

FLOODPLAIN DEVELOPMENT PERMIT REVIEW - 8 STEPS



The following are steps on how to properly review a Floodplain Development Permit Application. The Floodplain Administrator should serve as the point of contact and be responsible for ensuring completion of each of these steps:

STEP 1: IS IT "DEVELOPMENT"?

Ensure project meets the NFIP/local ordinance definition of "development." (CFR 59.1):

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

As a general rule, anything that alters the natural topography of the floodplain needs a permit review. Development does not include maintenance of existing buildings and facilities, resurfacing of roads, gardening, plowing and similar agricultural practices that do not involve filling, grading or construction of levees. However, the term does include any structure that is principally above ground and is enclosed by walls and a roof including manufactured homes and prefabricated buildings. Development also includes recreational vehicles and travel trailers to be installed on site for more than 180 days. These structures may not require a building permit, but if located in the floodplain, a floodplain development permit is required.

STEP 2: IS IT IN THE FLOODPLAIN?

For this purposes of this guide, "floodplain" refers to Special Flood Hazard Area (SFHA) as depicted on FEMA's Flood Insurance Rate Map (FIRM). Locate the development site on the community's FIRM. If the project site is obviously inside Zone B, C or X, then floodplain regulations do not apply. If the project site is in a shaded Zone A or V (or if it appears to be close), determine whether the proposed development will be located outside the floodplain. If not, can impacts be minimized? Work with the applicant to avoid the floodplain altogether, or minimize development footprint in the floodplain.

Check to see if the site is located in the regulatory floodway as depicted on the Floodway Boundary Map or the FIRM (a survey may be required). Development cannot occur in any floodway without a detailed analysis from a registered professional engineer certifying that the development will not cause any rise in the Base Flood Elevation (BFE). Your local ordinance may further restrict development in the floodway or flood fringe.

If the development is outside the SFHA, then no floodplain development permit is required. However, if the development is proposed on a parcel that extends into the SFHA, you may require a permit so that you can verify the actual siting of the work to avoid accidental encroachment.

STEP 3: PERMITS

If the development is in the floodplain, have the owner/developer fill out a Floodplain Development Permit (FDP) application and collect any fees required by your ordinance. The FDP application and associated fees are *in addition* to the standard Building Permit application. A location or plat map of the site should be attached to the application form. Plans of the proposed development, showing existing and proposed conditions including all appropriate dimensions and elevations, and a pre-construction Elevation Certificate should also be attached. The Floodplain Administrator may require one extra set of plans in order to meet the recordkeeping requirements outlined in Step 8.

Inform the applicant of the need for an Elevation Certificate and the need to hire a surveyor. Explain that the surveyor should make at least three visits: pre-construction, mid-construction, and as-built.

Check to see if the development requires state or federal permits. If the development is in a wetland, below ordinary high water line, in a scenic corridor, or adjacent to a fish-bearing stream, refer applicant to the appropriate state agency. Copies of environmental permits from federal or state agencies are required, if applicable, and evidence of notification of the adjacent communities and FEMA of any alteration or relocation of watercourses.

STEP 4: SUBSTANTIAL IMPROVEMENT & SUBSTANTIAL DAMAGE

Check to see if the project includes a new building or a substantial improvement of an existing building. If the project includes an entirely new “building” go to Step 5. “Substantial Improvement” is any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement.

“Substantial Damage” is damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. All structures that are determined to be substantially damaged are automatically considered to be substantial improvements, regardless of the actual repair work performed.

If the work or repair is considered substantial improvement or repair to a substantially damaged building, the entire structure must be brought into full compliance with the community’s current floodplain regulations, which includes but is not limited to elevation (or floodproofing, if it is non-residential) to or above the BFE.

STEP 5: BASE FLOOD ELEVATION

Obtain the Base Flood Elevation at the site:

- From the profiles found in the Flood Insurance Study (FIS)
- From the Flood Insurance Rate Map
- From any other federal, state or local source – commonly called “best available data”.
- If there is no BFE data available, you may require the applicant to determine the BFE. A determination of the BFE is required if the development site is at least 5 acres or has 50 or more lots platted.

STEP 6: LOWEST FLOOR ELEVATION

Review the construction plans to make sure that the lowest floor of the building is built to, or above, the BFE. Some communities require the lowest floor to be built one foot or more above the BFE (freeboard). V Zones require elevation of the lowest horizontal structural member. Check your local floodplain ordinance. Building protection can be done by one of three methods:

- **Elevate on piers, posts, columns or walls.** Check the plans to ensure that materials used below the lowest floor are resistant to flood damage (see Technical Bulletin 3-93). Verify all electrical, heating, ventilating, plumbing, air conditioning equipment, and utility meters are located above the BFE. Ensure all water and sewer pipes, and electrical and telephone lines located below the BFE are waterproofed (Publication 348). If walls are used they must have at least two permanent openings no more than one foot above grade (TB 1). If any enclosures will be located below the BFE, the applicant will need to record a non-conversion declaration to ensure the space will remain vented, unfinished and/or flood-resistant, and be used solely for parking, limited storage and building access.
- **Elevate on fill.** Check the plans to ensure that the top of the fill is at or above the BFE; the fill is protected from erosion and scour; the fill is properly compacted; and the fill does not cause drainage or flow onto neighboring properties. Consult TB 10-01 for information determining if a site or structure is reasonably safe from flooding.
- **Floodproofing for non-residential buildings only.** Plans for a floodproofed building must be prepared by a registered engineer who must sign and seal a floodproofing certificate. The certified floodproofed elevation must be at least one foot above BFE (TB 3-93).

NOTE: Below-grade crawlspaces are considered basements and are not allowed in the SFHA unless the community's ordinance specifically permits and defines them as being less than two feet deep with foundation walls no more than four feet high in accordance with TB 11-01.

If the proposed development does not comply with floodplain regulations, deny the permit application and return to the applicant with a written explanation of the denial.

If the development complies with all floodplain regulations, approve the application and issue the permit, along with a permit placard to be displayed at the job site with the building permit (if applicable). Make sure that the plans and any other assurances are made part of the application and maintained in your records. Flag the permit for inspection as floodplain development. Enter the permit into a log of floodplain development permits and forward the application for Planning review and collection of related fees. If your community's building permit review is handled by a separate department or contractor, and if building, plumbing, electrical or mechanical permits are required as part of the development application, forward the approved application and a copy of the permit (with conditions) to the building official for review. The building official assumes responsibility for reviewing the application for compliance with applicable building codes.

If the applicant amends or modifies the application in order to comply with building codes, the building official must notify the Floodplain Administrator so the modifications can be reviewed for compliance with floodplain regulations. After building permits are approved, proceed to Step 7.

STEP 7: INSPECTIONS

Make site inspections to ensure that the project is built according to the permitted plans. When the development is a new building or substantial improvement, at least three inspections are required:

1. After the foundation is staked out, but before construction begins, check to see the development is located as approved (out of the floodway, filling and other site requirements). Work should not start on the foundation until this inspection has been successfully passed.
2. When the foundation is completed, the lowest floor elevation is inspected. Work should not proceed with the walls or floor until the structure has passed this inspection. If the floor elevation is not high enough, a stop work order may be issued or the permit may be revoked until the building is corrected.

NOTE: A two-part permit system may be used to ensure compliance. The first permit (or Part 1 permit) authorizes work only to the point of establishing the lowest floor, be it an elevated floor or a "slab on grade". The second part of the two-part permit system allows the remainder of the building to be constructed after the lowest floor elevation has been certified with an Elevation Certificate. While not required by the NFIP regulations, the two-part permit system has become recognized nationwide as a valuable tool that helps the applicant and the community by recognizing a substandard elevation prior to the building being completed.

3. When construction is completed. This inspection shows that the building meets all the requirements of the ordinance (elevation of mechanical, flood-resistant materials below BFE, flood vents in lower enclosures, etc.) and a completed as-built/finished construction Elevation Certificate has been submitted by the owner.

Each of these inspections may require that an Elevation Certificate, Floodproofing Certificate or professional engineer's certification of relevant standards or other plans or documents completed by someone with a professional seal.

NOTE: Minor development projects may be completed with fewer inspections.

Issue the Certificate of Compliance/Occupancy only after full compliance is demonstrated by final as-built Elevation Certificate, signed Non-Conversion Declaration and all relevant documentation is on file.

STEP 8: RECORD KEEPING

Keep all pertinent records (permits, checklists, engineering data, correspondence, variance proceedings, inspection records, Elevation Certificates, photographs, Certificate of Occupancy, etc.) for completed projects and denied permits, *forever*. Building permit records do not have the same retention requirements as floodplain development permits, so be sure the floodplain development records are kept in a separate location to avoid the risk of accidental disposal.