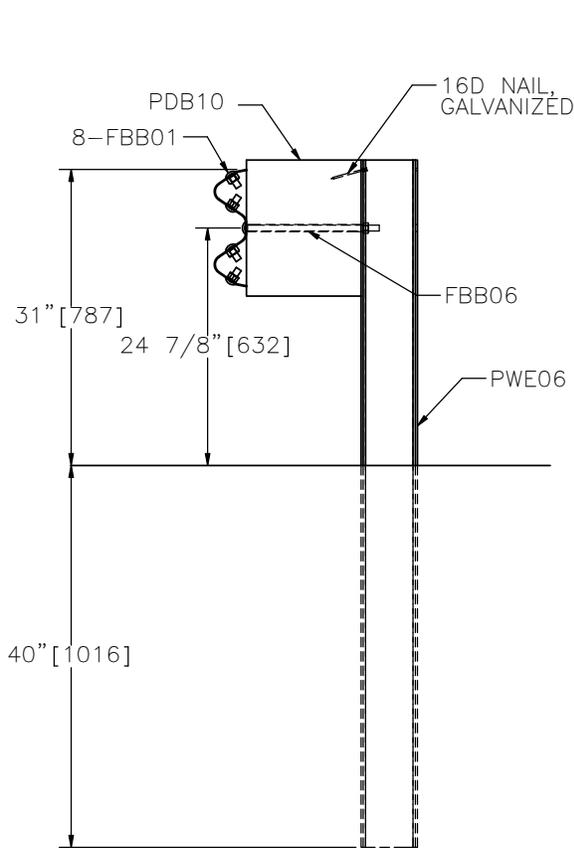
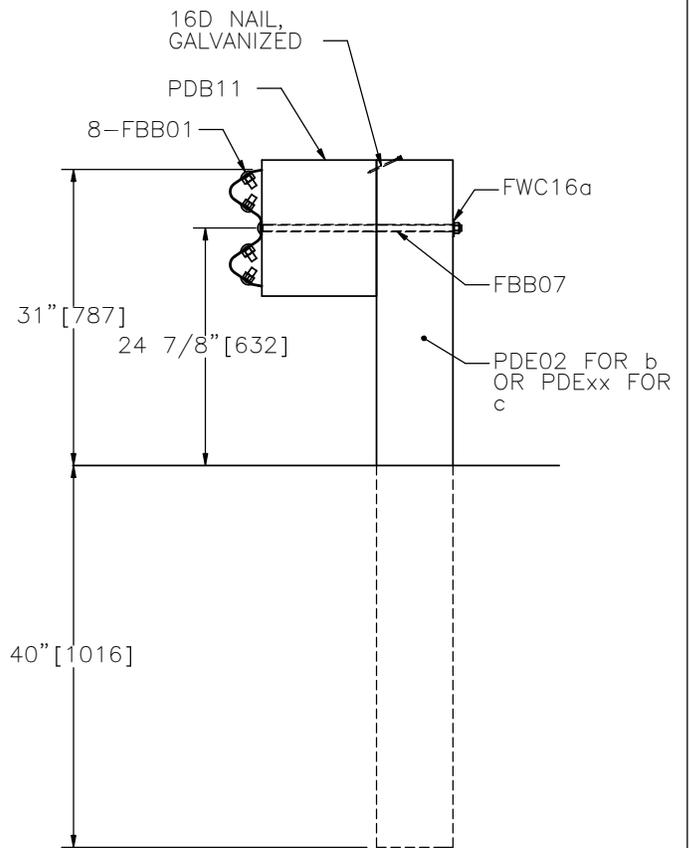


ELEVATION



SGR20a  
SECTION A-A



SGR20b-c

MIDWEST GUARDRAIL SYSTEM WITH STANDARD POST SPACING



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## INTENDED USE

Midwest Guardrail System (MGS) with standard post spacing should be used in locations where a maximum dynamic deflection of 43 1/16" [1094] or less is acceptable and where a working width of 49" [1245] is provided. MGS should be anchored and terminated using a suitable guardrail end treatment that is approved with a 31" [787] top mounting height. MGS can be used with wide-flange steel posts (PWE06) or timber posts (PDE02). Guardrail sections measuring 300" [7620] long can be used in lieu of the 150" [3810] long sections. This system is TL-3 NCHRP 350 accepted and acceptable according to the update to NCHRP 350.

## COMPONENTS

Unit Length = 150" [3810]

DESIGNATOR	COMPONENT	SYSTEM	NUMBER
FBB01	Guardrail splice bolts and nuts	a-c	8
FBB06	Guardrail post bolts and nuts	a	2
FBB07	Guardrail post bolts and nuts	b-c	2
FWC16a	Round washer	b-c	2
PDB10	MGS timber blockout	a	2
PDB11	MGS timber blockout	b-c	2
PDE02	Timber guardrail post	b	2
PWE06	Wide-flange guardrail post	a	2
RWM04a	W-beam Rail	a-c	1
----	16D nail, galvanized	a-c	2
PDExx	White Pine guardrail post	c	2

## ACCEPTANCE

FHWA Acceptance Letter B-133, March 1, 2005.  
FHWA Acceptance Letter B-212, June, 2011.

## REFERENCES

Polivka, K.A., Faller, R.K., Sicking, D.L., Reid, J.D., Rohde, J.R., Holloway, J.C., Bielenberg, R.W., and Kuipers, B.D., *Development of the Midwest Guardrail System (MGS) for Standard and Reduced Post Spacing and in Combination with Curbs*, Final Report to the Midwest State's Regional Pooled Fund Program, Transportation Research Report No. TRP-03-139-04, Project No. SPR-3(017)-Years 10, and 12-13, Project Code: RPPF-00-02, 02-01, and 03-05, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, September 1, 2004.

Faller, R.K., Polivka, K.A., Kuipers, B.D., Bielenberg, B.W., Reid, J.D., Rohde, J.R., and Sicking, D.L., *Midwest Guardrail System for Standard and Special Applications*, Paper No. 04-4778, Transportation Research Record No. 1890, Transportation Research Board, National Research Council Washington, D.C., January 2004, pp. 19-33.

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Polivka, K.A., Faller, R.K., Sicking, D.L., Rohde, J.R., Bielenberg, R.W., and Reid, J.D., *Performance Evaluation of the Midwest Guardrail System – Update to NCHRP 350 Test No. 3-11 (2214MG-1)*, Final Report to the National Cooperative Highway Research Program (NCHRP), MwRSF Research Report No. TRP-03-170-06, Midwest Roadside Safety Facility, Lincoln, Nebraska, October 10, 2006.

Stolle, C.J., Lechtenberg, K.A., Faller, R.K., Rosenbaugh, S.K., Sicking, D.L., and Reid, J.D., *Evaluation of the Midwest Guardrail System (MGS) with White Pine Wood Posts*, Final Report to Wisconsin Department of Transportation, MwRSF Research Report No. TRP-03-241-11, Project No. TPF-5(193) Supplement #12, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, March 28, 2011.

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Polivka, K.A., Faller, R.K., Sicking, D.L., Rohde, J.R., Bielenberg, R.W., and Reid, J.D., *Performance Evaluation of the Midwest Guardrail System – Update to NCHRP 350 Test No. 3-11 With 28” CG Height (2214MG-2)*, Final Report to the National Cooperative Highway Research Program (NCHRP), MwRSF Research Report No. TRP-03-171-06, Midwest Roadside Safety Facility, Lincoln, Nebraska, October 11, 2006.

Polivka, K.A., Faller, R.K., Sicking, D.L., Rohde, J.R., Bielenberg, R.W., and Reid, J.D., *Performance Evaluation of the Midwest Guardrail System – Update to NCHRP 350 Test No. 3-10 (2214MG-3)*, Final Report to the National Cooperative Highway Research Program (NCHRP), MwRSF Research Report No. TRP-03-172-06, Midwest Roadside Safety Facility, Lincoln, Nebraska, October 11, 2006.

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