

**MONTGOMERY COUNTY PLANNING COMMISSION**  
**A G E N D A**

**November 22, 2010 @ 5:00 P.M.**  
**Multipurpose Room #1, Government Center**

**WORKSESSION:** Joint Discussion with Board of Supervisors regarding Urban Development Areas

**November 22, 2010 @ 7:00 P.M.**  
**County Administration Conference Room, Government Center**

**CALL TO ORDER:**

**DETERMINATION OF A QUORUM:**

**APPROVAL OF AGENDA:**

**APPROVAL OF CONSENT AGENDA:**

**PUBLIC ADDRESS:**

**WORKSESSION:**

- Urban Development Area (UDA) Discussion with Consultants
- Proposed Subdivision Ordinance Amendments (Jamie MacLean)
- Hazard Mitigation Plan (Jamie MacLean)

**OLD BUSINESS:**

1. An ordinance amending Chapter 10 entitled Zoning, Section 10-41 of the Code of the County of Montgomery, Virginia by allowing a temporary family health care structure as defined by Section 15.2-2292.1 of the Code of Virginia as a permitted accessory structure on any property zoned for a single family detached dwelling owned or occupied by a caregiver as his or her residence. (TABLED 11/10/10)
  - a. Staff Presentation (Dari Jenkins)
  - b. Discussion/Action
2. An ordinance amending Chapter 10 Entitled Zoning, Section 10-37 of the Code of the County of Montgomery, Virginia by amending the Flood Damage Prevention Overlay to modify the language of the ordinance as it relates to modification, alteration, repair, reconstruction or improvement of any kind to existing structures located in any floodplain areas to an extent or amount less than fifty (50) percent of its market value. (TABLED 11/10/10)
  - a. Staff Presentation (Dari Jenkins)
  - b. Discussion/Action

**NEW BUSINESS:**

- Appointment of Nominating Committee

**LIAISON REPORTS:**

- Board of Supervisors- John Muffo
- Agriculture & Forestal District- Bob Miller
- Blacksburg Planning Commission – Frank Lau
- Christiansburg Planning Commission – Bryan Rice
- Economic Development Committee- John Tuttle
- Public Service Authority – Malvin Wells
- Parks & Recreation- Walt Haynes
- Radford Planning Commission- Bob Miller
- School Board- Bill Seitz
- Transportation Safety Committee- Malvin Wells
- Planning Director’s Report- Steven Sandy

**MEETING ADJOURNED:****UPCOMING MEETINGS:**

December 8, 2010      Planning Commission Site Visit (to be determined)  
                                 Planning Commission Public Hearing (7:00 pm)

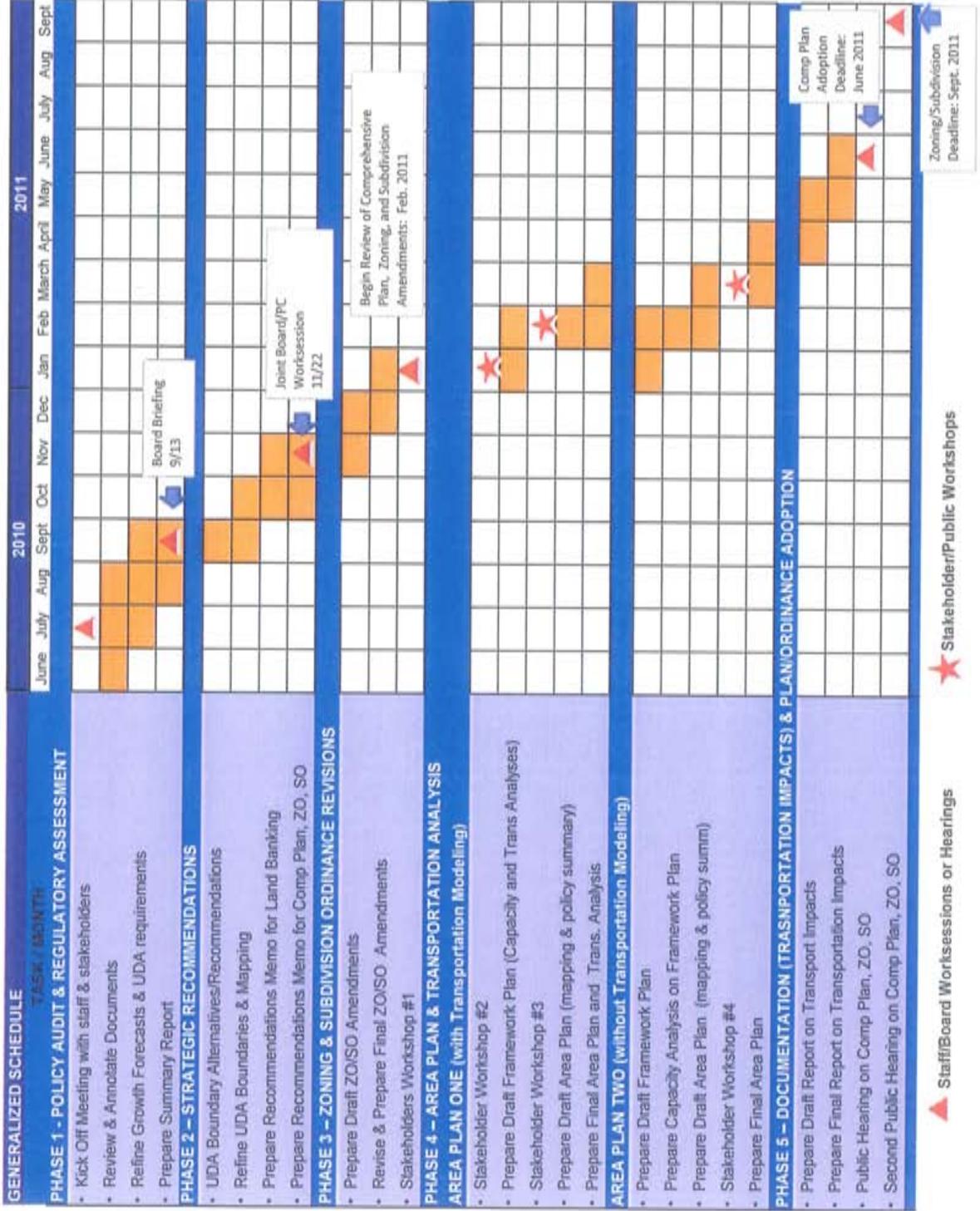
December 15, 2010    Planning Commission Regular Meeting (7:00 pm) (Tentative)

**MONTGOMERY COUNTY UDA GRANT PROGRAM**  
**JOINT BOARD of SUPERVISORS/PLANNING COMMISSION WORK SESSION**  
**November 22, 2010**

**WORKING AGENDA**

- 5:15 pm** Intro of Work Session – Steve Sandy
- 5:20 pm** Recap of UDA legislation & Grant Program schedule – Milt Herd & Vlad Gavrilovic
- 5:35 pm** Staff/Consultant briefing on potential Comp Plan & Zoning Ordinance amendments
- Comp Plan & Zoning Implementation Objectives – Steve
  - Overview of Potential UDA Mapping & Comp Plan Changes – Vlad
  - Overview of Potential Zoning/Subdivision Changes – Milt
  - Next Steps/Wrap Up
- 6:05 pm** Facilitated BOS/PC discussion of issues/opportunities - Milt
- 6:20 pm** Adjourn

**MONTGOMERY COUNTY, VA**  
**URBAN DEVELOPMENT AREA GRANT PROGRAM**  
 Schedule Prepared for Joint Board of Supervisors/Planning Commission Worksession, November 22, 2010



**MONTGOMERY COUNTY PLANNING COMMISSION  
CONSENT AGENDA  
November 22, 2010**

**A. APPROVAL OF MINUTES**

- September 8, 2010

**ISSUE/PURPOSE:**

The above listed minutes are before the Planning Commission for approval.

**B. SCHEDULE PUBLIC HEARINGS**

A request by **William Mark King, II & Carolyn D. King** for a special use permit on 7.217 acres in an Agricultural (A-1) zoning district to allow a contractor's storage yard. The property is located at 3070 Seven Mile Tree Road and is identified as Tax Parcel No. 104-1-12 (Acct # 023225) in the Riner Magisterial District (District D). The property currently lies in an area designated as Rural in the 2025 Comprehensive Plan.

AT A MEETING OF THE MONTGOMERY COUNTY PLANNING COMMISSION ON SEPTEMBER 8, 2010 IN THE BOARD ROOM, SECOND FLOOR, COUNTY GOVERNMENT CENTER, CHRISTIANSBURG, VIRGINIA:

**CALL TO ORDER:**

Mr. Rice, Chair called the meeting to order.

Present: Bryan Rice, Chair  
William Seitz, Vice Chair  
Ryan Thum, Secretary  
Malvin Wells, Member  
Robert Miller, Member  
Frank Lau, Member  
John Tuttle, Member  
John Muffo, Board of Supervisors Liaison  
Steve Sandy, Planning Director  
Dari Jenkins, Planning & Zoning Administrator  
Jamie MacLean, Development Planner  
Brea Hopkins, Planning & Zoning Technician

Absent: Joel Donahue, Member  
Walt Haynes, Member

**DETERMINATION OF A QUORUM:**

Mr. Thum established the presence of a quorum.

**APPROVAL OF AGENDA:**

On a motion by Mr. Miller, seconded by Mr. Thum, and unanimously carried the agenda was approved as amended with the addition of Liaison Member Appointments, Proposed Ordinance Amendments to New Business.

**APPROVAL OF CONSENT AGENDA:**

On a motion by Mr. Seitz, seconded by Mr. Wells, and unanimously carried the consent agenda was approved.

**PUBLIC ADDRESS:**

Mr. Rice opened public address there being no speakers the public address was closed.

**PUBLIC HEARING:**

Request by Macon C. Sammons to add approximately 20.377 acres to existing Agricultural and Forestal District #6 that currently consists of 1329 acres and 11 property owners. The property is located on Hurst Road (Rt. 782) and is further identified as tax map parcels 097-A-122 and 097-A-121 (Acct No(s). 020096 and 020097) in the Shawsville Magisterial District (District C). The property currently lies in an area designated as Rural in the Comprehensive Plan.

Mr. Rice introduced the request.

Mrs. MacLean reviewed the location of the property proposed to be added to the Agricultural & Forestal District (AFD-6). The parcel is approximately 20 acres in size. The district was established in 1981 and will be reviewed again in 2017. Presently it consists of 11 landowners and 1,339 acres. Mr. Sammons owns property within the district currently and is requesting to add the additional parcel. The AFD advisory committee met on August 24<sup>th</sup> and recommended approval of the proposed addition.

Mr. Rice asked about the benefits of placing property within an AFD district.

Mrs. MacLean stated there could be a slight reduction in taxes if the owner also participates in land use. The district provides protection from developments such as power lines and rezoning requests.

Mr. Rice opened the public hearing; however, there being no speakers the public hearing was closed.

Mr. Wells stated it seemed reasonable to include the additional property in the existing district.

Mr. Miller stated the property owner currently owns a major portion of the district and there were no concerns from the Agriculture Forestal District Advisory Committee.

On a motion by Mr. Wells, seconded by Mr. Seitz, and carried by a 7-0 vote the Planning Commission recommended approval of the request by Macon C. Sammons to add approximately 20.377 acres to existing Agricultural and Forestal District #6.

## **OLD BUSINESS:**

### Landscape ordinance amendments

Ms. Hopkins reviewed possible amendments to the landscaping and buffering regulations found in Section 10-43 of the Montgomery County Code. The amendments would include revising buffer yard requirements, tree canopy requirements, parking requirements, and adding a recommended tree species list. Staff's goal is to create flexibility in the landscaping requirements and provide more guidance to the developers.

It was the consensus of the commission to proceed with advertising the public hearing.

## **NEW BUSINESS:**

### Liaison Appointments

Mr. Rice made the following Liaison appointments:

Mr. John Tuttle will serve as liaison to the Economic Development Committee.

Mr. Frank Lau will serve as liaison to the Blacksburg Planning Commission.

### Subdivision Ordinance Amendment

Mr. Rice discussed changes to approved subdivision approvals and the issues that can arise such as access. He suggested the subdivision ordinance be amended to require that changes to an approved major subdivision plat come before the planning commission and board of supervisors prior to the plat being revised.

Mr. Miller asked if proposed language had been developed.

Mr. Sandy stated the concern is with major subdivisions where access extensions are not preplanned. Language has not been developed due to the complexity of allowing landowners to purchase additional property with a minor boundary line adjustment. The county attorney may advise that restrictions could not be applied to family subdivisions.

Mr. Muffo stated his concern is that within 10-20 years people living within the family subdivision are no longer family. More confusion is created when this occurs on a private road because the new owners want county services.

Mr. Seitz asked if more acreage is added to a subdivision would it have to conform to the covenants.

Mr. Thum stated not necessarily.

Mr. Rice stated subdivision covenants are not enforced by the county. Covenants are civil matters that have to be resolved in court.

Mr. Sandy stated it may be as simple as any changes to a major subdivision would need to be submitted for approval. He noted he was unsure if a public hearing could be required. The issue will be discussed with the County Attorney for his advice prior to proceeding.

## **LIAISON REPORTS:**

Board of Supervisors- Mr. Muffo stated the Board has been discussing the proposal to build two (2) new schools.

Agriculture & Forestal District- Mr. Miller stated the Agriculture & Forestal District met and discussed the Sammons addition to AFD 6.

Blacksburg Planning Commission- No report.

Christiansburg Planning Commission- Mr. Rice stated Ann Carter was appointed to fill a space on planning commission.

Economic Development Committee- No report.

Public Service Authority- Mr. Wells stated 2 meetings had been held. VDH grant applications are being filed for the Shawsville and Plum Creek area. Improvements have been made to the RAAP water system.

Parks & Recreation- No report.

Radford Planning Commission- No report.

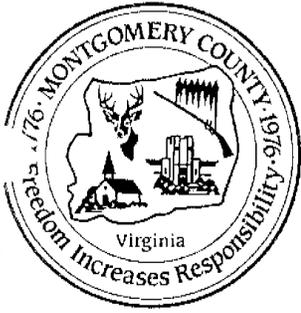
School Board- Mr. Seitz stated the school board had held discussions regarding the recommendation of the capital budget. There was a split vote; however, the recommendation is going forward to Board of Supervisors.

Transportation Safety Committee- No report.

Planning Director's Report- Mr. Sandy discussed the 2010 Commonwealth Land Use and Zoning Conference, Hotel Roanoke, October 10-12, 2010. Members who wish to attend should notify Brea Hopkins.

Mr. Sandy stated additional information had not been received regarding the cell tower. The request will most likely be discussed in October. Notifications will be sent to adjoining owners.

There being no further business, the meeting was adjourned at 7:45 pm.



MONTGOMERY COUNTY DEPARTMENT OF  
PLANNING & GIS SERVICES

PLANNING  
GIS & MAPPING

755 ROANOKE STREET, SUITE 2A, CHRISTIANSBURG, VIRGINIA 24073-3177

**MEMORANDUM**

TO: Montgomery County Board of Supervisors and Planning Commission

FROM: Jamie Rogers MacLean, CZO *JRM*  
Development Planner

DATE: November 10, 2010

SUBJ: New River Valley Hazard Mitigation Plan 2010

In April 2005, the Montgomery County Board of Supervisors adopted the region's first Hazard Mitigation Plan. During 2009 and 2010, representatives from the region's localities and the area's experts in emergency management and hazard risks have worked to update the existing plan. The plan has been revised to identify additional known hazards, assess potential risks, and develop mitigation strategies to protect lives and property and to prepare the region for disasters that may strike.

The completion and subsequent re-adoption of the revised plan by participating localities will maintain the region's eligibility for FEMA's disaster mitigation program funds. Five public meetings were held by PDC staff during the month of September to solicit citizen comments.

A completed draft of the 2010 plan will be available after November 17, 2010 at the following URL:

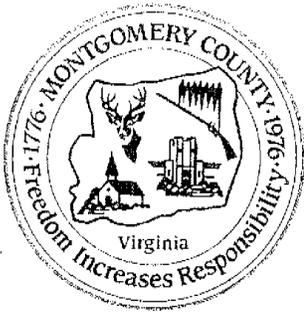
<http://www.nrvpdc.org/HazardMitigation/HazardMitigationPlanning.html>

Comments regarding the plan can be submitted to Montgomery County Planning Staff or online at the following URL until **December 10, 2010**:

<http://www.nrvpdc.org/HazardMitigation/publicinput.html>

After the comment period has concluded, appropriate revisions will be made to the plan. The final draft will be submitted to FEMA. After FEMA has approved the draft, each of the region's participating localities must re-adopt the plan approved by FEMA to qualify for funding mitigation projects. Staff will advertise the proposed plan adoption in accordance with Code of Virginia and Section 10-52(3) of the Montgomery County Code for public hearings in early 2011.

Please apprise staff of any questions or concerns about this request.



MONTGOMERY COUNTY DEPARTMENT OF  
PLANNING & GIS SERVICES

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755 ROANOKE STREET, SUITE 2A, CHRISTIANSBURG, VIRGINIA 24073-3177

**MEMORANDUM**

TO: Bryan Rice, Chair  
Montgomery County Planning Commission

FROM: Dari S. Jenkins, CZO   
Planning & Zoning Administrator

DATE: November 17, 2010

SUBJ: Proposed Zoning Ordinance Revision  
Section 10-41(2A); Temporary Family Health Care Structures

An ordinance amending Chapter 10 entitled Zoning, Section 10-41 of the Code of the County of Montgomery, Virginia by allowing a temporary family health care structure as defined by Section 15.2-2292.1 of the Code of Virginia as a permitted accessory structure on any property zoned for a single family detached dwelling owned or occupied by a caregiver as his or her residence.

After reviewing recent amendments of the Code of Virginia, specifically *Section 15.2-2292.1, Zoning provisions for temporary family health care structures*, the County Attorney has prepared an amendment to County code to provide for the installation of "temporary family health care structures". Per the state requirements, these structures shall be allowed within any zoning district allowing single family detached dwellings and shall not require a special use permit for the use.

During our meeting on November 10, 2010, the Commission tabled this item to get clarification of signage permitted by the proposed amendment. Item 6 of the proposed amendment states:

"No signage that advertises or promotes the structure shall be permitted on the structure or elsewhere on the property".

In consulting with the County Attorney, he indicated this item is referring to a sign promoting or marketing the unit and not informational signage such as an address. Both the Addressing Coordinator and the Emergency Services Coordinator feel that an address for the temporary unit is appropriate, not only for emergency response but also for obtaining electrical service for the unit.

Regarding the discussion about occupancy of the unit, I have confirmed that only one individual may occupy the unit unless the enabling legislation is changed.

Attached is a copy of the proposed amendment in ordinance form for review.

DJ

Attachment: Proposed Revisions to Section 10-41(2A)  
Code of Virginia, Section 15.2-2292.1

AN ORDINANCE AMENDING CHAPTER 10 ENTITLED ZONING, SECTION 10-41  
OF THE CODE OF COUNTY OF MONTGOMERY, VIRGINIA  
BY ALLOWING A TEMPORARY FAMILY HEALTH CARE STRUCTURE  
AS DEFINED BY SECTION 15.2-2292.1 OF THE CODE OF VIRGINIA  
AS A PERMITTED ACCESSORY STRUCTURE ON ANY PROPERTY  
ZONED FOR A SINGLE FAMILY DETACHED DWELLING OWNED OR OCCUPIED  
BY A CAREGIVER AS HIS OR HER RESIDENCE

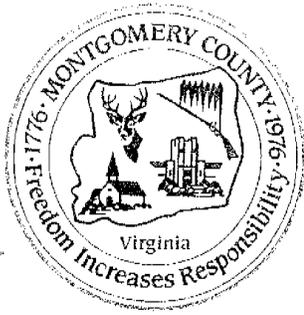
BE IT ORDAINED, by the Board of Supervisors of the County of Montgomery, Virginia, that Chapter 10, entitled Zoning Section 10-41 of the Code of the County of Montgomery, Virginia, shall be amended and reordained by adding Section 10-41 (2A) as follows:

**(2A) Temporary Family Health Care Structures.**

Notwithstanding any other provision one temporary family health care structure, as a permitted accessory dwelling may be placed on any property zoned for a single family detached dwelling owned or occupied by a caregiver as his or her residence subject to the following:

1. The temporary family health care structure (the structure) shall be limited to one (1) occupant who shall be the mentally or physically impaired person.
2. The structure shall have a maximum gross floor area of three hundred (300) square feet.
3. The structure shall comply with applicable provisions of the Industrialized Building Safety Law and the Uniform Statewide Building Code.
4. The structure shall not be placed on a permanent foundation.
5. The structure shall be required to connect to any water, sewer, and electric utilities that are serving the primary residence on the property and shall comply with all applicable requirements of the Virginia Department of Health.
6. No signage that advertises or promotes the structure shall be permitted on the structure or elsewhere on the property.
7. Written certification verifying the status of the mentally or physically impaired occupant of the structure shall be provided by a physician licensed by the Commonwealth.
8. Evidence of compliance with this Section must be provided annually on the anniversary date of the initial zoning approval, including a current written certification by a physician licensed by the Commonwealth.
9. The structure shall be removed within thirty (30) days after the mentally or physically impaired person is no longer receiving or no longer in need of the assistance for which the structure was provided.

For Purposes of this Section *Temporary Family Health Care Structure* shall mean a transportable residential structure providing an environment facilitating a caregiver's provision of care for a mentally or physically impaired person. (caregiver and mentally or physically impaired are defined in §15.2-2292.1 of the Code of Virginia) that is primarily assembled at a location other than its site of installation.



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755 ROANOKE STREET, SUITE 2A, CHRISTIANSBURG, VIRGINIA 24073-3177

**MEMORANDUM**

TO: Bryan Rice, Chair  
Montgomery County Planning Commission

FROM: Dari S. Jenkins, CZO   
Planning & Zoning Administrator

DATE: November 17, 2010

SUBJ: Proposed Zoning Ordinance Revision  
Section 10-37; Flood Damage Prevention Overlay

An ordinance amending Chapter 10 Entitled Zoning, Section 10-37 of the Code of the County of Montgomery, Virginia by amending the Flood Damage Prevention Overlay to modify the language of the ordinance as it relates to modification, alteration, repair, reconstruction or improvement of any kind to existing structures located in any floodplain areas to an extent or amount less than fifty (50) percent of its market value.

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As the section is currently written, anyone making an addition to a structure located in the floodplain to an amount of less than 50% of its market value would be allowed to construct the addition without meeting any regulation for "elevation of the addition". This means that during a flood event, it is likely the new addition will be flooded right along with the remainder of the house. Department of Conservation and Recreation (DCR) staff supports the local staff suggestion that the "proposed addition" should be elevated to at least one (1) ft. above the base flood elevation. Requiring the elevation of the addition would keep all new construction in the floodplain at least one (1) ft. above the base flood elevation. Item 3 of the section already requires "modifications, alterations, repair, reconstruction or improvement" to a structure to an amount of 50% or more of its market value to have the entire structure elevated and meet all requirements of the chapter.

Today, staff was able to speak with Charley Banks, Floodplain Engineer, Department of Conservation and Recreation, regarding the proposed language. Montgomery County's floodplain requirements are modeled after the "model ordinance". Mr. Banks indicated that the National Flood Insurance Program does not clearly state within the "model ordinance" that additions to structures located in the floodplain to an amount of less than 50% of its market value shall have the lowest floor elevated. But, he stated that FEMA does encourage higher standards.

Mr. Banks further stated that he believes the elevation of the addition is required by Section R234.2.1, Elevation Requirements, of the 2006 edition of the Virginia Residential Code, which is currently in effect for residential construction in Virginia. A copy of the referenced code is provided for review. Staff will discuss this new information with the Building Official and provide a report during the Commission meeting.

DJ

Attachment: Proposed Revisions to Section 10-37; October 13, 2010  
Virginia Residential Code, 2006 Edition, Section R324, Flood-Resistant Construction

# Proposed Revisions to Section 10-37; October 13, 2010

(Revisions are marked in *italics and underline*)

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## **Sec. 10-37. Flood damage prevention overlay.**

### **Article I--General Provisions**

Section 1.1 *Purpose.* These provisions are created to regulate and restrict land use in areas which are subject to severe periodic inundation, in such a manner as to: (1) prevent the loss of life and property, (2) comply with federal and state laws and regulations that address the need for floodplain management and regulation, (3) qualify Montgomery County residents for the insurance and subsidies provided by the National Flood Insurance Program, (4) conserve the natural state of watercourses and watersheds, and minimize the damaging effects which development has on drainage conditions, pollution of streams, and other environmental impacts on water resources, (5) reduce the disruption of commerce and governmental services, (6) reduce the extraordinary and unnecessary expenditure of public funds for flood protection, rescue and relief, and (7) minimize the impairment of the tax base by:

- (a) Regulating uses, activities and development which, alone or in combination with other existing or future uses, activities and development, will cause unacceptable increases in flood heights, velocities and frequencies;
- (b) Restricting or prohibiting certain uses, activities and development from locating within districts subject to flooding;
- (c) Requiring all those uses, activities and developments that do occur in floodprone districts to be protected and/or floodproofed against flooding and flood damage;
- (d) Protecting individuals from buying land and structures which are unsuited for intended purposes because of flood hazards.

Section 1.2 *Authority.* Authority for these provisions includes:

- (a) Flood Damage Reduction Act, Code of Virginia, § 10.1-600 et seq.
- (b) Planning, Subdivision of Land and Zoning, Code of Virginia, Title 15.2, Chapter 22.
- (c) Soil Conservation Districts Law, Code of Virginia, § 10.1-506 et seq.
- (d) Erosion and Sediment Control Act, Code of Virginia, § 10.1-560 et seq.
- (e) National Flood Insurance Act of 1968, 42 U.S.C. 4001 et seq.

Section 1.3 *Compliance and liability.*

- (a) No land shall hereafter be developed, and no structure shall be located, relocated, constructed, reconstructed, enlarged or structurally altered except in full compliance with the terms and provisions of this article and any other applicable ordinances and regulations which apply to uses within the jurisdiction of this article.
- (b) The degree of flood protection sought by the provisions of this article is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This article does not imply that districts outside the floodplain district or that land uses permitted within such district will be free from flooding or flood damages.
- (c) This article shall not create liability on the part of Montgomery County or any officer or employee thereof for any flood damages that result from reliance on this article or any administrative decision lawfully made thereunder.

# Proposed Revisions to Section 10-37; October 13, 2010

(Revisions are marked in *italics and underline*)

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(d) Records of actions associated with administering this ordinance shall be kept on file and maintained by the zoning administrator.

## Section 1.4 *Qualifying/regulated lands.*

(a) These provisions shall apply to all lands within the jurisdiction of Montgomery County and identified as being in the one hundred (100)-year floodplain by FEMA (Federal Emergency Management Administration), Federal Insurance Administration.

Section 1.5 *Penalty for violations.* Any person who fails to comply with any of the requirements or provisions of this section shall be subject to the enforcement and penalties contained in section 10-52(2) of this zoning chapter.

## **Article II--Establishment of Floodplain Districts**

### Section 2.1 *Description of districts.*

(a) Basis of districts. The basis for the delineation of districts shall be the Flood Insurance Study and the Flood Insurance Rate Maps (FIRM) for Montgomery County, prepared by the Federal Emergency Management Agency, Federal Insurance Administration, dated September 25, 2009, as amended, which said Flood Insurance Study and Flood Insurance Rate Map are hereby incorporated and made a part of the official zoning map and this chapter. The boundaries of the special flood hazard area and floodplain districts are established as shown on the Flood Insurance Rate Map (FIRM) a copy of which shall be kept on file at the Montgomery County Planning Department offices.

1. The Floodway District is delineated, for purposes of this section, using the criterion that certain areas within the floodplain must be capable of carrying the waters of the one hundred (100)-year flood without increasing the water surface elevation of that flood more than one (1) foot at any point. The areas included in this district are specifically defined in Table 2 of the above-referenced Flood Insurance Study and shown on the accompanying Flood Insurance Rate Map (FIRM).

2. The Special Floodplain District shall be those areas identified as an AE Zone on the maps accompanying the Flood Insurance Study for which one hundred (100)-year flood elevations have been provided.

3. The Approximated Floodplain District shall be those areas identified as an A or A99 Zone on the maps accompanying the Flood Insurance Study. In these zones, no detailed flood profiles or elevations are provided, but the one hundred (100)-year flood elevations and floodway information from federal, state, and other acceptable sources shall be used, when available. Where the specific one hundred (100)-year flood elevation cannot be determined for this area using other sources of data, such as the U.S. Army Corps of Engineers Flood Plain Information Reports, U.S. Geological Survey Floodprone Quadrangles, etc., then the applicant for the proposed use, development and/or activity shall determine this elevation in accordance with hydrologic and hydraulic engineering techniques. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently-accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the zoning administrator.

4. The Shallow Flooding District shall be those areas identified as Zone AO or AH on the Flood Insurance Rate Maps.

(b) *Overlay Concept.* The Floodplain Districts described above shall be overlays to the existing underlying districts as shown on the official zoning chapter map and as such the provisions for the floodplain districts shall serve as a supplement to the underlying district provisions. If there is any conflict between the provisions or requirements of the Floodplain Districts and those of any underlying district, the more restrictive provisions and/or those pertaining to the floodplain districts should apply.

# Proposed Revisions to Section 10-37; October 13, 2010

(Revisions are marked in *italics and underline*)

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Section 2.2 *District boundary changes.* The delineation of any of the floodplain districts may be revised where natural or manmade changes have occurred and/or where more detailed studies have been conducted or undertaken by the United States Army Corps of Engineers or other qualified agency, or an individual documents the need for such changes. However, prior to any such change, written approval must be obtained from the Federal Insurance Administration and the Montgomery County Zoning Administrator must receive official notification of any such changes. Any such changes must be formally recorded on appropriate maps approved by the Federal Insurance Administration and submitted to the zoning administrator.

Section 2.3 *Submitting technical data.* A community's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six (6) months after the date such information becomes available, a community shall notify the Federal Insurance Administration of the changes by submitting technical or scientific data. Such a submission is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements will be based upon current data.

## **Article III--District Provisions**

Section 3.1 *Permit and application requirements.*

(a) *Permit requirements.* All uses, activities, and development occurring within any floodplain district shall be undertaken only upon the issuance of a zoning permit. Such development shall be undertaken only in strict compliance with the provisions of this chapter and with all other applicable codes and ordinances, as amended, such as the Virginia Uniform Statewide Building Code (VA USBC) and the Montgomery County Subdivision Ordinance. Prior to the issuance of any such permit, the zoning officer shall require all applications to include compliance with all applicable state and federal laws.

(b) All applications for development within any floodplain district and all building permits issued for the floodplain shall incorporate the following information in addition to information normally required for such applications:

1. The elevation of the base flood at the site;
2. For structures that have been elevated, the elevation of the lowest floor (including basement);
3. For structures that have been floodproofed (nonresidential only), the elevation to which the structure has been floodproofed;
4. The elevation of the one hundred (100)-year flood; and
5. Topographic information showing existing and proposed ground elevations.
6. All required information shall be recorded on an elevation certificate or floodproofing certificate approved by the zoning administrator. The certificate shall be completed by a licensed surveyor, licensed engineer, or licensed architect, and shall be recorded with the clerk of circuit court prior to the issuance of an occupancy certificate.

Section 3.2 *General standards.* In all special flood hazard areas the following provisions shall apply:

(a) New construction and substantial improvements shall be according to the VA USBC, and anchored to prevent flotation, collapse or lateral movement of the structure.

(b) Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movements. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces.

## Proposed Revisions to Section 10-37; October 13, 2010

(Revisions are marked in *italics and underline*)

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- (c) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (d) New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
- (e) Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities, including duct work, shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- (f) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- (g) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.
- (h) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- (i) Any alteration, repair, reconstruction or improvements to a building that is in compliance with the provisions of this chapter shall meet the requirements of "new construction" as contained in this section.
- (j) Any alteration, repair, reconstruction or improvements to a building that is not in compliance with the provisions of this ordinance, shall be undertaken only if said nonconformity is not furthered, extended, or replaced.
- (k) Prior to any proposed alteration or relocation of any channels or of any watercourse, stream, etc., within this jurisdiction a permit shall be obtained from the U.S. Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission (a joint permit application is available from any of these organizations). Furthermore, notification of the proposal shall be given by the application to all affected adjacent jurisdictions, the Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management) and the Federal Insurance Administration.
- (l) The flood-carrying capacity within al altered or relocated portion of any watercourse shall be maintained.

Section 3.3 *Specific standards.* In all special flood hazard areas where base flood elevations have been provided in the Flood Insurance Study or generated according to Article III, Section 3.6, the following provisions shall apply:

- (a) *Residential Construction.* New construction or substantial improvement of any residential structure (including manufactured homes) shall have the lowest floor, including basement, elevated no lower than one (1) foot above the base flood elevation.
- (b) *Nonresidential construction.* New construction or substantial improvement of any commercial, industrial, or nonresidential building (or manufactured home) shall have the lowest floor, including basement, elevated to no lower than one (1) foot above the base flood elevation. Buildings located in all A 1-30, AE, and AH zones may be floodproofed in lieu of being elevated provided that all areas of the building components below the elevation corresponding to the BFE plus one (1) foot are watertight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied.
- (c) *Elevated buildings.* Enclosed areas, of new construction or substantially improved structures, which are below the regulatory flood protection elevation shall:
1. Not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the

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enclosed area shall be the minimum necessary to allow for parking of vehicles (garage doors) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator).

2. Be constructed entirely of flood-resistant materials below the regulatory flood protection elevation;
3. Include, in Zones A, AO, AE, and A 1-30, measures to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwater. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet the following minimum design criteria:
  - a. Provide a minimum of two (2) openings on different sides of each enclosed area subject to flooding.
  - b. The total net area of all openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding.
  - c. If a building has more than one enclosed area, each area must have openings to allow floodwaters to automatically enter and exit.
  - d. The bottom of all required openings shall be no higher than one (1) foot above the adjacent grade.
  - e. Openings may be equipped with screens, louvers, or other opening coverings or devices, provided they permit the automatic flow of floodwaters in both directions.
  - f. Foundation enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires openings as outlined above.

(d) *Manufactured homes.* All manufactured homes placed or substantially improved on individual lots or parcels, in expansions to existing manufactured home parks or subdivisions, in a new manufactured home park or subdivision, or in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as a result of a flood within the floodplain district shall be placed on a permanent foundation supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six (36) inches in height above grade and elevated and anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement in accordance with the Virginia Uniform Statewide Building Code. All such mobile homes must provide an elevation certificate that conclusively demonstrates that the dwelling or structure is at least one (1) foot above the base flood elevation.

(e) *Recreational vehicles.* All recreational vehicles placed on sites must either be on the site for fewer than one hundred eighty (180) consecutive days; be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions); or meet all the requirements of manufactured homes in Article III, Section 3.3(d).

### Section 3.4 *Standards for the Floodway District.*

(a) Encroachments including fill, new construction, substantial improvements and other development are prohibited, unless certification (with supporting technical data) by a registered professional engineer is provided to the zoning administrator demonstrating through hydrologic and hydraulic analyses that such encroachment would not result in any increase in the one hundred (100)-year flood elevation.

(b) The following uses and activities are permitted, provided that they are in compliance with the provisions of the underlying zoning district and are not prohibited by any other ordinances and provided that they do not require structures, fill, or storage of materials and equipment:

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1. Agricultural uses, such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming, and wild crop harvesting;
2. Public and private recreational uses and activities, such as parks, play areas of a natural, permeable nature, day camps, picnic grounds, golf courses, boat launching and swimming areas, horseback riding and hiking trails, wildlife and nature preserves, game farms, trap and skeet game ranges, and hunting and fishing areas;
3. Fisheries uses such as fish hatcheries and harvesting;
4. Stormwater management improvements associated with uses permitted by right in the overlay district;
5. Utility lines, road crossings, private drives and private access easements not resulting in an increase in the water surface elevation of the base flood affecting existing buildings and structures;
6. Temporary storage of material or equipment necessary in the construction of uses permitted by right in the overlay district;
7. Accessory residential uses, such as yard areas, gardens, play areas and loading areas;
8. Accessory industrial and commercial uses, such as yard areas, parking and loading areas, airport landing strips, etc.
9. Expansion or enlargement of existing structures and/or uses up to one hundred (100) percent of structure floor area if the effect on flood heights is fully offset by accompanying improvements that are designed by and certified by a professional engineer;
10. Repairs, restoration and maintenance, including structural repairs may be made to a nonconforming structure only when the cost of the work does not exceed fifty (50) percent of the current fair market value and the work does not increase the cubic content volume of the nonconforming structure. Cost of the land shall not be considered in when determining the fair market value of the nonconforming structure. If a nonconforming structure is damaged or destroyed, the repair or restoration work shall commence within six (6) months of the date the damage occurred and complete the repair or restoration shall be completed within twenty-four (24) months of starting construction or the nonconforming use will be deemed abandoned.

(c) The placement of manufactured homes (mobile homes) is prohibited, except in an existing manufactured homes (mobile homes) park or subdivision. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring, elevation and encroachments standards are met.

Section 3.5 *Standards for the Special Floodplain District*. The following provisions shall apply within the Special Floodplain District:

Until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within the areas of special flood hazard, designated as Zones A1-30 and AE on the Flood Insurance Rate Map, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one (1) foot at any point within the County of Montgomery.

Development activities in Zones A1-30, AE, and AH, on the county's Flood Insurance Rate Map which increase the water surface elevation of the base flood by more than one (1) foot may be allowed, provided that the developer or applicant first applies - with the county's endorsement - for a conditional Flood Insurance Rate Map revision, and receives the approval of the Federal Emergency Management Agency.

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Section 3.6 *Standards for approximated floodplain.* The following provisions shall apply with the Approximate Floodplain District:

The Approximated Floodplain District shall be that floodplain area for which no detailed flood profiles or elevations are provided, but where a one hundred (100)-year floodplain boundary has been approximated. Such areas are shown as Zone A on the maps accompanying the Flood Insurance Study. For these areas, the one hundred (100)-year flood elevations and floodway information from federal, state, and other acceptable sources shall be used, when available. Where the specific one hundred (100)-year flood elevation cannot be determined for this area using other sources of data, such as the U.S. Army Corps of Engineers Floodplain Information Reports, U. S. Geological Survey Floodprone Quadrangles, etc., then the applicant for the proposed use, development and/or activity shall determine this elevation in accordance with hydrologic and hydraulic engineering techniques. Hydrologic and hydraulic analyses shall be undertaken only professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently-accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the county.

When such base flood elevation data is utilized, the lowest floor shall be one (1) foot above the base flood elevation. During the permitting process, the applicant/property owner shall obtain:

- 1) The elevation of the lowest floor (including the basement) of all new and substantially improved structures; and
- 2) If the structure has been floodproofed in accordance with the requirements of this article, the elevation to which the structure has been floodproofed.

Section 3.7 *Standards for the Shallow Flooding District.* The following provisions shall apply within the Shallow Flooding District:

- (a) All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated to or above the flood depth specified on the Flood Insurance Rate Map, above the highest adjacent grade. If no flood depth number is specified, the lowest floor, including basement, shall be elevated at least two (2) feet (recommend  $\geq$  one (1) foot freeboard) above the highest adjacent grade; or,
- (b) All new construction and substantial improvements of nonresidential structures shall:
  1. Have the lowest floor, including basement, elevated to or above the flood depth specified on the Flood Insurance Rate Map, above the highest adjacent grade. If no flood depth number is specified, the lowest floor, including basement, shall be elevated at least two (2) feet (recommend  $\geq$  one (1) foot freeboard) above the highest adjacent grade; or,
  2. Together with attendant utility and sanitary facilities be completely floodproofed to the specified flood level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
- (c) Adequate drainage paths around structures on slopes shall be provided to guide floodwaters around and away from proposed structures.

Section 3.8 *Standards for subdivision proposals.*

- (a) All subdivision proposals shall be consistent with the need to minimize flood damage;
- (b) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;
- (c) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards, and

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(d) Base flood elevation data shall be provided for subdivision proposals and other proposed development proposals (including manufactured home parks and subdivisions) that exceed fifty lots or five (5) acres, whichever is the lesser.

## **Article IV--Variances; Factors to Be Considered**

In passing upon applications for variances, the board of zoning appeals shall satisfy all relevant factors and procedures specified in other sections of this chapter and consider the following additional factors:

1. The danger to life and property due to increased flood heights or velocities caused by encroachments. No variance shall be granted for any proposed use, development or activity within any floodway district that will cause any increase in the one hundred (100)-year flood elevation.
2. The danger that materials may be swept onto other lands or downstream to the injury of others.
3. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.
4. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners.
5. The importance of the services provided by the proposed facility to the community.
6. The requirements of the facility for a waterfront location.
7. The availability of alternative locations not subject to flooding for the proposed use.
8. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
9. The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.
10. The safety of access by ordinary and emergency vehicles to the property in time of flood.
11. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site.
12. The repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
13. Such other factors which are relevant to the purposes of this article.

The board of zoning appeals may refer any application and accompanying documentation pertaining to any request for a variance to any engineer or other qualified person or agency for technical assistance in evaluating the proposed project in relation to flood heights and velocities and the adequacy of the plans for flood protection and other related matters.

Variances shall be issued only after the board of zoning appeals has determined that the granting of such will not result in (1) unacceptable or prohibited increases in flood heights; (2) additional threats to public safety; (3) extraordinary public expense; and will not (4) create nuisances; (5) cause fraud on or victimization of the public; or (6) conflict with local laws or ordinances. Variances shall be issued only after the board of zoning appeals has determined that the variance will be the minimum required to provide relief and that the failure to grant the requested variance would result in hardship to the applicant.

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The board of zoning appeals shall notify the applicant for a variance, in writing, that the issuance of a variance to construct a structure below the one hundred (100)-year flood elevation increases the risks to life and property and will result in increased premium rates for flood insurance.

A record shall be maintained of the above notification as well as all variance actions, including justification for the issuance of the variances. Any variances which are issued shall be noted in the annual or biennial report submitted to the Federal Insurance Administrator.

## **Article VI--Existing Structures in Floodplain Areas**

A structure or use of a structure or premises which lawfully existed before the enactment of these provisions but which is not in conformity with these provisions may be continued subject to the following conditions:

1. Existing structures in the Floodway Area shall not be expanded or enlarged unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard emergency practices that the proposed expansion would not result in any increase in the base flood elevation.
2. Any modification, alteration, repair, reconstruction or improvement of any kind to a structure and/or use located in any floodplain areas to an extent or amount of less than fifty (50) percent of its market value shall conform to the VA USBC. *Any additions shall be constructed in full compliance with this chapter.*
3. The modifications, alterations, repair, reconstruction or improvement of any kind to a structure and/or use, regardless of its location in a floodplain area to an extent or amount of fifty (50) percent or more of its market value shall be undertaken only in full compliance with this chapter and shall require the entire structure to conform to the VA USBC.

## **Article VI--Definitions**

*Definitions.* For the purpose of this Flood Damage Prevention Overlay Ordinance, the following words and phrases shall have the meanings respectfully ascribed to them by this section. Any word, term or phrase used in this overlay ordinance not defined below shall have the meaning ascribed to the word in section 10-61 of the zoning chapter or if not defined there then in the most recent edition of Webster's unabridged Dictionary, unless in the opinion of the zoning administrator established customs or practices of the County of Montgomery justify a different or additional meaning.

*Base flood.\** The flood having a one (1) percent chance of being equaled or exceeded in any given year.

*Base flood elevation.\** The Federal Emergency Management Agency designated one hundred (100)-year water surface elevation.

*Basement.\** Any area of the building having its floor sub-grade (below ground level) on all sides.

*Board of zoning appeals.\** The board appointed to review appeals made by individuals with regard to decisions of the zoning administrator in the interpretation of this chapter.

*Development.\** Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

*Elevated building.\** A nonbasement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, or columns (posts and piers).

*Encroachment.\** The advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.

*Existing manufactured home park or subdivision.\** A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the

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installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

*Expansion to an existing manufactured home park or subdivision.\** The preparation of additional sites by the construction of facilities for servicing the lots on which the manufacturing homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

## *Flood or flooding.\**

1. A general or temporary condition of partial or complete inundation of normally dry land areas from:
  - a. The overflow of inland or tidal waters; or
  - b. The unusual and rapid accumulation or runoff of surface waters from any source.
2. The collapse or subsistence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph 1a. of this definition.
3. Mudflows which are proximately caused by flooding as defined in paragraph (a)(2)[1b.] of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

*Floodplain or floodprone area.\** Any land area susceptible to being inundated by water from any source.

*Floodproofing.* Any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

*Floodway.\** The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

*Flood Insurance Rate Map (FIRM).\** An official map of a community on which both the special hazard areas and the risk premium zones applicable to the community are delineated.

*Freeboard.\** A factor of safety usually expressed in feet above a flood level for purposes of floodplain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization in the watershed.

*Highest Adjacent Grade.* The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

*Historic structure.\** Any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

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4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
  - a. By an approved state program as determined by the Secretary of the Interior; or
  - b. Directly by the Secretary of the Interior in states without approved programs.

*Lowest floor.\** The lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of Federal Code 44CFR §60.3.

*Manufactured home.\** A structure, transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term manufactured home also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than one hundred eighty (180) consecutive days.

*Manufactured home park or subdivision.\** A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

*Manufactured home park or subdivision, New.\** A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

*New construction.\** For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial Flood Insurance Rate Map on or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, new construction means structures for which start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

*Recreational vehicle.\** A vehicle which is:

1. Built on a single chassis;
2. Four hundred (400) square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light duty truck; and,
4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational camping, travel, or seasonal use.

*Shallow flooding area.\** A special flood hazard area with base flood depths from one (1) to three (3) feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

*Special flood hazard area.\** The land in the floodplain subject to a one (1) percent or greater chance of being flooded in any given year as determined in Article III, Section 3.2 of this section.

*Start of construction.\** The date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, substantial improvement or other improvement was within one hundred eighty (180) days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of the construction means the first alteration of any

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wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

*Structure.*\* For floodplain management purposes a walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home. Structure for insurance coverage purposes means a walled and roofed building, other than a gas or liquid storage tank that is principally above and affixed to a permanent site, as well as a manufactured home on a permanent foundation. For the latter purpose, the term includes a building while in the course of construction, alteration or repair, but does not include building materials or supplies intended for use in such construction, alteration or repair, unless such materials or supplies are within an enclosed building on the premises.

*Substantial damage.*\* Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred.

*Substantial improvement.*\* Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred substantial damage regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or
2. Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

*Watercourse.*\* A lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur. (Ord. No. 1999-12, §§ 3-500--3-508, 12-13-99; Ord. No. 2001-08, 6-11-01; Ord. No. 2003-09, 6-9-03; ORD-FY-10-02, 7-13-09; ORD-FY-10-10, 8-24-09)

**Note:** \* Denotes definitions to be used only for the purpose of this Flood Damage Prevention Overlay Ordinance, the words and phrases shall have the meanings respectfully ascribed to them by this section.

## SECTION R320 PROTECTION AGAINST SUBTERRANEAN TERMITES

**R320.1 Subterranean termite control methods.** In areas subject to damage from termites as indicated by Table R301.2(1), methods of protection shall be one of the following methods or a combination of these methods:

1. Chemical termiticide treatment, as provided in Section R320.2.
2. Termite baiting system installed and maintained according to the label.
3. Pressure-preservative-treated wood in accordance with the AWPA standards listed in Section R319.1.
4. Naturally termite-resistant wood as provided in Section R320.3.
5. Physical barriers as provided in Section R320.4.

**R320.1.1 Quality mark.** Lumber and plywood required to be pressure-preservative-treated in accordance with Section R320.1 shall bear the quality mark of an approved inspection agency which maintains continuing supervision, testing and inspection over the quality of the product and which has been approved by an accreditation body which complies with the requirements of the American Lumber Standard Committee treated wood program.

**R320.1.2 Field treatment.** Field-cut ends, notches, and drilled holes of pressure-preservative-treated wood shall be retreated in the field in accordance with AWPA M4.

**R320.2 Chemical termiticide treatment.** Chemical termiticide treatment shall include soil treatment and/or field applied wood treatment. The concentration, rate of application and method of treatment of the chemical termiticide shall be in strict accordance with the termiticide label.

**R320.3 Naturally resistant wood.** Heartwood of redwood and eastern red cedar shall be considered termite resistant.

**R320.4 Barriers.** Approved physical barriers, such as metal or plastic sheeting or collars specifically designed for termite prevention, shall be installed in a manner to prevent termites from entering the structure. Shields placed on top of an exterior foundation wall are permitted to be used only if in combination with another method of protection.

**R320.5 Foam plastic protection.** In areas where the probability of termite infestation is "very heavy" as indicated in Figure R301.2(6), extruded and expanded polystyrene, polyisocyanurate and other foam plastics shall not be installed on the exterior face or under interior or exterior foundation walls or slab foundations located below grade. The clearance between foam plastics installed above grade and exposed earth shall be at least 6 inches (152 mm).

### Exceptions:

1. Buildings where the structural members of walls, floors, ceilings and roofs are entirely of noncombustible materials or pressure-preservative-treated wood.
2. When in addition to the requirements of Section R320.1, an approved method of protecting the foam

plastic and structure from subterranean termite damage is used.

3. On the interior side of basement walls.

## SECTION R321 SITE ADDRESS

**R321.1 Premises identification.** Approved numbers or addresses shall be provided for all new buildings in such a position as to be plainly visible and legible from the street or road fronting the property.

## SECTION R322 ACCESSIBILITY

**R322.1 Scope.** Where there are four or more dwelling units or sleeping units in a single structure, the provisions of Chapter 11 of the *International Building Code* for Group R-3 shall apply.

## SECTION R323 ELEVATORS AND PLATFORM LIFTS

**R323.1 Elevators.** Where provided, passenger elevators, limited-use/limited-application elevators or private residence elevators shall comply with ASME A17.1.

**R323.2 Platform lifts.** Where provided, platform lifts shall comply with ASME A18.1.

**R323.3 Accessibility.** Elevators or platform lifts that are part of an accessible route required by Chapter 11 of the *International Building Code*, shall comply with ICC A117.1.

## SECTION R324 FLOOD-RESISTANT CONSTRUCTION

**R324.1 General.** Buildings and structures constructed in whole or in part in flood hazard areas (including A or V Zones) as established in Table R301.2(1) shall be designed and constructed in accordance with the provisions contained in this section.

**Exception:** Buildings and structures located in whole or in part in identified floodways as established in Table R301.2(1) shall be designed and constructed as stipulated in the *International Building Code*.

**R324.1.1 Structural systems.** All structural systems of all buildings and structures shall be designed, connected and anchored to resist flotation, collapse or permanent lateral movement due to structural loads and stresses from flooding equal to the design flood elevation.

**R324.1.2 Flood-resistant construction.** All buildings and structures erected in areas prone to flooding shall be constructed by methods and practices that minimize flood damage.

**R324.1.3 Establishing the design flood elevation.** The design flood elevation shall be used to define areas prone to flooding, and shall describe, at a minimum, the base flood elevation at the depth of peak elevation of flooding (including wave height) which has a 1 percent (100-year flood) or

greater chance of being equaled or exceeded in any given year.

**R324.1.3.1 Determination of design flood elevations.** If design flood elevations are not specified, the building official is authorized to require the applicant to:

1. Obtain and reasonably use data available from a federal, state or other source; or
2. Determine the design flood elevation in accordance with accepted hydrologic and hydraulic engineering practices used to define special flood hazard areas. Determinations shall be undertaken by a registered design professional who shall document that the technical methods used reflect currently accepted engineering practice. Studies, analyses and computations shall be submitted in sufficient detail to allow thorough review and approval.

**R324.1.3.2 Determination of impacts.** In riverine flood hazard areas where design flood elevations are specified but floodways have not been designated, the applicant shall demonstrate that the effect of the proposed buildings and structures on design flood elevations, including fill, when combined with all other existing and anticipated flood hazard area encroachments, will not increase the design flood elevation more than 1 foot (305 mm) at any point within the jurisdiction.

**R324.1.4 Lowest floor.** The lowest floor shall be the floor of the lowest enclosed area, including basement, but excluding any unfinished flood-resistant enclosure that is useable solely for vehicle parking, building access or limited storage provided that such enclosure is not built so as to render the building or structure in violation of this section.

**R324.1.5 Protection of mechanical and electrical systems.** Electrical systems, equipment and components, and heating, ventilating, air conditioning and plumbing appliances, plumbing fixtures, duct systems, and other service equipment shall be located at or above the design flood elevation. If replaced as part of a substantial improvement, electrical systems, equipment and components, and heating, ventilating, air conditioning, and plumbing appliances, plumbing fixtures, duct systems, and other service equipment shall meet the requirements of this section. Systems, fixtures, and equipment and components shall not be mounted on or penetrate through walls intended to break away under flood loads.

**Exception:** Electrical systems, equipment and components, and heating, ventilating, air conditioning and plumbing appliances, plumbing fixtures, duct systems, and other service equipment are permitted to be located below the design flood elevation provided that they are designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to the design flood elevation in compliance with the flood-resistant construction requirements of the *International Building Code*. Electrical wiring systems are permitted to be located below the design flood elevation

provided they conform to the provisions of the electrical part of this code for wet locations.

**R324.1.6 Protection of water supply and sanitary sewage systems.** New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems in accordance with the plumbing provisions of this code. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into systems and discharges from systems into floodwaters in accordance with the plumbing provisions of this code and Chapter 3 of the *International Private Sewage Disposal Code*.

**R324.1.7 Flood-resistant materials.** Building materials used below the design flood elevation shall comply with the following:

1. All wood, including floor sheathing, shall be pressure-preservative-treated in accordance with AWPA U1 for the species, product, preservative and end use or be the decay-resistant heartwood of redwood, black locust or cedars. Preservatives shall be listed in Section 4 of AWPA U1.
2. Materials and installation methods used for flooring and interior and exterior walls and wall coverings shall conform to the provisions of FEMA/FIA-TB.

**R324.1.8 Manufactured housing.** New or replacement manufactured housing shall be elevated in accordance with Section R324.2 and the anchor and tie-down requirements of Sections AE604 and AE605 of Appendix E shall apply. The foundation and anchorage of manufactured housing to be located in identified flood ways as established in Table R301.2(1) shall be designed and constructed in accordance with the applicable provisions in the *International Building Code*.

**R324.1.9 As-built elevation documentation.** A registered design professional shall prepare and seal documentation of the elevations specified in Section R324.2 or R324.3.

**R324.2 Flood hazard areas (including A Zones).** Areas that have been determined to be prone to flooding but not subject to high velocity wave action shall be designated as flood hazard areas. All buildings and structures constructed in whole or in part in flood hazard areas shall be designed and constructed in accordance with Sections R324.2.1 and R324.2.3.

**R324.2.1 Elevation requirements.**

1. Buildings and structures shall have the lowest floors elevated to or above the design flood elevation.
2. In areas of shallow flooding (AO Zones), buildings and structures shall have the lowest floor (including basement) elevated at least as high above the highest adjacent grade as the depth number specified in feet (mm) on the FIRM, or at least 2 feet (610 mm) if a depth number is not specified.
3. Basement floors that are below grade on all sides shall be elevated to or above the design flood elevation.

**Exception:** Enclosed areas below the design flood elevation, including basements whose floors are not below

grade on all sides, shall meet the requirements of Section R324.2.2.

**R324.2.2 Enclosed area below design flood elevation.**

Enclosed areas, including crawl spaces, that are below the design flood elevation shall:

1. Be used solely for parking of vehicles, building access or storage.
2. Be provided with flood openings that meet the following criteria:
  - 2.1. There shall be a minimum of two openings on different sides of each enclosed area; if a building has more than one enclosed area below the design flood elevation, each area shall have openings on exterior walls.
  - 2.2. The total net area of all openings shall be at least 1 square inch (645 mm<sup>2</sup>) for each square foot (0.093 m<sup>2</sup>) of enclosed area, or the openings shall be designed and the construction documents shall include a statement that the design and installation will provide for equalization of hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwaters.
  - 2.3. The bottom of each opening shall be 1 foot (305 mm) or less above the adjacent ground level.
  - 2.4. Openings shall be at least 3 inches (76 mm) in diameter.
  - 2.5. Any louvers, screens or other opening covers shall allow the automatic flow of floodwaters into and out of the enclosed area.
  - 2.6. Openings installed in doors and windows, that meet requirements 2.1 through 2.5, are acceptable; however, doors and windows without installed openings do not meet the requirements of this section.

**R324.2.3 Foundation design and construction.** Foundation walls for all buildings and structures erected in flood hazard areas shall meet the requirements of Chapter 4.

**Exception:** Unless designed in accordance with Section R404:

1. The unsupported height of 6-inch (152 mm) plain masonry walls shall be no more than 3 feet (914 mm).
2. The unsupported height of 8-inch (203 mm) plain masonry walls shall be no more than 4 feet (1219 mm).
3. The unsupported height of 8-inch (203 mm) reinforced masonry walls shall be no more than 8 feet (2438 mm).

For the purpose of this exception, unsupported height is the distance from the finished grade of the under-floor space and the top of the wall.

**R324.3 Coastal high-hazard areas (including V Zones).**

Areas that have been determined to be subject to wave heights in excess of 3 feet (914 mm) or subject to high-velocity wave action or wave-induced erosion shall be designated as coastal high-hazard areas. Buildings and structures constructed in whole or in part in coastal high-hazard areas shall be designated and constructed in accordance with Sections R324.3.1 through R324.3.6.

**R324.3.1 Location and site preparation.**

1. Buildings and structures shall be located landward of the reach of mean high tide.
2. For any alteration of sand dunes and mangrove stands the building official shall require submission of an engineering analysis which demonstrates that the proposed alteration will not increase the potential for flood damage.

**R324.3.2 Elevation requirements.**

1. All buildings and structures erected within coastal high hazard areas shall be elevated so that the lowest portion of all structural members supporting the lowest floor, with the exception of mat or raft foundations, piling, pile caps, columns, grade beams and bracing, is located at or above the design flood elevation.
2. Basement floors that are below grade on all sides are prohibited.
3. The use of fill for structural support is prohibited.
4. The placement of fill beneath buildings and structures is prohibited.

**Exception:** Walls and partitions enclosing areas below the design flood elevation shall meet the requirements of Sections R324.3.4 and R324.3.5.

**R324.3.3 Foundations.** Buildings and structures erected in coastal high-hazard areas shall be supported on pilings or columns and shall be adequately anchored to those pilings or columns. Pilings shall have adequate soil penetrations to resist the combined wave and wind loads (lateral and uplift). Water loading values used shall be those associated with the design flood. Wind loading values shall be those required by this code. Pile embedment shall include consideration of decreased resistance capacity caused by scour of soil strata surrounding the piling. Pile systems design and installation shall be certified in accordance with Section R324.3.6. Mat, raft or other foundations that support columns shall not be permitted where soil investigations that are required in accordance with Section R401.4 indicate that soil material under the mat, raft or other foundation is subject to scour or erosion from wave-velocity flow conditions. Slabs, pools, pool decks and walkways shall be located and constructed to be structurally independent of buildings and structures and their foundations to prevent transfer of flood loads to the buildings and structures during conditions of flooding, scour or erosion from wave-velocity flow conditions, unless the buildings and structures and their foundation are designed to resist the additional flood load.

**R324.3.4 Walls below design flood elevation.** Walls and partitions are permitted below the elevated floor, provided that such walls and partitions are not part of the structural support of the building or structure and:

1. Electrical, mechanical, and plumbing system components are not to be mounted on or penetrate through walls that are designed to break away under flood loads; and
2. Are constructed with insect screening or open lattice; or
3. Are designed to break away or collapse without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. Such walls, framing and connections shall have a design safe loading resistance of not less than 10 (479 Pa) and no more than 20 pounds per square foot (958 Pa); or
4. Where wind loading values of this code exceed 20 pounds per square foot (958 Pa), the construction documents shall include documentation prepared and sealed by a registered design professional that:
  - 4.1. The walls and partitions below the design flood elevation have been designed to collapse from a water load less than that which would occur during the design flood.
  - 4.2. The elevated portion of the building and supporting foundation system have been designed to withstand the effects of wind and flood loads acting simultaneously on all building components (structural and nonstructural). Water loading values used shall be those associated with the design flood. Wind loading values shall be those required by this code.

**R324.3.5 Enclosed areas below design flood elevation.** Enclosed areas below the design flood elevation shall be used solely for parking of vehicles, building access or storage.

**R324.3.6 Construction documents.** The construction documents shall include documentation that is prepared and sealed by a registered design professional that the design and methods of construction to be used meet the applicable criteria of this section.

## SECTION R325 RADON-RESISTANT CONSTRUCTION

**R325.1 Local enforcement of radon requirements.** Following official action under Article 7 (Section 15.2-2280 et seq.) of Chapter 22 of Title 15.2 of the Code of Virginia by a locality in areas of high radon potential, as indicated by Zone 1 on the U.S. EPA Map of Radon Zones (IRC Figure AF101), such locality shall enforce the provisions contained in Appendix F.

**Exception:** Buildings or portions thereof with crawl space foundations which are ventilated to the exterior, shall not be required to provide radon-resistant construction.

## SECTION R326 SWIMMING POOLS, SPAS AND HOT TUBS

**R326.1 Use of Appendix G for swimming pools, spas and hot tubs.** In addition to other applicable provisions of this code, swimming pools, spas and hot tubs shall comply with the provisions in Appendix G.

## SECTION R327 PATIO COVERS

**R327.1 Use of Appendix H for patio covers.** Patio covers shall comply with the provisions in Appendix H.

## SECTION R328 SOUND TRANSMISSION

**R328.1 Sound transmission between dwelling units.** Construction assemblies separating dwelling units shall provide airborne sound insulation as required in Appendix K.

**R328.2 Airport noise attenuation.** This section applies to the construction of the exterior envelope of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means or egress within airport noise zones when enforced by a locality pursuant to Section 15.2-2295 of the Code of Virginia. The exterior envelope of such structures shall comply with Section 1207.4 of the state amendments to the IBC.