

**ADOPTION OF AN AMENDMENT TO  
THE PUBLIC FACILITIES MANUAL  
OF THE COUNTY OF FAIRFAX, VIRGINIA**

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium of the Government Center at Fairfax, Virginia, on Monday, February 27, 2006, the Board after having first given notice of its intention so to do, in the manner prescribed by law, adopted an amendment regarding the Public Facilities Manual of the County of Fairfax, Virginia, said amendment so adopted being in the words and figures following, to-wit:

BE IT ORDAINED BY THE BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA:

Amend the Public Facilities Manual, as follows:

**Amend the PFM, by revising Table 4.1 of Chapter 4, where insertions are indicated by underlines and deletions are indicated by strikeouts, to read as attached.**

**Amend the PFM, by revising the Chapter 7, where insertions are indicated by underlines and deletions are indicated by strikeouts, to read as attached.**

**Amend the PFM, by revising Plates 6-7, 23-7 24-7, 6M-7, 23M-7, and 24M-7, where revisions are enclosed in revision clouds, as attached.**

These amendments shall become effective at 12:01 a.m., February 28, 2006

**GIVEN under my hand this 27<sup>th</sup> of February, 2006.**

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NANCY VEHRS  
Clerk to the Board of Supervisors

**Amend Table 4.1 of the Public Facilities Manual to read as follows:**

**TABLE 4.1 Minimum Standards Required for Site Density Testing (68-00-PFM, 92-06-PFM)**

TEST LOCATIONS	TESTING FREQUENCY
<p><b>Embankments</b> Fill sections for streets, travelways, and pipestem driveways</p>	<p>One density test shall be performed per 5000 ft<sup>2</sup> (500 m<sup>2</sup>) per 6" (150mm) compacted lift.</p> <p>The embankment test shall not be performed at the same spot where the utility trench backfill test was performed. Trench testing shall be performed in addition to the embankment test.</p> <p>Under curb and gutter, one density test shall be performed per 300 ft. (90m) on alternating sides.</p>
<p><b>Subgrade</b> Cut in existing fill for streets, travelways, and pipestem driveways</p>	<p>Proofrolling, evaluation and approval by the geotechnical engineer of record (undercut and stabilization may be necessary as determined by the geotechnical engineer of record). The exception to this is in the proposed underground utilities, where the existing fill shall be completely removed and replaced with new engineered fill placed and compacted as per 4-0401.2, for utility support.</p>
<p><b>Subgrade</b> Cut in natural soils</p>	<p>Proofrolling, evaluation and approval by the geotechnical engineer of record.</p>
<p><b>Subbase Material</b> For streets, travelways, and pipestem driveways</p>	<p>One density test shall be performed per 5000 ft<sup>2</sup> (500 m<sup>2</sup>) per 6" (150mm) compacted lift.</p> <p>When the subbase aggregate is placed in layers or lifts, each lift shall be tested.</p> <p>Under curb and gutter when placed before the subbase material in the street, perform one density test per 300 ft. (90m) on alternating sides.</p>
<p><b>Base Material</b></p>	<p>One density test shall be performed per 5000 ft<sup>2</sup> (500 m<sup>2</sup>) at the finished base grade. When the base aggregate is placed in layers or lifts, each 6" (150mm) compacted lift shall be tested at the required frequency.</p>
<p><b>Storm Drainage System - Backfill *</b></p>	<p>One density test shall be performed per 300 ft. (90m) and at vertical intervals not to exceed 12" (300mm).</p>
<p><b>Sanitary Sewer, Water and Gas Mains - Backfill *</b> (Note: Field density test reports must be provided to the Fairfax County Site Inspector before field approval is given for issuance of tap permits.)</p>	<p>One density test shall be performed per 300 ft. (90m) or between manholes if less than 300 ft. (90m) apart and at vertical intervals not to exceed 12" (300mm). Refer to § 10-0104.2L(13) and Plate Nos. 18-10 (18M-10) or 19-10 (19M-10).</p>
<p><b>Sanitary Sewer, Water and Gas Laterals - Backfill for Stub Constructed in Conjunction with Utility Main *</b></p>	<p>One density test shall be performed per 5 laterals and at vertical intervals not to exceed 12" (300mm).</p>

<p><b>Sidewalks and Driveway Aprons</b></p>	<p>Sidewalk subgrade: One density test shall be performed per 500 ft. (150m) on alternating sides at the subgrade elevation. A minimum of two density tests per street is required.</p> <p>Driveway apron: One density test per apron shall be performed.</p>
<p><b>Asphalt Concrete Pavement</b> (Note: The thin lift nuclear density test can be used for any surface course placed directly over an aggregate pavement or on a lift of 135 lbs/yd<sup>2</sup> (73.24 Kg/m<sup>2</sup>) (or greater) that is placed on an asphalt pavement course).</p>	<p><i>Saw Cuts or Cores</i></p> <ul style="list-style-type: none"> <li>• Two cuts or cores represent one test. A minimum of two tests per street are required regardless of the street length.</li> <li>• One test shall be performed per 500 ft. (150m) of roadway or 1000 ft. (300m) of any pass made by a paving train.</li> </ul> <p><i>OR Conventional Nuclear Density Gauge</i></p> <ul style="list-style-type: none"> <li>• One test shall be performed per 500 ft. (150m) of roadway.</li> <li>• Five tests shall be performed in each test section. A minimum of two test sections per street is required regardless of the length of the street.</li> </ul> <p><i>Thin Lift Nuclear Density Gauge</i> Test areas are defined as lots and sublots. A lot consists of 5000 ft. (1500m) of a pass made by a paving train. Each lot is divided into five sublots of equal size. Two tests will be performed on each sublot. Each separate street shall consist of at least one lot. Streets less than 500 ft. (150m) in length shall be tested a minimum of twice.</p>

\* Testing required beneath structures only, including but not limited to sidewalks, driveways, streets and stoops.

**Amend Section 7-0501.2 of the Public Facilities Manual to read as follows:**

7-0501.2 (72-01-PFM, 62-98-PFM, 92-06-PFM) Alternate equivalent pavement sections may be submitted with the approval of the Director prior to construction. Their design shall be in accordance with either the current VDOT Pavement Design Guide for Subdivision and Secondary Roads in Virginia or AASHTO Guide for Design of Pavement Structures, 1993 or for CBR test values less than 10, 1” (25mm) of additional aggregate subbase shall be provided for each point below 10. The VDOT design method shall not be used when any subgrade CBR value is less than 4. When the subgrade CBR value is less than 4, 1” (25mm) of additional subbase is required for each point below CBR 10. If one or both consecutive CBR values are less than 4, the pavement design shall be based on the lowest CBR value and remain constant between these test locations.

**Amend Section 7-0502.5 of the Public Facilities Manual to read as follows:**

7-0502.5 (92-06-PFM) Standard Pavement Design

7-0502.5A When maintained by the property owner (e.g., shopping centers, office buildings):

7-0502.5A(1) (47-95-PFM, 92-06-PFM) A 6" (150mm) base and a 1-1/4" (35mm) asphalt surface is required to ensure a dustless surface.

7-0502.5A(2) No soils test or subbase will be required.

7-0502.5A(3) A "2-shot" surface treatment may be approved by the Director in light traffic situations and in R-C Cluster developments.

7-0502.5A(4) A concrete pavement design in accordance with current engineering procedures is acceptable.

7-0502.5B When maintained by individual homeowners, a homeowners association or similar organization:

7-0502.5B(1) (47-95-PFM) A 6" (150mm) base and a 2 1/2" (65mm) asphalt surface is required to ensure a dustless surface.

7-0502.5B(2) Soils tests shall be provided for the laboratory CBR test, VTM-8. If the CBR is less than 10, 1" (25mm) of subbase is required for each point below CBR 10. If the subgrade CBR is 10 or greater, no subbase is required. These criteria do not apply to 5-acre subdivisions or their metric equivalent.

7-0502.5B(3) A concrete pavement designed in accordance with current engineering procedures is acceptable.

**Amend Section 7-0503 of the Public Facilities Manual to read as follows:**

7-0502.6 (92-06-PFM) All aggregate subbase and base material, as well as subgrade for all streets, parking areas, sidewalks, shoulders and curb and gutter shall be compacted in accordance with VDOT Road and Bridge Specifications, Sections 305, 308 and 309.

**7-0503 (92-06-PFM) Private Driveway Entrances and Pipestem Driveway Standards.**

7-503.1 Private Driveways

7-503.1A Private driveway entrances on curb and gutter streets shall conform to VDOT standards (CG-9B through CG-9D). Private driveway entrances on streets with no curb and gutter shall conform to Plate 22-7 (22M-7).

7-0503.2 Pipestem Driveways

7-0503.2A For geometric design, see Plates 10-7 (10M-7), 11-7 (11M-7), 19-7 (19M-7), and 23-7 (23M-7).

7-0503.2B For pavement design, see standard pavement § 7-0502.5.

7-0503.2C All aggregate subbase and base material, as well as subgrade for pipestem driveways shall be compacted in accordance with VDOT Road and Bridge Specifications, Sections 305, 308 and 309.