

APPENDIX D

DESIGN VARIATION PACKAGE

Variation No. 1 - Median Opening Spacing

To: George K. Borchik, PE
 District Design Engineer

Date: 9/14/2009

Financial Project ID: 238648-1-01, 238648-1-02 New Construction () RRR ()

Federal Aid Number: _____

Project Name: SR 45 from SW 111th Place Lane to SW 61st St

State Road Number: SR 45

Begin Project MP: 1.32

End Project MP: 5.7

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 Access Management		

A design variation is requested for a 147' (11%) reduction below the required 1,320' spacing between a full and directional median opening. This variation occurs between a proposed directional median opening at SW 86th Street and a full median opening at SW 86th Street.

Recommended By:

 Tanya Kristoff, PE No. 55463 Date _____

Approvals:

 District Design Engineer Date _____

 District Structures Design Engineer Date _____

 State Roadway Design Engineer Date _____

 State Structures Design Engineer Date _____

 State Chief Engineer Date _____

 FHWA Division Administrator Date _____

Background

In order to provide an access management program that recognizes the needs of the surrounding community, a variation on the required access management distance is investigated.

Design Criteria vs. Proposed Criteria

Table 1.8.2 of the Plans Preparation Manual requires a 1,320' distance between directional median openings or directional and full median openings based on a Class 3 access management criteria.

Discussion and Justification

A Marion County emergency services facility is located in the northwest quadrant of the SR 45 / SW 86th Street intersection and requires a full median opening with traffic signal at this location. A design variation for this distance between a full and directional median opening was verbally agreed upon by the District 5 Traffic Operations unit.

References:

2009 PPM, Table 1.8.2 – Arterial Access Management Classification and Standards

Recommended By: _____

Date: _____

Tanya Kristoff, P.E. No. 55463

Reynolds, Smith, and Hills, Inc.

Variation No. 2 - Median Opening Spacing

To: George K. Borchik, PE
 District Design Engineer

Date: 9/14/2009

Financial Project ID: 238648-1-01, 238648-1-02 New Construction () RRR ()

Federal Aid Number: _____

Project Name: SR 45 from SW 111th Place Lane to SW 61st St

State Road Number: SR 45

Begin Project MP: 1.32

End Project MP: 5.7

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):

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

A design variation is requested for a 430' (33%) reduction below the required 1,320' spacing between a two directional median openings. This variation occurs between a proposed directional median opening at SW 83rd Place Road and a directional median opening at the entrance to Rainbow Springs State Park.

Recommended By:

 Tanya Kristoff, PE No. 55463 Date _____

Approvals:

 District Design Engineer Date _____

 District Structures Design Engineer Date _____

 State Roadway Design Engineer Date _____

 State Structures Design Engineer Date _____

 State Chief Engineer Date _____

 FHWA Division Administrator Date _____

Background

In order to provide an access management program that recognizes the needs of the surrounding community, a variation on the required access management distance is investigated.

Design Criteria vs. Proposed Criteria

Table 1.8.2 of the Plans Preparation Manual requires a 1,320' distance between directional median openings or directional and full median openings based on a Class 3 access management criteria.

Discussion and Justification

The proposed directional median opening at SW 83rd Place Road is for southbound vehicles only, as the sideroad forms a "T" intersection with SR 45. SW 83rd Place Road is the only entrance and exit point to and from SR 45 for the community of Grand Park, a group of 90 single family homes. To the north, a directional median opening is proposed for the entrance to Rainbow Springs State Park. This facility is a prominent destination for the community and for tourists as described in Chapter 2 of the PDSR. This design variation was verbally agreed upon by the District 5 Traffic Operations unit on June 8, 2009.

References:

2009 PPM, Table 1.8.2 – Arterial Access Management Classification and Standards

Recommended By: _____

Date: _____

Tanya Kristoff, P.E. No. 55463

Reynolds, Smith, and Hills, Inc.

Variation No. 3 - Median Opening Spacing

To: George K. Borchik, PE
 District Design Engineer

Date: 9/14/2009

Financial Project ID: 238648-1-01, 238648-1-02 New Construction () RRR ()

Federal Aid Number: _____

Project Name: SR 45 from SW 111th Place Lane to SW 61st St

State Road Number: SR 45

Begin Project MP: 1.32

End Project MP: 5.7

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 Access Management		

A design variation is requested for a 382' (29%) reduction below the required 1,320' spacing between a two directional median openings. This variation occurs between a proposed directional median opening at STA 232+00 and a directional median opening at SW 77th Street / Loop.

Recommended By:

 Tanya Kristoff, PE No. 55463 Date _____

Approvals:

 District Design Engineer Date _____

 District Structures Design Engineer Date _____

 State Roadway Design Engineer Date _____

 State Structures Design Engineer Date _____

 State Chief Engineer Date _____

 FHWA Division Administrator Date _____

Background

In order to provide an access management program that recognizes the needs of the surrounding community, a variation on the required access management distance is investigated.

Design Criteria vs. Proposed Criteria

Table 1.8.2 of the Plans Preparation Manual requires a 1,320' distance between directional median openings or directional and full median openings based on a Class 3 access management criteria.

Discussion and Justification

The proposed directional median opening at STA 232+00 is for northbound vehicles only and will accommodate vehicles emanating from Rainbow Springs State Park and destined for the southbound direction. A pavement “bulb-out” is proposed on the west side of the roadway to facilitate turning vehicles, particularly recreational vehicles and delivery trucks. This directional median opening is a compromise to placing a full median opening at the entrance to Rainbow Springs State Park. To the north, a directional median opening is proposed for the entrance to Grand Park North, which is a newly-established group of around 200 home sites. SW 77th loop is the only entrance and exit point to and from SR 45 for this community. This design variation was verbally agreed upon by the District 5 Traffic Operations unit on June 8, 2009.

References:

2009 PPM, Table 1.8.2 – Arterial Access Management Classification and Standards

Recommended By: _____

Date: _____

Tanya Kristoff, P.E. No. 55463

Reynolds, Smith, and Hills, Inc.