

# 2021 Virginia Construction Code

## APPENDIX G FLOOD-RESISTANT CONSTRUCTION

### SECTION G104 POWERS AND DUTIES

#### G104.1 Permit applications.

All applications for permits *shall* comply with the following:

1. The *floodplain administrator* shall review all *permit* applications to determine whether proposed development is located in *flood hazard areas* established in *Section G103.2*.
2. Where a proposed development site is in a *flood hazard area*, all development to which this appendix is applicable as specified in *Section G103.1* shall be designed and constructed with methods, practices and materials that minimize *flood* damage and that are in accordance with this code and *ASCE 24*.

#### G104.2 Other permits.

It shall be the responsibility of the *floodplain administrator* to ensure that approval of a proposed development shall not be given until proof that necessary permits have been granted by federal or state agencies having jurisdiction over such development.

#### G104.3 Determination of design flood elevations.

If *design flood elevations* are not specified, the *floodplain administrator* is authorized to require the applicant to meet one of the following:

1. Obtain, review and reasonably utilize data available from a federal, state or other source.
2. Determine the *design flood elevation* in accordance with accepted hydrologic and hydraulic engineering techniques. Such analyses shall be performed and sealed by a *registered design professional*. Studies, analyses and computations shall be submitted in sufficient detail to allow review and approval by the *floodplain administrator*. The accuracy of data submitted for such determination shall be the responsibility of the applicant.

#### G104.4 Activities in riverine flood hazard areas.

In *riverine flood hazard areas* where *design flood elevations* are specified but *floodways* have not been designated, the *floodplain administrator* shall not permit any new construction, *substantial improvement* or other development, including fill, unless the applicant submits an engineering analysis prepared by a *registered design professional*, demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated *flood hazard area* encroachment, will not increase the *design flood elevation* more than 1 foot (305 mm) at any point within the community.

#### G104.5 Floodway encroachment.

Prior to issuing a *permit* for any floodway encroachment, including fill, new construction, *substantial improvements* and other development or land-disturbing activity, the *floodplain administrator* shall require submission of a certification, prepared by a *registered design professional*, along with supporting technical data, demonstrating that such development will not cause any increase of the *base flood* level.

##### G104.5.1 Floodway revisions.

A *floodway* encroachment that increases the level of the *base flood* is authorized if the applicant has applied for a conditional *Flood Insurance Rate Map* (FIRM) revision and has received the approval of the Federal Emergency Management Agency (FEMA).

#### G104.6 Watercourse alteration.

Prior to issuing a *permit* for any alteration or relocation of any watercourse, the *floodplain administrator* shall require the applicant to provide notification of the proposal to the appropriate authorities of all adjacent government jurisdictions, as well as appropriate state agencies. A copy of the notification shall be maintained in the permit records and submitted to FEMA.

##### G104.6.1 Engineering analysis.

The *floodplain administrator* shall require submission of an engineering analysis, prepared by a *registered design professional*, demonstrating that the flood-carrying capacity of the altered or relocated portion of the watercourse will not be decreased. Such watercourses shall be maintained in a manner that preserves the channel's flood-carrying capacity.

#### G104.7 Alterations in coastal areas.

Prior to issuing a *permit* for any alteration of sand dunes and mangrove stands in *coastal high-hazard areas* and coastal A zones, the *floodplain administrator* shall require submission of an engineering analysis, prepared by a *registered design professional*, demonstrating that the proposed alteration will not increase the potential for flood damage.

#### G104.8 Records.

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The [floodplain administrator](#) shall maintain a permanent record of all *permits* issued in *flood hazard areas*, including supporting certifications and documentation required by this appendix and copies of inspection reports, design certifications and documentation of elevations required in [Section 1612](#) of this code and [Section R322](#) of the *International Residential Code*.

#### **G104.9 Inspections.**

Development for which a *permit* under this appendix is required shall be subject to inspection. The [floodplain administrator](#) or the [floodplain administrator's](#) designee shall make, or cause to be made, inspections of all development in *flood hazard areas* authorized by issuance of a *permit* under this appendix.

#### **G104.10 Use of changed technical data.**

The floodplain administrator and the applicant shall not use *changed flood hazard area* boundaries or base flood elevations for proposed buildings or developments unless the floodplain administrator or applicant has applied for a conditional *Flood Insurance Rate Map* (FIRM) revision and has received the approval of the Federal Emergency Management Agency (FEMA).