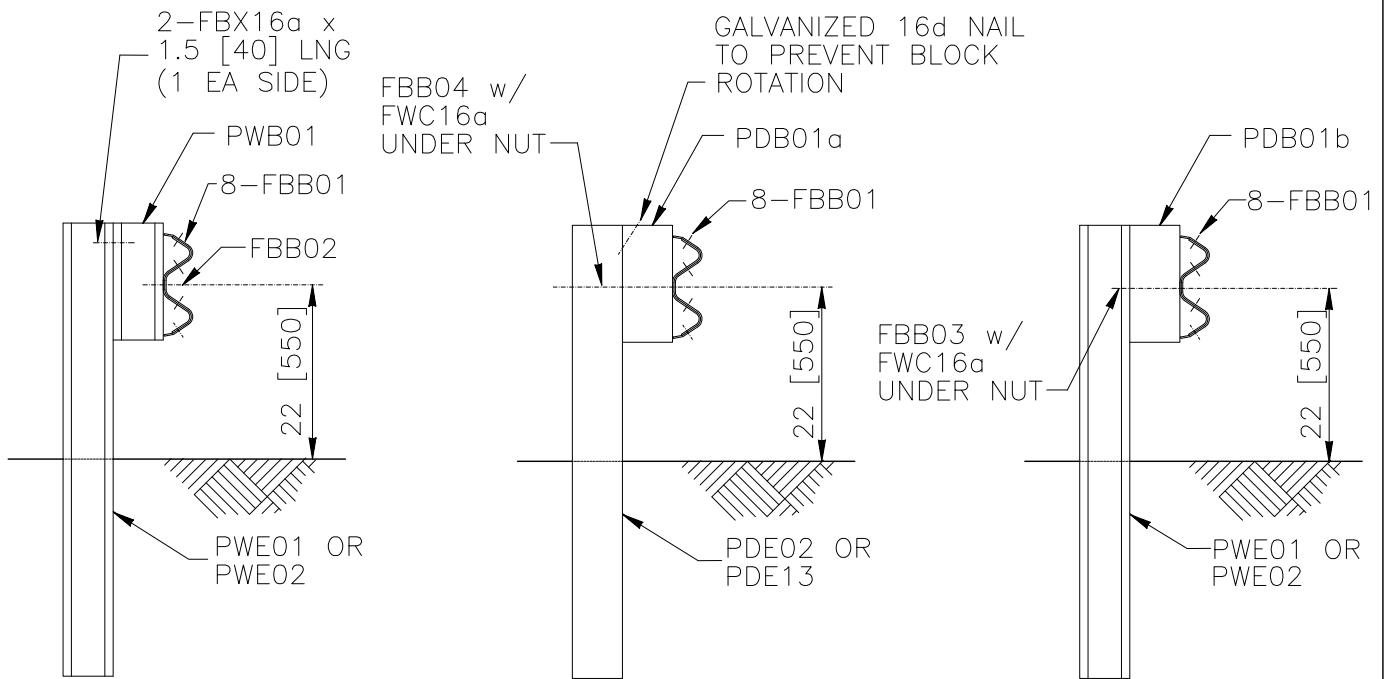


ELEVATION



SGR04a

SGR04b

SGR04c

STRONG-POST W-BEAM GUARDRAIL

SGR04a-e

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### INTENDED USE

The Strong-post W-beam guardrail is a non-proprietary system, and 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.

SGR04a-e were successfully evaluated according to NCHRP 350 and are listed according to the corresponding test level:

NCHRP 350 Test Level 2 barrier:

SGR04a: Steel posts with steel blockouts

NCHRP 350 Test Level 3 barriers:

SGR04b: Wood posts with wood or plastic blockouts

SGR04c: Steel posts with wood or plastic blockouts

SGR04d: Round wood posts with wood blockouts

SGR04e: Round wood posts with wood blockouts

### COMPONENTS

Unit length = 150 inches [3810 mm]

Designator	Component	System	Number
FBB01	Splice bolt and nut	a-e	8
FBB02	Guardrail-post bolt and nut	a	2
FBB03	Guardrail-post bolt and nut	c	2
FBB04	Guardrail-post bolt and nut	b,d,e	2
FBX16a	Post blackout bolt (1.5 inches [40 mm]) and nut	a	4
FWC16a	Round washer	b-e	2
PDB01a	Timber post blackout	b	2
PDB01b	Timber post blackout	c	2
PDB23	Round timber post blackout	e	2
PDB24	Round timber post blackout	d	2
PDE02	Timber post	b	2
or PDE13	Timber post	b	2
PDE21	Round timber post	e	2
PDE22	Round timber post	d	2
PWB01	Steel post blackout	a	2
PWE01	Steel post	a,c	2
or PWE02	Steel post	a,c	2
RWB01a	W-beam backup plate	a	1
RWM02a	W-beam rail	a-e	1

## STRONG-POST W-BEAM GUARDRAIL

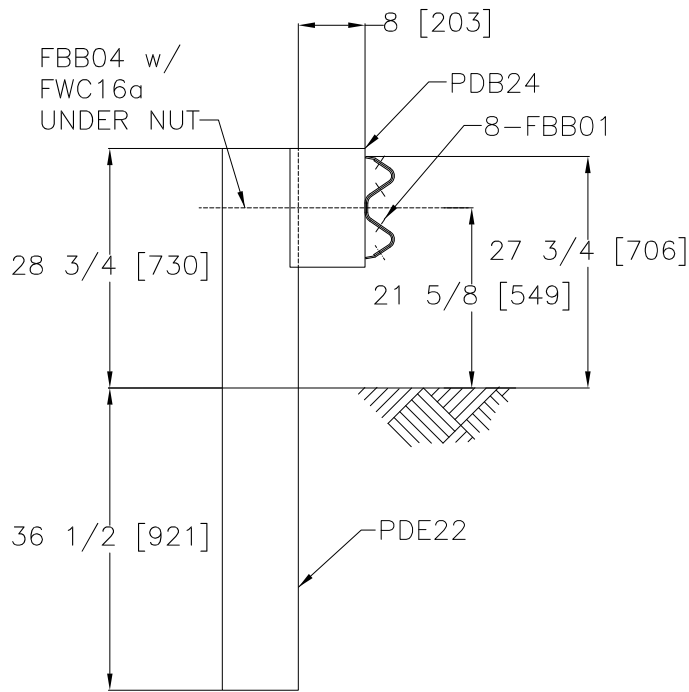
# SGR04a-e

SHEET NO.

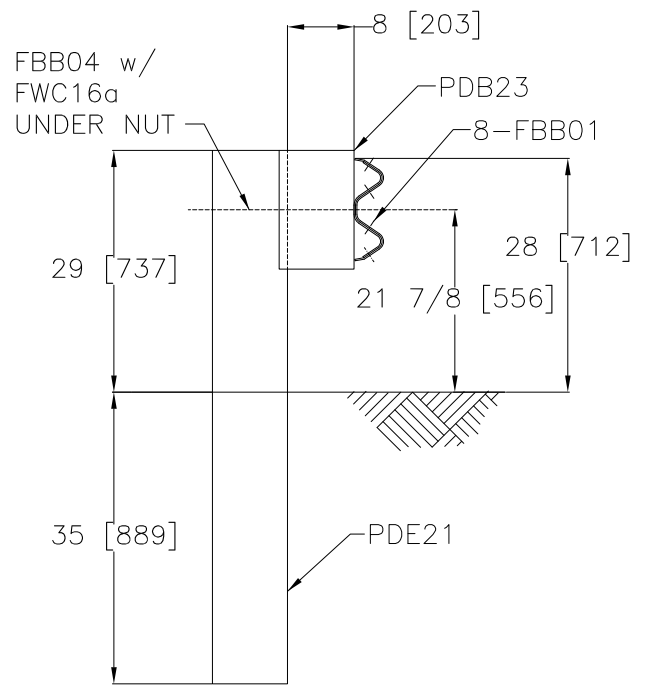
DATE

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SGR04d



SGR04e

STRONG-POST W-BEAM GUARDRAIL

SGR04a-e

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**ELIGIBILITY**

SGR04a-c: FHWA Eligibility Letter B-64, February 24, 2000.  
SGR04d-e: FHWA Eligibility Letter B-266, September 29, 2016.

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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.

Price, C.W., Faller, R.K., Rosenbaugh, S.K., Lechtenberg, K.A., and Winkelbauer, B.J. *Phase I Ponderosa Pine Round-Post Equivalency Study*, Final Report to Forest Products Laboratory U.S. Department of Agriculture – Forest Service and Arizona Log & Timberworks, Transportation Research Report No. TRP-03-287-13, Project No. 12-DG-1111169-033, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, November 22, 2013.

Rosenbaugh, S.K., Faller, R.K., Winkelbauer, B.J., and Schmidt, T.L. *Phase II Ponderosa Pine Round-Post Equivalency Study*, Final Report to Forest Products Laboratory U.S. Department of Agriculture – Forest Service and Arizona Log & Timberworks, Transportation Research Report No. TRP-03-315-14, Project No. 13-JV-1111133-035, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, In Progress.

**CONTACT INFORMATION**

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**STRONG-POST W-BEAM GUARDRAIL**

**SGR04a-e**

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