

STRONG-POST, W-BEAM GUARDRAIL SYSTEM WITH POST PLACED IN ROCK



SGR27a-b

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INTENDED USE

Strong-Post, W-Beam Guardrail System with Post Placed in Rock (SGR27a-b) should be used in locations where a maximum dynamic deflection of 38 1/2" [980] or less is acceptable and where a working width of 39 3/4" [1010] is provided. Strong-Post, W-Beam Guardrail System with Post Placed in Rock should be anchored and terminated using a suitable guardrail end. Strong-Post, W-Beam Guardrail System with Post Placed in Rock drilled holes should be filled with a compressible material (ASTM C33 coarse aggregate, size no. 57). Strong-Post, W-Beam Guardrail System with Post Placed in Rock can be used with wide-flange steel posts (PWE01) or timber posts (PDE02). Guardrail sections measuring 300" [7620] long can be used in lieu of the 150" [3860] long sections. W-Beam Guardrail System with Posts Placed in Rock is TL-3 NCHRP 350 acceptable.

COMPONENTS

Unit Length = 150" [3810]

DESIGNATOR	COMPONENT	SYSTEM	NUMBER
FBB01	Guardrail splice bolts and nuts	a-b	8
FBB03	Guardrail post bolts and nuts	a	2
FBB04	Guardrail post bolts and nuts	b	2
FWC16a	Round washer	b	2
PDB09	Timber blockout	a	2
PDB01	W-beam timber blockout	b	2
PDE02	Timber guardrail post (cut to fit)	b	2
PWE01	Wide-flange guardrail post (cut to fit)	a	2
RWM02a	W-beam Rail	a-b	1
-----	16D nail, galvanized	a-b	2

ACCEPTANCE

FHWA Acceptance Letter B64-B, March 10, 2004.

REFERENCES

Herr, J.E., Rohde, J.R., Sicking, D.L., Reid, J.D., Faller, R.K., Holloway, J.C., Coon, B.A., and Polivka, K.A., Development of Standards for Placement of Steel Guardrail Posts in Rock, Final Report to the Midwest State's Regional Pooled Fund Program, Transportation Research Report No. TRP-03-119-03, Project No. SPR-3(017)-Year 9, Project Code: RFPF-99-01(a), Midwest Roadside Safety Facility, University of Nebraska-Lincoln, May 30, 2003.

Herr, J.E., and Rohde, J.R., Development of Guidelines for Placement of Guardrail Posts in Rock, Paper No. 00-2653, Transportation Research Record No. 1890, Transportation Research Board, National Research Council Washington, Washington, D.C., January 2004, pp. 42-48.

CONTACT INFORMATION

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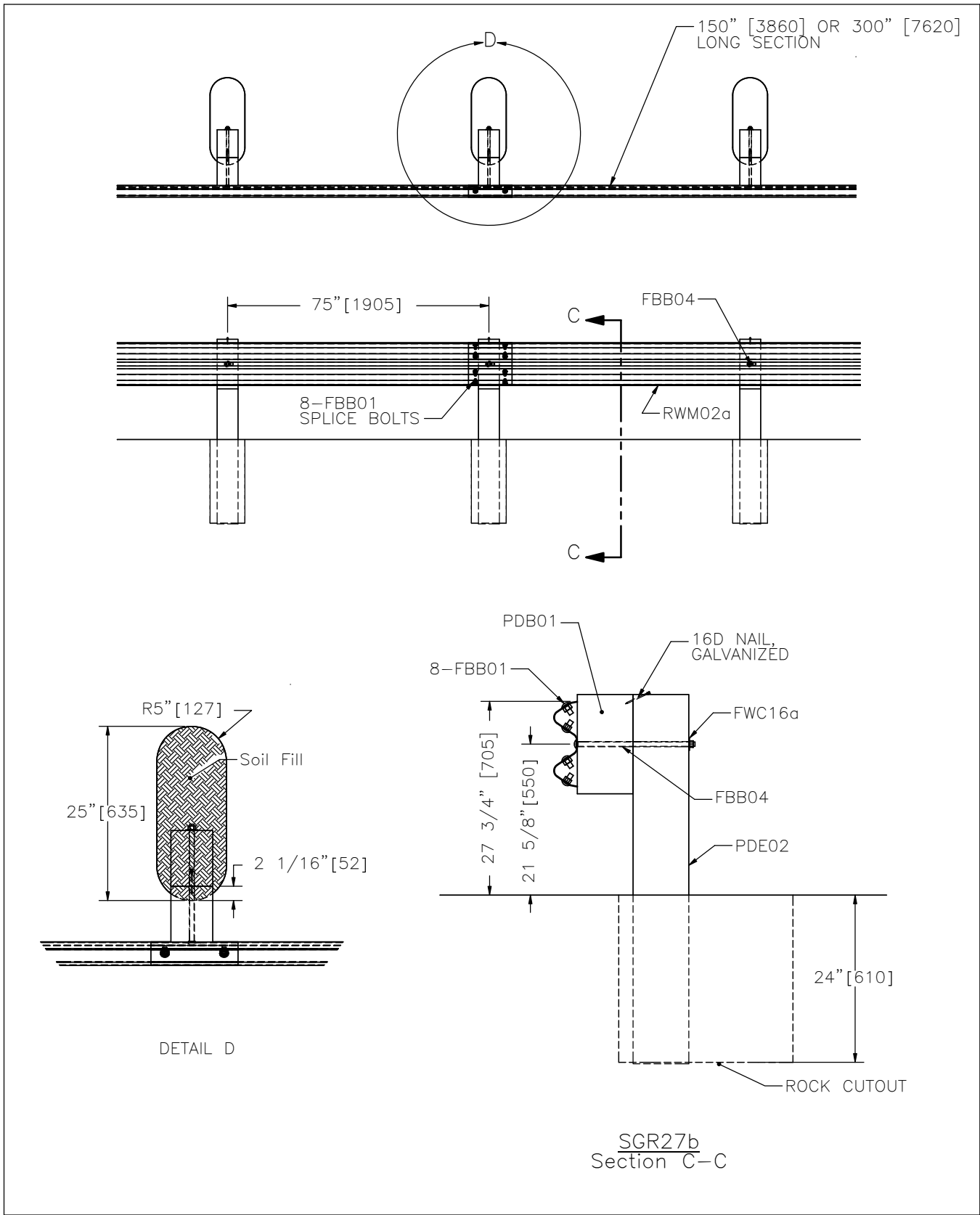


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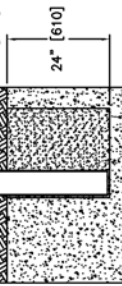
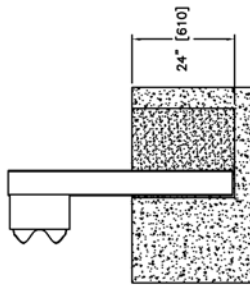
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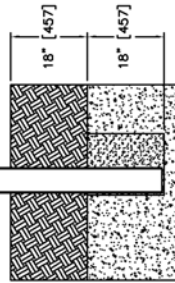
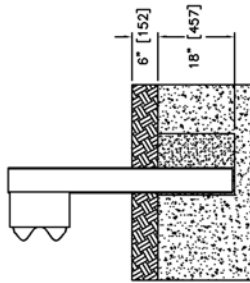
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Case 1



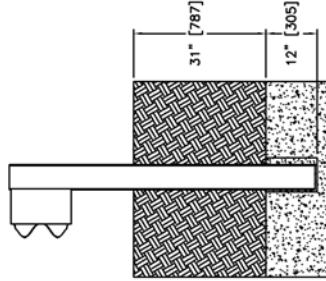
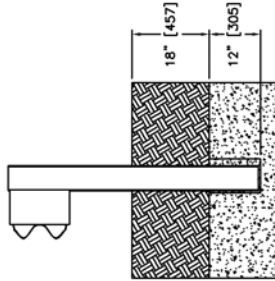
Notes
For overlying soil that ranges from 0 to 6" [0 to 152] in thickness, drilled hole in rock will be constructed by drilling three 8" [203] dia. holes on 6" [165] ctrs. to a depth of 24" [610]. The sides of the drilled hole should then be smoothed out.

Case 2



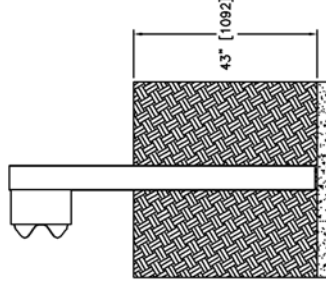
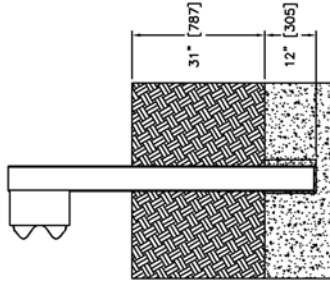
Notes
For overlying soil that ranges from 6 to 18" [152 to 457] in thickness, drilled hole in rock will be constructed by drilling two 8" [203] dia. holes on 6" [165] ctrs. to a depth of 18" [457].

Case 3



Notes
For overlying soil that ranges from 18 to 31" [457 to 787] in thickness, drilled hole in rock will be constructed by drilling one 8" [203] dia. hole to a depth of 12" [305].

Case 4



Notes
For overlying soil that ranges from 31 to 43" [787 to 1092] in thickness, depth of 8" [203] dia. drilled hole in rock will vary from 12 to 0" [305 to 0], so that the total embedment depth of the post does not exceed 43" [1092].

NOTE: GUARDRAIL POST CAN BE CUT FROM STANDARD SIZE TO FIT HOLE, AS SPECIFIED IN DESIGN DETAILS

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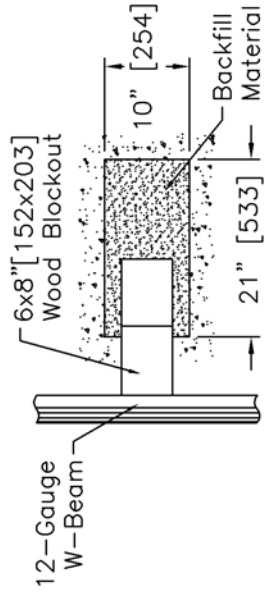
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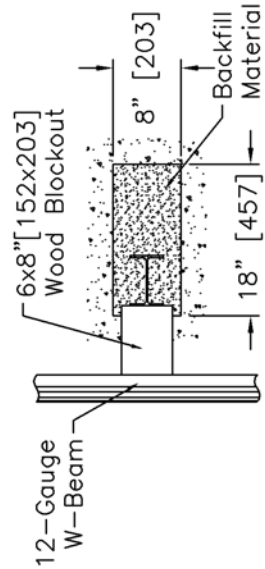
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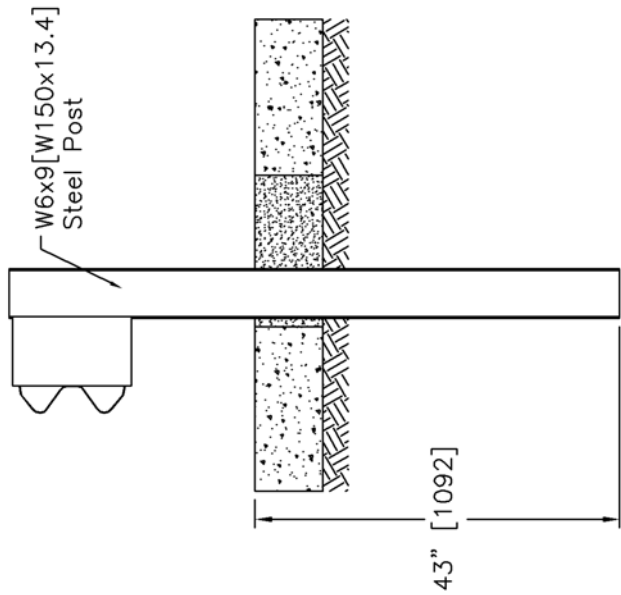
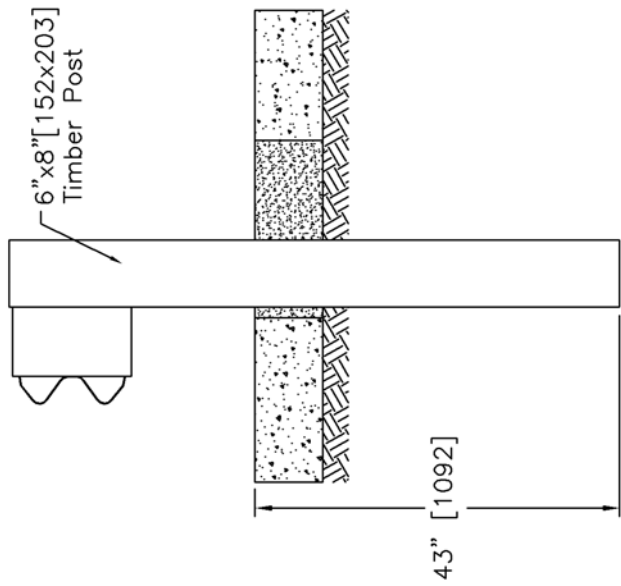
Pavement Blockout
Dimensions for
Timber Post



Pavement Blockout
Dimensions for
Steel Post



Plan View



Elevation View

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