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February 3, 2014

Ms. Sandra L. Otto  
Division Administrator  
Federal Highway Administration  
700 West Capitol Street  
Room 3130 Federal Building  
Little Rock, AR 72201-3298

Re: Interstate 49

*SANDY*  
Dear ~~Ms.~~ Otto:

Reference is made to the American Association of State Highway and Transportation Officials' (AASHTO) October 2013 approval of the Department's request for the designation of Interstate 49 or Future Interstate 49 between Interstate 40 and the Missouri State Line. This approval was contingent upon Federal Highway Administration (FHWA) approval. Accordingly, we request FHWA approval for the following:

- Renumber Interstate 540 as Interstate 49 from Interstate 40 to U.S. Highway 62.
- Designate U.S. Highway 71 as Interstate 49 from U.S. Highway 62 to U.S. Highway 71 Business.
- Designate the Bella Vista Bypass as Future Interstate 49 until completed to Interstate standards. Once completed as an Interstate facility, it will be designated as Interstate 49.
- Removal of the Interstate 540 designation from Interstate 40 (currently dual signed) between Van Buren and Alma.

As you are aware, one design exception is required on Interstate 540 before FHWA may approve this change in route numbering. Therefore, we also request your approval for the enclosed design exception that addresses stopping sight distance at the Interstate 540 (Interstate 49)/U.S. Highway 71B interchange.

ARKANSAS STATE HIGHWAY COMMISSION  
Little Rock, Arkansas

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Thank you in advance for your consideration of this matter. If additional information is needed, please let me know.

Sincerely,



Scott E. Bennett  
Director of Highways  
and Transportation

Enclosure

c: Deputy Director and Chief Engineer  
Assistant Chief Engineers  
Programs and Contracts  
Roadway Design  
System Information and Research  
Transportation Planning and Policy

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

INTER OFFICE MEMORANDUM

January 30, 2014

TO: Mr. Michael D. Fugett, Assistant Chief Engineer for Design

FROM: Carl J. Fuselier, Bridge Engineer *CJF*

SUBJECT: Request for Design Exception – Stopping Sight Distance  
Job No. BB0414  
Porter Rd. - Hwy. 112/71B Widening  
& Intchng. Impvts. (F)  
Washington County

The AASHTO publication *A Policy on Geometric Design of Highways and Streets* (Green Book) includes a provision to provide a sufficient sight distance that will enable a driver traveling at or near the design speed to stop before reaching a stationary object in his path.

Some highway projects have right of way, environmental, or other constraints that limit a designer's geometric options. Providing the required stopping sight distance can be cost prohibitive especially whenever horizontal curves are bounded by barrier walls or bridge parapets in high speed roadways or ramp connections. Recognizing this as an issue on the national level, a research need was identified as a high priority by the AASHTO Technical Committee on Geometric Design, the TRB Committee on Geometric Design, and the TRB Committee on Operational Effects of Geometrics. As a result, NCHRP has funded a research project with an objective to provide enhanced guidance and mitigation strategies that may directly impact future sight distance requirements by its incorporation into the next edition of the Green Book.

The above referenced project is programmed to improve the I-540/71B interchange in Washington County. The existing interchange includes segments that do not provide the required stopping sight distance; however, there have been only three occasions with minor rear end crashes. This project has limited geometric options due to right of way constraints and providing the required stopping sight distance for all segments that are bounded by barrier walls or bridge parapets will be cost prohibitive. However, the stopping sight distance can be optimized by using one or more of the following mitigation strategies:

- Increasing the shoulder width, as required, to a 12' maximum width. The increased shoulder width may be accomplished in conjunction with narrowing the lane width(s).
- Reducing the design speed
- Posting lower recommended speeds

Based on the discussion above, a design exception for the stopping sight distance is hereby requested for the above referenced project. The mitigations listed above will be used to provide an optimal stopping sight distance.

Recommended:   
Assistant Chief Engineer - Design

Concur:   
Deputy Director and Chief Engineer

Date: 1/30/14

Date: 1-30-14

c: Director  
Roadway Design  
Bridge Design