

Design Exception Request

DEL-229-0.21

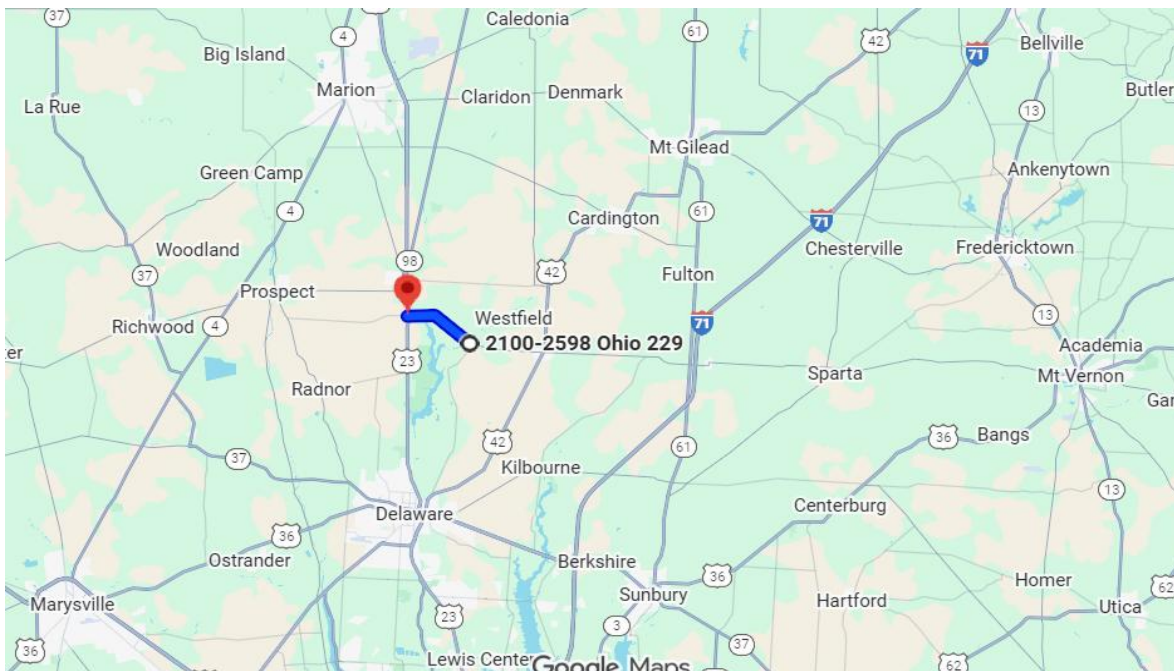
PID #107754, Request # 4

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



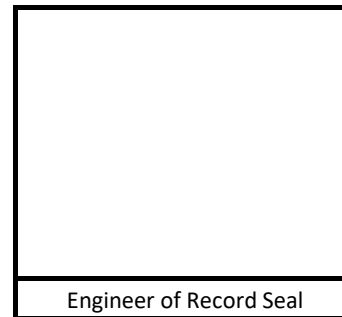
Submitted By:

Ravinder Gupta
(Engineer of Record)

Approved by:

Sean Meddles

Approval Date: 11/7/2024



Design Exception Request

DEL-229-0.21

PID #107754, Request # 4

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 2102765: HL 93 + 60 FWS	H 20 (95% Ohio Legal Load)	SFN 2102765: HS 20 + 0 FWS (Inventory Rating = 0.696, Operating Rating = 1.163) (Controlling Legal Load RF = 101% 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.):

Cost comparison was completed for the 1.49 bridge:

1) Bridge Rehabilitation work (deck overlay, and deck edge repair) - \$343,304

2) Full superstructure replacement - \$1,251,567

Due to the cost difference between the two options (\$908,263), the Bridge Rehabilitation option was selected which requires a design exception for the design load rating.

Additionally, the current rehab plans will improve the condition of the superstructure. The rehab will improve the deteriorated deck edges, repair full depth areas of the slab, and will allow the railing to be upgraded to a TST-2-21.

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