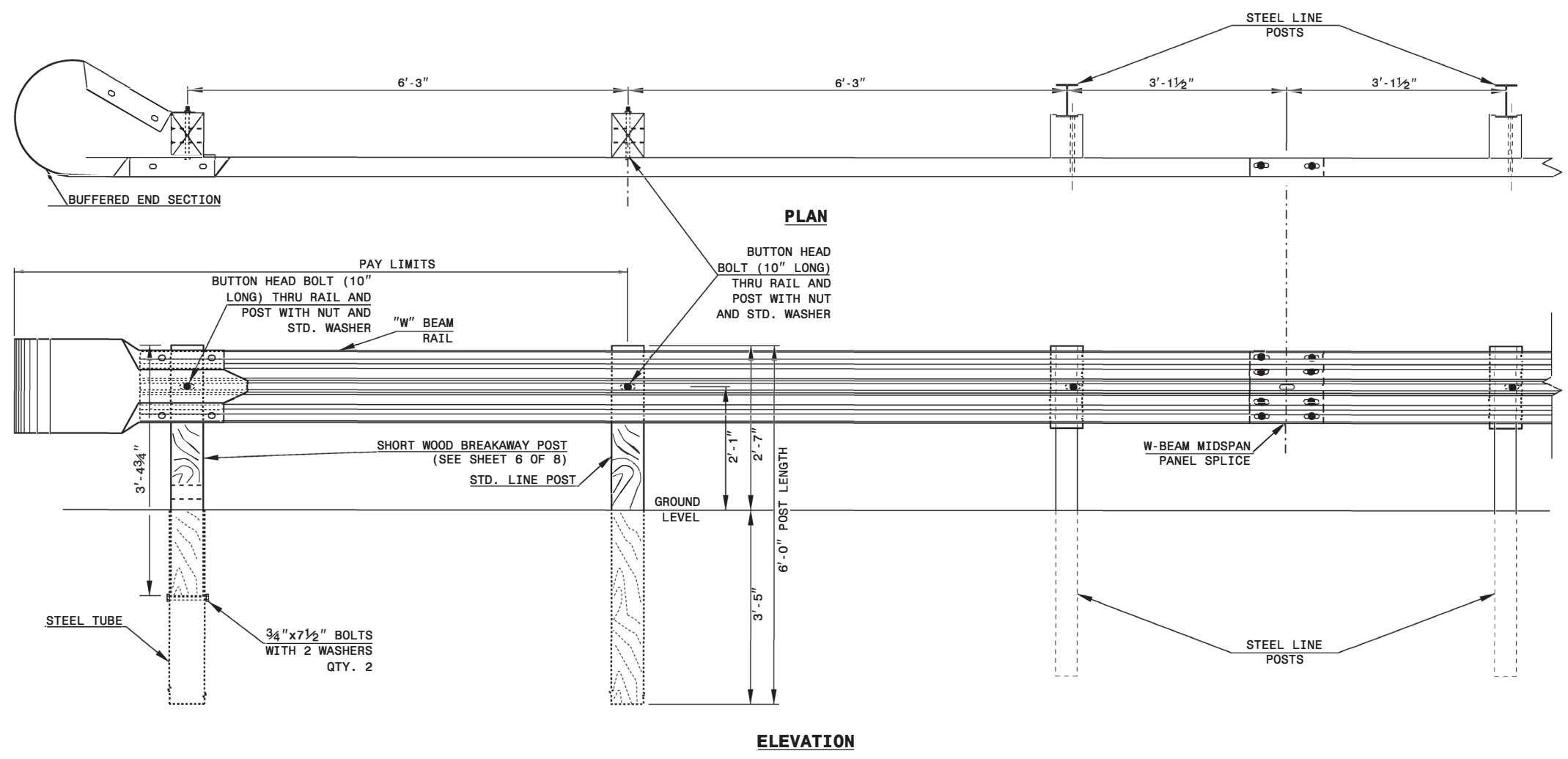
ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET OF

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET OF



TRAILING END UNIT ASSEMBLY
A.T.-1 SYSTEM



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AND DEVELOPMENT UNIT**
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A.T.-1 SYSTEM

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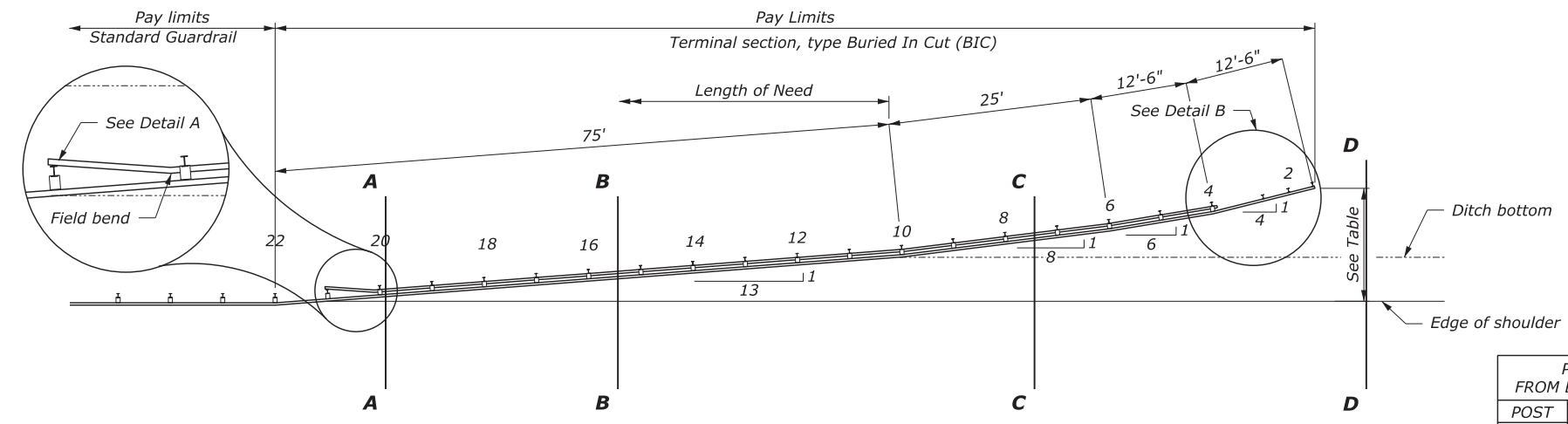
ROADWAY DETAIL DRAWING FOR
**GUARDRAIL PLACEMENT
BURIED IN CUT END UNIT**

SHEET 1 OF 2
862D01

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
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ROADWAY DETAIL DRAWING FOR
**GUARDRAIL PLACEMENT
BURIED IN CUT END UNIT**

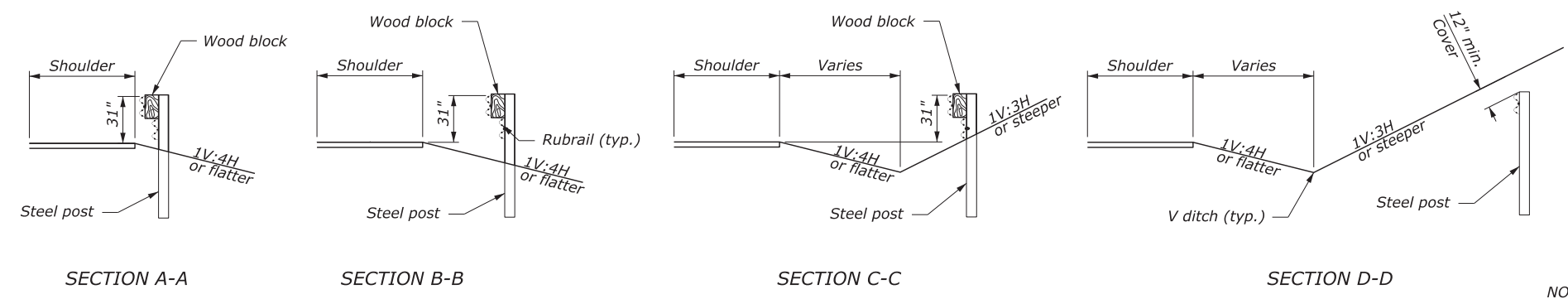
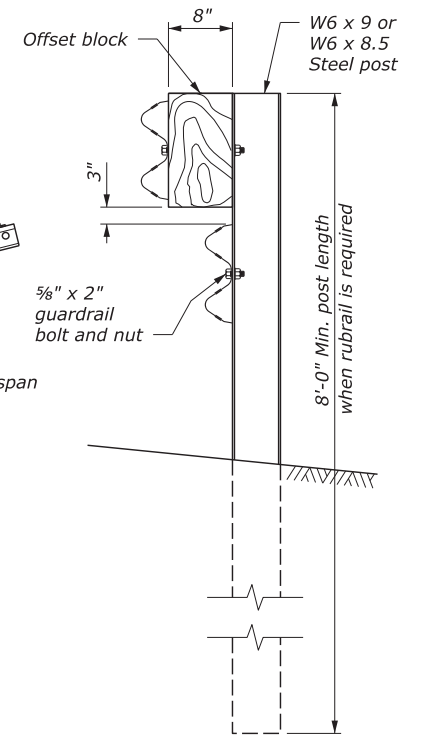
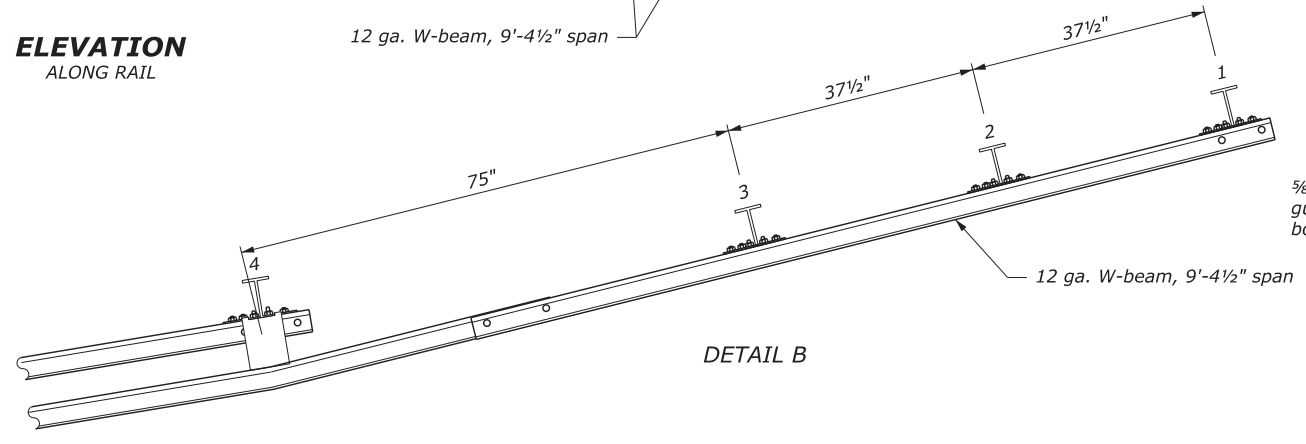
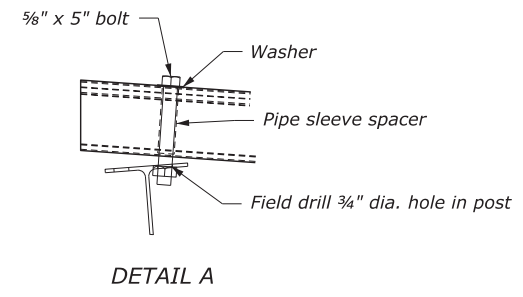
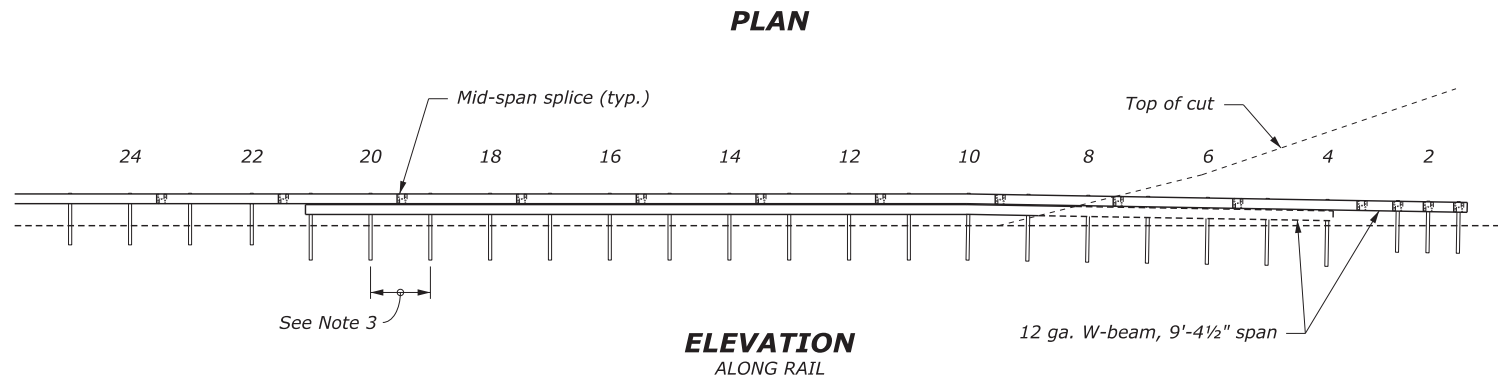
SHEET 1 OF 2
862D01



DRAWING NOT TO SCALE

- NOTE:**
1. See Detail sheet 2 of 2 for other details.
 2. Steel posts shown.
 3. Typical post spacing is 6'-3" unless otherwise noted.

POST OFFSETS FROM EDGE OF SHOULDER	
POST	DISTANCE
1	13'-11 $\frac{3}{4}$ "
4	10'-11"
6	8'-10 $\frac{1}{4}$ "
10	69"



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GUARDRAIL PLACEMENT BURIED IN CUT END UNIT

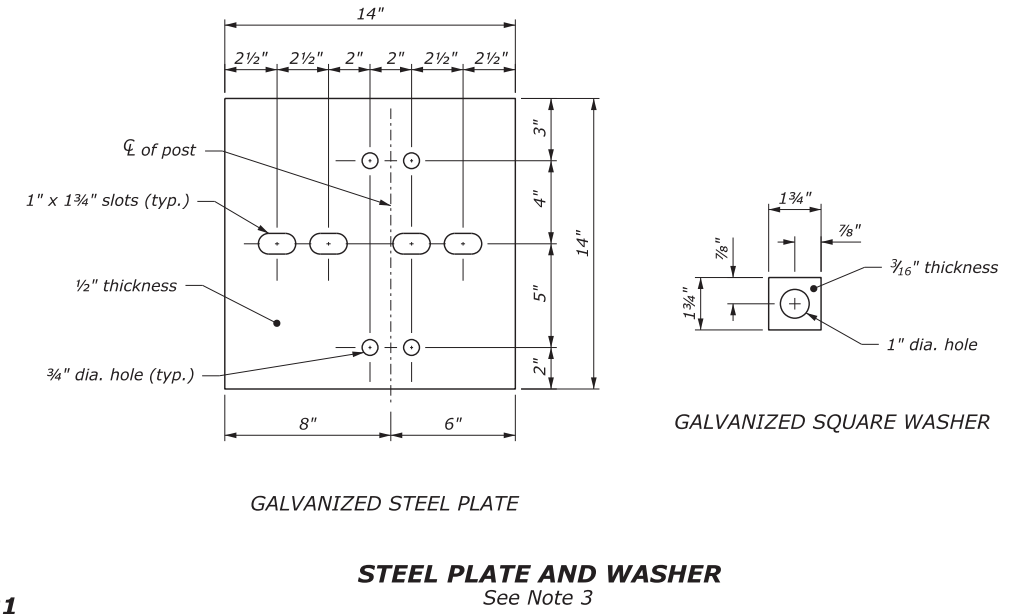
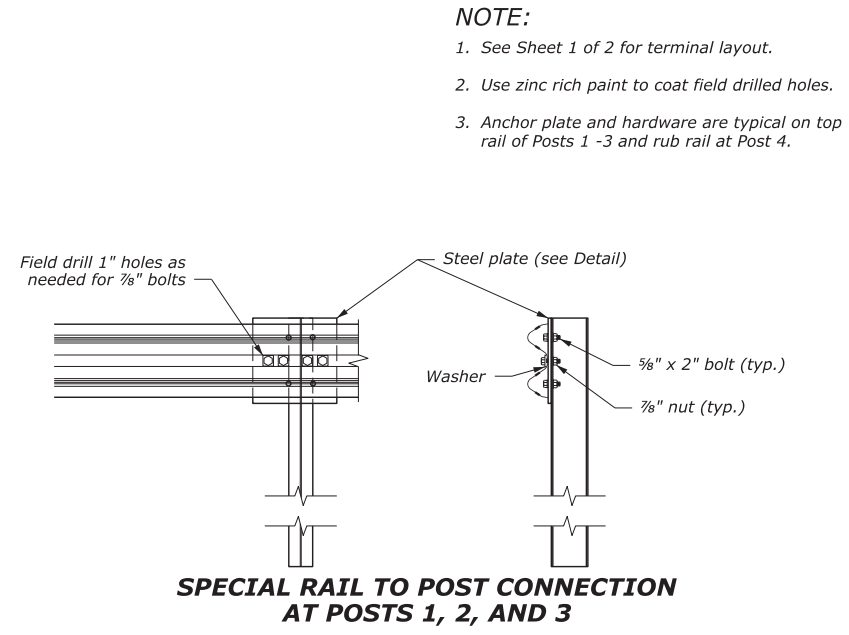
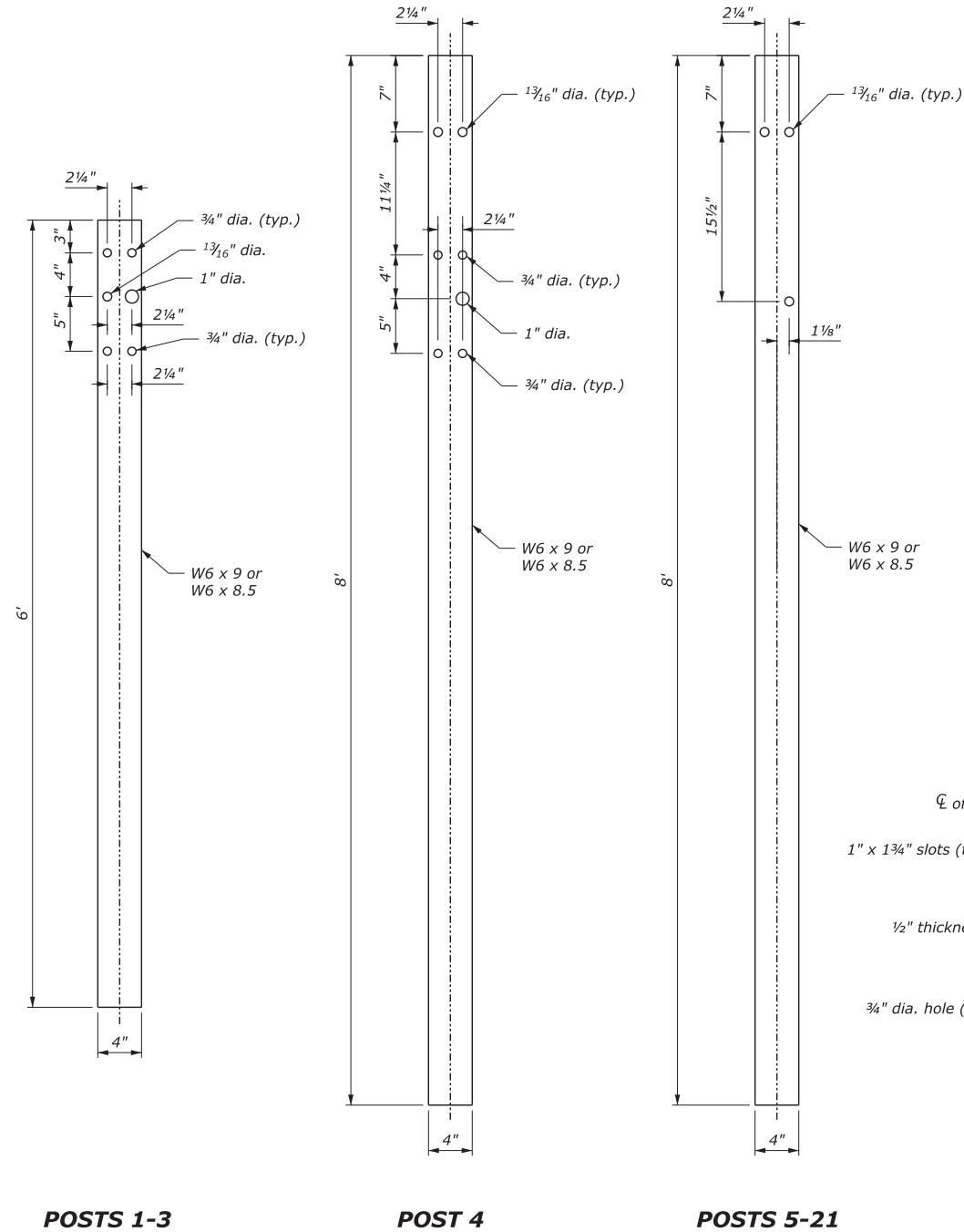
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ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT
BURIED IN CUT END UNIT

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ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT
BURIED IN CUT END UNIT



SHEET 2 OF 2
862D01

SHEET 2 OF 2
862D01



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**GUARDRAIL PLACEMENT
BURIED IN CUT END UNIT**

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PROJECT NO.	SHEET NO.
49333.3.14	6

GUARDRAIL ITEM SUMMARY

LOCATION NO	ROUTE	DESCRIPTION	SHOULDER LT/RT	303000000-E	304500000-E	314000000-E	319500000-N	321000000-N	328700000-N	334500000-E	336000000-E	343600000-N	NOTES
				STEEL BM GUARDRAIL	STEEL BM GUARDRAIL, SHOP CURVED	25' CLEAR SPAN GUARDRAIL SECTIONS	GUARDRAIL END UNITS, TYPE AT-1	GUARDRAIL END UNITS, TYPE CAT-1	GUARDRAIL END UNITS, TYPE TL-3	REMOVE AND RESET EXISTING GUARDRAIL	REMOVE EXISTING GUARDRAIL	GUARDRAIL END UNITS, TYPE BURIED IN CUT	
				LF	LF	EA	EA	EA	EA	LF	LF	EA	
1	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 0.01 MILES FROM SR 1103 (BAT CAVE RD)	LT	325						2	325		
2	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 0.16 MILES FROM SR 1103 (BAT CAVE RD)	LT	612.5						2	612.5		
3	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 0.34 MILES FROM SR 1103 (BAT CAVE RD)	RT	300						2	300		
4	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 0.50 MILES FROM SR 1103 (BAT CAVE RD)	RT	875	25		2				875		
5	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 0.61 MILES FROM SR 1103 (BAT CAVE RD)	RT	350	12.5		1		1		350		
6	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 0.67 MILES FROM SR 1103 (BAT CAVE RD)	LT	75	25		2				75		
7	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 0.78 MILES FROM SR 1103 (BAT CAVE RD)	LT	87.5	12.5		1		1		87.5		
8	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 0.91 MILES FROM SR 1103 (BAT CAVE RD)	LT	187.5						2	187.5		
9	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 1.40 MILES FROM SR 1103 (BAT CAVE RD)	RT	556.25	50		2				556.25		
10	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 1.53 MILES FROM SR 1103 (BAT CAVE RD)	RT	300	37.5		1		1		300		
11	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 2.14 MILES FROM SR 1103 (BAT CAVE RD)	LT	162.5	25		1		1		162.5		
12	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 2.76 MILES FROM SR 1103 (BAT CAVE RD)	RT	112.5					2		112.5		
13	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 2.96 MILES FROM SR 1103 (BAT CAVE RD)	LT	425					2		425		
14	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 3.05 MILES FROM SR 1103 (BAT CAVE RD)	LT						2				
15	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 3.36 MILES FROM SR 1103 (BAT CAVE RD)	RT	925					2		925		
16	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 3.61 MILES FROM SR 1103 (BAT CAVE RD)	RT	2162.5					1	50	2162.5		
17	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 3.67 MILES FROM SR 1103 (BAT CAVE RD)	LT	500					2		500		
18	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 3.78 MILES FROM SR 1103 (BAT CAVE RD)	LT	312.5					2		312.5		
19	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 4.07 MILES FROM SR 1103 (BAT CAVE RD)	RT	850					1		850	1	
20	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 5.01 MILES FROM SR 1103 (BAT CAVE RD)	RT	50					2		50		
21	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 5.05 MILES FROM SR 1103 (BAT CAVE RD)	RT	62.5		1		2			62.5		
22	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 5.05 MILES FROM SR 1103 (BAT CAVE RD)	LT	81.25	12.5	1	1		1		81.25		
23	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 5.25 MILES FROM SR 1103 (BAT CAVE RD)	RT	237.5					2		237.5		
TOTAL				9,550.0	200.00	2.00	11	2	31	50	9,550.0	1	

NOTES: QUANTITIES ARE ESTIMATED AND MAY CHANGE ACCORDING TO ACTUAL FIELD CONDITIONS.
THE ENGINEER SHALL FIELD MARK ALL PROPOSED GUARDRAIL AND END UNITS PRIOR TO BEGINNING CONSTRUCTION AT EACH LOCATION.

PROJECT NO.	SHEET NO.
49333.3.14	7

GUARDRAIL ITEM SUMMARY

LOCATION NO	ROUTE	DESCRIPTION	SHOULDER LT/RT	303000000-E	304500000-E	314000000-E	319500000-N	321000000-N	328700000-N	334500000-E	336000000-E	343600000-N	NOTES	
				STEEL BM GUARDRAIL	STEEL BM GUARDRAIL, SHOP CURVED	25' CLEAR SPAN GUARDRAIL SECTIONS	GUARDRAIL END UNITS, TYPE AT-1	GUARDRAIL END UNITS, TYPE CAT-1	GUARDRAIL END UNITS, TYPE TL-3	REMOVE AND RESET EXISTING GUARDRAIL	REMOVE EXISTING GUARDRAIL	GUARDRAIL END UNITS, TYPE BURIED IN CUT		
				LF	LF	EA	EA	EA	EA	LF	LF	EA		
24	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 5.39 MILES FROM SR 1103 (BAT CAVE RD)	RT	437.5						2		437.5		
25	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 5.94 MILES FROM SR 1103 (BAT CAVE RD)	LT	50						2		50		
26	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 6.21 MILES FROM SR 1103 (BAT CAVE RD)	RT	700						2		700		
27	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 6.41 MILES FROM SR 1103 (BAT CAVE RD)	RT	875	25		1			1		875		
28	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 6.46 MILES FROM SR 1103 (BAT CAVE RD)	LT	550						2		550		
29	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 6.66 MILES FROM SR 1103 (BAT CAVE RD)	RT	537.5	25		2					537.5		
30	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 6.79 MILES FROM SR 1103 (BAT CAVE RD)	RT	887.5						2		887.5		
31	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 6.99 MILES FROM SR 1103 (BAT CAVE RD)	LT	75	12.5		1					75	1	
32	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 7.22 MILES FROM SR 1103 (BAT CAVE RD)	RT	887.5						1		887.5	1	
33	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 7.28 MILES FROM SR 1103 (BAT CAVE RD)	LT	37.5	25		2					37.5		
34	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 7.47 MILES FROM SR 1103 (BAT CAVE RD)	LT							2				
35	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 7.51 MILES FROM SR 1103 (BAT CAVE RD)	RT	400						2		400		
36	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 7.86 MILES FROM SR 1103 (BAT CAVE RD)	RT	200	25		1			1		200		
37	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 8.03 MILES FROM SR 1103 (BAT CAVE RD)	RT	75						2		75		
38	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 8.04 MILES FROM SR 1103 (BAT CAVE RD)	LT	75		1				2		75		
39	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 8.28 MILES FROM SR 1103 (BAT CAVE RD)	RT	175						2		175		
40	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 8.39 MILES FROM SR 1103 (BAT CAVE RD)	RT							2				
41	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 8.47 MILES FROM SR 1103 (BAT CAVE RD)	RT	1050						2		1050		
42	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 8.48 MILES FROM SR 1103 (BAT CAVE RD)	LT	250						2		250		
43	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 8.59 MILES FROM SR 1103 (BAT CAVE RD)	RT	137.5						2		137.5		
44	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 8.62 MILES FROM SR 1103 (BAT CAVE RD)	LT	37.5						2		37.5		
45	SR 1135 (Old Fort/Sugar Hill Rd)	APPROXIMATELY 8.66 MILES FROM SR 1103 (BAT CAVE RD)	RT	525	12.5	1	1			1		525		
TOTAL				7,962.5	125.0	2.0	8.0			34.0		7,962.5	2.0	
GRAND TOTAL				17,512.5	325.0	4.0	19.0	2.0		65.0	50.0	17,512.5	3.0	

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