

# Design Exception Request

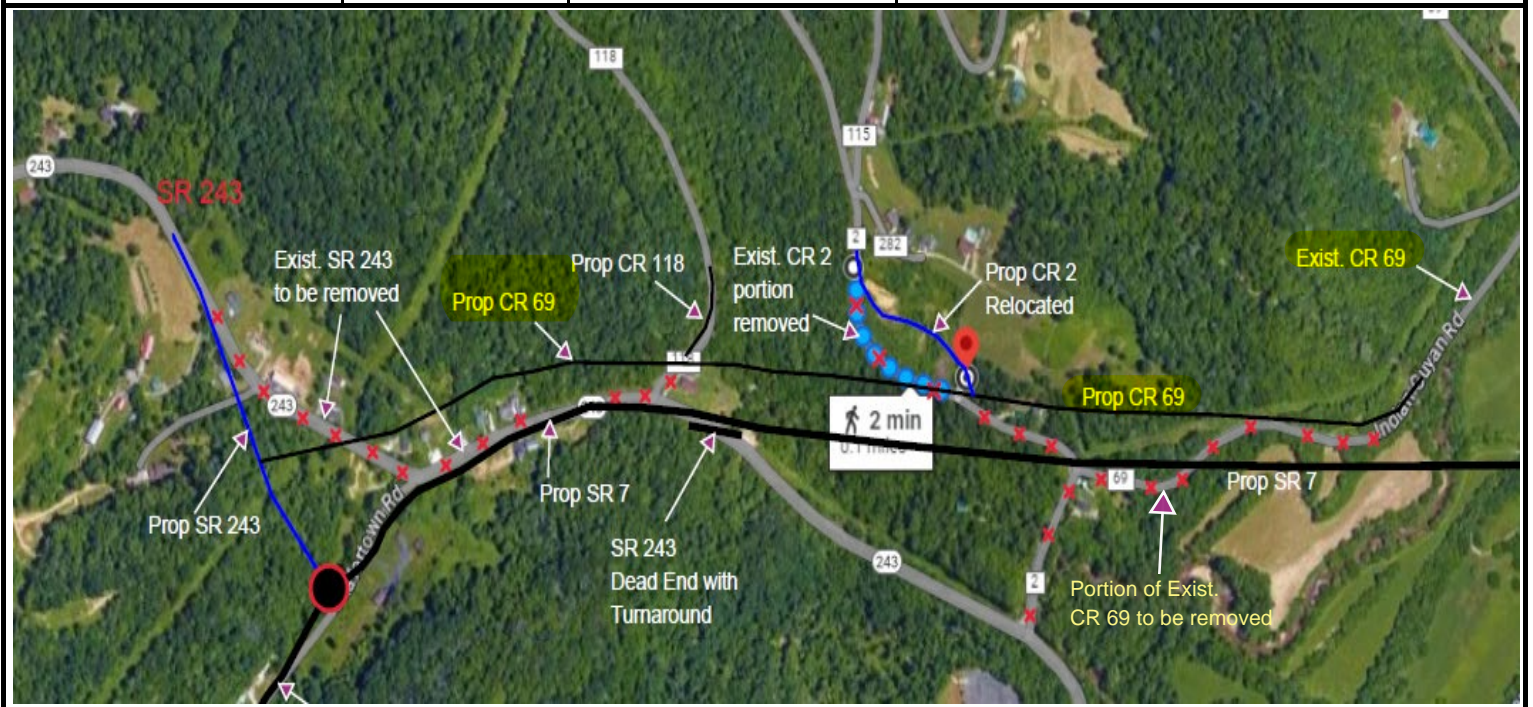
LAW-7-2.17

PID: 75923; Request 04

Letting Type: ODOT-Let

## Design Designation

Current ADT (2028)	400	Td	12%
Design Year ADT (2048)	500	Design Speed	55
Design Hourly Volume (2048)	75	Legal Speed	55
Directional Distribution	67%	Design Functional Class	7 - Local Roads
Trucks (24hr B&C)	6%	Functional Class Area Type	Rural
		NHS Project	No

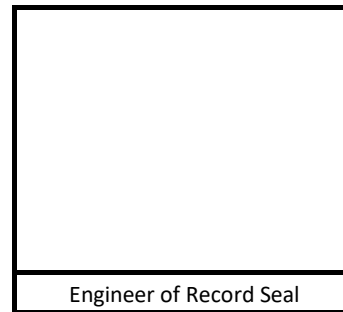


Submitted By:

\_\_\_\_\_  
 Angela Boyce  
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Approved by:

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 Adam Koenig



Engineer of Record Seal

Approval Date: 5/19/2023

# Design Exception Request

LAW-7-2.17

PID: 75923; Request 04

## Controlling Criteria Identification

Controlling Criteria	Standard	Existing (a.)	Proposed
Lane Width			
Shoulder Width			
Horizontal Curve Radius	Max. 6°	Between 18°21'51" and 56°10'20"	The proposed alignment meets the requirements of a 25 mph design speed at curve 5 which has a 38°11'50" degree of curvature.
Maximum Grade			
SSD (Horizontal & Crest Vertical)	K Crest = 114		The proposed vertical alignment contains crest vertical curves with K values of 33 and 29, which meet the requirements for a 35 mph design speed.
Pavement Cross Slope			
Superelevation Rate	Max Rate = 8%		<p>Curve 1 meets the requirements of Figure 401-1 in the L&amp;D Volume 1. However, the maximum rate for a 55 mph design speed of 8% was unable to be achieved due to its proximity to the intersection. The superelevation in the intersection area is such that it transitions from SR 243 into a normal crowned section on CR 69.</p> <p>The degree of curvature on curve 5 is such that it meets a 25 mph design speed. The superelevation to meet a 55 mph design speed of 8% was unable to be achieved due to the degree of curve and also to be able to provide a smooth transition to the existing pavement on CR 69. The rate that has been achieved in the proposed design is 2.5%; however, the transition that occurs from the proposed design to the existing meets a "G" rate for a 55 mph design.</p>
Vertical Clearance			
Design Loading Structural Capacity			

(a.) "Existing" may be N/A (i.e. New alignment or new ramp)

**Project Description**

THIS PROJECT IS THE THIRD PHASE OF THE LAW-7-2.17 STATE ROUTE 7 RELOCATION PROJECT. THIS PROJECT WILL CONSTRUCT 6.11 MILES OF THE EASTBOUND LANES OF STATE ROUTE 7 BETWEEN STATE ROUTE 527 AND STATE ROUTE 775. THIS PROJECT ALSO INCLUDES A PARTIAL GRADE SEPARATED INTERCHANGE AT STATE ROUTE 527 AND A FULL INTERCHANGE AT STATE ROUTE 775. ALSO INCLUDED WITH THIS PROJECT IS THE CONSTRUCTION OF A ROUNDABOUT AT THE INTERSECTION OF STATE ROUTE 7 AND STATE ROUTE 243. THIS IMPROVEMENT INCLUDES THE RELOCATION OF 1.91 MILES OF STATE ROUTES, COUNTY AND TOWNSHIP ROADS AS WELL AS THE ADDITION OF 1.25 MILES OF RAMP AND TWELVE (12) CUL-DE-SACS AND DRIVES. A TOTAL OF TEN (10) STRUCTURES WILL BE DEVELOPED WHICH INCLUDE TRAFFIC OVERPASS AND STREAM CROSSING BRIDGES. WORK WILL INCLUDE NEW STORM SEWERS, CULVERTS, TRAFFIC CONTROL, PAVEMENT MARKING AND LIGHTING.

**Section Description**

Design exception for CR 69.

CR 69 is a two lane uncurbed rural local road. The existing road section is approximately 16 feet wide with no paved shoulders. The proposed improvements are approximately 4700 feet long, just north of and parallel to the proposed SR 7 from the proposed SR 243 east to existing CR 69/Indian Guyan Road.

**Proposed Mitigation**

There will be no mitigative measures for the deviation to the standards included as part of this project. The entire project is proposed to help alleviate current traffic congestion and crash problems.

**Support for Deviation (Benefit-cost, R/W, Environmental, Constructability, Coordination with Other Projects, Relationship between any crash patterns and proposed design exception, etc.):**

The proposed project is an improvement to the existing condition. To meet a 55 mph design speed for the final horizontal curve, the proposed tie in location would move to the north along CR 69. This shift would create an impact to Bear Creek and create the need to replace the existing drainage structure that is currently conveying the creek. Improvements to the vertical alignment would also cause the roadway to be relocated further into the hillside. Work limits through this extreme terrain would be pushed out further creating more environmental impacts along with higher right-of-way and project costs.

**Does the requested Design Exception location fall within a Safety Integrated Project (SIP) Map Location?**

No

**Does the crash analysis (GCAT and CAM Tool) show any patterns that would be adversely impacted by the proposed Design Exception?**

No