



## **Floodplain Submittal Requirements:**

Development within Federal Emergency Management Agency (FEMA) 100-yr floodplains, a.k.a. Special Flood Hazard Areas (SFHA), in both the City of Midland and Midland County requires the approval of a Floodplain Development Permit issued by the Floodplain Administrator for the corresponding community. The City of Midland's City Engineer is the Floodplain Administrator for the City of Midland and, by inter-local agreement, Midland County per City Resolution 92-143.

Applicants must submit a completed permit application, including associated documentation (in electronic format) to the Floodplain Administrator in order to determine impacts to lands within delineated SFHAs. For **permanent development** within an SFHA, provide:

- 1) Cover Letter – Include project name, description/overview, and timeline for proposed development. Also include an outline of attachments/appendices and other pertinent information to help describe the proposed installation or activity.
- 2) Floodplain Permit Application – Provide a complete application. Ensure that you provide all pertinent information to complete the legal description and Oil and Gas Supplement Document.
- 3) Base Flood Elevation (BFE) Determination – BFE information is important in determining the risk of loss of life and/or property due to the installation of improvements in the SFHA. Situations requiring the BFE determination include: When developers are changing the natural ground in the SFHA, When work includes the installation of an above ground structure (as defined by FEMA), or When the Floodplain Administrator deems it necessary because of specific site issues.

The BFE is always determined on the best available information. For **Zone AH or AE** (with or without Floodway determination), the BFE has been determined by a scientific/engineering study performed by FEMA entitled "The Flood Insurance Study for Midland County". For **Zone A**, the BFE has **not** been determined by FEMA and therefore must be determined by a scientific/engineering study performed by a qualified professional, usually an Engineer. This work effort will not be the responsibility of the City of Midland or Midland County.

Where a structure is proposed in the development, whether temporary or permanent, the finished floor (FF) must meet the following criteria: **(1)** FF must be one foot or higher than BFE within the City Limits per Midland, TX Code of Ordinances 11-3-12(B)2 or, **(2)** FF must be at or higher than the BFE for sites in Midland County (and outside the City limits) per *Midland County an Order*

*Establishing Regulations for Flood Damage Prevention Article 5(B)2.* Note that the regulations also allow for the floodproofing of a structure in lieu of elevating. For example, houses must be elevated one foot above the BFE within the City and commercial buildings must be floodproofed to an elevation if built below base flood elevation per the Floodplain Administrator directions/approval.

Additionally, in the case of lake-style floodplains (a.k.a., playas), any fill placed within Zone A or AH must be mitigated by compensatory excavation within the same SFHA. However, for ravines or streams within Zone AE or Floodway, a drainage report or analysis will be sufficient so long as it demonstrates that the development will have no-rise to the base flood elevation or any alterations to the natural water pathway. Identify locations where impervious material is installed and provide measures to mitigate the additional runoff caused by the installed material.

- 4) Construction Drawings – Provide plan & profile sheets, of the area within the SFHA, that show the improvements (above or below ground) and demonstrate the impact on the SFHA. Ensure that the plan and profile sheets identify the individual and firm that prepared the design. The design drawings must bear the seal and signature of the licensed professional engineer (or architect) per 44 CFR 60.3(c)(3).

Ensure that the plan & profile sheets delineate and define where development crosses the SFHA and provide notes to instruct construction crews where to apply special construction techniques as requirements of the Floodplain Permit. For linear improvements, like a pipeline, the plan & profile must include survey information (usually latitude and longitude coordinates) to identify the entry and exiting points at the edge of the SFHA. For surface development, the plan view must have sufficient survey and dimensions to delineate the portion of the development that resides in the SFHA. Elevation references shall be in relation to FEMA FIRM vertical datum.

- 5) Standard Details - Include standard details that relate to the proposed installation. Details that are not approved by a local, state, or federal government, must be signed and sealed by a professional engineer.

For linear projects, like pipeline installations, include appropriate standards such as: (1) trench and backfill details specific to restoring finished grades to be flush (or slightly humped) with adjacent existing grades and re-seeded along the trench line with native seed and mulch; and (2) “layflat” pipe details including caution signs and T-post anchoring systems.

For non-linear installations, such as well pad or industrial facility construction within a SFHA, provide sufficient details to ensure that construction is performed to minimize the disturbance to the SFHA. Include appropriate standards such as: (1) berm details showing maximum height, width, volume containment, and bedding gravel type; and (2) swale details showing the minimum depth, width, volume containment, and proposed runoff.

In all locations, linear or non-linear, save and stockpile the top 4” to 6” of topsoil to reinstall on disturbed soil to speed the revegetation process.

- 6) FIRM maps – Provide Flood Insurance Rate Map (FIRM), or FIRMette, showing the approximate easement or pipeline alignment of the proposed development/installation.
- 7) Certification of Easements/Agreements – Provide a signed statement by the developer’s representative that the owner has granted permission to install the development on the property. Describe any easements as to the nature of the agreement (i.e. Construction, Utility, ROW, etc.)
- 8) Certification of Environmental Study – Provide a signed statement or report from the environmental professional stating that any necessary permits have been obtained from the appropriate federal, state, and local government (i.e. US COE Section 404 permit for wetlands and jurisdictional waters, TPWD permit, THC permit, etc.) in the area of the SFHA.
- 9) Other Documentation – Provide a statement that all federal, state, or local government jurisdiction permits (non-environmental) have been obtained in the area of the SFHA.
- 10) KMZ or Shape-File – Provide a generalized map of the improvements/installations so that the Floodplain Administrator can readily identify the SFHAs that are impacted by the development. This map will be considered confidential information for the Floodplain Administrator and no third party will be allowed to retrieve the file for it is not part of the finalized Floodplain Development Permit.

For **temporary development**, project lasting less than 12 months or with no permanent installations, provide all the information for permanent development; however, it will not be necessary to provide profile drawings.

Finally, the Floodplain Administrator asks all developers to contact Engineering Services about any questions concerning documentation or regulations. Once all documentation is provided and the application is complete, the Floodplain Administrator will be able to process the submittal and may issue a Floodplain Development Permit for the project.

Note, a Floodplain Development Permit can be approved or denied according to Midland, TX Code of Ordinances 11-3-5(C)2 and *Midland County an Order Establishing Regulations for Flood Damage Prevention* Article 4(C)2. The Floodplain Administrator will evaluate the development based on: (1) if it will cause an increase in the Base Flood Elevation (BFE), (2) if it encroaches on the regulatory floodway, or, (3) if it does alter or relocate natural drainage or watercourses.

References:

- Midland, TX Code of Ordinances
- Midland County, Texas an Order Establishing Regulations for Flood Damage Prevention
- Texas Department of Transportation Permits
- Railroad Commission of Texas Environmental Permit
- The National Flood Insurance Program
- Federal Emergency Management Agency Flood Insurance Rate Map
- Title 44 Code of Federal Regulations

- Texas Commission on Environmental Quality
- Texas Water Code Chapter 26
- Section 404 of Clean Water Act
- Texas Park & Wildlife Department
- Endanger Species Act of 1973
- Nationwide Permit 39 U.S. Army Corps of Engineering
- Texas Administrative Code

The City of Midland hereby has authorization for issuing a Floodplain Development Permit by the Floodplain Administrator originating from the National Flood Insurance Act of 1968, Flood Disaster Protection Act of 1973, and National Flood Insurance Reform Act of 1994.