

EXECUTION VERSION

I-395 Project

Exhibit C-3

Technical Requirements

Attachment 1.5c

Approved Design Exceptions, Design Waivers and Other Approvals Prior to Commercial Close

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The attached list of Design Exceptions (DEs) and Design Waivers (DWs) is subject to change throughout the design development process. Additional Design Exceptions and Design Waivers that are identified and approved throughout the design development process will be added and/or deleted from the attached list by addendum. It is further noted that if any element of an approved Design Exception or Design Waiver is changed during construction or design, the Concessionaire is required to resubmit the DE/DW package for re-evaluation and approval by the Department and FHWA, as necessary.

395 EXPRESS LANES DESIGN EXCEPTIONS

Number	Name	Description	Date Approved (FHWA) *
DE-1 to DE-9	Previously used numbering on prior projects	--	--
DE-10	Reduced Stopping Sight Distance for Curve No. 8 on 395 Express Lanes From: Station 1738+55 To: Station 1750+37	Addresses reduced horizontal stopping sight distance (HSSD) at the Shirlington South Rotary Bridge over I-395 for 65 mph design speed. The HSSD at this location meets design requirements for 60 mph.	December 15, 2016
DE-11	Reduced Lane and Shoulder Widths on 395 Express Lanes From: Station 1533+00 To: Station 1920+00	Addresses reduced lane (11 ft travel lanes) and shoulder widths below the minimum widths based on current standards for the Express travel lanes and at various bridges throughout the length of the project.	December 20, 2016
DE-12	Reduced Superelevation Rate in Curves 13 and 14 at Bridges on 395 Express Lanes From: Station 1853+06 To: Station 1856+33 (Curve 13) & From: Station 1870+07 To: Station 1873+01 (Curve 14)	Addresses reduced super-elevation rate at the bridge over Washington Boulevard (Curve 13) and the bridge over Joyce Street (Curve 14) due to existing bridge cross slopes.	December 15, 2016
DE-13	Reduced Shoulder Width on 395 Express Lanes due to bridge piers, signage, lighting and gantries From: Station 1533+00 To: Station 1930+03	Addresses reduced shoulder widths at multiple locations where localized shoulder width reductions are present or are proposed within the project limits due to the presence of existing bridge piers, signs, gantries, light poles, etc.	December 20, 2016
DE-14	In-Fill Wall at Existing Piers at Multiple Locations	Addresses minimum shoulder width at bridge pier locations using an alternative pier protection system to the standard VDOT Bridge Pier Protection System (BPPS-1 to BPPS-3) system.	December 1, 2016

* In the case of the Design Exception (DE), "Date Approved" refers to the date when the DE was approved by Federal Highway Administration (FHWA), which occurs after the VDOT approval. VDOT approval alone does not constitute approval of a Design Exception.

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395 EXPRESS LANES DESIGN WAIVERS

Number	Name	Description	Date Approved (VDOT) **
DW-1 to DW-18	Previously used numbering on prior projects	--	--
DW-19	Total Shoulder Width on 395 Express Lanes One-Lane Ramps	Addresses reductions of total shoulder widths below the minimum width required for one-lane ramps (7 ramps total).	September 13, 2016
DW-20	Posted Speed Same as Design Speed on 395 Express Lanes Segment 1 (65 mph): Turkeycock Run to Sta. 1828+00 Segment 2 (55 mph): Sta. 1828+00 to Potomac River	Addresses use of a posted speed limit that is the same as the design speed with in the corridor. Design speed for Segment 1 is 65 mph and Segment 2 is 55 mph.	September 13, 2016
DW-21	Request to Use Class I Corrosion Resistant Reinforcing Steel (CRR) for Existing Bridge Repairs within the 395 Express Lanes Corridor	Addresses the use of Class I Corrosion Resistant Reinforcing Steel (CRR) for bridge repairs in lieu of implementing Class III CRR per VDOT IIM-S&B-81.	July 8, 2016
DW-22	Shoulder Rotation GS-11 From: Station 1542+28 To: Station 1872+90	Addresses use of the narrow shoulder (west side) not maintaining VDOT standard GS-11 for shoulder slope from Stations 1542+28 to Station 1872+90.	September 13, 2016
DW-23	Reduced Taper Length for Turn Lanes on Eads Street	Addresses reduced turn lane taper length for the northbound turn lane from Eads Street to Pentagon South Rotary Road.	September 13, 2016
DW-24	Substandard Vertical Clearance at Four Existing Overpass Bridges	Addresses substandard vertical clearance at four existing overpass bridges within the corridor: Seminary Road Ramp B (Structure No. 100-2801), Seminary Road Ramp A (Structure No. 100-2802), King Street (Structure No. 100-1821), and Shirlington Circle South Rotary (Structure No. 000-2019).	September 19, 2016

** In the case of the Design Exception (DWs), "Date Approved" refers to the date when the DW was approved by VDOT. Federal Highway Administration (FHWA) approval of Design Waivers is not required.

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DUKE-EDSALL WIDENING DESIGN WAIVERS

Location and Design			
DW Number	VDOT Tracking Number	Design Waiver	Date Approved
DW-02	DW-2015-42	Superelevation Transition Length, SB I-395 Exit Ramp to EB Edsall Road (Curve ED-B2)	July 1, 2016
DW-03	DW-2015-43	Superelevation Transition Length, SB I-395 Entrance Ramp from Edsall Road EB (Curve ED-A2)	July 1, 2016
DW-12	Not Assigned	Left Shoulder Width (4 to 14 feet), SB I-395	July 1, 2016
DW-13	Not Assigned	Right Shoulder Width (10 to 14 feet), SB I-395	July 1, 2016
DW-14	DE-2015-32	Left Shoulder Width, SB I-395 (See Note 2)	June 28, 2016
DW-15	DE-2015-35	Horizontal Curvature, SB I-395 Entrance Ramp from Route 236 Duke Street (Curve DK-E3)	June 28, 2016
DW-16	DE-2015-36	Horizontal Curvature, SB I-395 Exit Ramp at Route 648 Edsall Road (Curve ED-B2)	June 28, 2016
Structure and Bridge			
DW Number	VDOT Tracking Number	Design Waiver	Date Approved
DW-03	Not Assigned	Pier Protection Barrier at Edsall Road and NB I-395 Ramp Overpass. One Location on Westbound Median Side	January 27, 2016
DW-05	Not Assigned	Pier Protection Barrier at Duke Street and NB I-395 Ramp Overpass	January 27, 2016

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DUKE-EDSALL WIDENING DESIGN EXCEPTIONS

Location and Design			
DE Number	VDOT Tracking Number	Design Exception	Date Approved
DE-02	DE-2015-33	Right Shoulder Width, SB I-395	December 5, 2016
DE-12	Not Assigned	Pier Protection Barrier at Turkeycock HOV Ramp over I-395 SB	December 1, 2016

Note that within the Duke-Edsall Widening project limits, the left shoulder width on the Southbound General Purpose Lanes shall be 4' minimum with the exception of the following:

1. The limits as addressed under Duke-Edsall Widening DW-14
2. The limits included under previously approved Design Exceptions related to shoulder width reductions in the vicinity of five existing sign structure support locations:
 - a. Approximate I-395 SB Baseline Stations 136+43 to 138+43
 - b. Approximate I-395 SB Baseline Stations 144+40 to 146+39
 - c. Approximate I-395 SB Baseline Stations 152+37 to 154+37
 - d. Approximate I-395 SB Baseline Stations 160+37 to 162+37
 - e. Approximate I-395 SB Baseline Stations 169+37 to 171+37

SEMINARY ROAD HOV RAMP SOUNDWALL DESIGN EXCEPTION

Location and Design			
DE Number	VDOT Tracking Number	Design Exception	Date Approved
DE-1	Not Assigned	Left and Right Shoulder Width on the I-395 Southbound General Purpose Lanes Bridge over Sanger Avenue	March 17, 2015