



PRELIMINARY ENGINEERING REPORT

APPENDIX D Design Variation Package

State Road 30 (US 98) from 17th Avenue
to Baybridge Drive

Escambia and Santa Rosa Counties, Florida

Financial Project ID No. 409334-1
Federal Aid Project No. 4221-078-P

October 2014

FINAL

Submittal/Approval Letter

To: J. Scott Golden, PE,
District or Turnpike Design Engineer

Date: January 14, 2013

Financial Project ID: 409334-1 New Construction RRR

Federal Aid Number: 4221-078-P

Project Name: Pensacola Bay Bridge PD&E Study

State Road Number: SR 30 Co./Sec./Sub.: 48 / 100 / 000 & 58 / 30 / 000

Begin Project MP: 3.4 (Escambia Co.) End Project MP: 0.4 (Santa Rosa Co.)

Full Federal Oversight: Yes No

Request for Design Exception , Design Variation

(For Design Exception or Variations Requiring Central Office Approval)

Re-submittal: Yes No Original Ref# _____ - _____ - _____

Requested for the following element(s):

- | | | | |
|---|--|---|--|
| <input type="checkbox"/> Design Speed | <input type="checkbox"/> Lane Widths | <input type="checkbox"/> Shoulder Widths | <input type="checkbox"/> Bridge Widths |
| <input type="checkbox"/> Structural Capacity | <input type="checkbox"/> Vertical Clearance | <input type="checkbox"/> Grades | <input type="checkbox"/> Cross Slope |
| <input type="checkbox"/> Superelevation | <input type="checkbox"/> Horizontal Alignment | <input type="checkbox"/> Vertical Alignment | <input type="checkbox"/> Stopping Sight Distance |
| <input type="checkbox"/> Horizontal Clearance | <input checked="" type="checkbox"/> Other <u>Access Management</u> | | |

A design variation is requested for the proposed 580 feet between a full and direction median opening at STA 482+00 and 490+80, respectively. This distance is 12% (80 feet) under the required distance of 660 feet for access management Class 5 for posted speeds of 45 mph or less.

Recommended by:

_____ Date _____
Responsible Professional Engineer or Landscape Architect (Landscape-Only Projects)

Approvals:

_____ Date _____ _____ Date _____
District or Turnpike Design Engineer District Structures Design Engineer

_____ Date _____ _____ Date _____
State Roadway Design Engineer State Structures Design Engineer

_____ Date _____ _____ Date _____
State Chief Engineer FHWA Division Administrator

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| <input type="checkbox"/> Superelevation | <input type="checkbox"/> Horizontal Alignment | <input type="checkbox"/> Vertical Alignment | <input type="checkbox"/> Stopping Sight Distance |
| <input type="checkbox"/> Horizontal Clearance | <input type="checkbox"/> Other _____ | | |

A design variation is anticipated for the proposed superelevation rate of 0.037 for the small-radius curve of approximately 7.5-degrees in the vicinity of the 17th Avenue intersection. This curve comprises the smallest radius of a three-centered compound curve and requires a superelevation rate of 0.037 at a 45 mph design speed. This curve ties into the existing curve (approximately 1,800-foot radius) on Bayfront Parkway.

Because the PC of this smaller curve is a point of compound curvature and comprises the beginning of the roadway reconstruction, carrying this superelevation rate through the curve and onto Bayfront Parkway, where the cross slope must be matched, may not be feasible. This design variation will be reconsidered in the design phase, when a detailed topographic survey will be available.

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_____ Date _____
Responsible Professional Engineer or Landscape Architect (Landscape-Only Projects)

Approvals:

_____ Date _____ _____ Date _____
District or Turnpike Design Engineer District Structures Design Engineer

_____ Date _____ _____ Date _____
State Roadway Design Engineer State Structures Design Engineer

_____ Date _____ _____ Date _____
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| <input type="checkbox"/> Structural Capacity | <input type="checkbox"/> Vertical Clearance | <input type="checkbox"/> Grades | <input checked="" type="checkbox"/> Cross Slope |
| <input type="checkbox"/> Superelevation | <input type="checkbox"/> Horizontal Alignment | <input type="checkbox"/> Vertical Alignment | <input type="checkbox"/> Stopping Sight Distance |
| <input type="checkbox"/> Horizontal Clearance | <input type="checkbox"/> Other _____ | | |

A design variation is anticipated for the proposed mainline pavement cross slope of SR 30 (US 98) on the Gulf Breeze approach. In order to match the existing pavement cross slope and curb and gutter, the median-side left-turn lanes are proposed to be sloped outwardly at a rate of 0.02. This configuration would require that the two outside lanes be sloped at 0.03 in accordance with the PPM, Vol. 1 CH 2, Figure 2.1.1.

The proposed pavement cross slope will not be able to meet these requirements and match the existing pavement cross slope and curb and gutter in the vicinity of the proposed milled and resurfaced roadway section. This design variation will be reconsidered in the design phase, when a detailed topographic survey will be available.

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Approvals:

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District or Turnpike Design Engineer District Structures Design Engineer

_____ Date _____ _____ Date _____
State Roadway Design Engineer State Structures Design Engineer

_____ Date _____ _____ Date _____
State Chief Engineer FHWA Division Administrator