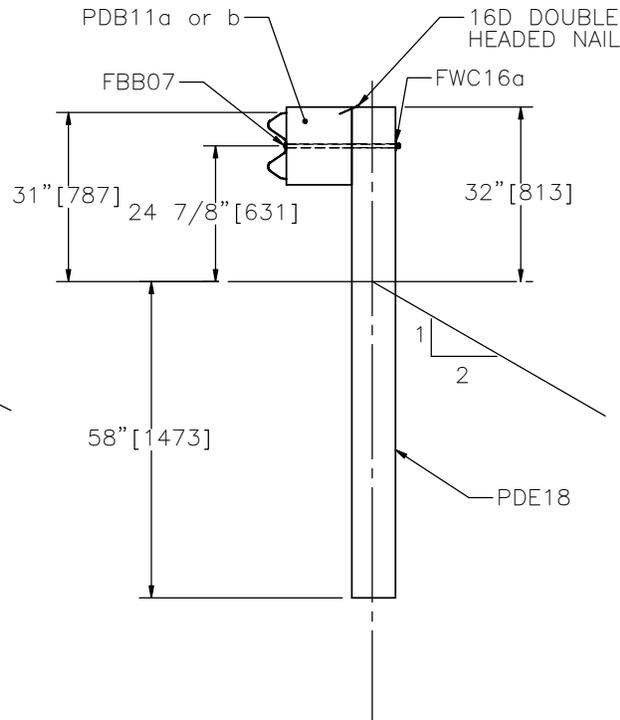


SECTION A-A
SGR38a
STEEL-POST OPTION



SGR38b
WOOD-POST OPTION

MASH TL-3 MGS ADJACENT TO 2H:1V FILL SLOPE



SGR38a-b

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INTENDED USE

The Midwest Guardrail System (MGS) with standard post spacing placed adjacent to a 2:1 fill slope should be used where a maximum dynamic deflection of 57.6" [1463] or less is acceptable and where a minimum working width of 64.2" [1631] is provided. MGS should be anchored and terminated using a suitable guardrail end treatment that is accepted with a 31" [787] top mounting height. The MGS adjacent to a 2:1 slope can be used with wide-flange steel posts (PWE08) as well as with timber posts (PDE18). The MGS adjacent to a 2:1 fill slope has been tested under Test Level 3 (TL-3) test designation 3-11 conditions and deemed acceptable according to the Manual for Assessing Safety Hardware (MASH) performance criteria.

COMPONENTS

Unit Length = 150" [3810]

DESIGNATOR	COMPONENT	SYSTEM	NUMBER
FBB01	Guardrail splice bolts and nuts	a-b	8
FBB06	Guardrail post bolts and nuts	a	2
FBB07	Guardrail post bolts and nuts	b	2
FWC16a	Round washer	b	2
PDB10a or b	MGS timber blackout for steel posts	a	2
PDB11a or b	MGS timber blackout for timber posts	b	2
PDE18	Timber guardrail post	b	2
PWE08	Wide-flange guardrail post	a	2
RWM04a	W-beam rail	a-b	1
-----	16D nail, galvanized	a	2*

*When using built up blackout option, four will be required.

ACCEPTANCE

FHWA Acceptance Letter B-211, June 10, 2011.
 FHWA Acceptance Letter B-211A, June 10, 2011.

REFERENCES

Wiebelhaus, M.J., Lechtenberg, K.A., Faller, R.K., Sicking, D.L., Bielenberg, R.W., Reid, J.D., Rohde, J.R., Dey, G., *Development and Evaluation of the Midwest Guardrail System (MGS) Placed Adjacent to a 2:1 Fill Slope*, Transportation Research Report No. TRP-03-185-10, Project No. SPR-3(017)- Year 15, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, February 24, 2010.

McGhee, M.D., Lechtenberg, K.A., Bielenberg, R.W., Faller, R.K., Sicking, D.L., Reid, J.D., *Dynamic Impact Testing of Wood Posts for the Midwest Gaurdail System (MGS) Placed Adjacent to a 2H:1V Fill Slope*, Transportation Research Report No. TRP-03-234-10, Project No. SPR-3(017)-Year 15, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, December 16, 2010.

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MASH TL-3 MGS ADJACENT TO 2H:1V FILL SLOPE

SGR38a-b



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