

Design Exception Request

DEL-229-0.21

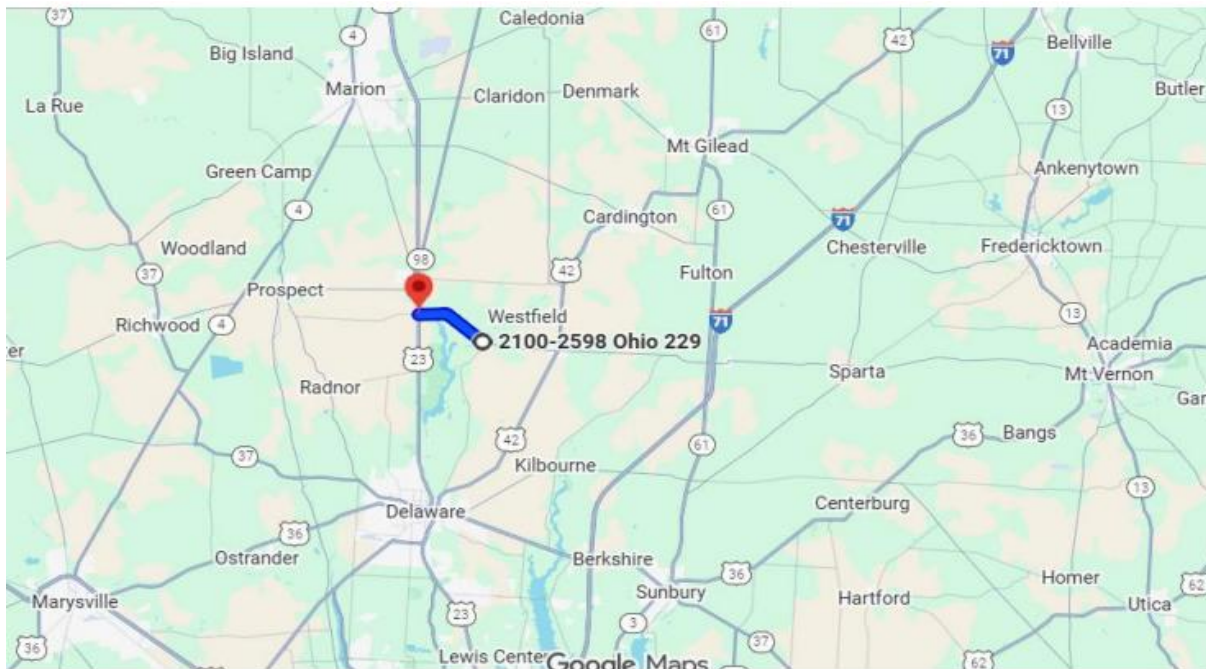
PID: 107754; Request 02

Letting Type: ODOT-Let

Design Designation

00229; 0.14-3.5

Current ADT (2025)	3,600	Td	0.05
Design Year ADT (2045)	4,700	Design Speed	60
Design Hourly Volume (2045)	400	Legal Speed	55
Directional Distribution	0.50	Design Functional Class	5 - Major Collector Roads
Trucks (24hr B&C)	0.16	Functional Class Area Type	Rural
		NHS Project	No



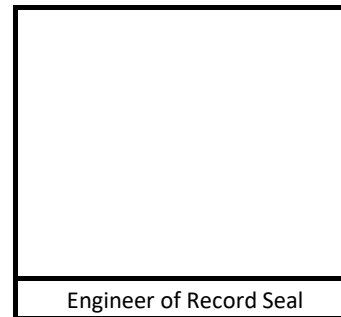
Submitted By:

Ravinder Gupta
(Engineer of Record)

Approved by:

Sean Meddles

Approval Date: 11/7/2024



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Controlling Criteria Identification			
Section: 00229; 0.14-3.5			
Controlling Criteria	Standard	Existing (a.)	Proposed
Lane Width			
Shoulder Width			
Horizontal Curve Radius			
Maximum Grade			
SSD (Horizontal & Crest Vertical)			
Pavement Cross Slope			
Superelevation Rate			
Vertical Clearance			
Design Loading Structural Capacity	SFN 2102730: HL 93 + 60 FWS	SFN 2102730: HS 20 + MOD (150% Ohio Legal Load)	SFN 2102730: HL 93 + 0 FWS (Inventory Rating = 0.682, Operating Rating = 0.885) (Controlling Legal Load RF = 117% Ohio Legal Load)
(a.) "Existing" may be N/A (i.e. New alignment or new ramp)			

Project Description

REPLACEMENT OF THE EXISTING STRUCTURE AT THE DEL-00229-00.200, REHABILITATION OF THE EXISTING STRUCTURES AT 00.930, 01.490, AND 03.480 AND GUARDRAIL UPGRADES AT THE DEL-00229-00.360 LOCATION. REPLACEMENT OF THE EXISTING CULVERTS AT 01.560 AND 02.298 AND EXTENDING THE EXISTING CULVERT AT THE 03.250 LOCATION.

Section Description

REPLACEMENT OF THE EXISTING STRUCTURE AT THE DEL-00229-00.200, REHABILITATION OF THE EXISTING STRUCTURES AT 00.930, 01.490, AND 03.480 AND GUARDRAIL UPGRADES AT THE DEL-00229-00.360 LOCATION.
REPLACEMENT OF THE EXISTING CULVERTS AT 01.560 AND 02.298 AND EXTENDING THE EXISTING CULVERT AT THE 03.250 LOCATION.

Proposed Mitigation (if any):

None

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

A cost comparison was completed for two sceanrios for the 0.93 bridge (SFN 2102730):

1.) Bridge Rehabilitation work (deck overlay, and deck edge repair) - \$699,588

2.) Full superstructure replacement - \$1,761,671

Due to the cost difference between the two options (\$1,062,082) the Bridge Rehabilitation option was selected which requires a design exception for the design load rating.

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