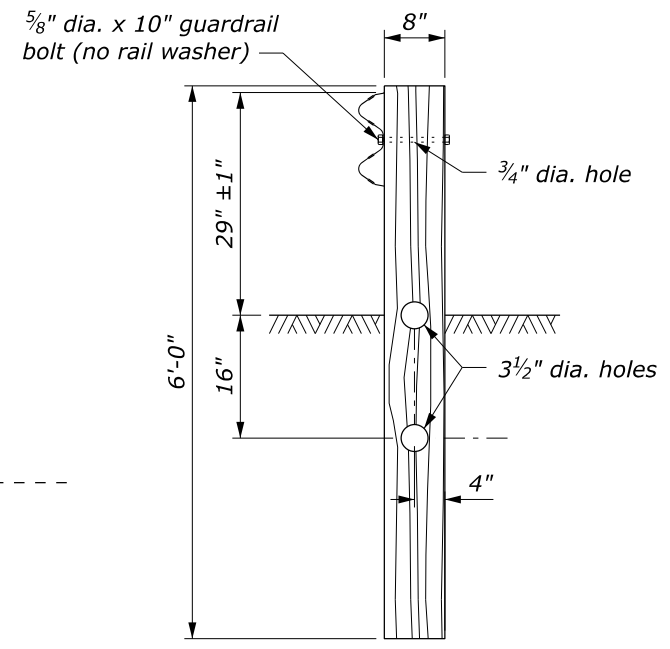


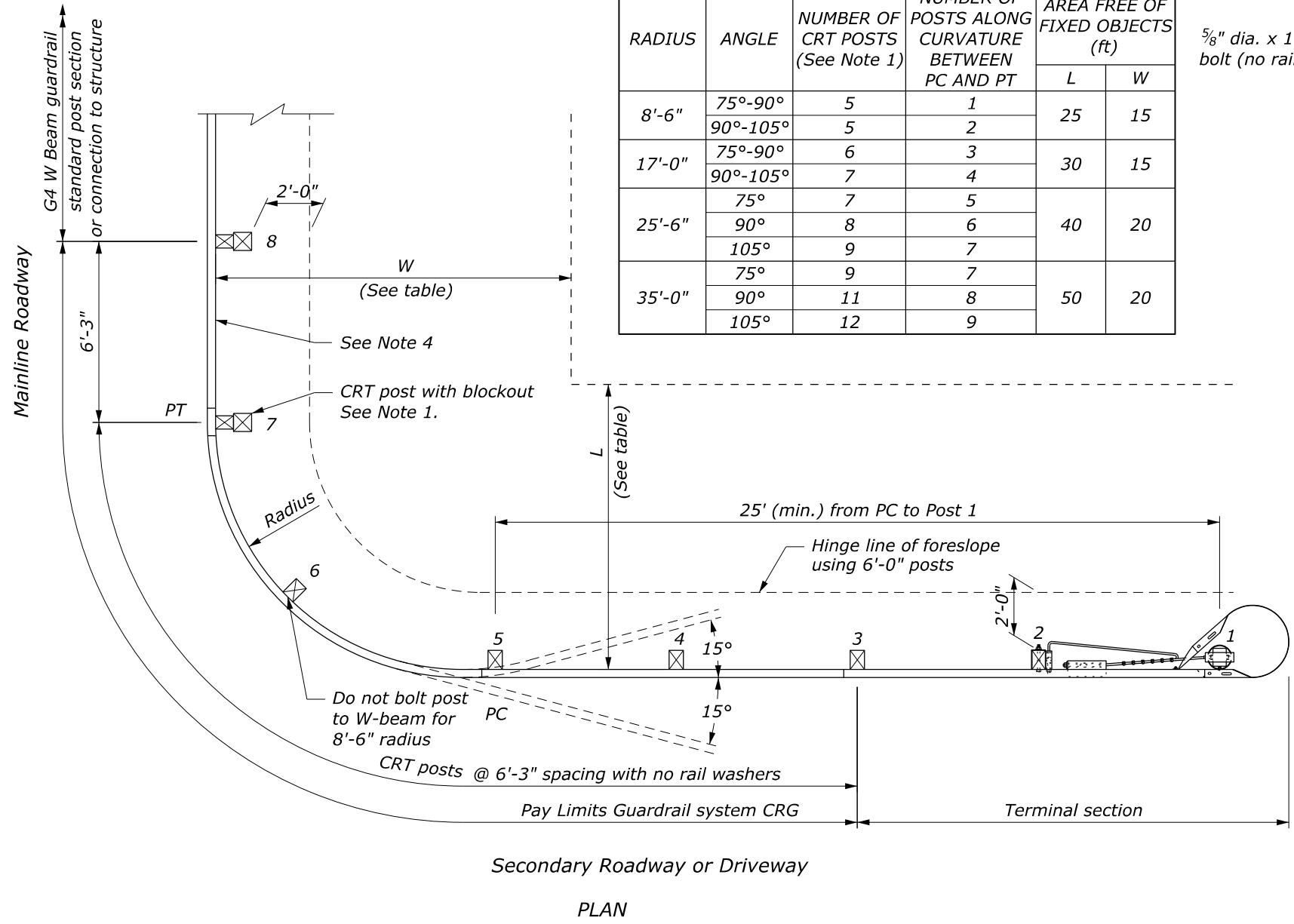
RADIUS	ANGLE	NUMBER OF CRT POSTS (See Note 1)	NUMBER OF POSTS ALONG CURVATURE BETWEEN PC AND PT	AREA FREE OF FIXED OBJECTS (ft)	
				L	W
8'-6"	75°-90°	5	1	25	15
	90°-105°	5	2		
17'-0"	75°-90°	6	3	30	15
	90°-105°	7	4		
25'-6"	75°	7	5	40	20
	90°	8	6		
35'-0"	75°	9	7	50	20
	90°	11	8		
	105°	12	9		



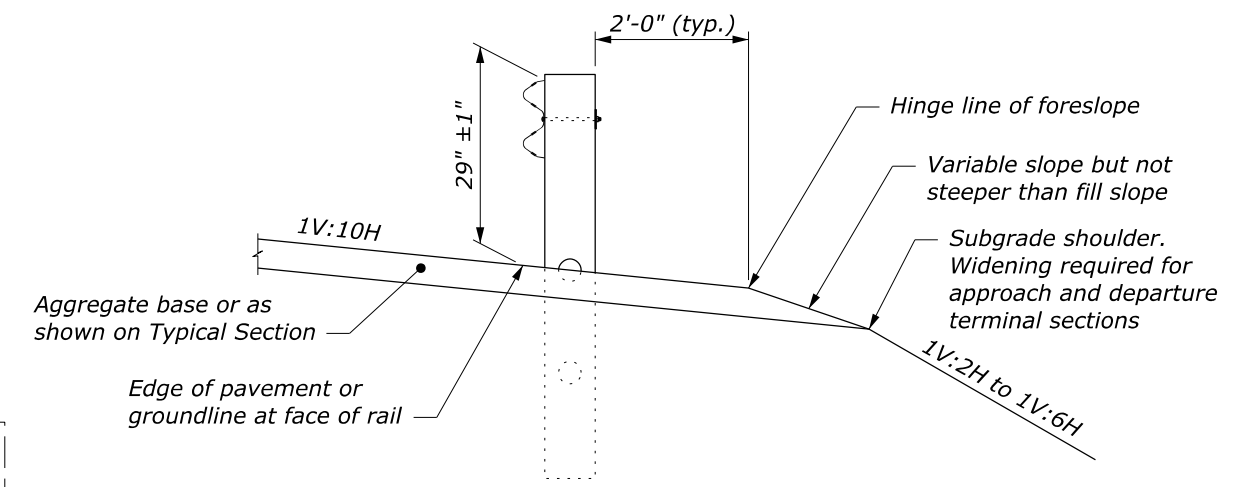
**CRT POST DETAIL**  
POSTS #3 - #7  
See Note 1

**NOTE:**

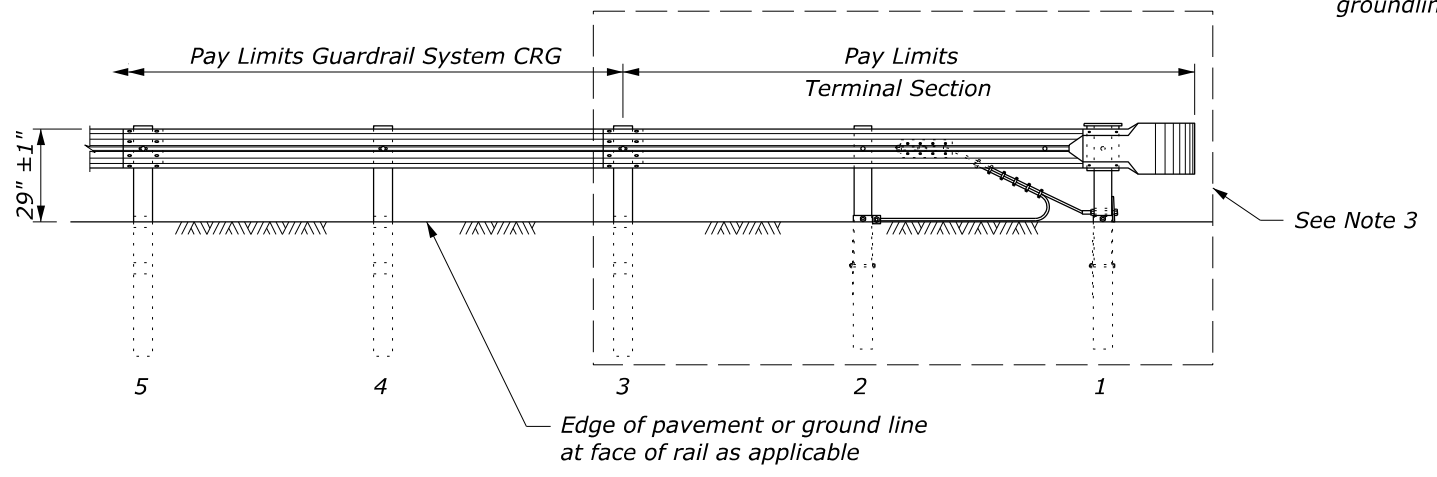
1. CRT posts include those posts between the terminal and PT, plus the post with block at Post #7.
2. Do not use this layout when speeds are in excess of 45 MPH.
3. See Standard 617-22 for terminal section shown. The use of the Type CRT terminal is limited to driveways, service roads, and low speed minor road approaches. Use the appropriate TL-2 or TL-3 terminal on all other roadway approaches.
4. If the CRG will be connected to transition rail at Post 8, add a standard post and block midway between Posts 7 and 8.
5. Dimensional tolerances not shown or implied are intended to be those consistent with the proper functioning of the part, including its appearance, and accepted manufacturing practices.



PLAN



**TYPICAL GUARDRAIL CROSS SECTION**



ELEVATION

**GUARDRAIL SYSTEM CRG WITH CRT POSTS**

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
OFFICE OF FEDERAL LANDS HIGHWAY

FLH STANDARD

**CRG W-BEAM GUARDRAIL WOOD POSTS**

STANDARD APPROVED FOR USE 1/1994  
REVISED: 4/1994 6/2005 6/2022

STANDARD 617-21

10 August 2022 2:09 PM c:\pwwork\0419223\Std617-21.dgn [Std 617-21]

**Designer Notes: FLH Standard Drawing 617-21**  
**Last Updated: August 2021**

## CRG W-Beam Guardrail, Wood Posts

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### General Information

***Appropriate Applications.***

- CRG W-beam guardrail is typically used when a minor road or driveway intersects a main road close to a bridge.
- According to the *Roadside Design Guide* Section 5.6.6, this system may be used on all high-speed routes, until an acceptable system is developed. Research and development of a more acceptable system is underway.

<b><i>Crash Test Criteria</i></b>	NCHRP Report 230
<b><i>Test Level</i></b>	TL-2
<b><i>FHWA Eligibility Letter</i></b>	FHWA Technical Advisory T5040.32
<b><i>TF 13 Designator</i></b>	SGR40
<b><i>Crash Test Report</i></b>	TTI report 405160-10

***Limitations.***

- The FLH drawing is based on the guidance provided in FHWA Technical Advisory T5040.32.
- Guidance for installing the short-radius guardrail is given for systems with radius sizes ranging between 8.5 ft and 35 ft. The FHWA guidance does not address larger radii above 35 ft.

***Layout Guidance.***

- See AASHTO *Roadside Design Guide* Section 5.6.6

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### Typical Pay Item Used

- 61701-4100 Guardrail system CRG, type 2, class A [LNFT] for galvanized steel
- 61701-4350 Guardrail system CRG, type 4, class B [LNFT] for weathering steel

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### Updates

February 2019

- New Detail drawing

October 2019

- Revised dimensioning on plan view and revised notes

August 2021

- Converted from CFL Detail to FLH Standard