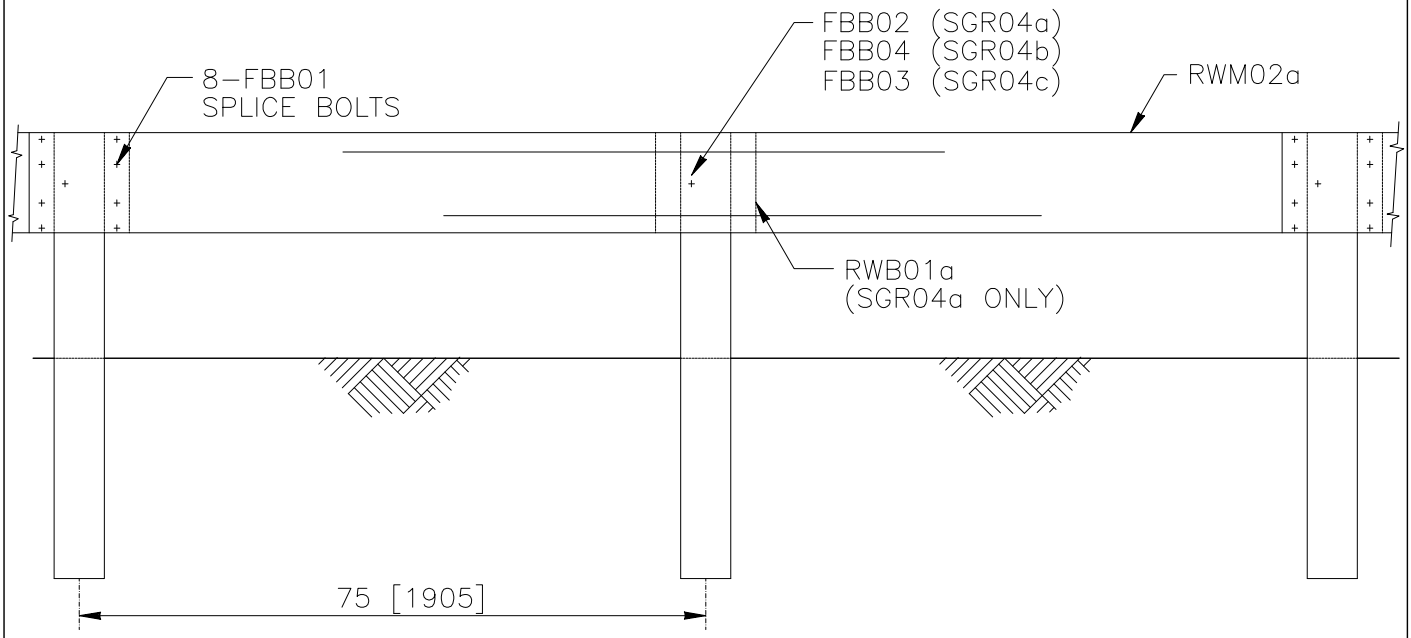
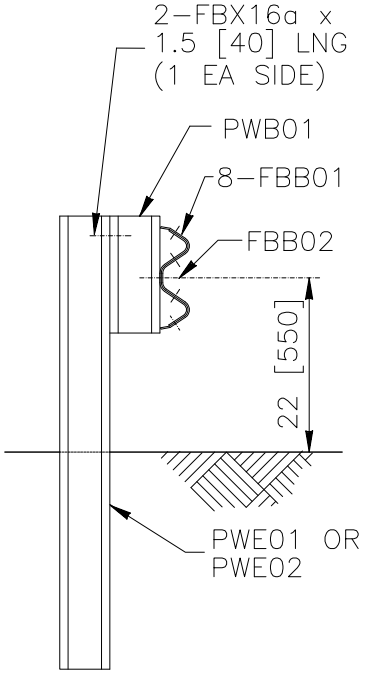
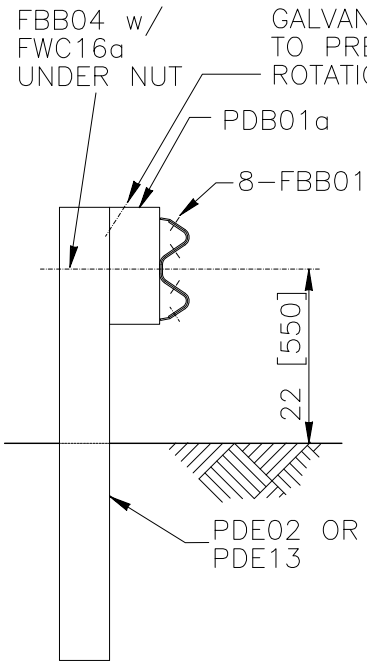


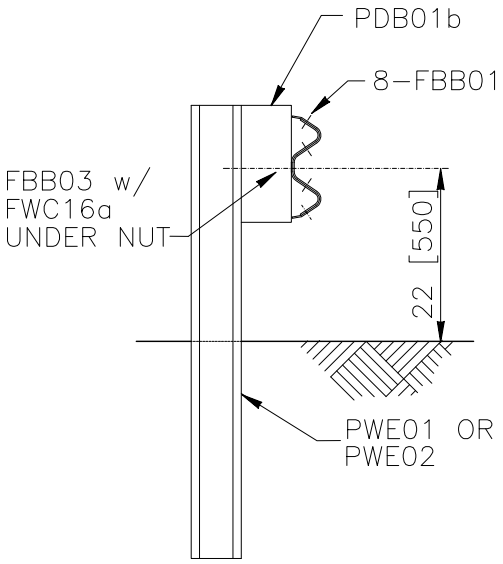
ELEVATION



SGR04a



SGR04b



SGR04c

1994

STRONG–POST W–BEAM GUARDRAIL

SGR04a–c	
SHEET NO.	DATE:
1 of 4	6/30/05

INTENDED USE

Strong-post W-beam guardrails should be used in locations where a maximum dynamic deflection of 36 inches [900 mm] or less is acceptable. W-beam guardrails should be anchored and terminated using a suitable end treatment. SGR-04a (steel posts) with steel blockouts is a Test Level 2 barrier. SGR-04b (wood posts) with wood, steel or plastic blockouts is a Test Level 3 barrier; SGR-04c (steel posts) with wood or plastic blockouts is also a Test Level 3 barrier.

COMPONENTS

Unit length = 150 inches [3810 mm]

	Designator	Component	System	Number
	FBB01	Splice bolt and nut	a-c	8
	FBB02	Guardrail-post bolt and nut	a	2
	FBB03	Guardrail-post bolt and nut	c	2
	FBB04	Guardrail-post bolt and nut	b	2
	FBX16a	Post blockout bolt (1.5 inches [40 mm]) and nut	a	4
	FWC16a	Round washer	b,c	2
	PDB01a	Timber post blockout	b	2
	PDB01b	Timber post blockout	c	2
	PDE02	Timber post	b	2
or	PDE13	Timber post	b	2
	PWB01	Steel post blockout	a	2
	PWE01	Steel post	a,b	2
or	PWE02	Steel post	a,b	2
	RWB01a	W-beam backup plate	a	1
	RWM02a	W-beam rail	a-c	1

APPROVALS

FHWA Acceptance Letter B-64, 2/14/00.

REFERENCES

M.E. Bronstad, J.E. Michie and J.D. Mayer, Jr., *Performance of Longitudinal Traffic Barriers*, National Cooperative Highway Research Program Report Number 289, Transportation Research Board, June, 1987.

C.E. Buth, W.L. Campise, L.I. Griffin, M.L. Love, and D.L. Sicking, *Performance Limits of Longitudinal Barriers*, Federal Highway Administration, Report No. FHWA-RD-86-153 (vol. 1), Washington, D.C., May 1986.

R.L. Stoughton, R.L. Stoker, E.F. Nordlin, *Dynamic Tests of Metal Beam Guardrail*, Transportation Research Record, Transportation Research Board, Washington, D.C., 1975.

STRONG-POST W-BEAM GUARDRAIL

SGR04a-c

SHEET NO.	DATE
2 of 4	6/30/05

STRONG–POST W–BEAM GUARDRAIL

SGR04a–c	
SHEET NO.	DATE:
3 of 4	6/16/2005

CONTACT INFORMATION

Federal Highway Administration
Office of Safety
400 Seventh Street, SW
Washington, DC 20590
202-366-2288

STRONG-POST W-BEAM GUARDRAIL

SGR04a-c

SHEET NO.	DATE
4 of 4	6/15/05