

LARIMER COUNTY
ENGINEERING DEPARTMENT



FLOODPLAIN DEVELOPMENT GUIDE



SECTION 5:
FLOODPLAIN PERMITS



5. FLOODPLAIN PERMITS

What Activities Need a Floodplain Development Permit?

In Larimer County, **all floodplain development is required to obtain a Floodplain Development Permit (FDP)** unless it meets the exceptions described below. This is true even if a building permit or other permit is not required. Floodplain development is defined as “any manmade change to improved and unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating or drilling operations” within the FPO district.

Floodplain Development Permit Exceptions

Exceptions to the requirement for an FDP include the following:

1. Routine Maintenance of Buildings

- FDPs are required for routine maintenance of buildings. However, requirements may be modified for routine maintenance of buildings at the discretion of the County Engineer. Competent evidence may be required by the County Engineer for routine maintenance activities within the FPO District which demonstrates reasonable costs of labor and materials associated with routine maintenance activities. Such evidence may include, but is not limited to, an itemized cost estimate and affidavit(s) attesting to the truth and validity of the cost estimate. Competent evidence shall be submitted in accordance with the Larimer County Floodplain Development Guide. The County Engineer shall determine if the costs of labor and materials for a floodplain development project are reasonable.

Routine maintenance of buildings includes repairs or work necessary to keep an existing building in a safe and habitable condition and for which the total cost does not exceed \$10,000. Such repairs include reroofing or replacing roof tiles, replacing siding, painting, wallpapering, tiling, carpeting, replacing, or repairing windowpanes, replacing, or repairing plumbing systems, electrical systems, or heating and air conditioning systems, basement sealing, or repairing wells or septic systems. Routine maintenance does not include repairs associated with flood damage.

3. Routine Maintenance of Infrastructure

FDPs are not required for routine maintenance of infrastructure which does not result in modifications to the hydraulic characteristics of a floodplain, the FPO District, or the Base Flood Elevations (BFEs) as determined by the County Engineer. Routine maintenance of infrastructure includes repairs or work or necessary to keep existing

infrastructure such as roads, bridges, ditches, headgates, pipelines, or utilities in a safe and usable condition as determined by the County Engineer.

Routine maintenance of infrastructure must not result in, or have potential to result in, modifications to the hydraulic characteristics of a floodplain, FPO District, or the Base Flood Elevations (BFEs) as determined by the County Engineer. The County Engineer may require an FDP for maintenance activities at his or her discretion if it appears an activity may impact the hydraulic characteristics of a floodplain, the FPO District, or the Base Flood Elevations (BFEs).

4. No Fill, Excavation, or Grading

FDPs are not required for activities such as gardening, plowing, and similar practices that do not involve filling, excavation, or grading.

5. Accessory Materials

FDPs are not required for the placement of furniture and other accessory materials which are not fixed to the ground or structure, used routinely by the occupants of a structure, and can be moved quickly in event of a flood as determined by the County Engineer. This exemption does not include materials which are determined to be outdoor storage materials per this Code or by the County Engineer.

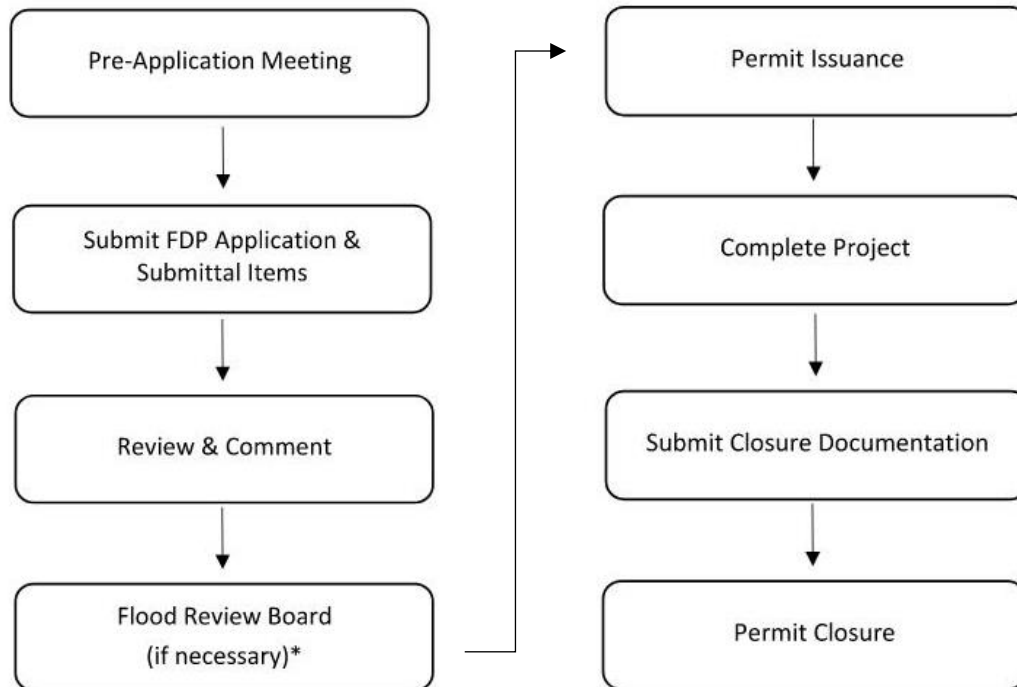
6. 500-Year Floodplain Outside of Fort Collins Growth Management Area

FDPs are not required for floodplain development within a flood zone designated as a FEMA Floodplain Zone X (Shaded), FEMA Floodplain Zone X (Shaded Protected by a Levee), Best Available Floodplain Zone X (Shaded), or a Best Available Floodplain Zone associated with 0.2% annual chance of flooding which is not located within the Poudre GMA Floodplain.

What is the Process for Obtaining a Floodplain Development Permit?

The process for obtaining a Floodplain Development Permit (FDP) begins with the submittal of a Floodplain Development Permit Application (FDP Application) and other submittal items needed to evaluate whether floodplain requirements are adequately met by the project. Floodplain development projects are categorized by structural or non-structural projects and may need to be evaluated by Larimer County's Flood Review Board depending on the nature of the project. The process for obtaining an FDP is shown in Figure 1.

Figure 1. Floodplain Development Permit Flowchart



*The Flood Review Board process is discussed in further detail in the Flood Review Board section of this guide.

What Submittals are Needed to Obtain a Floodplain Permit?

Several items need to be provided to the County before issuance of a Floodplain Development Permit (FDP). The following sections briefly describe the submittals which are required to obtain an FDP. Further information on several items is provided in later sections of this guide.

✓ **Floodplain Development Permit Application**

To get a Floodplain Development Permit, the project applicant and/or engineer will begin by completing a FDP Application which can be downloaded through the Larimer County Floodplains website (<https://www.larimer.org/engineering/floodplains>). This application will provide basic information regarding the nature of the project, location, and how various floodplain requirements will be met. Along with the FDP Application, the applicant or engineer will need to provide additional materials to support the application as described below.

✓ **Construction Plans**

Construction plans must be provided with the FDP Application. FDP Applications can be submitted for structural or non-structural projects. In Larimer County, structural projects include (but are not limited to) buildings with at least two walls or a roof, gas and liquid storage

tanks, electrical facilities (e.g. cellular towers, transformers, solar panels, etc.), and fixed accessory structures (decks, fences, carports, gazebos, pergolas, etc.). Non-structural projects include (but are not limited to) earthwork activities, stream restoration, bank stabilization, bridges, culverts, roads, and utility projects. For non-structural projects, construction plans must be certified by a licensed Colorado Professional Engineer (PE). Further discussion on the requirements for construction plans is provided in the Construction Plans section of this guide.

Hydraulic Study

A hydraulic study is required for:

- Floodplain development and variance requests within a floodway zone including existing, unpermitted development or change of use applications,
- Floodplain development within 100' of a channel centerline in a Zone A floodplain or as determined by the County Engineer,
- Variance requests where hydraulic conditions need to be evaluated by Larimer County Flood Review Board (FRB) or at the discretion of the County Engineer,
- Floodplain Project Reviews, and
- Map Amendments

Hydraulic studies must be prepared by a licensed Colorado Professional Engineer (PE) and include a hydraulic report along with all supporting data, files, and documentation needed to prepare the study. Often, supporting files will include hydraulic modeling files, technical data (e.g. survey or topographic data), maps, tables, and figures. Further discussion on the requirements for hydraulic studies is provided in the Hydraulic Studies section of this guide.

Certificates

Various certificates may be required with the FDP Application. Certificates that may apply to floodplain development include:

- No-Rise Certificate
- No Adverse Impact Certificate
- FEMA Elevation Certificate

If the floodplain development is within a regulatory floodway, a No-Rise Certificate and No Adverse Impact Certificate (signed and stamped by a licensed Colorado Professional Engineer) must be submitted to the County prior to FDP issuance. If an applicant is seeking an FDP for a structure, at least one FEMA Elevation Certificate (signed and stamped by a licensed Colorado Professional Engineer or Land Surveyor) will be required. Elevation certificates may be required by the County Engineer at any point during or after construction. Typically, these are required

immediately after the foundation is completed and/or after construction is complete. If an existing structure is being permitted to come into compliance with code requirements, the County Engineer may require an elevation certificate prior to issuance of the FDP.

Forms for these the No-Rise and No Adverse Impact certificates can be downloaded from the Larimer County Floodplains website (<https://www.larimer.org/engineering/floodplains>).

Elevation certificates can be downloaded from FEMA's website. Further discussion on the requirements for these certificates is provided in the Certificates section of this guide.

Floodproofing Design Specifications

Floodproofing is a design alternative to reasonably protect certain buildings from structural failure when the lowest floor elevation is below the flood protection elevation. Dry floodproofing is a method which prevents the entry of floodwaters into the building, while wet floodproofing allows the entry and exit of floodwaters to reduce the effects of static (stationary) flood forces on the structure.

If an applicant is seeking to floodproof a structure, the design details and specifications must be submitted to the County prior to FDP issuance. These must follow FEMA guidelines and LCLUC requirements for approval and will require the certification of a licensed Colorado Professional Engineer (PE) if determined by the County Engineer. In Larimer County, non-habitable structures which are used solely for parking, access, storage, or agriculture may be wet floodproofed if a variance is granted by the County Engineer. In such cases, the applicant and/or engineer will need to complete the wet floodproofing section of the FDP Application. Further discussion on the requirements for wet floodproofing is provided in the Wet Floodproofing section of this guide.

Repair or Improvement Submittals

A structure which requires repairs or to which improvements are proposed, including reconstruction, rehabilitation, addition, or other improvements, of which the cumulative cost over a five-year period equals or exceeds 50 percent of the structure's valuation is considered a "Substantially Damaged" or "Substantially Improved" structure. A Substantially Damaged or Substantially Improved structure is required to meet all applicable floodplain regulations under Article 12 of the LCLUC in effect at the time that the repairs or improvements are proposed.

To determine whether a structure is Substantially Damaged or Substantially Improved, the applicant and/or engineer will need to submit several items prior to FDP issuance, including a cost estimate, affidavits, and structure valuation. Forms related to the submittal items listed above can be downloaded from the Larimer County Floodplains website (<https://www.larimer.org/engineering/floodplains>). Further discussion on the requirements for these certificates is provided in Remodels, Repairs, and Improvements section of this guide.

 ***Ownership Documentation or Right-of-Access Agreements***

Prior to FDP issuance, documentation demonstrating ownership and/or the right to access the property on which the floodplain development will be performed must be submitted to the County. Examples of documentation which may be used to meet this requirement include deeds, easement records, assessor records, and legal agreements.

 ***Federal, State, and Local Permits***

It is the responsibility of the project applicant and/or owner to obtain all approvals necessary for the work. Permits and approvals from other entities or departments which are required in addition to the FDP for the floodplain development must be submitted prior to the start of construction.

 ***Other Requirements***

The County Engineer reserves the right to require additional materials as needed to meet the requirements of Article 12 of the LCLUC.