



## Legislation Details (With Text)

**File #:** 14-0304      **Version:** 0      **Name:** Floodplain Management Code - Cross-References and Corrections  
**Type:** Ordinance      **Status:** Enacted  
**File created:** 1/13/2014      **In control:** City Council  
**On agenda:**      **Final action:** 3/25/2014  
**Enactment date:**      **Enactment #:** 14-209  
**Title:** Floodplain Management Code - Cross-References and Corrections

FOR the purpose of conforming certain provisions of the Baltimore City Floodplain Management Code, as amended by Ordinance 14-\_\_\_\_ (Bill 14-0303) {"Floodplain Management Code - Revision"}; correcting certain errors and omissions relating to floodplain management and the design and construction of structures within the Floodplain District; clarifying the application of certain provisions; deleting certain redundant, obsolete, and otherwise superfluous provisions; correcting and conforming certain obsolete nomenclature; providing for a special effective date; and generally relating to the Baltimore City Floodplain Management Code and references and corrections to it.

**Sponsors:** City Council President (Administration)  
**Indexes:** Corrections, Cross-References, Floodplain

**Code sections:**

**Attachments:** 1. 14-0304 - 1st Reader.pdf, 2. ECB - 14-0304.pdf, 3. Law - 14-0304.pdf, 4. Planning - 14-0304.pdf, 5. Sustainability - 14-0304.pdf, 6. HCD - 14-0304.pdf, 7. BMZA - 14-0304.pdf, 8. 14-0304 - 3rd Reader.pdf

Date	Ver.	Action By	Action	Result
3/25/2014	0	Mayor	Signed by Mayor	
3/24/2014	0	City Council	Approved and Sent to the Mayor	
3/10/2014	0	Judiciary and Legislative Investigations	Recommended Favorably	
3/10/2014	0	City Council	Advanced to 3rd Rdr., Adopted Comm. Report	
1/27/2014	0	Judiciary and Legislative Investigations	Advertising	
1/16/2014	0	The City Council	Referred for a Report	
1/16/2014	0	The City Council	Referred for a Report	
1/16/2014	0	The City Council	Referred for a Report	
1/16/2014	0	The City Council	Referred for a Report	
1/16/2014	0	The City Council	Referred for a Report	
1/16/2014	0	The City Council	Referred for a Report	
1/13/2014	0	City Council	Assigned	
1/13/2014	0	Judiciary and Legislative Investigations	Scheduled for a Public Hearing	
1/13/2014	0	City Council	Introduced	

EXPLANATION: CAPITALS indicate matter added to existing law.

[Brackets] indicate matter deleted from existing law.

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INTRODUCTORY\*

CITY OF BALTIMORE  
COUNCIL BILL

Introduced by: The Council President  
At the request of: The Administration (Department of Planning)

A BILL ENTITLED

AN ORDINANCE concerning  
**Floodplain Management Code - Cross-References and Corrections**

FOR the purpose of conforming certain provisions of the Baltimore City Floodplain Management Code, as amended by Ordinance 14-\_\_\_ (Bill 14-0303) {"Floodplain Management Code - Revision"}; correcting certain errors and omissions relating to floodplain management and the design and construction of structures within the Floodplain District; clarifying the application of certain provisions; deleting certain redundant, obsolete, and otherwise superfluous provisions; correcting and conforming certain obsolete nomenclature; providing for a special effective date; and generally relating to the Baltimore City Floodplain Management Code and references and corrections to it.

BY repealing and reordaining with amendments

Article 13 - Housing and Urban Renewal  
Sections 9-1(b) and 9-2 through 9-5  
Baltimore City Code  
(Edition 2000)

BY repealing

Article 13 - Housing and Urban Renewal  
Section 9-6  
Baltimore City Code  
(Edition 2000)

BY repealing and reordaining with amendments

Article - Zoning  
Sections 1-172(b), 2-201(a) and (g), 2-202(a) and (c)(2), 3-107(b)(2), 8-201(b)  
and (c), 8-202, 8-203, 8-206, 8-207(a), 8-208, 8-209, 8-212, 8-213(a)(1), 8-214, and  
10-307(a)  
Baltimore City Revised Code  
(Edition 2000)

BY repealing and reordaining, with amendments

Article - Building Fire, and Related Codes  
Sections 2-103(BC §§ 101.2, 107.2.1, 110, 202.2, 801, 1203, 1403.6, 1403.7,  
1603, 1804, 1805, and 3001),  
4-102(FGC §§ 202.2 and 301.11)  
5-102(MC §§ 202.2, 301.16, 501.3.1, 602.4, 603.13, 1206.9.1, and 1305.2.1),

6-102(PC §§ 202.2 and 309), and  
10-102(RC §§ 104.10.1, 105.3.1.1, 109.1.3, 109.1.6.1, 202.2, 401.1, 1301.1.1,  
1401.5, 1601.4.9, 1701.2, 2001.4, 2201.6, E101.1, G101.2, and G103.3)  
Baltimore City Revised Code  
(Edition 2000)

BY repealing

Article - Building Fire, and Related Codes  
Sections 2-103(BC §§ 104.10.1 and 1612 and App. G), and  
10-102(RC §§ 106.1.3, 301.2.4, 309.3, 322, 404.1.9.5, and 408.7)  
Baltimore City Revised Code  
(Edition 2000)

SECTION 1. BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF BALTIMORE, That the Laws of  
Baltimore City read as follows:

Baltimore City Code

Article 13. Housing and Urban Renewal

Subtitle 9. Rental Units in [Flood Plains] FLOODPLAIN DISTRICT

§ 91. Definitions.

(b) [Flood plain] FLOODPLAIN DISTRICT.

"[Flood plain] FLOODPLAIN DISTRICT" means [a floodway, floodway fringe, approximated flood plain, harbor flood zone, or shallow flood zone as defined and described in the Zoning Code of Baltimore City] THE FLOODPLAIN DISTRICT AND SUBDISTRICTS ESTABLISHED UNDER THE FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.

§ 92. Notice to prospective tenant.

[When] IF any part of a rental unit, including the parking area or separate storage area [of said] FOR THAT unit, is within [a flood plain] THE FLOODPLAIN DISTRICT, and the City has notified the landlord of [such] THAT fact by first class mail, bulk mail, or otherwise, or the landlord has received notice of [such] THAT fact from some other governmental agency, the landlord shall provide any prospective tenant with the following NOTICE AND acknowledgment:

#### NOTICE TO PROSPECTIVE TENANT

The rental unit you are to occupy or the motor vehicle parking area or separate storage facility you are to use (as the case may be) is situated in an area prone to flooding during unusually heavy or prolonged steady periods of rain. Such flooding may damage personal belongings and motor vehicles. Because of this possible loss, you may be eligible for U.S. Government subsidized flood insurance on the personal belongings in your unit. In any event, because of this danger of loss of your personal belongings due to flooding, you may wish to consider acquiring flood insurance, which may be purchased from some insurance agents.

Damage to motor vehicles may not be covered by such insurance; therefore you may also wish to determine whether or not you have sufficient motor vehicle insurance to cover loss due to damage of your motor vehicle resulting from flooding in this area.

The Baltimore City Department of Planning can provide information pertaining to the susceptibility of this area to flooding. You may wish to contact that Department, at (telephone number), before signing either this acknowledgment or the lease agreement for this rental unit.

#### ACKNOWLEDGMENT BY PROSPECTIVE TENANT

I acknowledge reading and understanding the foregoing warning concerning flooding. I have been provided time, prior to signing either this acknowledgment or a lease, to contact the Baltimore City Department of Planning concerning the susceptibility of the area around my rental unit to flooding.

Tenant's Signature

§ 93. Form of notice.

The NOTICE AND acknowledgment required by § 92 of this subtitle shall be in printed form, utilizing bold face type, AND set apart from the body of the lease. [Said] THE acknowledgment shall provide space for a written acknowledgment that the tenant is cognizant of the flood risk.

§ 94. Method of presentment.

(a) Written lease.

Where there is a written lease between the landlord and tenant, the NOTICE AND acknowledgment required by § 92 of this subtitle shall be initialed by both parties and attached in a secure manner to the lease.

(b) Oral lease.

Where the lease agreement between the landlord and tenant is oral, the NOTICE AND acknowledgment required by § 92 of this subtitle shall be presented to the tenant [prior to] BEFORE his agreeing to the lease.

§ 95. Liability for omission.

Any landlord [after receiving] WHO HAS RECEIVED notice from the City [and/or] OR any other [State, Federal, or other] GOVERNMENTAL agency that the tenant's unit is within [a flood plain] THE FLOODPLAIN DISTRICT and who has failed to give the NOTICE AND acknowledgment referred to in § 92 of this subtitle shall be liable for actual damages proximately caused by natural flooding.

§ 96. [Warning to current tenants.] {RESERVED}

[Within 90 days of the effective date of this subtitle, a landlord shall furnish all tenants occupying rental units or utilizing parking or separate storage areas within a flood plain with a written notice in the following form:

The rental unit you are occupying or the motor vehicle parking area or separate storage facility you are using (as the case may be) is situated in an area prone to flooding during unusually heavy or prolonged steady periods of rain. Such flooding may damage personal belongings and motor vehicles. Because of this possible loss, you may be

eligible for U. S. Government subsidized flood insurance on the personal belongings in your unit. In any event, because of this danger of loss of your personal belongings due to flooding, you may wish to consider acquiring flood insurance, which may be purchased from some insurance agents.

Damage to motor vehicles may not be covered by such insurance; therefore you may also wish to determine whether or not you have sufficient motor vehicle insurance to cover loss due to damage of your motor vehicle resulting from flooding in this area.

The Baltimore City Department of Planning can provide information pertaining to the susceptibility of this area to flooding. You may wish to contact that Department.]

## Baltimore City Revised Codes

### Article - Zoning

#### Title 1. Definitions; General Provisions

##### Subtitle 1. Definitions

§ 1-172. Peep show establishment.

(b) Exclusions.

"Peep show establishment" does not include a theater for the production and viewing of the performing arts or motion pictures, as described in § 303.1 (Assembly Group A-1) of the BALTIMORE City Building Code.

#### Title 2. Administration; Authorizations

##### Subtitle 2. Zoning Districts; Maps and Profiles

§ 2201. Establishment of districts.

(a) In general.

In order to carry out the purposes of this article, Baltimore City is divided into zoning districts, as listed in this section and located on the zoning maps, [flood plain] FLOODPLAIN overlay maps, and flood profiles adopted under this article.

(g) [Flood Plain] FLOODPLAIN Overlay [Districts] DISTRICT.

F1 Floodway

F2 Floodway Fringe

F3 Approximated [Flood Plain] FLOODPLAIN

[HFZ Harbor Flood Zone] CFP COASTAL FLOODPLAIN

[CHZ Coastal Hazard Zone] CHHA COASTAL HIGH HAZARD AREA

FRA FLOOD RESILIENCE AREA

§ 2202. Maps and profiles part of article.

(a) In general.

The zoning maps, [flood plain] FLOODPLAIN overlay maps, and flood profiles adopted under this article are incorporated in and made a part of this article as fully as if they were set forth and described in this article.

(c) Digital format authorized.

(2) On certification by the Director of [Public Works] GENERAL SERVICES, the maps and profiles converted to a digital format under this subsection:

(i) are legalized for purposes of the Zoning Code of Baltimore City; and

(ii) may be taken by all public officials and others as evidence of the original maps and profiles adopted under this article.

### Title 3. General Rules for Use, Bulk, and Other Regulations

#### Subtitle 1. Use Regulations

§ 3-107. Prohibited uses - storage, etc., of vehicles.

(b) Prohibited uses.

(2) Outdoor storage, etc.

The outdoor storage or maintenance of abandoned, unlicensed, junked, or derelict vehicles is prohibited in [all]:

(i) ALL Residence Districts;

(ii) ALL Office-Residence Districts; and

(iii) THE [Flood Plain] FLOODPLAIN Overlay [Districts] DISTRICT.

### Title 8. Overlay Districts

#### Subtitle 2. [Flood Plain] FLOODPLAIN Overlay District

##### Part I. Definitions; Overview

§ 8201. Definitions.

(b) [Flood plain] FLOODPLAIN OVERLAY DISTRICT.

"[Flood plain] FLOODPLAIN OVERLAY DISTRICT" means [:(1) any area] ALL AREAS shown as a [flood plain] FLOODPLAIN on the [flood plain maps] FLOODPLAIN MAP[; and

(2) any other area that:

(i) is a relatively flat or low land area;

(ii) adjoins a river, stream, or watercourse; and

(iii) is subject to partial or complete inundation].

(c) [Flood plain maps] FLOODPLAIN MAP.

"[Flood plain maps] FLOODPLAIN MAP" means the series of maps and profiles known as the Flood Insurance Rate Maps and Flood Insurance Study for the City of Baltimore, dated [February 2, 2012] APRIL 2, 2014, AS PREPARED, REVISED, OR AMENDED FROM TIME TO TIME for the Federal Emergency Management Agency [, Flood Insurance Administrator, as revised or amended from time to time].

§ 8202. Design.

The [Flood Plain] FLOODPLAIN Overlay District regulates the placement and use of structures and the use of land in the [flood plain] FLOODPLAIN, with a design towards:

- (1) protecting human life and health;
- (2) minimizing damage to public and private property;
- (3) preventing or minimizing future flood damage;
- (4) protecting the public water supply and sanitary sewage disposal systems;
- (5) preserving natural drainage systems; and
- (6) reducing financial burdens imposed on Baltimore City and its citizens.

§ 8203. [Districts] SUBDISTRICTS established.

(a) In general.

Six [flood plain districts] FLOODPLAIN SUBDISTRICTS, each designating a measurable degree of flood hazard, are [provided] ESTABLISHED, as delineated on the [flood plain maps] FLOODPLAIN MAP [and described in this section].

(b) Floodway.

The Floodway[, which is the area of highest hazard, is that part of the Flood Plain Overlay District that is required to carry and discharge the waters of the 100year flood without increasing the water surface elevation at any point more than 1 foot above existing conditions] COMPRISES THAT PART OF THE FLOODPLAIN OVERLAY DISTRICT THAT IS DESCRIBED IN CITY CODE ARTICLE 7, § 2-2(B) {"SUBDISTRICTS: FLOODWAY"}.

(c) Floodway Fringe.

The Floodway Fringe comprises those lands within the [Flood Plain] FLOODPLAIN Overlay District THAT ARE DESCRIBED IN CITY CODE ARTICLE 7, § 2-2(C) {"SUBDISTRICTS: FLOODWAY FRINGE"} [that:

- (1) are subject to flooding by the 100year flood; and
- (2) lie beyond the Floodway, in areas for which detailed study data and profiles are available].

(d) Approximated [Flood Plain] FLOODPLAIN.

The Approximated [Flood Plain] FLOODPLAIN comprises those lands within the [Flood Plain] FLOODPLAIN Overlay District THAT ARE DESCRIBED IN CITY CODE ARTICLE 7, § 22(D) {"SUBDISTRICTS: APPROXIMATED FLOODPLAIN"} [that:

- (1) are subject to flooding by the 100 $\overline{\text{year}}$  flood; and
- (2) lie in areas for which a detailed study has not been performed but for which a 100 $\overline{\text{year}}$  flood plain boundary has been approximated].

(e) [Harbor Flood Zone] COASTAL FLOODPLAIN.

The [Harbor Flood Zone] COASTAL FLOODPLAIN comprises those lands within the [Flood Plain] FLOODPLAIN Overlay District THAT ARE DESCRIBED IN CITY CODE ARTICLE 7, § 22(E) {"SUBDISTRICTS: COASTAL FLOODPLAIN"} [that:

- (1) are subject to flooding by a 100 $\overline{\text{year}}$  flood; and
- (2) lie adjacent to the Harbor (Patapsco River)].

[(f) {Reserved}]

(F) [(g)] Coastal HIGH Hazard [Zone] AREA.

The Coastal HIGH Hazard [Zone] AREA comprises those [coastal] lands within the [Flood Plain] FLOODPLAIN Overlay District THAT ARE DESCRIBED IN CITY CODE ARTICLE 7, § 22(F) {"SUBDISTRICTS: COASTAL HIGH HAZARD AREA"} [that are subject to inundation from high velocity waters and wave action].

(G) FLOOD RESILIENCE AREA.

THE FLOOD RESILIENCE AREA COMPRISES THOSE LANDS WITHIN THE FLOODPLAIN OVERLAY DISTRICT THAT ARE DESCRIBED IN CITY CODE ARTICLE 7, § 22(G) {"SUBDISTRICTS: FLOOD RESILIENCE AREA"} .

## Part II. General Requirements

### § 8206. In general.

In addition to the general provisions of Title 3 {"General Rules"} of this article, the following provisions apply to [Flood Plain Districts] THE FLOODPLAIN OVERLAY DISTRICT.

### § 8207. Use regulations - generally.

(a) In general.

- (1) Except in the Floodway, all uses in a [Flood Plain] FLOODPLAIN Overlay District are as otherwise specified in this article for the underlying district.
- (2) In addition to the requirements of Title 14 {"Conditional Uses"} of this article, conditional uses in a [Flood



Plain] FLOODPLAIN Overlay District are subject to the standards and procedures contained in § 8213 {"Conditional uses and variances"} of this subtitle.

§ 8208. Use regulations - public utility and government services.

Notwithstanding any other provision to the contrary, no public utility or government service use may be located in any [flood plain] FLOODPLAIN if it:

- (1) might impede, retard, or change the direction of the flow of water;
- (2) will catch or collect debris carried by the water; or
- (3) is placed where the natural flow of the stream or [flood waters] FLOODWATERS would carry it downstream to the damage or detriment of any public or private property in or adjacent to the [flood plain] FLOODPLAIN.

§ 8209. Bulk regulations.

The bulk regulations set forth in this article for each underlying district apply to properties in the [Flood Plain] FLOODPLAIN Overlay District.

§ 8212. Proposed amendments.

Amendments to the [Flood Plain] FLOODPLAIN Overlay District maps must be reviewed and approved by:

- (1) the PLANNING Department [of Planning]; and
- (2) the Federal Emergency Management Agency or its designee.

§ 8213. Conditional uses and variances.

(a) Additional standards.

(1) In addition to the requirements of Title 14 {"Conditional Uses"} and Title 15 {"Variances"} of this article, the additional standards specified in paragraph (2) of this subsection apply to any conditional use or variance that involves any substantial improvement or new construction in a [Flood Plain] FLOODPLAIN Overlay District.

§ 8214. Municipal and personal liability.

A zoning authorization for property that is near a delineated [flood plain] FLOODPLAIN or near any other land later discovered to be a [flood plain] FLOODPLAIN:

- (1) is not a representation, guarantee, or warranty of any kind that the property is not in a [flood plain] FLOODPLAIN; and
- (2) may not be used to impose any liability on Baltimore City, its elected or appointed officials, or its employees.

## Title 10. Off-Street Parking Regulations

### Subtitle 3. General Requirements

#### § 10-307. Vehicle parking spaces - Surfacing.

##### (a) In general.

Except as specified in subsection (b) of this section, vehicle parking spaces must be surfaced and maintained with a dustless all-weather material in accordance with the BALTIMORE CITY Building Code [of Baltimore City].

### Article - Building, Fire, and Related Codes

#### Part II. International Building Code

#### § 2-103. City modifications.

The additions, deletions, amendments, and other modifications adopted by the City are as follows:

##### Chapter 1. Scope and Administration

##### Section 101 General

##### 101.2 Scope.

101.2.1 Appendices [{Per MBPS Modification}]. The appendices to the International Building Code apply as follows:

101.2.1.1 Appendices adopted. The provisions of the following appendices are adopted as part of this Code:

1. Appendix C: "Group U - Agricultural Buildings".
2. Appendix D: "Downtown Fire District".
3. Appendix F: "Rodent Proofing".
- [4. Appendix G: "Flood Resistant Construction".]
4. [5.] Appendix H: "Signs".
5. [6] Appendix I: "Patio Covers".
6. [7.] Appendix J: "Grading".

101.2.1.2 Appendices not adopted. The following appendices are not adopted as part of this Code:

1. Appendix A: "Employee Qualifications".
2. Appendix B: "Board of Appeals".
3. Appendix E: "Supplementary Accessibility Requirements".

4. APPENDIX G: "FLOOD RESISTANT CONSTRUCTION".
5. [4.] Appendix K: "Administrative Provisions".
6. [5.] Appendix L: "Earthquake Recording Instrumentation".
7. [6.] Appendix M: "Tsunami-Generated Flood Hazard".

#### Section 104 Duties and Powers of Building Official

[104.9 to 104.11 {As in IBC}]

104.9 Approved materials and equipment. {As in IBC}

104.10 Modifications. {As in IBC}

104.10.1 FLOOD HAZARD AREAS. {NOT ADOPTED}

{NOTE: FOR THE ESTABLISHMENT OF REGULATED FLOOD HAZARD AREAS AND THE SPECIAL REGULATIONS AND LIMITATIONS GOVERNING DEVELOPMENT WITHIN THOSE AREAS, SEE THE FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.}

[104.10.1 Flood hazard areas. The building official Building Official shall not grant modifications to any provision required in flood hazard areas as established by Section 1612.3 unless a determination has been made that:]

- [1. A showing of good and sufficient cause that the unique characteristics of the size, configuration or topography of the site render the elevation standards of Section 1612 inappropriate.]
- [2. A determination that failure to grant the variance would result in exceptional hardship by rendering the lot undevelopable.]
- [3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, cause fraud on or victimization of the public, or conflict with existing laws or ordinances.]
- [4. A determination that the variance is the minimum necessary to afford relief, considering the flood hazard.]
- [5. Submission to the applicant of written notice specifying the difference between the design flood elevation and the elevation to which the building is to be built, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation, and stating that construction below the design flood elevation increases risks to life and property.]

104.11 Alternative materials, design and methods of construction and equipment.  
{As in IBC}

#### Section 107 Submittal Documents

107.2 Site plan. The construction documents submitted with the application for permit must be accompanied by a site plan.

107.2.1 General requirements. The site plan must:

1. show to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades, and the proposed finished grades,
2. show, as applicable, [flood hazard areas] REGULATED FLOOD HAZARD AREAS, [floodways] FLOODWAYS, and design-flood elevations,
3. be drawn in accordance with an accurate boundary line survey, and
4. comport with all other requirements of this section.

## Section 110 Inspections

110.1 to 110.2 {As in IBC}

110.3 Required inspections. {As in IBC}

110.3.1 to 110.3.2 {As in IBC}

110.3.3 Lowest floor elevation. In A flood hazard [areas] AREA, [upon] ON placement of the lowest floor, including the basement, and [prior to] BEFORE UNDERTAKING ANY further vertical construction, the elevation [certification] CERTIFICATE required [in] BY [Section 1612.5] THE FLOODPLAIN MANAGEMENT CODE [shall] MUST be submitted to the [building official] BUILDING OFFICIAL.

110.3.4 to 110.3.9 {As in IBC}

110.3.10 Final inspection. The final inspection [shall] MUST be made after all work required by the building permit is completed.

110.3.10.1 Flood hazard documentation. [If located] FOR STRUCTURES [located] in a flood hazard area, documentation of the elevation of the lowest floor, as required [in] BY [Section 1612.5] THE FLOODPLAIN MANAGEMENT CODE, [shall] MUST be submitted to the [building official] BUILDING OFFICIAL [prior to] BEFORE the final inspection.

110.4 to 110.6 {As in IBC}

## Chapter 2. Definitions; Rules of Construction

### Section 202 Definitions

202.2 Supplemental definitions. Notwithstanding any different definition in the International Building Code, the following terms have the meanings given in this § 202.2.

202.2.1. Accessory structure. "Accessory structure" means a structure:

1. located on the same lot as the main structure, and
2. the use of which is incidental to that of the main structure.

202.2.2 Agent. "Agent" means, as the context indicates, any person who:

1. in any particular case involving any property:
  - a. is responsible for the management, maintenance, operation, rental, leasing, or sale of the property,
  - b. applies for or seeks a permit or certificate from a City authority on behalf of the owner of the property, or
  - c. in any way represents the owner of the property,
2. represents the Building Official, or
3. in general, represents another.

202.2.3 Authorized use. "Authorized use" means a use of land or structure approved in accordance with the Baltimore City Zoning Code.

202.2.4 BASE FLOOD. "BASE FLOOD" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.5 BASE-FLOOD ELEVATION. "BASE-FLOOD ELEVATION" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.6 BASEMENT (FOR FLOOD LOADS) {NOT ADOPTED}

202.2.7 [202.2.4] Blight. "Blight" includes exterior surfaces defaced by carvings, markings, or graffiti.

202.2.8 [202.2.5] Building. "Building" has the meaning stated in IBC § 202 and, unless the context indicates otherwise, includes premises and lands.

202.2.9 [202.2.6] Building Official. "Building Official" has the meaning stated in § 103.1 {"Enforcement agency"}.

202.2.10 [202.2.7] Building permit. "Building permit" means any permit issued under this Code.

202.2.11 [202.2.8] Certificate of occupancy. "Certificate of occupancy" means an occupancy permit.

202.2.12 [202.2.9] Change in occupancy. "Change in occupancy" means a change in the purpose or level of activity on land or within a structure.

202.2.13 [202.2.10] Change of use. "Change of use" means change in occupancy.

202.2.14 [202.2.11] City. "City" means the Mayor and City Council of Baltimore.

202.2.15 [202.2.12] Code. "Code" means, unless otherwise specified, the Building, Fire, and Related Codes of Baltimore City, as further defined in § 101.1 {"Title"}.

202.2.16 [202.2.13] Demolition. "Demolition":

1. means razing or demolition, and
2. includes removal of the debris resulting from any razing or demolition.

202.2.17 [202.2.14] Department. "Department" means, unless the context clearly indicates otherwise, the Department of Building Safety, as further defined in § 103.1 {"Enforcement agency"}.

202.2.18 [202.2.15] Department of Building Safety. "Department of Building Safety" has the meaning stated in § 103.1 {"Enforcement agency"}.

202.2.19 DESIGN FLOOD. "DESIGN FLOOD" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.20 DESIGN-FLOOD ELEVATION. "DESIGN-FLOOD ELEVATION" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.21 DRY FLOODPROOFING. "DRY FLOODPROOFING" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.22 [202.2.16] Dwelling. "Dwelling" includes, but is not limited to, any one or more of the following:

202.2.22.1 [202.2.16.1] Boarding house. {As in IBC}

202.2.22.2 [202.2.16.2] Dormitory. "Dormitory" means a space in a building that provides group sleeping accommodations in 1 room or in a series of closely associated rooms for persons not members of the same family group.

202.2.22.3 [202.2.16.3] Multiple-family dwelling. "Multiplefamily dwelling" means a building or part of a building that contains more than 2 dwelling units.

202.2.22.4 [202.2.16.4] 1family dwelling; singlefamily dwelling unit. "1family dwelling" or "single-family dwelling unit" means a building that contains only 1 dwelling unit and is used only for that purpose.

202.2.22.5 [202.2.16.5] 2family dwelling. "2family dwelling" means a building that contains 2 dwelling units and is used only for that purpose.

202.2.23 [202.2.17] Dwelling unit. "Dwelling unit" means a single unit tht provides or that is designed or intended to provide complete, independent living facilities for 1 or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation.

202.2.24 EXISTING CONSTRUCTION. {NOT ADOPTED}

202.2.25 EXISTING STRUCTURE (IN REGULATED FLOOD HAZARD AREAS). "EXISTING STRUCTURE" MEANS ANY STRUCTURE FOR WHICH THE BUILDING PERMIT WAS ISSUED BEFORE MARCH 15, 1978, AND THE ACTUAL START OF CONSTRUCTION WAS WITHIN 180 DAYS OF THE PERMIT DATE.

202.2.25.1 "ACTUAL START OF CONSTRUCTION". FOR PURPOSES OF THIS DEFINITION, "ACTUAL START OF CONSTRUCTION" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.26 EXISTING STRUCTURE (FOR § 1612.2). {NOT ADOPTED}

202.2.27 EXISTING STRUCTURE (FOR CHAPTER 34). {NOT ADOPTED}

202.2.28 FLOOD; FLOODING. "FLOOD" OR "FLOODING" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.29 FLOOD HAZARD AREA. "FLOOD HAZARD AREA" MEANS A REGULATED FLOOD HAZARD AREA ESTABLISHED UNDER AND REGULATED BY THE FLOODPLAIN MANAGEMENT CODE.

202.2.30 FLOOD INSURANCE RATE MAP; FIRM. "FLOOD INSURANCE RATE MAP" OR "FIRM" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.31 FLOOD INSURANCE STUDY. "FLOOD INSURANCE STUDY" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.32 FLOODPLAIN MANAGEMENT CODE. "FLOODPLAIN MANAGEMENT CODE" MEANS THE BALTIMORE CITY FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.

202.2.33 FLOODWAY. "FLOODWAY" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-3 {"DEFINITIONS - "FLOODPROOFING" TO "WET FLOODPROOFING"}.

202.2.34 [202.2.18] Foster care facility. "Foster care facility" means a facility that provides care to more than 8 children who are 2½ years of age or less.

202.2.35 [202.2.19] High-rise building. "High-rise building" has the meaning stated in State Public Safety Article § 9-401.

202.2.36 HISTORIC STRUCTURE. "HISTORIC STRUCTURE" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-3 {"DEFINITIONS - "FLOODPROOFING" TO "WET FLOODPROOFING"}.

202.2.37 [202.2.20] International Codes.

202.2.37.1 [202.2.20.1] Energy Conservation Code. "Energy Conservation Code", "Baltimore City Energy Conservation Code", or "International Energy Conservation Code" means the International Energy Conservation Code (2012 Edition), as supplemented, amended, or otherwise modified by Baltimore City.

202.2.37.2 [202.2.20.2] Fire Code. "Fire Code", "Baltimore City Fire Code", or "International Fire Code" means the International Fire Code (2012 Edition), as supplemented, amended, or otherwise modified by Baltimore City.

202.2.37.3 [202.2.20.3] Fuel Gas Code. "Fuel Gas Code", "Baltimore City Fuel Gas Code", or "International Fuel Gas Code" means the International Fuel Gas Code (2012 Edition), as supplemented, amended, or otherwise modified by Baltimore City.

202.2.37.4 [202.2.20.4] Mechanical Code. "Mechanical Code", "Baltimore City Mechanical Code", or "International Mechanical Code" means the International Mechanical Code (2012 Edition), as supplemented, amended, or otherwise modified by Baltimore City.

202.2.37.5 [202.2.20.5] Plumbing Code. "Plumbing Code", "Baltimore City Plumbing Code", or "International Plumbing Code" means the International Plumbing Code (2012 Edition), as supplemented, amended, or otherwise modified by Baltimore City.

202.2.37.6 [202.2.20.6] Property Maintenance Code. "Property Maintenance Code", "Baltimore City Property Maintenance Code", or "International Property Maintenance Code" means the International Property Maintenance Code (2012 Edition), as supplemented, amended, or otherwise modified by Baltimore City.

202.2.37.7 [202.2.20.7] Residential Code. "Residential Code", "Baltimore City Residential Code", or "International Residential Code" means the International Residential Code for One- and Two-Family Dwellings (2012 Edition), as supplemented, amended, or otherwise modified by Baltimore City.

202.2.38 LOWEST FLOOR. "LOWEST FLOOR" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-3 {"DEFINITIONS - "FLOODPROOFING" TO "WET FLOODPROOFING"}.

202.2.39 [202.2.21] May not, etc. "May not", "must not", and "no ... may" are each mandatory negative terms used to establish a prohibition.

202.2.40 [202.2.22] Mortgage. "Mortgage" includes a deed of trust or other deed in the nature of a mortgage.

202.2.41 [202.2.23] Mortgagee. "Mortgagee" includes a beneficiary under a deed of trust or other deed in the nature of a mortgage.

202.2.42 [202.2.24] Must/shall. "Must" and "shall" are each mandatory terms used to express a requirement or to impose a duty.

202.2.43 [202.2.25] National Codes.

202.2.43.1 [202.2.25.1] Electrical Code. "Electrical Code", "Baltimore City Electrical Code", or "National Electrical Code" means the National Electrical Code (2011 Edition), as supplemented, amended, or otherwise modified by Baltimore City.

202.2.44 [202.2.26] Occupancy. "Occupancy" means:

1. the state of occupying or using any land or structure, or
2. the act of taking, holding possession of, or using any land or structure, or
3. the purpose for which any land or structure is used or occupied.

202.2.45 [202.2.27] Occupancy permit. "Occupancy permit" means a permit that:



1. signifies compliance with this Code and related laws, and
2. indicates the Building Official's approval to occupy a structure for the authorized use.

202.2.46 [202.2.28] Occupant. "Occupant" means any person who uses or who has the right of possession of all or any part of a structure or premises.

202.2.47 [202.2.29] Operator. "Operator" means any person who has charge, care, or control of all or any part of a structure or premises.

202.2.48 [202.2.30] Person. "Person":

1. means any individual, sole proprietorship, corporation, limited liability company, firm, partnership, association, organization, joint venture, or other entity or group acting as a unit, executor, administrator, trustee, receiver, guardian, or other representative appointed by law, and
2. whenever used in this Code with reference to liability or to the imposition of a penalty or fine, includes:
  - a. as to an unincorporated firm, partnership, association, organization, or joint venture, the partners or members of the firm, partnership, association, organization, or joint venture,
  - b. as to a corporation, the officers, trustees, agents, or members of the corporation who are responsible for the violation of any relevant code provision, and
  - c. in addition, the responsible officer, trustee, partner, or member designated on a Registration Statement made under City Code Article 13, Subtitle 4 {"Registration of Residential Properties"}.

202.2.49 [202.2.31] Premises. "Premises" means a lot or group of lots, together with all or any part of any buildings or structures on the lot or group of lots, considered as a unit devoted to a particular use, including accessory structures and open spaces required or used in connection with that particular use.

202.2.50 [202.2.32] Rehabilitation. "Rehabilitation" means all repairs and other work, of any kind, needed to make a dwelling or other structure fit to be occupied for its authorized use in conformity with all applicable standards and requirements of this Code.

202.2.51 [202.2.33] Related laws. "Related laws" has the meaning stated in § 104.6.2 {"Authority to seek warrant"}.

202.2.52 [202.2.35] Structure. "Structure" has the meaning stated in IBC § 202 and, unless the context indicates otherwise, includes premises and lands.

202.2.53 [202.2.36] Stabilization. "Stabilization", with reference to a structure that has been declared unsafe or unfit for occupancy, means all work of any kind, not amounting to rehabilitation, that is needed, or that is performed or required by the Building Official, to make the structure safe and secure, to prevent its further deterioration, and to eliminate its blighting influence.

202.2.54 [202.2.37] Transfer. "Transfer", when used with respect to property subject to this Code, has the meaning stated in § 114.23 {"Responsibility of transferee"}.

202.2.55 SUBSTANTIAL DAMAGE. "SUBSTANTIAL DAMAGE" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-3 {"DEFINITIONS - "FLOODPROOFING" TO "WET FLOODPROOFING"}.

202.2.56 SUBSTANTIAL IMPROVEMENT. "SUBSTANTIAL IMPROVEMENT" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-3 {"DEFINITIONS - "FLOODPROOFING" TO "WET FLOODPROOFING"}.

202.2.57 [202.2.38] Use. "Use" means, unless the context indicates otherwise:

1. the purpose for which a building, structure, or land is used, occupied, or intended to be used or occupied, and
2. any activity, occupation, business, or operation carried out on land or in a building or structure.

202.2.58 [202.2.40] Zoning Code. "Zoning Code" means the Baltimore City Zoning Code, including the accompanying Zoning District Maps.

## Chapter 8. Interior Finishes [{As in IBC}]

### Section 801 General

801.1 to 801.4 {As in IBC}

801.5 Applicability. For [buildings] STRUCTURES in A flood hazard [areas] AREA[, as established in Section 1612.3], interior finishes, trim, and decorative materials below the elevation required by [Section 1612] THE FLOODPLAIN MANAGEMENT CODE [shall be] MUST CONSIST OF flood-damage-resistant materials.

801.6 to 801.8 {As in IBC}

Sections 802 to 808 {As in IBC}

## Chapter 12. Interior Environment [{As in IBC}]

Sections 1201 to 1202 {As in IBC}

### Section 1203 Ventilation

1203.1 to 1203.2 {As in IBC}

1203.3.2 Exceptions. The following are exceptions to [Sections] §§ 1203.3 and 1203.3.1:

- ....
5. For [buildings] STRUCTURES in A flood hazard [areas] AREA, [as established in Section 1612.3,] the openings for under-floor ventilation [shall be] ARE deemed [as meeting] TO MEET the flood opening requirements of ASCE 24, [provided that] IF the ventilation openings are designed and installed in accordance with ASCE 24.

1203.4 to 1203.5 {As in IBC}

SECTIONS 1204 to 1209 {As in IBC}

Chapter 14. Exterior Walls  
[{As in IBC}]

Sections 1401 to 1402 {As in IBC}

Section 1403 Performance Requirements

1403.1 to 1403.5 {As in IBC}

1403.6 Flood resistance. For [buildings] STRUCTURES in A flood hazard [areas] AREA, [as established in Section 1612.3,] exterior walls extending below the elevation required by [Section 1612] THE FLOODPLAIN MANAGEMENT CODE [shall] MUST be constructed with flood-damage-resistant materials. [Wood shall] ALL WOOD MUST be:

1. pressure-preservative treated in accordance with AWP A U1 for the species, product, and end use BY using a preservative listed in Section 4 of AWP A U1; or
2. THE decay-resistant heartwood of redwood, black locust, or cedar.

1403.7 Flood resistance for high-velocity wave action areas. For [buildings] STRUCTURES in A flood hazard [areas] AREA subject to high-velocity wave action [as established in Section 1612.3], electrical, PLUMBING, AND mechanical [and plumbing] system components [shall] MAY not be mounted on or penetrate through exterior walls that are designed to break away under flood loads.

Chapter 16. Structural Design

Sections 1601 to [1606] 1602 {As in IBC}

Section 1603 Construction Documents

1603.1 General. {As in IBC}

Exception: Construction documents for buildings constructed in accordance with the conventional light-frame construction provisions of Section 2308 [shall] MUST indicate the following structural design information:

- 1 - 4. {As in IBC}
5. Flood design data, if located in A flood hazard [areas] AREA [established in Section 1612.3].
6. {As in IBC}

1603.1.1 to 1603.1.6 {As in IBC}

1603.1.7 Flood design data. For [buildings] STRUCTURES located in whole or in part in A flood hazard [areas] AREA, [as established in Section 1612.3,] the documentation pertaining to design, if required [in Section 1612.5] BY THE FLOODPLAIN MANAGEMENT CODE, [shall] MUST be included, and the following information, referenced to the datum on the [community's] CITY'S Flood Insurance Rate Map (FIRM), [shall] MUST be shown, regardless of whether flood loads govern the design of the [building] STRUCTURE:

1. In flood hazard areas not subject to high-velocity wave action, the elevation of the proposed lowest floor, including the basement.
2. In flood hazard areas not subject to high-velocity wave action, the elevation to which any nonresidential building will be dry [flood proofed] FLOODPROOFED.
3. In flood hazard areas subject to high-velocity wave action, the proposed elevation of the bottom of the lowest horizontal structural member of the lowest floor, including the basement.

1603.1.8 to 1603.1.9 {As in IBC}

1604 to 1606 {As in IBC}

Sections 1608 to [1612] 1611 {As in IBC}

Section 1612 Flood Loads {NOT ADOPTED}

{NOTE: FOR THE ESTABLISHMENT OF REGULATED FLOOD HAZARD AREAS AND THE SPECIAL REGULATIONS AND LIMITATIONS GOVERNING DEVELOPMENT WITHIN THOSE AREAS, SEE THE FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.

[1612.1 General. Within flood hazard areas as established in Section 1612.3, all new construction of buildings, structures and portions of buildings and structures, including substantial improvement and restoration of substantial damage to buildings and structures, shall be designed and constructed to resist the effects of flood hazards and flood loads. For buildings that are located in more than one flood hazard area, the provisions associated with the most restrictive flood hazard area shall apply.]

[1612.2 Definitions. The following terms are defined in Chapter 2:

Base flood.

Base-flood elevation.

Basement.

Design flood.

Design flood elevation.

Dry floodproofing.

Existing construction.

Existing structure.

Flood or Flooding.

Flood damage-resistant materials.

Flood hazard area.

Flood Hazard Area subject to high-velocity wave action.

Flood Insurance Rate Map (FIRM).

Flood Insurance Study.

Floodway.

Lowest floor.

Special Flood Hazard Area.

Start of construction.

Substantial Damage.

Substantial Improvement.]

[1612.3 Establishment of flood hazard areas. To establish flood hazard areas, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study for [insert name of jurisdiction]," dated [insert date of issuance], as amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section.]

[1612.3.1 Design flood elevations. Where design flood elevations are not included in the flood hazard areas established in Section 1612.3, or where floodways are not designated, the building official is authorized to require the applicant to:

1. Obtain and reasonably utilize any design flood elevation and floodway data available from a federal, state or other source; or
2. Determine the design flood elevation and/or floodway 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.]

[1612.3.2 Determination of impacts. In riverine flood hazard areas where design flood elevations are specified but floodways have not been designated, the applicant shall provide a floodway analysis that demonstrates that the proposed work will not increase the design flood elevation more than 1 foot (305 mm) at any point within the jurisdiction of the applicable governing authority.]

[1612.4 Design and construction. The design and construction of buildings and structures located in flood hazard areas, including flood hazard areas subject to high-velocity wave action, shall be in accordance with Chapter 5 of ASCE 7 and with ASCE 24.]

[1612.5 Flood hazard documentation. The following documentation shall be prepared and sealed by a registered design professional and submitted to the building official:]

[1. For construction in flood hazard areas not subject to high-velocity wave action:

1.1. The elevation of the lowest floor, including the basement, as required by the lowest floor elevation inspection in Section 110.3.3.

1.2. For fully enclosed areas below the design flood elevation where provisions to allow for the automatic entry and exit of floodwaters do not meet the minimum requirements in Section 2.6.2.1 of ASCE 24, construction documents shall include a statement that the design will provide for equalization of hydrostatic flood forces in accordance with Section 2.6.2.2 of ASCE 24.

1.3. For dry floodproofed nonresidential buildings, construction documents shall include a statement that the dry floodproofing is designed in accordance with ASCE 24.]

[2. For construction in flood hazard areas subject to high velocity wave action:

2.1. The elevation of the bottom of the lowest horizontal structural member as required by the lowest floor elevation

inspection in Section 110.3.3.

2.2. Construction documents shall include a statement that the building is designed in accordance with ASCE 24, including that the pile or column foundation and building or structure to be attached thereto is designed to be anchored to resist flotation, collapse and lateral movement due to the effects of wind and flood loads acting simultaneously on all building components, and other load requirements of Chapter 16.

2.3. For breakaway walls designed to have a resistance of more than 20 psf (0.96 kN/m<sup>2</sup>) determined using allowable stress design, construction documents shall include a statement that the breakaway wall is designed in accordance with ASCE 24.]

## Chapter 18. Soils and Foundations

### Section 1804 Excavation, Grading, and Fill {As in IBC}

#### 1804.1 to 1804.3 {As in IBC}

1804.4 Grading and fill in flood hazard areas. In flood hazard areas [established in BY Section 1612.3], grading [and/or] OR fill [shall] MAY not be approved:

1. [Unless such] UNLESS THE fill is placed, compacted, and sloped to minimize shifting, slumping, and erosion during the rise and fall of [flood water] FLOODWATERS and, as applicable, wave action[.];
2. [In] IN floodways, unless it has been demonstrated through hydrologic and hydraulic analyses, [performed] PREPARED by a [registered design professional] LICENSED PROFESSIONAL ENGINEER in accordance with [standard engineering practice] THE REQUIREMENTS OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY AND THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, that the proposed grading or fill[, or both,] will not result in any increase in flood levels during the occurrence of the design flood[.];
3. [In] IN flood hazard areas subject to high-velocity wave action, unless [such] THE fill is conducted [and/or] OR placed to avoid diversion of water and waves toward any [building or] structure[.]; OR
4. [Where] WHERE design- flood elevations are specified but floodways have not been designated, unless it has been demonstrated that the cumulative effect of the proposed [flood hazard area] encroachment, when combined with all other existing and anticipated [flood hazard area encroachment] ENCROACHMENTS, will not increase the design-flood elevation [more than 1 foot (305 mm)] at any point.

#### 1804.5 to 1804.6 {As in IBC}

### Section 1805 Dampproofing and Waterproofing

#### 1805.1 General. {As in IBC}

##### 1805.1.1 Story above grade plane. {As in IBC}

##### 1805.1.2 Upper floor space. {As in IBC}

1805.1.2.1 Flood hazard areas. For [buildings and] structures in A flood hazard [areas] AREA, [as established in Section 1612.3,] the finished ground level of an under-floor space, such as a crawl space, [shall] MUST be equal to or higher than the outside finished ground level on at least [one] 1 side.

Exception: Under-floor spaces of Group R-3 buildings that meet the requirements of FEMA/FIA-TB-11.

1805.1.3 Ground-water control. {As in IBC}

1805.2 to 1805.4 {As in IBC}

Chapter 30. Elevators and Conveying Systems  
[{As in IBC, subject to following Note}]

## Section 3001 General

3001.1 Scope. {As in IBC}

3001.2 Referenced standards. Except as otherwise provided for in this [code] CODE, the design, construction, installation, alteration, repair, and maintenance of elevators, [and] conveying systems, and their components [shall] MUST conform to ASME A17.1/CSA B44, ASME A90.1, ASME B20.1, ALI ALCTV, and, [ASCE 24] for construction in flood hazard areas, [established in Section 1612.3,] ASCE 24.

3001.3 to 3001.4 {As in IBC}

SECTIONS 3002 to 3008 {As in IBC}

Appendix G. Flood-Resistant Construction  
{NOT ADOPTED}

## Part IV. International Fuel Gas Code

§ 4-102. City modifications.

The additions, deletions, amendments, and other modifications adopted by the City are as follows:

### Chapter 2. Definitions

#### Section 202 General Definitions

202.2 Supplemental definitions Notwithstanding any different definition in the International Fuel Gas Code, the following terms have the meanings given in this § 202.2.

202.2.1 Building. "Building" has the meaning stated in § 202.2 of the Baltimore City Building Code.

202.2.2 Code Official. "Code Official" has the meaning stated in § 103.1 of this Code.

202.2.3 DESIGN-FLOOD ELEVATION. {NOT ADOPTED}.

202.2.4 FLOOD HAZARD AREA. "FLOOD HAZARD AREA" MEANS A REGULATED FLOOD HAZARD AREA ESTABLISHED UNDER AND REGULATED BY THE FLOODPLAIN MANAGEMENT CODE.

202.2.5 FLOODPLAIN MANAGEMENT CODE. "FLOODPLAIN MANAGEMENT CODE" MEANS THE BALTIMORE CITY FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.

202.2.6 [202.2.3] May not, etc. "May not", "must not", and "no ... may" are each mandatory negative terms used to establish a prohibition.

202.2.7 [202.2.4] Must/shall. "Must" and "shall" are each mandatory terms used to express a requirement or to impose a duty.

202.2.8 [202.2.5] Occupancy. "Occupancy" has the meaning stated in § 202.2 of the Baltimore City Building Code.

202.2.9 [202.2.6] Premises. "Premises" has the meaning stated in § 202.2 of the Baltimore City Building Code.

### Chapter 3. General Regulations

#### Section 301 General

301.1 to 301.10 {As in IFGC}

301.11 Flood hazard AREAS. [For] IN A FLOOD HAZARD AREA, [structures located in flood hazard areas,] the appliance, equipment, and system installations regulated by this code [shall] MUST be located at or above the elevation required by [Section 1612 of the International Building Code] THE FLOODPLAIN MANAGEMENT CODE for [utilities] ELECTRIC, PLUMBING, AND MECHANICAL SYSTEMS and their attendant COMPONENTS AND equipment.

[Exception: The appliance, equipment and system installations regulated by this code are permitted to be located below the elevation required by Section 1612 of the International Building Code for utilities and attendant equipment 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 such elevation.]

301.12 to 301.15 {As in IFGC}

Sections 302 [301] to 306 {As in IFGC}

### Part V. International Mechanical Code

§ 5-102. City modifications.

The additions, deletions, amendments, and other modifications adopted by the City are as follows:

#### Chapter 2. Definitions

##### Section 202 General Definitions

202.2 Supplemental definitions Notwithstanding any different definition in the International Mechanical Code, the following terms have the meanings given in this § 202.2.



202.2.1 Building. "Building" has the meaning stated in IMC § 202 and, unless the context indicates otherwise, includes premises and lands.

202.2.2 Code Official. "Code Official" has the meaning stated in § 103.1 of this Code.

202.2.3 DESIGN-FLOOD ELEVATION. "DESIGN-FLOOD ELEVATION" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.4 FLOOD; FLOODING. "FLOOD" OR "FLOODING" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.5 FLOOD HAZARD AREA. "FLOOD HAZARD AREA" MEANS A REGULATED FLOOD HAZARD AREA ESTABLISHED UNDER AND REGULATED BY THE FLOODPLAIN MANAGEMENT CODE

202.2.6 FLOODPLAIN MANAGEMENT CODE. "FLOODPLAIN MANAGEMENT CODE" MEANS THE BALTIMORE CITY FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.

202.2.7 [202.2.3] May not, etc. "May not", "must not", and "no ... may" are each mandatory negative terms used to establish a prohibition.

202.2.8 [202.2.4] Must/shall. "Must" and "shall" are each mandatory terms used to express a requirement or to impose a duty.

202.2.9 [202.2.5] Occupancy. "Occupancy" has the meaning stated in § 202.2 of the Baltimore City Building Code.

202.2.10 [202.2.6] Premises. "Premises" has the meaning stated in § 202.2 of the Baltimore City Building Code.

### Chapter 3. General Regulations

#### Section 301 General.

301.12 to 301.15 {As in IMC}

301.16 Flood hazard AREAS. For structures [located] in A flood hazard [areas] AREA, mechanical systems, equipment, and appliances [shall] MUST be located at or above the elevation required by [Section 1612 of the International Building Code] THE FLOODPLAIN MANAGEMENT CODE for [utilities] ELECTRIC, PLUMBING, AND MECHANICAL SYSTEMS and their attendant COMPONENTS AND equipment.

Exception {NOT ADOPTED}

[Mechanical systems, equipment and appliances are permitted to be located below the elevation required by Section 1612 of the of the International Building Code for utilities and attendant equipment 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 up to such elevation.]

301.16.1 High-velocity wave action. In A flood hazard [areas] ARE4A subject to high-velocitywave action,

mechanical systems and equipment [shall] MAY not be mounted on or penetrate walls intended to break away under flood loads.

## Chapter 5. Exhaust Systems

### Section 501 General

501.3.1 Location of exhaust outlets. The termination point of exhaust outlets and ducts discharging to the outdoors shall be located with the following minimum distances:

1. to 3. {As in IMC}

4. Exhaust outlets serving structures in A flood hazard [areas shall] AREA MUST be installed at or above the elevation required by [Section 1612 of the International Building Code] THE FLOODPLAIN MANAGEMENT CODE for [utilities] ELECTRIC, PLUMBING, AND MECHANICAL SYSTEMS and their attendant COMPONENTS AND equipment.

5. {As in IMC}

501.3.1.1 Exhaust discharge. {As in IMC}

## Chapter 6. Duct Systems

### Section 602 Plenums

602.4 Flood hazard AREAS. For structures [located] in a flood hazard [areas] AREA, plenum spaces [shall] MUST be located above the elevation required by [Section 1612 of the International Building Code] THE FLOODPLAIN MANAGEMENT CODE for [utilities] ELECTRIC, PLUMBING, AND MECHANICAL SYSTEMS and their attendant COMPONENTS AND equipment or [shall be] designed and constructed to prevent water from entering or accumulating within the plenum spaces during floods up to [such] THAT elevation. [If the plenum spaces are located below the elevation required by Section 1612 of the International Building Code for utilities and attendant equipment, they shall be capable of resisting hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding up to such elevation.]

### Section 603 Duct Construction and Installation

603.1 to 603.12 {As in IMC}

603.13 Flood hazard areas. For structures in A flood hazard [areas] AREA, ducts [shall] MUST be located above the elevation required by [Section 1612 of the International Building Code] THE FLOODPLAIN MANAGEMENT CODE for [utilities] ELECTRIC, PLUMBING, AND MECHANICAL SYSTEMS and their attendant COMPONENTS AND equipment or [shall be] designed and constructed to prevent water from entering or accumulating within the ducts during floods up to [such] THAT elevation. [If the ducts are located below the elevation required by Section 1612 of the International Building Code for utilities and attendant equipment, the ducts shall be capable of resisting hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding up to such elevation.]

603.14 to 603.18 {As in IMC}

Sections 604 [603] to 607 {As in IMC}

Chapter 12. Hydronic Piping  
[{As in IMC}]

Sections 1201 to 1205 {As in IMC}

Section 1206 Piping Installation

1206.1 to 1206.8 {As in IMC}

1206.9 Strains and stresses {As in IMC}

1206.9.1 Flood hazard AREAS. Piping located in a flood hazard area [shall] **MUST** be capable of resisting hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to the [design] **DESIGN**-flood elevation.

Chapter 13. Fuel Oil Piping and Storage  
[{As in IMC}]

Sections 1301 to 1304 {As in IMC}

Section 1305 Fuel Oil System Installation

1305.1 Size. {As in IMC}

1305.2 Protection of pipe, equipment, and appliances. {As in IMC}

1305.2.1 Flood hazard. All fuel oil pipe, equipment, and appliances located in A flood hazard [areas shall] **AREA** **MUST** be located above the elevation required by [Section 1612 of the International Building Code] **THE FLOODPLAIN MANAGEMENT CODE** for [utilities] **ELECTRIC, PLUMBING, AND MECHANICAL SYSTEMS** and their attendant **COMPONENTS AND** equipment or [shall be] capable of resisting hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding up to [such] **THAT** elevation.

Part VI. International Plumbing Code

§ 6-102. City modifications.

The additions, deletions, amendments, and other modifications adopted by the City are as follows:

Chapter 2. Definitions

Section 202 General Definitions

202.2 Supplemental definitions. Notwithstanding any different definition in the International Plumbing Code, the following terms have the meanings given in this § 202.2.

202.2.1 Building. "Building" has the meaning stated in § 202.2 of the Baltimore City Building Code.

202.2.2 [202.2.1] Code Official. "Code Official" has the meaning stated in § 103.1 of this Code.

202.2.3 DESIGN-FLOOD ELEVATION. {NOT ADOPTED}.

202.2.4 FLOOD HAZARD AREA. "FLOOD HAZARD AREA" MEANS A REGULATED FLOOD HAZARD AREA ESTABLISHED UNDER AND REGULATED BY THE BALTIMORE CITY FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}

202.2.5 [202.2.2] May not, etc. "May not", "must not", and "no ... may" are each mandatory negative terms used to establish a prohibition.

202.2.6 [202.2.3] Must/shall. "Must" and "shall" are each mandatory terms used to express a requirement or to impose a duty.

202.2.7 [202.2.4] Occupancy. "Occupancy" has the meaning stated in § 202.2 of the Baltimore City Building Code.

### Chapter 3. General Regulations

Sections 306 to [313] 308 {As in IPC}

#### Section 309 Flood Hazard Resistance

309.1 General. [Plumbing] IN A FLOOD HAZARD AREA, PLUMBING systems [and equipment in structures erected in flood hazard areas shall] MUST be constructed, LOCATED, AND INSTALLED in accordance with the requirements of [this section and the International Building Code] THE BALTIMORE CITY FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.

309.2 [Flood hazard. For structures located in flood hazard areas,] THE REQUIREMENTS OF THIS § 309 APPLY TO ALL PLUMBING SYSTEMS, THEIR ATTENDANT COMPONENTS AND EQUIPMENT, INCLUDING the following [systems and equipment shall be located and installed as required by Section 1612 of the International Building Code.]:

[Exception: The following systems are permitted to be located below the elevation required by Section 1612 of the International Building Code for utilities and attendant equipment provided that the systems are designed and installed to prevent water from entering or accumulating within their components and the systems are constructed to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to up to such elevation.]

1. [All] ALL water service pipes[.],
2. [Pump] PUMP seals in individual water supply systems [where the pump is located below the design flood elevation.],
3. Covers on potable water wells [shall be sealed, except where the top of the casing well or pipe sleeve is elevated to not less than 1 foot (305 mm) above the design flood elevation.],
4. [All] ALL sanitary drainage piping[.],
5. [All] ALL storm drainage piping[.],

6. [Manhole] MANHOLE covers [shall be sealed, except where elevated to or above the design flood elevation.],
7. [All] ALL other plumbing fixtures, faucets, fixture fittings, piping systems, and equipment[.],
8. [Water] WATER heaters[.], AND
9. [Vents] VENTS and vent systems.

[309.3 Flood hazard areas subject to high-velocity wave action. Structures located in flood hazard areas subject to high-velocity wave action shall meet the requirements of Section 309.2. The plumbing systems, pipes and fixtures shall not be mounted on or penetrate through walls intended to break away under flood loads.]

Sections 310 to 316 {As in IPC}

## Part X. International Residential Code

### § 10-102. City modifications.

The additions, deletions, amendments, and other modifications adopted by the City are as follows:

#### Chapter 1. Scope and Administration

#### Section 104 Duties and Powers of Building Official

104.9 [to 104.11] {As in IRC}

104.10 Modifications. {As in IRC}

104.10.1 Flood hazard areas. The [building official] BUILDING OFFICIAL [shall] MAY not grant modifications to any provision related to flood hazard areas [as established by Table R301.2(1)] without [the granting of] a variance HAVING BEEN GRANTED [to such provisions by the board of appeals] UNDER THE FLOODPLAIN MANAGEMENT CODE.

104.11 {As in IRC}

#### Section 105 Permits.

105.3.1.1 Determination of substantially improved or substantially damaged existing buildings in flood hazard areas. [{Substitute "in an administrative review" for "by the board of appeals". Otherwise as in IRC.}] For applications for reconstruction, rehabilitation, addition, or other improvement of AN existing [buildings or structures] STRUCTURE [located] in a flood hazard area [as established by Table R301.2(1)], the [building official shall] BUILDING OFFICIAL MUST examine [or cause to be examined] the construction documents and shall prepare [a finding] FINDINGS with regard to [the value of the proposed work] WHETHER THE STRUCTURE HAS SUSTAINED "SUBSTANTIAL DAMAGE" AND WHETHER THE PROPOSED IMPROVEMENT IS A "SUBSTANTIAL IMPROVEMENT", AS THESE TERMS ARE DEFINED IN AND CALCULATED UNDER THE FLOODPLAIN MANAGEMENT CODE. [For buildings that have sustained damage of any origin, the value of the proposed work shall include the cost to repair the building or structure to its predamaged condition. If the

building official finds that the value of proposed work equals or exceeds 50 percent of the market value of the building or structure before the damage has occurred or the improvement is started, the] THE BUILDING OFFICIAL MUST SUBMIT THESE [finding] FINDINGS [shall be provided] to the [board of appeals] FLOODPLAIN MANAGER for a determination of "substantial improvement" [or substantial damage]. Applications determined by the [board of appeals] FLOODPLAIN MANAGER to constitute A "substantial improvement" [or substantial damage shall] require [all existing portions of the entire building or structure to meet] FULL COMPLIANCE WITH the requirements of [Section R322] THE FLOODPLAIN MANAGEMENT CODE.

## Section 106 Construction Documents

### 106.1 Submittal documents. {As in IRC}

#### 106.1.1 to 106.1.2 {As in IRC}

### 106.1.3 INFORMATION FOR CONSTRUCTION IN FLOOD HAZARD AREAS. {NOT ADOPTED}

{NOTE: FOR THE ESTABLISHMENT OF REGULATED FLOOD HAZARD AREAS AND THE SPECIAL REGULATIONS AND LIMITATIONS GOVERNING DEVELOPMENT WITHIN THOSE AREAS, SEE THE FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.

[106.1.3 Information for construction in flood hazard areas. For buildings and structures located in whole or in part in A flood hazard areas, as established by Table R301.2(1), construction documents shall include:

1. Delineation of flood hazard areas, floodway boundaries and flood zones and the design flood elevation, as appropriate;
2. The elevation of the proposed lowest floor, including basement; in areas of shallow flooding (AO Zones), the height of the proposed lowest floor, including basement, above the highest adjacent grade;
3. The elevation of the bottom of the lowest horizontal structural member in coastal high hazard areas (V Zone); and
4. If design flood elevations are not included on the community's Flood Insurance Rate Map (FIRM), the building official and the applicant shall obtain and reasonably utilize any design flood elevation and floodway data available from other sources.]

## Section 107 Temporary Structures and Uses {As in IRC}

## Section 109 Inspections

### 109.1 Type of inspection. {As in IRC}

#### 109.1.1 TO 109.1.2 {As in IRC}

109.1.3 Floodplain inspections. For construction in A flood hazard [areas] AREA, [as established by Table R301.2 (1),] [upon] ON placement of the lowest floor, including THE basement, and [prior to] BEFORE UNDERTAKING ANY further vertical construction, [the building official shall require submission of documentation, prepared and sealed by a registered design professional, of the elevation of the lowest floor, including basement, required in Section R322] THE ELEVATION CERTIFICATE REQUIRED BY THE FLOODPLAIN MANAGEMENT CODE

MUST BE SUBMITTED TO THE BUILDING OFFICIAL.

109.1.4 to 109.1.5 {As in IRC}

109.1.6 Final inspection. {As in IRC}

109.1.6.1 Elevation documentation. [If located] FOR A STRUCTURE in a flood hazard area, the documentation of THE elevations required [in] BY [Section R322.1.10] THE FLOODPLAIN MANAGEMENT CODE [shall] MUST be submitted to the [building official] BUILDING OFFICIAL [prior to] BEFORE the final inspection.

## Chapter 2. Definitions

### Section 202 General definitions

202.2 Supplemental definitions. Notwithstanding any different definition in the International Residential Code, the following terms have the meanings given in this § 202.2.

202.2.1 Building. "Building" has the meaning stated in § 202.2 of the Baltimore City Building Code.

202.2.2 FLOOD; FLOODING. "FLOOD" OR "FLOODING" HAS THE MEANING STATED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-2 {"DEFINITIONS - "ACCESSORY STRUCTURE" TO "FLOODPLAIN DISTRICT"}.

202.2.3 FLOOD HAZARD AREA. "FLOOD HAZARD AREA" MEANS A REGULATED FLOOD HAZARD AREA ESTABLISHED UNDER AND REGULATED BY THE FLOODPLAIN MANAGEMENT CODE.

202.2.4 FLOODPLAIN MANAGEMENT CODE. "FLOODPLAIN MANAGEMENT CODE" MEANS THE BALTIMORE CITY FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.

202.2.5 [202.2.2] May not, etc. "May not", "must not", and "no ... may" are each mandatory negative terms used to establish a prohibition.

202.2.6 [202.2.3] Must/shall. "Must" and "shall" are each mandatory terms used to express a requirement or to impose a duty.

202.2.7 [202.2.4] Occupancy. "Occupancy" has the meaning stated in § 202.2 of the Baltimore City Building Code.

202.2.8 [202.2.5] Premises. "Premises" has the meaning stated in § 202.2 of the Baltimore City Building Code.

202.2.9 STRUCTURE. "STRUCTURE" HAS THE MEANING STATED IN § 202.2 OF THE BALTIMORE CITY BUILDING CODE.

## Chapter 3. Building Planning

### Section 301 Design Criteria

301.1 Application. {As in IRC}

301.2 Climatic and geographic design criteria. {As in IRC}

301.2.1 to 301.2.3 {As in IRC}

301.2.4 FLOODPLAIN CONSTRUCTION. {NOT ADOPTED}

{NOTE: FOR THE ESTABLISHMENT OF REGULATED FLOOD HAZARD AREAS AND THE SPECIAL REGULATIONS AND LIMITATIONS GOVERNING DEVELOPMENT WITHIN THOSE AREAS, SEE THE FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.}

[301.2.4 Floodplain construction. 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 Section R322. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24.]

[301.2.4.1 Alternative provisions. As an alternative to the requirements in Section R322.3 for buildings and structures located in whole or in part in coastal high-hazard areas (V Zones) and coastal A Zones, if delineated, ASCE 24 is permitted subject to the limitations of this code and the limitations therein.]

Section 309 Garages, Carports, Driveways, etc.

309.1 to [309.5] 309.2 {As in IRC}

309.3 Flood hazard areas. {NOT ADOPTED}

{NOTE: FOR THE ESTABLISHMENT OF REGULATED FLOOD HAZARD AREAS AND THE SPECIAL REGULATIONS AND LIMITATIONS GOVERNING DEVELOPMENT WITHIN THOSE AREAS, SEE THE FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.}

[309.3 Flood hazard areas. For buildings located in flood hazard areas as established by Table R301.2(1), garage floors shall be:

1. Elevated to or above the design flood elevation as determined in Section R322; or
2. Located below the design flood elevation provided they are at or above grade on at least one side, are used solely for parking, building access, or storage, meet the requirements of Section R322, and are otherwise constructed in accordance with this code.]

309.4 to 309.5 {As in IRC}

SECTION 322 FLOOD-RESISTANT CONSTRUCTION {NOT ADOPTED}

{NOTE: FOR THE ESTABLISHMENT OF REGULATED FLOOD HAZARD AREAS AND THE SPECIAL REGULATIONS AND LIMITATIONS GOVERNING DEVELOPMENT WITHIN THOSE AREAS, SEE THE FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.}

[Section 322 Flood-Resistant Construction]



[322.1 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. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24.]

[322.1.1 Alternative provisions. As an alternative to the requirements in Section R322.3 for buildings and structures located in whole or in part in coastal high-hazard areas (V Zones) and Coastal A Zones, if delineated, ASCE 24 is permitted subject to the limitations of this code and the limitations therein.]

[322.1.2 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.]

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

[322.1.4 Establishing the design flood elevation. The design flood elevation shall be used to define flood hazard areas. At a minimum, the design flood elevation is the higher of:

1. 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; or
2. The elevation of the design flood associated with the area designated on a flood hazard map adopted by the community, or otherwise legally designated.]

[322.1.4.1 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.]

[322.1.4.2 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.]

[322.1.5 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.]

[322.1.6 Protection of mechanical and electrical systems. Electrical systems, equipment and components; heating, ventilating, air conditioning; plumbing appliances and plumbing fixtures; duct systems; and other service equipment shall be located at or above the elevation required in Section R322.2 (flood hazard areas including A Zones) or R322.3 (coastal high-hazard areas including V Zones). If replaced as part of a substantial improvement, electrical systems, equipment and components; heating, ventilating, air conditioning and plumbing appliances and 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: Locating electrical systems, equipment and components; heating, ventilating, air conditioning; plumbing appliances and plumbing fixtures; duct systems; and other service equipment is permitted below the elevation required in Section R322.2 (flood hazard areas including A Zones) or R322.3 (coastal high-hazard areas including V Zones) 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 accordance with ASCE 24. Electrical wiring systems are permitted to be located below the required elevation provided they conform to the provisions of the electrical part of this code for wet locations.]

[322.1.7 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.]

[322.1.8 Flood-resistant materials. Building materials used below the elevation required in Section R322.2 (flood hazard areas including A Zones) or R322.3 (coastal high-hazard areas including V Zones) shall comply with the following:

1. All wood, including floor sheathing, shall be pressure-preservative-treated in accordance with AWP A 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 AWP A 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-2.]

[322.1.9 Manufactured homes. New or replacement manufactured homes shall be elevated in accordance with Section R322.2 (flood hazard areas including A Zones) or Section R322.3 in coastal high-hazard areas (V Zones). The anchor and tie-down requirements of Sections AE604 and AE605 of Appendix E shall apply. The foundation and anchorage of manufactured homes to be located in identified floodways shall be designed and constructed in accordance with ASCE 24.]

[322.1.10 As-built elevation documentation. A registered design professional shall prepare and seal documentation of the elevations specified in Section R322.2 or R322.3.]

[322.2 Flood hazard areas (including A Zones). All 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. Flood hazard areas that have been delineated as subject to wave heights between 1 1/2 feet (457 mm) and 3 feet (914 mm) shall be designated as Coastal A Zones. All building and structures constructed in whole or in part in flood hazard areas shall be designed and constructed in accordance with Sections R322.2.1 through R322.2.3.]

[322.2.1 Elevation requirements.

1. Buildings and structures in flood hazard areas not designated as Coastal A Zones shall have the lowest floors elevated to or above the design flood elevation.

2. Buildings and structures in flood hazard areas designated as Coastal A Zones shall have the lowest floors elevated to or above the base flood elevation plus 1 foot (305 mm), or to the design flood elevation, whichever is higher.

3. 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 on the FIRM, or at least 2 feet (610 mm) if a depth number is not specified.

4. 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 R322.2.2.]

[322.2.2 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 by a registered design professional that the design of the openings will provide for equalization of hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwaters as specified in Section 2.6.2.2 of ASCE 24.
  - 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 not less than 3 inches (76 mm) in any direction in the plane of the wall.
  - 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.]

[322.2.3 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 to the top of the wall.]

[322.3 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 designed and constructed in accordance with Sections R322.3.1 through R322.3.6.]

[322.3.1 Location and site preparation.

1. New buildings and buildings that are determined to be substantially improved pursuant to Section R105.3.1.1, 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.]

[322.3.2 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 piling, pile caps, columns, grade beams and bracing, is:
  - 1.1. Located at or above the design flood elevation, if the lowest horizontal structural member is oriented parallel to the direction of wave approach, where parallel shall mean less than or equal to 20 degrees (0.35 rad) from the direction of approach, or
  - 1.2. Located at the base flood elevation plus 1 foot (305 mm), or the design flood elevation, whichever is higher, if the lowest horizontal structural member is oriented perpendicular to the direction of wave approach, where perpendicular shall mean greater than 20 degrees (0.35 rad) from the direction of approach.
2. Basement floors that are below grade on all sides are prohibited.
3. The use of fill for structural support is prohibited.
4. Minor grading, and the placement of minor quantities of fill, shall be permitted for landscaping and for drainage purposes under and around buildings and for support of parking slabs, pool decks, patios and walkways.

Exception: Walls and partitions enclosing areas below the design flood elevation shall meet the requirements of Sections R322.3.4 and R322.3.5.]

[322.3.3 Foundations. Buildings and structures erected in coastal high-hazard areas shall be supported on pilings or columns and shall be adequately anchored to such pilings or columns. The space below the elevated building shall be either free of obstruction or, if enclosed with walls, the walls shall meet the requirements of Section R322.3.4. 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 R322.3.6. Spread footing, 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 spread footing, mat, raft or

other foundation is subject to scour or erosion from wave-velocity flow conditions. If permitted, spread footing, mat, raft or other foundations that support columns shall be designed in accordance with ASCE 24. 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.]

[322.3.4 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.]

[322.3.5 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.]

[322.3.6 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.]

## Chapter 4. Foundations

### Section 401 General

401.1 Application. [The provisions of this] THIS chapter [shall control] CONTROLS the design and construction of the foundation and foundation spaces for all buildings. In addition to the provisions of this chapter, the design and construction of foundations in flood hazard areas [as established by Table R301.2(1) shall] MUST meet the provisions of [Section R322] THE FLOODPLAIN MANAGEMENT CODE. Wood foundations shall be designed and installed in accordance with AF&PA PWF.

Exception: {As in IRC}

## Section 404 Foundations and Retaining Walls

404.1 Concrete and masonry foundation walls. {As in IRC}

404.1.1 to 404.1.8 {As in IRC}

404.1.9 Isolated masonry piers. {As in IRC}

404.1.9.1 to 404.1.9.4 {As in IRC}

404.1.9.5 MASONRY PIERS IN FLOOD HAZARD AREAS. {NOT ADOPTED}

{NOTE: FOR THE ESTABLISHMENT OF REGULATED FLOOD HAZARD AREAS AND THE SPECIAL REGULATIONS AND LIMITATIONS GOVERNING DEVELOPMENT WITHIN THOSE AREAS, SEE THE FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.

[404.1.9.5 Masonry piers in flood hazard areas. Masonry piers for dwellings in flood hazard areas shall be designed in accordance with Section R322.]

401.2 to 401.4 {As in IRC}

Sections [401] 402 to 403 {As in IRC}

Sections 405 to [408] 407 {As in IRC}

## Section 408 Under-Floor Space

408.1 to 408.6 {As in IRC}

408.7 FLOOD RESISTANCE. {NOT ADOPTED}

{NOTE: FOR THE ESTABLISHMENT OF REGULATED FLOOD HAZARD AREAS AND THE SPECIAL REGULATIONS AND LIMITATIONS GOVERNING DEVELOPMENT WITHIN THOSE AREAS, SEE THE FLOODPLAIN MANAGEMENT CODE, CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, DIVISION I {"FLOODPLAIN MANAGEMENT"}.

[408.7 Flood resistance. For buildings located in flood hazard areas as established in Table R301.2(1):

1. Walls enclosing the under-floor space shall be provided with flood openings in accordance with Section R322.2.2.
2. The finished ground level of the under-floor space shall be equal to or higher than the outside finished ground level on at least one side.

Exception: Under-floor spaces that meet the requirements of FEMA/FIA TB 11-1.]

Chapter 13. General Mechanical System Requirements  
[{As in IRC}]

Section 1301 General

1301.1 Scope. {As in IRC}

1301.1.1 Flood-resistant installation. In flood hazard areas [as established by Table R301.2(1)], mechanical appliances, equipment and systems [shall] MUST be located [or] AND installed in accordance with [Section R322.1.6] THE FLOODPLAIN MANAGEMENT CODE.

1301.2 to 1301.5 {As in IRC}

Sections 1302 to 1308 {As in IRC}

Chapter 14. Heating and Cooling Equipment and Appliances  
[{As in IRC}]

Section 1401 General

1401.1 to 1401.4 {As in IRC}

1401.5 Flood hazard. In flood hazard areas [as established by Table R301.2(1)], heating and cooling equipment and appliances [shall] MUST be located [or] AND installed in accordance with [Section R322.1.6] THE FLOODPLAIN MANAGEMENT CODE.

Sections [1401] 1402 to 1410 {As in IRC}

Chapter 16. [Exhaust] DUCT Systems  
[{As in IRC}]

Section 1601 Duct Construction

1601.1 to 1601.3 {As in IRC}

1601.4 Installation {As in IRC}

1601.4.1 to 1601.4.8 {As in IRC}

1601.4.9 Flood hazard areas. In flood hazard areas [as established by Table R301.2(1)], duct systems [shall] MUST be located [or] AND installed in accordance with [Section R322.1.6] THE FLOODPLAIN MANAGEMENT CODE.

1601.5 to 1601.6 {As in IRC}

Section 1602 Return Air {As in IRC}

Chapter 17. Combustion Air  
[{As in IRC}]

Section 701 General {As in IRC}

1701.1 Scope. {As in IRC}

1701.2 Opening location. In flood hazard areas [as established in Table R301.2(1)], combustion air openings [shall] MUST be located at or above the elevation required [in Section R322.2.1 or R322.3.2] BY THE FLOODPLAIN MANAGEMENT CODE.

Chapter 20. Boilers and Water Heaters  
[{As in IRC}]

Section 2001 Boilers

2001.1 to 2001.3 {As in IRC}

2001.4 Flood-resistant installation. In flood hazard areas [established in Table R301.2(1)], boilers, water heaters, and their control systems [shall] MUST be located [or] AND installed in accordance with [Section R322.1.6] THE FLOODPLAIN MANAGEMENT CODE.

Sections 2002 to 2006 {As in IRC}

Chapter 22. Special Piping and Storage Systems  
[{As in IRC}]

SECTION 2201 OIL TANKS {As in IRC}

2201.1 to 2201.5 {As in IRC}

2201.6 Flood-resistant installation. In flood hazard areas [as established by Table R301.2(1)], tanks [shall] MUST be installed at or above the elevation required [in Section R322.2.1 or R322.3.2] BY THE FLOODPLAIN MANAGEMENT CODE or [shall be] anchored to prevent flotation, collapse, [and] OR lateral movement under FLOODING conditions [of the design flood].

Appendix E. Manufactured Housing Used as Dwellings  
[{As in IRC}]

Section E101 Scope

101.1 General. {As in IRC}

Exception: In addition to these provisions, IN FLOOD HAZARD AREAS, new and replacement manufactured homes, AS DEFINED IN CITY CODE ARTICLE 7 {"NATURAL RESOURCES"}, § 1-3 {"DEFINITIONS - "FLOODPROOFING" TO "WET FLOODPROOFING"}, [to be located in flood hazard areas as established in Table R301.2(1) of the International Residential Code shall] MUST meet the applicable requirements of [Section R322 of the International Residential Code] THE FLOODPLAIN MANAGEMENT CODE.

Appendix G. Swimming Pools, Spas, and Hot Tubs

Section G101 General.

101.1 General {As in IRC}

101.2 Pools in flood hazard areas. Pools that are located in flood hazard areas [established by Table R301.2(1)], including above-ground pools, on-ground pools, and in-ground pools that involve placement of fill, shall comply



with [Section AG101.2.1 or AG101.2.2] THIS § 101.2.

Exception: Pools located in riverine flood hazard areas [which] THAT are outside of designated floodways.

101.2.1 [Pools located in] IN designated floodways. [Where] FOR pools [are] TO BE located in A designated [floodways] FLOODWAY, THE APPLICANT MUST SUBMIT TO THE BUILDING OFFICIAL documentation [shall be submitted to the building official which] THAT demonstrates that the construction of the pool will not increase the design-flood elevation at any point [within the jurisdiction].

101.2.2 [Pools located where] WHERE floodways have not been designated. [Where] FOR pools [are] TO BE located where design-flood elevations are specified but floodways have not been designated, the applicant [shall] MUST provide a floodway analysis that demonstrates that the proposed pool will not increase the design flood-elevation more than 1 foot (305 mm) at any point [within the jurisdiction].

Section G 102 Definitions {As in IRC}

Section G103 Swimming Pools

103.1 to 103.2 {As in IRC}

103.3 Pools in flood hazard areas. In flood hazard areas [established by Table R301.2(1)], pools in coastal high-hazard areas [shall] MUST be designed and constructed in compliance with ASCE 24.

Sections G104 to G108 {As in IRC}

SECTION 2. AND BE IT FURTHER ORDAINED, That the catchlines contained in this Ordinance are not law and may not be considered to have been enacted as a part of this or any prior Ordinance.

SECTION 3. AND BE IT FURTHER ORDAINED, That:

- (a) this Ordinance applies to all development for which a permit application is filed (or required to be filed) on or after the effective date of this Ordinance;
- (b) except as expressly provided to the contrary in this Ordinance, any transaction, case, proceeding, investigation, or other matter validly begun before the effective date of this Ordinance and affected by or flowing from any law amended or repealed by this Ordinance, and any right, duty, or interest flowing from any ordinance amended or repealed by this Ordinance, remains valid after the effective date of this Ordinance and may be terminated, completed, enforced, or prosecuted as required or permitted by the prior law as though the amendment or repeal has not occurred; and
- (c) if any change in nomenclature involves a change in name or designation of any City agency or official, the successor agency or official has all the powers and obligations granted the predecessor agency or official.

SECTION 4. AND BE IT FURTHER ORDAINED, That this Ordinance takes effect on April 2, 2014.

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