

COUNTY COUNCIL OF PRINCE GEORGE'S COUNTY, MARYLAND

2008 Legislative Session

Bill No. CB-31-2008

Chapter No. _____

Proposed and Presented by The Chairman (by request – County Executive)

Introduced by _____

Co-Sponsors _____

Date of Introduction _____

BILL

1 AN ACT concerning

2 Building Code

3 For the purpose of amending the Prince George’s County Building ordinance, adopting certain
4 amendments to the 2003 Edition of the International Building Code and the International
5 Residential Code for One and Two Family Dwellings, amending sections of the Grading,
6 Drainage and Pollution Control ordinance and generally related to grading, drainage and building
7 standards.

8 BY repealing and reenacting with amendments:

9 SUBTITLE 4. BUILDING CODE.

10 Sections 4-271, 4-277, 4-297, 4-298, 4-308 and 4-310

11 The Prince George's County Code

12 (2003 Edition, 2006 Supplement).

13 BY repealing:

14 SUBTITLE 4. BUILDING CODE.

15 Section 4-247

16 The Prince George's County Code

17 (2003 Edition, 2006 Supplement).

18 BY adding:

19 SUBTITLE 4. BUILDING CODE.

20 Sections 4-191, 4-247 through 4-252

21 The Prince George's County Code

(2003 Edition, 2006 Supplement).

SECTION 1. BE IT ENACTED by the County Council of Prince George's County, Maryland, that Sections 4-271, 4-277, 4-297, 4-298, 4-308, and 4-310 of the Prince George's County Code be and the same are hereby repealed and reenacted with the following amendments:

SUBTITLE 4. BUILDING.

DIVISION 3. GRADING, DRAINAGE, AND POLLUTION CONTROL.

Sec. 4-271. Definitions.

(a) Wherever the following words are used in, or in conjunction with, the administration of this Division, they shall have the meaning ascribed to them in this Section.

* * * * *

[47] **Significant Drainage.** Surface drainage rates that exceed three (3) cubic feet per second based on the ten (10) year storm event as calculated by the Rational Method.

[47] **Site.** Any lot or parcel of land or combination of contiguous lots or parcels of land.

[48] **Site development.** The resulting condition of land improvements through the constructing, installing, placing, or planting of: open and enclosed storm drainage facilities, stormwater management facilities, supporting foundations for utility lines and service (house) connections, parking lots, driveways, curbs, pavements, steps, sidewalks, bike paths, recreational facilities, patios, ground planters, ground covers, plantings, landscaping, and logging or timber harvesting operations.

[49] **Slope.** The inclined exposed surface of a fill, excavation, or natural terrain.

[50] **Soil.** All earth material of whatever origin that overlies bedrock and may include the decomposed zone of bedrock which can be readily excavated by mechanical equipment.

[51] **Soil engineer.** A professional engineer who is qualified by education and experience to practice applied soil mechanics and foundation engineering.

[52] **Solid wastes (refuse).** The same as defined in Section 21-101 of this Code.

[53] **Standards and Specifications.** The current version of the "Maryland Standards and Specifications for Soil Erosion and Sediment Control" as adopted by the Prince George's Soil Conservation District.

1 [54] (55) **Stripping**. Any activity which removes or significantly disturbs the
2 vegetative surface cover including clearing, grubbing of stumps and root mat, and top soil
3 removal.

4 [55] (56) **Structural rock fills**. Fills including limited amounts of rubble, broken
5 asphalt, brick, or concrete.

6 [56] (57) **Surveyor**. A person duly registered or authorized to practice land surveying
7 in the State of Maryland, and qualified to prepare grading plans and specifications.

8 [57] (58) **Timber harvesting (logging)**. The severing of any size tree above ground
9 level leaving the root system and all stumps intact, except for the purpose of providing a
10 temporary access road.

11 [58] (59) **Topsoil**. [Any soil rated Fair, Fair to Good, or Good as determined by “Table
12 8.- Suitability of soils as engineering material” in the U.S.D.A. Soil Conservation Service Soil
13 Survey of Prince George’s County, Maryland, issued April 1967, or other soil as approved by an
14 agronomist or soil scientist.] Soil to be used as topsoil, and the placement of topsoil over a
15 prepared subsoil prior to the establishment of permanent vegetation, shall meet the specifications
16 of, and be in accordance with, Maryland Department of the Environment, Standards and
17 Specifications for Soil Erosion and Sediment Control, 21.0 Standard and Specifications for
18 Topsoil or approved subsequent revisions thereof.

19 [59] (60) **Tree Conservation Plan**. A site map that delineates tree save areas and text
20 that details requirements, penalties, or mitigation negotiated during the development and/or
21 permit review process.

22 [60] (61) **Watercourse**. Any natural or improved stream, river, creek, ditch, channel,
23 canal, conduit, culvert, drain, gully, swale, or wash in which waters flow either continuously or
24 intermittently.

25 * * * * *

26 **Sec. 4-277. Soils Investigation Report**. [If class one (1) fill is proposed, the] The Director shall
27 require a soils investigation report prepared and certified by a professional engineer duly
28 registered in the State of Maryland to correlate surface and subsurface conditions with the
29 proposed grading, site and building plans. [If other than class one (1) fill is proposed, the] The
30 Director may require a soils investigation report depending upon slopes, anticipated
31 characteristics of soil, drainage characteristics, and the like. The results of the investigation shall

1 be presented in a report by a professional engineer which shall include, but need not be limited
2 to, data regarding the nature, distribution, and supporting ability of existing soils and rock on the
3 site and to conclusions and recommendations for grading requirements and erosion control
4 including recommendations to insure stable soil conditions and groundwater control as
5 applicable. The Director may require supplemental reports and data by an engineering geologist
6 as might be deemed necessary. Recommendations included in such reports and approved by the
7 Director shall be incorporated in the grading plan or specifications.

8 * * * * *

9 **Sec. 4-297. Site Grades.**

10 (a) Site grades shall be adapted to established street grades and the topography, preserving
11 to the extent feasible the natural contours, specimen trees, and terrain features.

12 (b) [Concentrated surface] Significant drainage from each lot or parcel shall discharge
13 directly[, or through no more than one (1) adjacent lot unless suitable easements are granted, to
14 accommodate its flow] into a publicly maintained drainage system, street, or continuously
15 flowing natural watercourse. Easements may not be required if, in the opinion of the Director, it
16 can be demonstrated by a Maryland registered professional engineer that the concentrated
17 surface drainage is insignificant and/or will not adversely affect adjacent properties.

18 (1) Slope Limitations. In effecting the foregoing objectives, the slope limitations
19 specified in Table 24 herein and elsewhere in this Division shall be followed. The exact value
20 used shall be as determined by the preparer of the plan to suit each specific site.

TABLE 24 -- SITE SLOPE LIMITATIONS

FEATURE	MAXIMUM	MINIMUM
Setback of Building from edge Building Pad or Shelf	--	10 ft.*
Slope of Pad or Shelf Away from Building, Residential	30" in 10'	[5" in 10'***] <u>12" in 12'</u>
Slope of Pad or Shelf Away from Building, [Residential] <u>All Others</u>	--	5" in 10'
Yards or Lawns	3:1	2 1/2%
Slope of Terraces, Slopes, or Banks, Residential	3:1	--
Slope of Terraces, Slopes, or Banks, all other	2:1	--
Side Slope of Swale or Ditch	3:1	10:1
Longitudinal Gradient of Sodded Swale or Ditch	4% or **[*]	2%
Slope patios-longitudinal pitch (end to end) and lateral pitch (side to side) away from the building	1/4" in 12"	1/8" in 12"
Sidewalks, leadwalks, and driveways - lateral pitch (side to side) away from the building	1/2" to 12"	1/8" to 12"
Sidewalks, leadwalks, and driveways - longitudinal pitch (end to end) away from the building	12.5%	1%
Parking Lots and Areas	7%	1%
<p>*Minimum from sides of single-family residences and from ends of a town house complex is four (4) feet.</p> <p>**[In the case of "wet soils" and high ground water conditions, the Director reserves the right to increase the slope ratio up to 8" in 10'.]</p> <p>[***]The slope that will yield a velocity no greater than four (4) feet per second.</p>		

* * * * *

Sec. 4-298. Ground Stabilization.

(a) All graded surfaces shall have suitable soil for permanent vegetative growth; free of any rocks, stones, or other nonirreducible/nonorganic matter larger than one and one-half (1 1/2) inches in diameter; disced and raked; and shall be limed, fertilized, seeded, mulched with tack, or sodded, planted, or otherwise protected from erosion; and shall be watered, tended, and maintained until growth is well established.

(1) [When the soil of graded surfaces is deemed unsuitable, the Director may direct that the uppermost four (4) inches be composed of topsoil.] Topsoil shall be in accordance with the Maryland Department of the Environment, Standards and Specifications for Soil Erosion and Sediment Control, 21.0. Standard and Specifications for Topsoil, or approved subsequent revisions thereof.

(2) [Placement of stabilization materials shall be completed within the time limits specified in Section 4-299(b)(5) of this Subtitle.] Stabilization methods and materials shall be in accordance with the Maryland Department of the Environment, Standards and Specifications for Soil Erosion and Sediment Control, 20.0. Standard and Specifications for Vegetative Stabilization, or approved subsequent revisions thereof.

(3) Upon completion of the work, a vegetative ground cover certification from a registered professional engineer, surveyor, or architect shall be provided certifying that all disturbed or graded surfaces on the project site, with exception of areas shown on the plan that do not apply, have permanent vegetative growth and that the vegetative materials were placed in accordance with Section 4-298 and have been completed in accordance with the conditions of the permit, the approved plans and specifications, and with the minimum standards of this Division, with specific listing of all waivers as might have been approved.

* * * * *

Sec. 4-308. On-site Drainage.

(a) The following provisions apply to the safe conveyance and disposal of drainage to prevent erosion and property damage for new construction.

(1) Drainage facilities, [shall be provided] including but not limited to sump pumps, foundation drains, trench drains and under drains, shall be provided and shall be discharged into a publicly maintained drainage system or continuously flowing natural water course to safely

1 convey surface and ground water in such a manner to prevent detrimental erosion, overflow,
2 ponding, or nuisance of any kind [to the nearest practical street, storm drain, or other
3 watercourse] in accordance with applicable design criteria, standards, and procedures as
4 contained herein and as required by approved standards and regulations of the Prince George's
5 County Department of Public Works and Transportation and Department of Environmental
6 Resources.

7 * * * * *

8 (6) Facilities and Improvements. All drainage terraces, interceptor and diversion
9 berms, swales, and ditches shall be designed and constructed in accordance with standards
10 contained elsewhere herein, and, when required, shall be piped or paved or otherwise improved.
11 [Drainage discharging] In order for drainage to discharge into natural watercourses, [may require
12 that] such natural ground shall be protected from erosion by an adequate amount of riprap or by
13 other measures. Flows exceeding [five (5)] three (3) cubic feet per second will not be permitted
14 in open facilities such as swales and ditches, but shall be [piped] conveyed in enclosed storm
15 drain systems. Concentrated flow in driveways, parking lots, and access lanes shall not exceed
16 one-half (1/2) the width of paving, or ten (10) feet, whichever is less.

17 * * * * *

18 (11) Downspout discharge may discharge to a properly graded open area provided the
19 point of discharge is ten (10) feet from any property line or Building Restriction Line (BRL) and
20 conveyed by splash block oriented parallel to said line. If the downspouts are connected into an
21 underground drainage system, a cleanout valve and air gap for blockage overflow is required.

22 * * * * *

23 **Section 4-310. Grading, Drainage, and Erosion Control Standards.**

24 (a) The design, testing, installation, and maintenance of grading, drainage, and erosion
25 control operations and facilities shall meet the minimum requirements set forth in the Standards
26 listed herein.

27 (1) SOILS.

28 ASTM Standards, Volume 0408 Titled Natural Building Stones, Soil and Rock,
29 by the American Society for Testing and Materials, Philadelphia.

30 ASTM Designation D-1556-82E, Density of Soil in Place by the Sand-Cone
31 Method.

1 ASTM Designation D-698-82E, Moisture-Density Relations of Soils and Soil
2 Aggregate Mixtures Using 5.5-lb. (2.50 kg) Rammer and 12-in. (457 MM) Drop.

3 Maryland Department of the Environment, 1994 Maryland Standards and
4 Specifications for Soil Erosion and Sediment Control.

5 (2) DRAINAGE.

6 Subtitle 23 titled "Roads and Sidewalks," the Prince George's County Code;
7 Prince George's County, Maryland, Stormwater Management Design Manual, 1984.

8 (3) EROSION CONTROL.

9 Soil Survey of Prince George's County, Maryland issued April 1967 Maryland
10 Standard and Specifications for Soil Erosion and Sediment Control.

11 Maryland Department of the Environment, 1994 Maryland Standards and
12 Specifications for Soil Erosion and Sediment Control.

13 (4) WOODLAND CONSERVATION AND TREE PRESERVATION.

14 Subtitle 25 titled "Trees and Vegetation," Section 25-117, the Prince George's
15 County Code, adopting by reference the "Prince George's County Woodland Conservation and
16 Tree Preservation Policy Document."

17 SECTION 2. BE IT FURTHER ENACTED by the County Council of Prince George's
18 County, Maryland, that Section 4-247 of the Prince George's County Code be and the same is
19 hereby repealed.

20 **SUBTITLE 4. BUILDING.**

21 **DIVISION 1. BUILDING CODE.**

22 **Subdivision 4. International Residential Code for One- and Two- Family Dwellings.**

23 * * * * * * * * *

24 **[Sec. 4-247. Foundations; Section R-403, Footings.]**

25 [Section R-403.1.4 is amended to read as follows: "Minimum Depth." All exterior footings
26 and foundation systems shall extend below the frost line. All exterior footings shall be placed at
27 thirty (30) inches below the undisturbed ground.]

28 [Exception: Frost-protected footings constructed in accordance with Section R-403.3 and
29 footings and foundations erected on solid rock shall not be required to extend below the frost
30 line. In Seismic Design Categories D1 and D2, interior footings supporting bearing or bracing
31 walls and cast monolithically with a slab on grade shall extend to a depth of not less than

1 | eighteen (18) inches below the top of the slab.]

2 | SECTION 3. BE IT FURTHER ENACTED by the County Council of Prince George's
3 | County, Maryland, that Sections 4-191, 4-247, 4-248, 4-249, 4-250, 4-251, and 4-252 of the
4 | Prince George's County Code be and the same are hereby added:

5 | **SUBTITLE 4. BUILDING.**

6 | **DIVISION 1. BUILDING CODE.**

7 | **Subdivision 2. Amendments to the International Building Code.**

8 | * * * * *

9 | **Sec. 4-191. Dampproofing and Waterproofing; Section 1807.**

10 | (a) Section 1807.4.3 is amended to read as follows: “1807.4.3 Sump Pumps and Pits.
11 | Where subsoil drains do not discharge by gravity, the drains shall discharge to an accessible
12 | sump pit with an automatic electric pump. A battery back-up or water-powered back-up sump
13 | pump will also be provided. Sump pit shall be a minimum of 18 inches in diameter, and 24
14 | inches in depth and be provided with a fitted cover. The sump pump shall have adequate
15 | capacity to discharge all water coming into the sump as it accumulates, but in no case shall the
16 | capacity of the pump be less than 15 gallons per minute. The discharge from the pump shall be a
17 | minimum of 1 ¼ inches and shall have a union in the discharge piping to make the pump
18 | accessible for servicing. Subsoil drains and sump pump discharge may discharge to a properly
19 | graded open area provided the point of discharge is 10 feet from any property line or Building
20 | Restriction Line (BRL). Where a continuous flowing spring or groundwater is encountered,
21 | subsoil and sump pump discharge lines must be piped to a storm drain or approved water course.
22 | When piped to a storm drain all drainage lines shall be provided with an accessible backwater
23 | valve.”

24 | (b) Section 1807.4.4 is added to read as follows: “1807.4.4 Areaway Drains. All open
25 | subsurface space adjacent to a building serving as an exit or entrance shall be provided with a
26 | drain or drains. Such areaway drains shall be of approved material in accordance with Chapter
27 | 29 of this Building Code and not less than 2 inches in diameter and shall discharge by gravity or
28 | mechanical means in accordance with 1807.4.2. Areaway drains for areas exceeding 100 square
29 | feet shall be sized in accordance with Section 1113 of the 2003 International Plumbing Code and
30 | be a pre-approved design.”

31 | (c) Section 1807.4.5 is added to read as follows: “1807.4.5 Window Well Drains.

1 Window well areaways shall have drains. Window well areaways 10 square feet or less may
 2 discharge to the subsoil drain through a 2-inch minimum diameter pipe.”

3 (d) Section 1807.4.6 is added to read as follows: “**1807.4.6 Foundation Weep Holes.**
 4 Where subsoil drains are required by Section 1807.4.2, foundations of hollow core masonry shall
 5 have foundation weep holes. Weep holes shall be placed a maximum of 4-foot o/c intervals and
 6 shall discharge into the aggregate of interior subsoil drainage system.”

7 (e) Section 1807.4.7 is added to read as follows: “**1807.4.7 Site Grading.** The ground
 8 immediately adjacent to the foundation shall be sloped away from the building at a slope of not
 9 less than one unit vertical in 12 units horizontal (1:12) for a minimum distance of 5 feet (914
 10 mm) measured perpendicular to the face of the wall or an approved alternate method of diverting
 11 water away from the foundation shall be used. Consideration shall be given to the possible
 12 additional settlement of the backfill when establishing the final ground level adjacent to the
 13 foundation.”

14 * * * * *

15 **Subdivision 4. International Residential Code for One- and Two- Family Dwellings.**
 16 **Sec. 4-247. Foundations; Section R-401, General.**

17 (a) Section R-401.1 is amended to read as follows: “**R-401.1 Application.** The provisions
 18 of this chapter shall control the design and construction of the foundation and foundation spaces
 19 for all buildings.”

20 (b) Section R-401.2 is amended to read as follows: “**R-401.2 Requirements.** Foundation
 21 construction shall be capable of accommodating all loads according to Section R-301 and
 22 transmitting the resulting loads to the supporting soil. Fill soils that support footings and
 23 foundations shall be designed, installed and tested in accordance with accepted engineering
 24 practice.”

25 **Sec. 4-248. Foundations; Section R-402, Materials.**

26 (a) The following amendments, additions, and/or deletions are to Section R-402 of the
 27 International Residential Code:

- 28 (1) Section R-402.1, titled “Wood foundations” is deleted.
- 29 (2) Section R-402.1.1, titled “Fasteners” is deleted.
- 30 (3) Section R-402.1.2, titled “Wood treatment” is deleted.

31 **Sec. 4-249. Foundations; Section R-403, Footings.**

1 (a) The following amendments, additions, and/or deletions are to Section R-403 of the
 2 International Residential Code:

3 (1) Section R-403.1.4 is amended to read as follows: "**R-403.1.4 Minimum Depth.**"
 4 All exterior footings and foundation systems shall extend below the frost line. All exterior
 5 footings shall be placed at thirty (30) inches below the undisturbed ground.

6 Exception: Frost-protected footings constructed in accordance with Section R-
 7 403.3 and footings and foundations erected on solid rock shall not be required to extend below
 8 the frost line. In Seismic Design Categories D1 and D2, interior footings supporting bearing or
 9 bracing walls and cast monolithically with a slab on grade shall extend to a depth of not less than
 10 eighteen (18) inches below the top of the slab.

11 (2) Section R-403.2, titled "Footings for wood foundations " is deleted.

12 **Sec. 4-250. Foundations; Section R-404, Foundation Walls.**

13 (a) The following amendments, additions, and/or deletions are to Section R-404 of the
 14 International Residential Code:

15 (1) Section R-404.2, titled "Wood foundation walls " is deleted in its entirety.

16 **Sec. 4-251. Foundation Drainage; Section R-405.**

17 (a) The following amendments, additions, and/or deletions are to Section R-405 of the
 18 International Residential Code:

19 (1) Section R-405.1.1 is added to read as: "**R-405.1.1 Subsoil Drainage Systems.**
 20 Subsoil drains shall be required for all buildings having basements, cellars, crawl spaces, or
 21 floors below grade. Subsoil drains shall be located inside and outside of the foundation and shall
 22 be installed at or below the area to be protected. Drains shall discharge by gravity or mechanical
 23 means into an approved drainage system."

24 (2) Section R-405.1.2 is added to read as: "**R-405.1.2 Sump Pumps and Pits.** Where
 25 subsoil drains do not discharge by gravity, the drains shall discharge to an accessible sump pit
 26 with an automatic electric pump. A battery back-up or water-powered back-up sump pump will
 27 also be provided. The sump pit shall be a minimum of 18 inches in diameter and 24 inches in
 28 depth, and be provided with a fitted cover. The sump pump shall have adequate capacity to
 29 discharge all water coming into the sump as it accumulates but in no case shall the capacity of
 30 the pump be less than 15 gallons per minute. The discharge from the pump shall be a minimum
 31 of 1 ¼ inches and shall have a union in the discharge piping to make the pump accessible for

1 servicing. Subsoil drains and sump pump discharge may discharge to a properly graded open
 2 area provided the point of discharge is 10 feet from any property line or Building Restriction
 3 Line (BRL). Where a continuous flowing spring or groundwater is encountered, subsoil and
 4 sump pump discharge lines must be piped to a storm drain or approved water course. When
 5 piped to a storm drain all drainage lines shall be provided with an accessible backwater valve.”

6 (3) Section R-405.1.3 is added to read as: “**R-405.1.3 Areaway Drains.** All open
 7 subsurface space adjacent to a building serving as an exit or entrance shall be provided with a
 8 drain or drains. Such areaway drains shall be of approved material in accordance with Chapter
 9 30 of this code and not less than 2 inches in diameter and shall discharge by gravity or
 10 mechanical means in accordance with R-405.1.2. Areaway drains for areas exceeding 800
 11 square feet shall be sized in accordance with Section 1113 of the 2003 International Plumbing
 12 Code.”

13 (4) Section R-405.1.4 is added to read as: “**R-405.1.4 Window Well Drains.** Window
 14 well areaways shall have drains. Window well areaways 10 square feet or less may discharge to
 15 the subsoil drain through a 2-inch minimum diameter pipe. Drains for window well areaways
 16 greater than 10 square feet shall be installed in accordance with Section R-405.1.3.”

17 (5) Section R-405.1.5 is added to read as: “**R-405.1.5 Foundation Weep Holes.**
 18 Where subsoil drains are required by Section R-405.1.1, foundations of hollow core masonry
 19 shall have foundation weep holes. Weep holes shall be placed a maximum of 4-foot o/c intervals
 20 and shall discharge into the aggregate of the interior subsoil drainage system.”

21 (6) Section R-405.1.6 is added to read as follows: “**R-405.1.6 Site Grading.** The
 22 ground immediately adjacent to the foundation shall be sloped away from the building at a slope
 23 of not less than one unit vertical in 12 units horizontal (1:12) for a minimum distance of 5 feet
 24 (914 mm) measured perpendicular to the face of the wall or an approved alternate method of
 25 diverting water away from the foundation shall be used. Consideration shall be given to the
 26 possible additional settlement of the backfill when establishing the final ground level adjacent to
 27 the foundation.”

28 (7) Section R-405.2, titled “Wood foundations” is deleted in its entirety.

29 **Sec. 4-252. Foundations; Section R-406. Foundation Waterproofing and Dampproofing.**

30 (a) The following amendments, additions, and/or deletions are to Section R-406 of the
 31 International Residential Code:

1
2
3
4
5
6

(1) Section R-406.3, titled "Dampproofing for wood foundations" is deleted in its entirety.

* * * * *

SECTION 4. BE IT FURTHER ENACTED that this Act shall take effect forty-five (45) calendar days after it becomes law.

Adopted this ____ day of _____, 2008.

COUNTY COUNCIL OF PRINCE
GEORGE'S COUNTY, MARYLAND

BY: _____
Samuel H. Dean
Chairman

ATTEST:

Redis C. Floyd
Clerk of the Council

APPROVED:

DATE: _____ BY: _____
Jack B. Johnson
County Executive

KEY:
Underscoring indicates language added to existing law.
[Brackets] indicate language deleted from existing law.
Asterisks *** indicate intervening existing Code provisions that remain unchanged.