



**ALABAMA DEPARTMENT OF TRANSPORTATION  
CONSTRUCTION BUREAU**

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Kay Ivey  
Governor

John R. Cooper  
Transportation Director

October 9, 2019

**Construction Information Memorandum No. 7 - 2019**

TO: Region Engineers  
ATTN: Asst. Region Engineers, Region Preconstruction Engineers,  
Area Operations, Construction, and Local Transportation Engineers  
FROM: Winston J. Powe, PE *WJP*  
State Construction Engineer  
RE: Guardrail Placement on Limited Embankments

The attached November 17, 2017 memo from the Design Bureau addressed the MASH requirement to use an 8' long guardrail post when there is less than 2' of embankment behind the posts. The previous practice of using shorter posts (7'-0" and 7'-6" long) is no longer allowable, and pay items for those post lengths (attached) have been inactivated in CAMMS and AASHTOWare Project Preconstruction.

For currently active projects let after January 1, 2018, MASH guardrail standards are required if the guardrail work was allowed per the Pavement Preservation Policy and also included in the plans. On these projects, when limited embankments as described above are encountered, a supplemental agreement shall be executed to add the appropriate 8' post pay item (shown below) if not already included in the contract while deleting the shorter post item.

For projects in the plan development stage, the embankments adjacent to guardrail locations should be reviewed against the criteria herein and the appropriate 8' post pay item included, where applicable.

As a reminder, MASH requirements only apply to federal-aid contracts on the National Highway System although ALDOT has chosen to implement them on all our routes. For cities and counties, they will only have to follow MASH if the route is on the NHS. An example of such is Airport Road in Mobile. If a city or county project is doing guardrail work that is not MASH-compliant yet needs longer posts due to less than 2' of embankment behind the posts, they should still utilize the 8' long post.

Please ensure that all personnel designing and managing your construction projects are familiar with this matter.

WJP/JLB/jlb  
Attachments

pc: Mr. George Conner, PE	Mr. Don Arkle, PE	Mr. William Adams, PE	
Mr. Steve Walker, PE	Mr. Terry McDuffie, PE	Mr. Ed Phillips, PE	
Mr. Clay McBrien, PE	Mr. Stacey Glass, PE	FHWA	ARBA
AAPA	ALBCA	ACEA	File

**Guardrail Placement on Limited Embankments**

**October 3, 2019**

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**Inactive Pay Items**

630A-030 Steel Beam Guardrail, Class A, Type 1 (7'-0" Post)

630A-031 Steel Beam Guardrail, Class A, Type 1 (7'-6" Post)

630A-033 Steel Beam Guardrail, Class A, Type 2 (7'-0" Post)

630A-035 Steel Beam Guardrail, Class A, Type 2 (7'-6" Post)

**MASH Compliant Guardrail Pay Item**

630A-034 Steel Beam Guardrail, Class A, Type 2 (8'-0" Post)



# INTERDEPARTMENTAL MEMORANDUM

ALABAMA DEPARTMENT OF TRANSPORTATION  
1409 Coliseum Boulevard, Montgomery, Alabama 36110

November 17, 2017

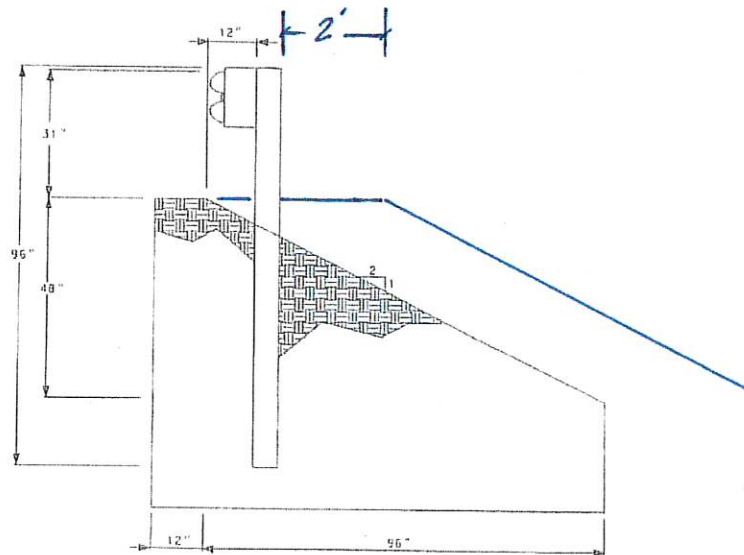
TO: Region Engineers  
Local Transportation Engineer  
State Construction Engineer  
State Maintenance Engineer  
State Office Engineer  
Quality Control Engineer  
Innovative Programs Administrator

FROM: Steven E. Walker, P.E. *S. E. Walker*  
State Design Engineer

RE: Guardrail Placement on Limited Embankments

Extra length posts are required when there is less than 2' embankment behind the guardrail posts. MASH 31" guardrail with 8' posts, 6' - 3" post spacing and a mid span splice has passed Test Level 3 crash test requirements when there is less than 2' embankment behind the posts.

As shown in the below drawing the system was crash tested with the post down the slope and the face of the rail at the slope break. This installation method should be used when grading is impractical. The post should be no more than 1' from the slope break and there must be 8' of horizontal distance of the 2:1 slope.



If you have any questions, please contact this office.

SEW:DJW

c: Stan Biddick, P.E.  
Latasha Merchant, P.E.

Greg Wells, P.E.  
Paul Beard, P.E.

DS File