



# COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION  
1401 EAST BROAD STREET  
RICHMOND, VIRGINIA 23219 2000

David S. Ekern, P.E.  
COMMISSIONER

December 2008

## 2008 Road and Bridge Standards Volume I and Volume II

To: All Recipients of the 2008 Road and Bridge Standards

Attached is your copy of Volumes I and II of the 2008 edition of the **VDOT Road and Bridge Standards**. The pages and tabs of each volume have been individually packaged and you will need to insert these into the binders.

**Note:** Due to the large number of sheets within Volume I, we are recommending that Section 800 be moved to the beginning of Volume II. This should make it a little easier to turn the pages within Volume I.

**This 2008 edition is to be used on VDOT projects beginning with those on the June 2009 advertisement.**

In republishing the Road and Bridge Standards there were many minor improvements that were made to the drawings. In some cases there were drawings that were removed from the standards, some that were renamed or renumbered, and some that were moved within the same section. Below we have summarized the more substantive changes that were made within each section.

**Section 100:**

ECS-INS sheets were changed to EC-10 thru EC-13  
EC-8- Details added for typical synthetic dewatering bag

**Section 200:**

CG-9B, 9D, 11, 12 and 13 – many notes were clarified or reworded. Drawings were modified for clarity.

**Section 300:** no major changes

**Section 400:** no major changes

**Section 500:**

GR-SP - now included in the GR-7 and GR-9 standards  
GR-INS - more guidance provided for the use of Guardrail with curb or curb and gutter.  
MB-10A and 11A now require a 45 degree bevel on the bolt down slot.  
FE-CL - more detailed information provided on required post sizes

**Section 600:**

PE-1 - more detailed information provided on the different types of PE-1 entrances

**Section 700:** no major changes

**Section 800:**

Additional guidance given on the use of Spiral Curves.

Additional Maximum Relative Gradients provided for Ramps and Loops

TC-5.01ULS removed, (see TC-5.04ULS)

**Appendix:** no major changes

**Section 1000:**no major changes

**Section 1100:** no major changes

**Section 1200:** no major changes

**Section 1300:** The entire section has been reorganized. Some drawings have been eliminated and some have been revised. Any questions related to this section should be directed to the Traffic Engineering Division.

**Section 1400:** no major changes

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The following standard has been changed since the printing of this edition. This sheet is attached and replaces the equivalent sheet in the package.

We recommend that this sheet be **stapled** on top of sheet 303.02 that was included with your new Road and Bridge Standards book.

**Sheet number 303.02    Standard WP-2**

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ALL insertable sheets currently used in conjunction with the 2001 Standards have now been incorporated into the 2008 Road and Bridge Standards with the exception of the following 6 insertable sheets which should still be utilized where applicable. All insertable sheets will be located in the Central Office Environment on Falcon DMS and the FTP Server.;

a47.dgn	GR-FOA-3 W-BEAM GUARDRAIL INSTALLATION CRITERIA
a73.dgn	TYPICAL METHOD OF INSTALLATION FOR PIPE ON FILL SLOPE
isd1482.dgn	SPECIAL DESIGN SLOPE DRAIN
isd2045.dgn	SPECIAL DESIGN CONCRETE SLAB END TREATMENT
isd2944.dgn	SINK HOLE DETAILS
isd2945.dgn	MODIFIED PG-2A AND MODIFIED PG-5

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The following is a list of insertable sheets which will now only be available through the CADD Sheet Cell Library.

a2.dgn	HYDROLOGIC DATA SHEET
a4.dgn	ROADSIDE DEVELOPMENT
a5.dgn	EROSION CONTROL SUMMARY
a9.dgn	PRELIMINARY RIGHT OF WAY DATA SHEET
a14.dgn	REVISION DATA SHEET
a36.dgn	RADIAL OFFSET / REVERSE CURVE DATA
a41.dgn	UNDERGROUND UTILITY TEST HOLE INFORMATION
a106.dgn	WETLAND COMPENSATION PLANT LIST, SUMMARY AND NOTES
isd86.dgn	86 CADD LEVEL STRUCTURE SHEET
isd95.dgn	95 CADD LEVEL STRUCTURE SHEET

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**Future Revisions to the 1996, 2001 and 2008 Road and Bridge Standards:**

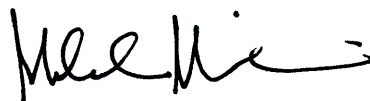
In an effort to be more consistent, we will move to a set schedule for revisions.

Beginning in 2009, revisions will be in April and October (if needed).

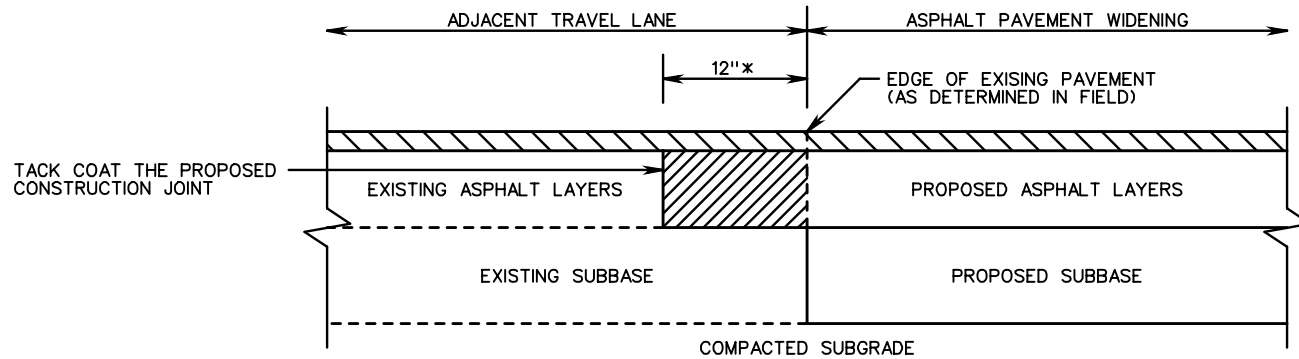
Anyone requesting that revisions be made to the standards should give this office notice 60 days in advance. Any revisions that are requested to be made prior to April or October will be handled on a case by case basis.

If you have any questions or comments please contact Matt Cross at (804) 786-2577 (e-mail [matthew.cross@vdot.virginia.gov](mailto:matthew.cross@vdot.virginia.gov)) or Matt Barret at (804) 371-2788 (e-mail [matt.barret@vdot.virginia.gov](mailto:matt.barret@vdot.virginia.gov)).



Sincerely,



Mohammad Mirshahi, PE  
State Location and Design Engineer



**CONSTRUCTION JOINT DETAIL**

-  REMOVE EXISTING ASPHALT LAYERS TO EXISTING SUBBASE AND REPLACE WITH PROPOSED ASPHALT WIDENING LAYERS
-  PROPOSED MINIMUM 1½ INCH THICK ASPHALT SURFACE COURSE (SEE NOTE 5)
- \* MINIMUM 12 INCHES, OR GREATER AS NECESSARY TO ABUT THE FULL THICKNESS OF EXISTING ASPHALT LAYERS AS DETERMINED BY CORES (SEE NOTE 3)

**NOTES:**

1. ASPHALT PAVEMENT WIDENING SHALL HAVE A PAVEMENT DESIGN IN ACCORDANCE WITH CURRENT VDOT PROCEDURES AND BE APPROVED BY THE ENGINEER.
2. THE PAVEMENT DESIGN FOR ASPHALT PAVEMENT WIDENING SHALL MEET OR EXCEED THE DEPTHS AND TYPES OF THE LAYERS OF EXISTING PAVEMENT. SUBSURFACE DRAINAGE OF THE EXISTING AND PROPOSED PAVEMENT SHALL BE ADDRESSED IN THE PAVEMENT DESIGN.
3. A MINIMUM OF THREE CORES SHALL BE TAKEN ALONG THE CENTER OF THE ADJACENT TRAVEL LANE TO DETERMINE THE TYPE AND THICKNESS OF EXISTING PAVEMENT LAYERS. THESE CORES SHALL BE SPACED NO MORE THAN 500 FEET APART.
4. THE ADJACENT TRAVEL LANE SHALL BE MILLED A MINIMUM DEPTH OF 1½ INCHES AND REPLACED WITH AN ASPHALT SURFACE COURSE TO MATCH THE PROPOSED PAVEMENT WIDENING SURFACE COURSE, UNLESS WAIVED BY THE ENGINEER.
5. THE ENGINEER MAY REQUIRE THE MILLING DEPTH OF THE EXISTING PAVEMENT TO BE ADJUSTED TO ACHIEVE AN ACCEPTABLE PAVEMENT CROSS-SLOPE AND EFFECTIVE SURFACE DRAINAGE.
6. EXISTING PAVEMENT MARKINGS AND MARKERS WITHIN THE PROJECT LIMITS SHALL BE RESTORED SUBJECT TO THE APPROVAL OF THE ENGINEER.
7. FINAL TRANSVERSE PAVEMENT TIE-IN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 315.05(c) OF THE SPECIFICATIONS EXCEPT THAT ALL JOINTS AT TIE-IN LOCATIONS SHALL BE TESTED USING A 10 FOOT STRAIGHTEDGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 315.07(q) OF THE SPECIFICATIONS.



ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1

REVISION DATE

303.02

**ASPHALT PAVEMENT WIDENING  
FOR WIDENING SUBJECT TO TRAFFIC**

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION  
REFERENCE

315