



# DEVELOPMENT STANDARDS

## Anderson County Floodplain Development Permit Application Packet



**Notice:** This application is required for the development of the following in A, AE, AH, AO, AR, & A99 Zones. Temporary buildings and accessory structures; altering stream channels; fill, grading, excavation, mining & dredging; roads, bridges & culverts, storing materials including gas/liquid tanks; parking and storage of recreational vehicles; detached garage.

**Fee: \$450.00**

### ANDERSON COUNTY DEVELOPMENT STANDARDS

401 E. River Street, Anderson, SC 29624

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Date Received: \_\_\_\_\_

Received By: \_\_\_\_\_

Compliance #: \_\_\_\_\_

## Anderson County Floodplain Development Permit Application (for A, AE, AH, AO, AR, A99 Zones)

**Fee: \$450.00**

(Please submit application and processing fee simultaneously)

- The following requires a floodplain development permit: temporary buildings & accessory structures; altering stream channels; fill, grading, excavation, mining & dredging; roads, bridges & culverts; storing materials including gas/liquid tanks; parking/storage of recreational vehicles; agricultural buildings; detached garage.

### **GENERAL INFORMATION (to be completed by applicant)**

#### **Applicant Information**

- Owner: \_\_\_\_\_
- Address: \_\_\_\_\_
- Telephone Number: \_\_\_\_\_
- Applicant: \_\_\_\_\_
- Builder: \_\_\_\_\_
- Engineer: \_\_\_\_\_

#### **Property Information**

Tax Map Number: \_\_\_\_\_

Location of Property: \_\_\_\_\_

#### **Development Information**

- Check all that apply:

<input type="checkbox"/> excavation	<input type="checkbox"/> addition
<input type="checkbox"/> fill	<input type="checkbox"/> renovation
<input type="checkbox"/> utility construction	<input type="checkbox"/> grading
<input type="checkbox"/> road construction	<input type="checkbox"/> non-residential
<input type="checkbox"/> residential construction	<input type="checkbox"/> other

- Please describe in more detail what you are requesting to do: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Size of Development (acreage, sqft): \_\_\_\_\_

- Proposed Method of Elevating Structure: \_\_\_\_\_

Note: if foundation wall is used, provide a minimum of 2 openings.

Total area of openings required is 1 sq. inch per sq. foot of enclosed footprint area below BFE

- Will any watercourse be altered or relocated as a result of the proposed development? \_\_\_\_\_

If yes, please attach a description of the extent of the alteration or relocation.

## **FLOODPLAIN INFORMATION**

### **FIRM Data:**

Map Panel #: \_\_\_\_\_

Suffix: \_\_\_\_\_

Map Panel Date: \_\_\_\_\_

Map Index Date: \_\_\_\_\_

Flood Zone: \_\_\_\_\_

### **Regulatory Flood Plain Information (please check one):**

☐ inside regulatory floodway

\*if checked, an engineering certificate & supporting data is required.

☐ outside regulatory floodway

☐ no regulatory floodway

### **Elevation & Flood Proofing Information:**

- Base flood elevation (BFE) per FIRM at development site: \_\_\_\_\_ (NGVD).
- Regulatory flood elevation at development site: \_\_\_\_\_ (NGVD).
- Elevation in relation to mean sea level (MSL) at/above which is the lowest floor (including basement) must be constructed \_\_\_\_\_ (NGVD).
  - Note: if garage will be used for any purpose other than parking vehicles, building access, or storage, then the garage must be used to determine the lowest floor elevation.
- Elevation in relation to mean sea level (MSL) at/above which all attendant utilities, including but not limited to heating, air and electrical equipment must be installed: \_\_\_\_\_ (NGVD).
- Flood Proofing Information (for non-residential structures in A/AE zones only.)
  - Elevation in relation to mean sea level (MSL) to which structure shall be flood proofed: \_\_\_\_\_ (NGVD).
- For accessory (appurtenant) structure (detached garages, carports, storage sheds, hay barns/sheds)
  - Habitable? ☐ yes ☐ no ☐ n/a
  - Floor Elevation: \_\_\_\_\_
  - Elevated Utilities: ☐ yes ☐ no ☐ n/a
  - Built of Flood Resistant Utilities: ☐ yes ☐ no ☐ n/a
  - Anchored to resist Floating: ☐ yes ☐ no ☐ n/a
  - Used only for storage or parking: ☐ yes ☐ no ☐ n/a

**Additional Information Required for Permitting: (floodplain manager will determine)**

\_\_\_ site plan showing the location of all existing structures, water bodies, adjacent roads, lot dimensions and proposed development.

\_\_\_ development plans, drawn to scale, and specifications, including where applicable: details for anchoring structures, proposed elevation of lowest floor, types of water-resistant materials to be used below the 1<sup>st</sup> floor, details of floodproofing utilities below the 1<sup>st</sup> floor, and details of enclosures below the 1<sup>st</sup> floor.

\_\_\_ plans showing the extent of watercourse relocation and/or landform alterations.

\_\_\_ certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the "100 year" flood. A copy of all data and hydraulic/hydrologic calculations supporting this finding must also be submitted.

\_\_\_ Other: \_\_\_\_\_

**Reminders:**

- No work of any kind may start until a permit is issued.
- The permit may be revoked if any false statements are made herein. If revoked, all work must cease until permit is re-issued.
- Applicant is hereby informed that other permits may be required to fulfill local, state, and federal regulatory requirements.
- Permit will expire if no work is commenced within six months of issuance.
- Applicant hereby gives consent to the local administrator or his/her representative to make reasonable inspections required to verify compliance.

**Applicant Acknowledgement:**

I, the undersigned, understand that the issuance of a floodplain development permit is contingent upon the above information being correct and that the plans and supporting data have been or shall be provided as required. I also understand that prior to occupancy of the structure being permitted, an elevation and/or flood proofing certificate signed by a professional engineer or registered land surveyor must be on file indicating the "as built" elevations in relation to mean sea level (MSL).

**Printed Name of Applicant:** \_\_\_\_\_ **Printed Name of Agent:** \_\_\_\_\_

**Signature of Applicant:** \_\_\_\_\_ **Signature of Agent:** \_\_\_\_\_

**Applicant Address:** \_\_\_\_\_ **Surveyor Printed Name:** \_\_\_\_\_

**Applicant Phone:** \_\_\_\_\_ **Surveyor Signature:** \_\_\_\_\_

**Email:** \_\_\_\_\_ **PE Printed Name:** \_\_\_\_\_

**PE Signature:** \_\_\_\_\_

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**For Office Use Only:**

Signature \_\_\_\_\_

Date: \_\_\_\_\_

Approved: \_\_\_\_\_

As-built drawings required at end of construction?

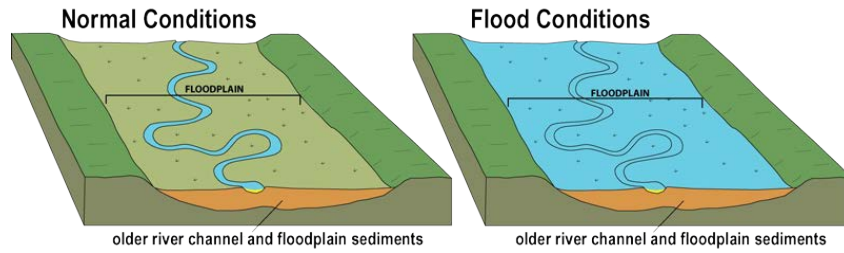
\_\_\_ yes

\_\_\_ no

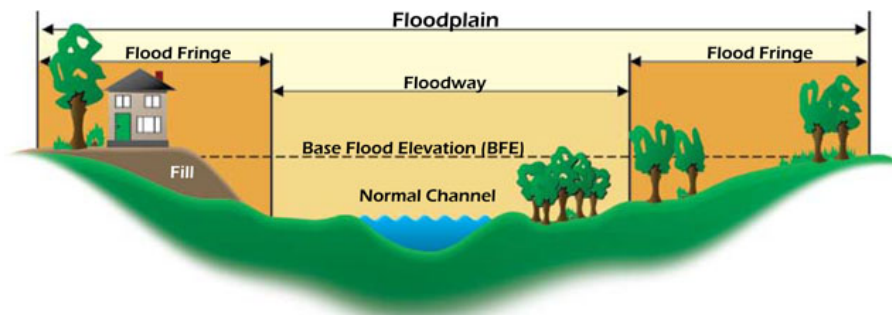
Notes: \_\_\_\_\_

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## Floodplain Development Fact Sheet for Applicants



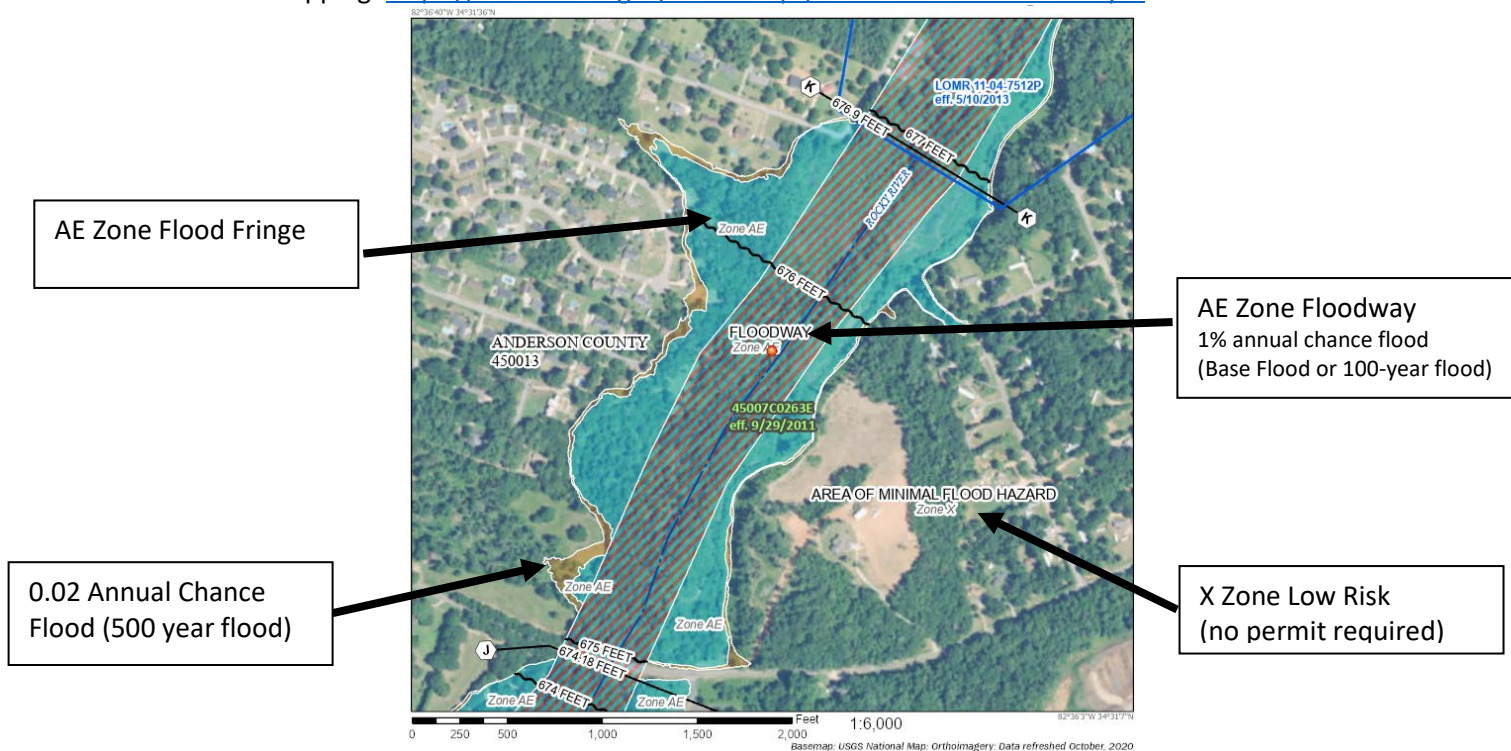
### Characteristics of a Floodplain



Source: NFIP Guidebook, FEMA

### Online Resources

- FEMA Mapping: <https://www.fema.gov/flood-maps/national-flood-hazard-layer>





### Definitions (provided by FEMA)

- **Base Flood Elevation:** The elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM) for zones AE, AH, A1–A30, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, V1–V30 and VE.
- **Flood Insurance Rate Map (FIRM):** A flood map produced by FEMA, showing flood risk zones and their boundaries, floodways and Base Flood Elevations.
- **Floodproofing:** Any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.
- **Flood-resistant material:** any building product capable of withstanding direct and prolonged (at least 72 hrs.) contact with floodwaters without sustaining significant damage. All structural and non-structural building materials at or below BFE must be flood resistant.
- **Lowest floor elevation:** The measured distance of a building's lowest floor above the National Geodetic Vertical Datum (NGVD) or other datum specified on the FIRM for that location.
- **Lowest floor:** the lowest enclosed area (including a basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor provided that such enclosure is not built so as to render the structure in violation of requirements.
- **National Geodetic Vertical Datum (NGVD):** National standard reference datum for elevations, formerly referred to as Mean Sea Level (MSL) of 1929. NGVD 1929 may be used as the reference datum on some Flood Insurance Rate Maps (FIRMs).
- **Opening:** a permanent opening that automatically allows the free passage of water in both directions without human intervention. Under the NFIP, a minimum of 2 openings are required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 sq inch for every square foot of area enclosed.
- **Proper Openings – Enclosures:** Applicable to Zones A, A1-A30, AE, AO, AH, AR, AR Dual: All enclosures below the lowest elevated floor must be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. A minimum of 2 openings, with positioning on at least 2 walls, having a total net area of not less than 1 square inch for every square foot of enclosed area subject to flooding must be provided. The bottom of all openings must be no higher than 1 foot above the higher of the exterior or interior (adjacent) or floor immediately below the openings.
- **Regulatory Floodway:** the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Communities must regulate development in these floodways to ensure there are no increase in upstream flood elevations.
- **Special Flood Hazard Areas (SFHA):** the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. SFHA's are labeled as Zone A, AO, AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30
- **Watercourse:** means only the channel and banks of an identifiable watercourse, and not the adjoining floodplain areas. The flood carrying capacity of a watercourse refers to the flood carrying capacity of the channel (except in the case of alluvial fans, where a channel is not typically defined).
- **Zone A:** Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
- **Zone A99:** Areas subject to inundation by the 1-percent-annual-chance flood event, but which will ultimately be protected upon completion of an under-construction Federal flood protection system. These are areas of special flood hazard where enough progress has been made on the construction of a protection system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes. Zone A99 may only be used when the flood protection system has reached specified statutory progress toward completion. No Base Flood Elevations (BFEs) or depths are shown.
- **Zone AE & A1-30:** Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
- **Zone AH:** Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between one and three feet. Base Flood Elevations (BFEs) derived from detailed hydraulic analyses are shown in this zone. Mandatory flood insurance purchase requirements and floodplain management standards apply.
- **Zone AO:** Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet. Average flood depths derived from detailed hydraulic analyses are shown in this zone. Mandatory flood insurance purchase requirements and floodplain management standards apply.
- **Zone AR:** Areas that result from the decertification of a previously accredited flood protection system that is determined to be in the process of being restored to provide base flood protection. Mandatory flood insurance purchase requirements and floodplain management standards apply.