



**SPECIAL MEETING OF THE
PLANNING AND ZONING COMMISSION**

**TUESDAY MAY 16, 2023 AT 5:30 P.M.
CITY HALL TOWN HALL, 118 E. TYLER AVENUE, HARLINGEN, TX**

This is not a Meeting of the Harlingen Elective Commission; however, a quorum of the City Commission may be present. Other City Board members may also be present.

AGENDA

PLEDGE OF ALLEGIANCE / WELCOME

CONFLICT OF INTEREST

Under State Law a conflict of interest exists if an advisory board member or certain members of that person's family has a qualifying financial interest in an agenda item. Members with a conflict of interest cannot participate in the discussion nor vote on the agenda item. Are there any known conflicts of interest to disclose at this time?

CITIZEN COMMUNICATION

1. Presentation and public meeting regarding the proposed amendments to the Flood Damage Prevention Ordinance, Section 105 of the Harlingen Code of Ordinances.

The City of Harlingen Planning and Zoning Commission reserves the right to convene into Executive Session at any time during the meeting regarding any agenda item in compliance with the Texas Open Meetings Act, Chapter 551 Government Code.

POSTED the 12th day of May 2023, at 4:00 p.m. and to remain so posted and continuously for at least 72 hours preceding the scheduled time of said meeting.

A handwritten signature in blue ink, appearing to read 'X. Cervantes', is written over a horizontal line.

Xavier Cervantes, AICP, CPM
Planning and Development Director

Chapter 105 FLOOD DAMAGE PREVENTION¹

ARTICLE I. STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

Sec. 105-1. Statutory authorization.

The Legislature of the State of Texas has in the Flood Control Insurance Act, Texas Water Code, Section 16.315, delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses. Therefore, the Elective Commission of Harlingen, Texas does ordain as follows:

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-2. Findings of fact.

- (a) The flood hazard areas of the city are subject to periodic inundation, which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.
- (b) These flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, floodproofed or otherwise protected from flood damage.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-3. Statement of purpose.

It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- (1) Protect human life and health;
- (2) Minimize expenditure of public money for costly flood control projects;
- (3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) Minimize prolonged business interruptions;

¹Editor's note(s)—Ord. No. 2018-6 , §§ I, II(Exh. A), adopted Feb. 7, 2018, repealed the former Ch. 105, §§ 105-1—105-11, 105-41—105-43, 105-75—105-79, and enacted a new Ch. 105 as set out herein. The former Ch. 105 pertained to similar subject matter and derived from Code 1973, §§ 31-1—31-12, 31-21—31-24, 31-31—31-35; Code 1997, §§ 154.01—154.11, 154.20, 154.30—154.34, 154.45, 154.46; Ord. No. 87-49, 7-15-1987.

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- (5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;
 - (6) Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and
 - (7) Provide information to potential buyers to determine if property is in a flood area, as defined by FEMA;
 - (8) Avoid increasing flood levels or flood hazards or creating new flood hazard areas;
 - (9) Minimize public and private property losses due to flooding; and
 - (10) Preserve the natural floodplains where at all possible.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-4. Methods of reducing flood losses.

In order to accomplish reduction of flood loss, this chapter uses the following methods:

- (1) Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities;
- (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;
- (4) Control filling, grading, dredging and other development which may increase flood damage;
- (5) Prevent or control the construction of flood barriers by grading, dredging, excavation and filling which will unnaturally divert flood waters or which may increase flood hazards to other lands.
- (6) Imposing a regulatory 1% annual chance floodplain that requires using the ultimate development of the watershed to determine the 1% annual chance water surface elevations. New developments must be constructed above this elevation.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Secs. 105-5—105-15. Reserved.

ARTICLE II. DEFINITIONS

Sec. 105-16. Definitions.

Unless specifically defined below, words or phrases used in this chapter shall be interpreted to give them the meaning they have in common usage and to give this chapter its most reasonable application.

1% annual chance floodplain (also known as a 100-year floodplain) is the land within a community subject to a one percent or greater chance of flooding in any given year. These areas are typically designated as a Federal Emergency Management Agency (FEMA) Zone A, AE, AH, or AO on FEMA flood insurance rate maps (FIRM Panels).

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This area includes inundated areas shown in Base Level Engineering analyses for the 1% annual chance storm event.

Alluvial fan flooding means flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

Apex means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

Appeal means a request for a review of the floodplain administrator's interpretation of any provision of this chapter or a request for a variance.

Appurtenant structure means a structure which is on the same parcel of property as the principal structure to be insured and the use of which is incidental to the use of the principal structure

Area of future conditions flood hazard (area of future flood conditions) means the land area that would be inundated by the one-percent annual chance (100-year) flood based on future conditions hydrology.

Area of shallow flooding means a designated AO, AH, AR/AO, AR/AH, or VO zone on a community's flood insurance rate map (FIRM), or inundated areas shown in base level engineering assessments, with a one-percent (1%) or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Area of special flood hazard is the land in the floodplain within a community subject to a one percent (1%) or greater chance of flooding in any given year. The area may be designated as zone A on the flood hazard boundary map (FHBM). After detailed rate making has been completed in preparation for publication of the FIRM, zone A usually is refined into zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE or V. The area may also include inundated areas shown in Base Level Engineering analyses for the 1% annual chance storm event.

Base flood means the flood having a one-percent (1%) chance of being equaled or exceeded in any given year.

Base flood elevation (BFE) means the elevation shown on the flood insurance rate map (FIRM) and found in the accompanying flood insurance study (FIS) for Zones A, AE, AH, A1-A30, AR, V1-V30, or VE that indicates the water surface elevation resulting from the flood that has a one-percent (1%) chance of equaling or exceeding that level in any given year - also called the "base flood."

Base level engineering (BLE) means an automated riverine hydrologic and hydraulic modeling approach that provides flood risk data that meet the technical mapping standards outlined in Federal Insurance and Mitigation Administration Policy 204-078-1 Standards for Flood Risk Analysis and Mapping. Base Level Engineering includes estimated floodplain extents (10%, 1%, and 0.2% annual chance storm events), water surface elevation grids (1%, and 0.2% annual chance storm events), and flood depth grids (1%, and 0.2% annual chance storm events). Base Level Engineering reference can be accessed at <https://webapps.usgs.gov/infrm/estBFE/>.

Basement means any area of the building having its floor subgrade (below ground level) on all sides.

Breakaway wall means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

Critical feature means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

Critical facilities means facilities that materially affect the public health and welfare. Such facilities include, but are not be limited to:

a. Hospitals, nursing homes, blood banks, health care facilities including those storing vital medical records, and housing likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a flood;

b. Police stations, fire stations, vehicle and equipment storage facilities, and emergency operations centers that are needed for flood response activities before, during, and after a flood;

c. Public and private utility facilities that are vital to maintaining or restoring normal services to flooded areas before, during and after a flood;

d. Structures or facilities that produce, use, treat, store or dispose highly volatile, flammable, explosive, toxic, and/or water-reactive materials; and

e. Drinking water plants and facilities, and wastewater treatment plants and facilities; and

Compensatory storage or floodplain mitigation means an artificially excavated, hydraulically equivalent volume of storage within the special or moderate flood hazard area used to balance the loss of natural flood storage capacity when artificial fill or structures are placed within the area of flood hazard.

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

Elevated building means, for insurance purposes, a non-basement building, which has its lowest elevated floor, raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

Existing construction means for the purposes of determining rates, structures for which the start of construction commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "Existing construction" may also be referred to as "existing structures."

Existing manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Extra-territorial Jurisdiction (not limited purpose annexation) means the area extending five miles outside the City of Harlingen corporate limits. All development in the ETJ within an area of special flood hazard is subject to this Ordinance.

FEMA means the Federal Emergency Management Agency.

Fill means the placement of earth or other solid material above the natural ground surface elevation prior to or during construction.

Flood or flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- (1) The overflow of inland or tidal waters.
- (2) The unusual and rapid accumulation or runoff of surface waters from any source.

Flood elevation study means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

Flood insurance rate map (FIRM) means an official map of a community, on which the Federal Emergency Management Agency has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

Flood insurance study (FIS) is an official report provided by the Federal Emergency Management Agency. The report contains flood profiles, water surface elevation or the base flood, as well as the flood boundary map. Also see flood elevation study.

Floodplain or flood-prone area means any land area susceptible to being inundated by water from any source (see definition of flooding). The 1% annual chance floodplain is also known as the area of special flood hazard. Also see regulatory floodplain.

Floodplain management means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

Floodplain management regulations means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Flood-prone area means any land area susceptible to being inundated by water from any source (see definition of flooding).

Flood protection system means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a "special flood hazard" and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

Floodproofing means 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.

Floodway see "regulatory floodway."

Freeboard see "elevated building."

Functionally dependent use means a use, which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term "functionally dependent use" includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Highest adjacent grade means the highest natural elevation of ground surface prior to construction next to the proposed walls of a structure.

Historic structure means any structure that is:

- (1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

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- (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the secretary to qualify as a registered historic district;
 - (3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
 - (4) Individually listed on a local inventory or historic places in communities with historic preservation programs that have been certified either:
 - a. By an approved state program as determined by the Secretary of the Interior or;
 - b. Directly by the Secretary of the Interior in states without approved programs.

Levee means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

Levee system means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

Lowest floor means the lowest floor of the lowest enclosed area (including 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 the applicable non-elevation design requirement of Section 60.3 of the National Flood Insurance Program regulations.

Manufactured home means a structure transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

Manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Mean sea level means, for purposes of the National Flood Insurance Program, the North American Vertical Datum (NAVD) of 1988 or other datum, to which base flood elevations shown on a community's flood insurance rate map are referenced.

Moderate flood hazard areas are areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. They are shown on flood maps as zones labeled with the letters B or X (shaded).

New construction means, for the purpose of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

No adverse impact floodplain management means providing appropriate regulatory oversight that the action of one property owner or community does not adversely affect the flood risks for other properties or communities as

measured by increased flood stages, increased flood velocity, increased flows, or the increased potential for erosion and sedimentation, or any other impact deemed important by the City of Harlingen, unless the impact is mitigated as provided for in a community or watershed based plan.

Recreational vehicle means a vehicle which is (i) built on a single chassis; (ii) 400 square feet or less when measured at the largest horizontal projections; (iii) designed to be self-propelled or permanently towable by a light duty truck; and (iv) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

~~*Regulatory floodplain* means the land within the community subject to a one percent or greater chance of flooding in any given year assuming all future development has occurred throughout the watershed. The regulatory floodplain is delineated on the currently effective FEMA flood insurance rate maps (FIRM Panels). NOTE: As the city's floodplain ordinance (Code Section 18) is approved by FEMA as a condition of participation in the National Flood Insurance Program (NFIP), the city's regulatory floodplain is considered FEMA's future base flood.~~

Regulatory floodway means 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. The floodway is congruent with the regulatory 1% annual chance floodplain in the city.

Riverine means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

Special flood hazard area see area of special flood hazard.

Start of construction means, for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)), includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The "actual start" means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building. The start of construction period is valid for 180 days, provided, however, that the duly designated building official may extend the start of construction period of an additional 180-day period pursuant to the city's Code.

Structure means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

Substantial damage means 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.

Substantial improvement means 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 damage occurred. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

- (1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or

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- (2) Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure."

Variance means a grant of relief from the requirements of chapter 105 when specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner otherwise prohibited by this chapter. (For full requirements see Section 60.6 of the National Flood Insurance Program regulations.)

Violation means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 44 CFR Section 60.3 (Flood plain management criteria for flood-prone areas) is presumed to be in violation until such time as that documentation is provided.

Water surface elevation means the height, in relation to the North American Vertical Datum (NAVD) of 1988 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Secs. 105-17—105-20. Reserved.

ARTICLE III. GENERAL PROVISIONS

Sec. 105-21. Lands to which this chapter applies.

The article shall apply to all duly designated FEMA flood zones ("areas of special flood hazard") within the jurisdiction of the city: to include within the City limits and the Extra Territorial Jurisdiction (ETJ).

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-22. Basis for establishing the areas of special flood hazard.

~~The areas of special flood hazard identified by the Federal Emergency Management Agency in the current scientific and engineering report entitled, "The Flood Insurance Study (FIS) for Cameron County, Texas and Incorporated Areas," dated February 16, 2018, with accompanying Flood Insurance Rate Maps and/or Flood Boundary-Floodway Maps (FIRM and/or FBFM) dated February 16, 2018 and any revisions thereto are hereby adopted by reference and declared to be a part of this chapter.~~

The area of special flood hazard shall be any areas classified as Special Flood Hazard Areas in the scientific and engineering report entitled, "The Flood Insurance Study (FIS) for Cameron County, Texas and Incorporated Areas," dated February 16, 2018, with accompanying Flood Insurance Rate Maps and/or Flood Boundary-Floodway Maps (FIRM and/or FBFM) dated February 16, 2018 issued by the Federal Emergency Management Agency, or the most recent version thereof, including all digital supporting data. The area of special flood hazard shall also include those areas determined to be flood prone by the City of Harlingen and through the reasonable and prudent use of other flood hazard information, including the results of a Base Level Engineering Assessment and the most recent version of the City of Harlingen Master Drainage Plan, to ensure conformance with provisions of this chapter.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-23. Establishment of development permit.

A floodplain development permit shall be required to ensure conformance with the provisions of this chapter.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-24. Compliance.

No structure or land shall hereafter be located, altered, or have its use changed, or otherwise be developed unless a floodplain development permit has been issued, pursuant to the terms of this chapter. Where construction of structures in a floodplain is allowed by the floodplain administrator, a floodplain development permit shall be required to ensure conformance with the provisions of this chapter. In addition, all land development in any area of special flood hazard shall be required to have a floodplain development permit. Proposed work must be started within six months of the date of approval of a floodplain development permit, otherwise the permit will become null and void. The floodplain development permit will be in effect for 12 months following the start of construction unless otherwise approved on the permit by the floodplain administrator.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-25. Abrogation and greater restrictions.

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-26. Interpretation.

In the interpretation and application of this chapter, all provisions shall be; (1) considered as minimum requirements; (2) liberally construed in favor of the governing body; and (3) deemed neither to limit nor repeal any other powers granted under state statutes.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-27. Warning and disclaimer or liability.

This chapter shall not create a cause of action or basis for liability from any flood damages that result from reliance on this chapter or any administrative decisions lawfully made thereunder.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Secs. 105-28—105-40. Reserved.

ARTICLE IV. ADMINISTRATION

Sec. 105-41. Designation of the floodplain administrator.

The city engineer is hereby appointed the floodplain administrator to administer and implement the provisions of this chapter and other appropriate sections of 44 CFR (Emergency Management and Assistance - National Flood Insurance Program Regulations) pertaining to floodplain management.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-42. Duties and responsibilities of the floodplain administrator.

Duties and responsibilities of the floodplain administrator shall include, but not be limited to, the following:

- (1) Maintain and hold open for public inspection all records pertaining to the provisions of this chapter.
- (2) Review permit application to determine whether to ensure that the proposed building site project, including the placement of manufactured homes, will be reasonably safe from flooding.
- (3) Review, approve or deny all applications for development permits required by adoption of this chapter.
- (4) Review permits for proposed development to assure that all necessary permits have been obtained from those federal, state or local governmental agencies (including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334) from which prior approval is required.
- (5) Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the floodplain administrator shall make the necessary interpretation.
- (6) Notify, in riverine situations, adjacent communities and the state coordinating agency which is the Texas Water Development Board (TWDB) and also the Texas Commission on Environmental Quality (TCEQ), prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
- (7) Assure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained.
- (8) When base flood elevation data has not been provided in accordance with article III, section 105-22, the floodplain administrator shall obtain, review and reasonably utilize any base flood elevation data and floodway data available from a federal, state or other source, in order to administer the provisions of article V.
- (9) When a regulatory floodway has not been designated, the floodplain administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.
- (10) Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program regulations, a community may approve certain development in Zones A1-30, AE, AH, on the community's FIRM which increases the water surface elevation of the base flood by more than one foot, provided that the community first completes all of the provisions required by Section 65.12.
- (11) Coordinate all change requests to the FIS and FIRM or FHBM, or both, with the requestor, state, and FEMA;

(12) Enforcing the City’s “No Adverse Impact” Floodplain Management requirement based on the historical knowledge related to street and structural flooding of the area and require additional conditions for the approval which may include limit dirt placement by implementing a pier and beam construction requirement, improving drainage system, etc.

(13) Where Base Level Engineering is available:

(i) Base Level Engineering data shall be reviewed and reasonably used in FEMA-identified Special Flood Hazard Areas where base flood elevation and floodway data have not been identified and in areas where FEMA has not identified Special Flood Hazard Areas.

(ii) Base flood elevations and designated floodway boundaries on FIRMs and in Flood Insurance Studies shall take precedence over base flood elevations and floodway boundaries delineated by Base Level Engineering if such source shows reduced floodway widths and/or lower base flood elevations.

(iii) Base Level Engineering data shall be reasonably used if such source shows increased base flood elevations and/or larger floodway areas than are shown on FIRMs and in Flood Insurance Studies.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-43. Permit procedures.

(a) Application for a floodplain development permit shall be presented to and must be approved by the floodplain administrator on forms furnished by the floodplain administrator and may include, but not be limited to, plans in duplicate drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard. Application for a floodplain development permit for a proposed subdivision may be presented prior to or in conjunction with other data required for the platting process. For platting purposes, a floodplain development permit shall serve only as an approval of the floodplain ordinance requirements. No cut/or fill, building, or other site alterations shall proceed until the permit is approved. Additionally, the following information shall accompany the permit application:

- (1) An elevation certificate for buildings on property located in or abutting the floodplain;
- (2) Elevation in relation to mean sea level to which any nonresidential structure shall be floodproofed;
- (3) A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of article V, section (b)(2);
- (4) Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development;
- (5) Maintain a record of all such information in accordance with article IV, section (b)(1);
- (6) An existing structure may be improved (remodeled) without conforming to requirements of this chapter when the improvement does not constitute a substantial improvement. In the event that the work is considered a substantial improvement then the structure must be brought into compliance with this chapter.

(7) If required by Section 105-45—105-55, a certification of no adverse impact. A registered professional engineer shall certify that the proposed development will not create adverse impacts on other properties as measured by:

(i) No increase in flood stage;

(ii) No increase in flood velocity;

(iii) No increase in flows;

(iv) No increased potential for erosion and sedimentation;

(v) Any other impact deemed important or as specified by the City of Harlingen.

The certification shall employ accepted engineering standards for hydraulic and hydrological analysis and all data shall be provided in hard copy and digitally for review and corroboration by the floodplain administrator, city engineer, or any governmental review agency acceptable to the City of Harlingen.

- (b) Approval or denial of a floodplain development permit by the floodplain administrator shall be based on all of the provisions of this chapter and the following relevant factors:
- (1) The danger to life and property due to flooding or erosion damage;
 - (2) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - (3) The danger that materials may be swept onto other lands to the injury of others;
 - (4) The compatibility of the proposed use with existing and anticipated development;
 - (5) The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (6) The costs of providing governmental services during and after flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems;
 - (7) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;
 - (8) The necessity to the facility of a waterfront location, where applicable;
 - (9) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use.
 - (10) The relationship of the proposed use to the comprehensive plan for that area.
- (c) If a development permit application is disapproved, the floodplain administrator shall notify the applicant in writing of the section and specific requirement of this chapter with which the proposed development does not comply and the nature of such noncompliance.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-44. Variance procedures.

- (a) The appeal board, as established by the community, shall hear and render judgment on requests for variances from the requirements of this chapter. The issuance of a variance pursuant to this chapter is for flood plain management purposes only.
- (b) The appeal board shall hear and render judgment on an appeal only when it is alleged there is an error in any requirement, decision, or determination made by the floodplain administrator in the enforcement or administration of this chapter. The appeal board, after a public hearing and examining the applicant's hardships, shall approve or disapprove a request for variance.
- (c) Any person or persons aggrieved by the decision of the appeal board may appeal such decision in the courts of competent jurisdiction.

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- (d) The floodplain administrator shall maintain a record of all actions involving an appeal and shall report variances to the Federal Emergency Management Agency upon request.
 - (e) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this chapter.
 - (f) Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in section (c)(2) of this article have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
 - (g) Upon consideration of the factors noted above and the intent of this chapter, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this chapter (article I, section (c)).
 - (h) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
 - (i) Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
 - (j) Prerequisites for granting variances:
 - (1) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 - (2) Variances shall only be issued upon: (i) showing a good and sufficient cause; (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
 - (3) Any application to which a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
 - (k) Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that (i) the criteria outlined in article IV, section (d)(1)—(9) are met, and (ii) the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Secs. 105-45—105-55. Reserved. *Compensatory storage or floodplain mitigation required.*

(1) *Compensatory storage or floodplain mitigation required. If a development, re-development, or substantial improvement project of or greater than 50 lots or 5 acres proposes encroachment upon, by placing fill, store stormwater detention, or placing a structure within, a moderate or special flood hazard area, the project must provide compensatory storage.*

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- a. Compensatory storage for special flood hazard area encroachments shall be provided in the same type of special flood hazard area.
 - b. Compensatory storage for moderate flood hazard area encroachments may be provided in either special or moderate flood hazard areas.
 - c. The volume of an encroachment shall be calculated as the volume of space occupied by the encroachment from natural ground up to the base flood elevation or the 500-year floodplain, whichever is higher.
 - d. If the compensatory storage is provided on the same property as the proposed development, the required compensatory storage shall be equivalent to the volume of encroachment.
 - e. If it is infeasible to provide compensatory storage on the same property as the proposed development, the applicant may request to provide the compensatory storage offsite, provided that:
 - 1. The compensatory storage rate is doubled;
 - 2. The applicant provides proof that the offsite compensatory storage cannot be reduced in any way; and
 - 3. The location of the offsite compensatory storage is within a one-half mile radius of the proposed development's continuous property boundary.
 - f. The lower elevation limit for compensatory storage is two feet above the local water table elevation.

ARTICLE V. PROVISIONS FOR FLOOD HAZARD REDUCTION

Sec. 105-56. General standards.

In all areas of special flood hazards the following provisions are required for all new construction and substantial improvements:

- (1) All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
- (2) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;
- (3) All new construction or substantial improvements shall be constructed with materials and utility resistant to flood damage;
- (4) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
- (5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (6) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems into flood waters; and,

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- (7) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- (8) New construction and substantial improvements, when located in multiple flood zones with varying base flood elevations or in same flood zone with multiple base flood elevations must meet the requirements for the flood zone with the most stringent requirements and the highest base flood elevation.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-57. Specific standards.

In all areas of moderate or special flood hazards where base flood elevation data has been provided as set forth in (i) article III, section (b), (ii) article 4, section (b)(8), or (iii) article V, section (c)(3), the following provisions are required:

~~Residential construction. New construction and substantial improvement of any residential structure shall have the lowest floor (including basement), elevated to or above the base flood elevation.. elevated to [x] feet above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the floodplain administrator that the standard of this subsection as proposed in article IV, section (c)(1)a. is satisfied. This includes mixed use buildings with residential uses on the lowest floor.~~

~~Structures not used for human habitation that are accessory to a single family home may be exempt from freeboard requirements if designed to have low flood damage potential; firmly anchored and placed on the building site in a way that presents minimum resistance to flood flows; constructed with electrical and other services mounted above the flood hazard elevation; and fitted with openings that allow the automatic entry and exit of floodwater. For details refer to FEMA Technical Bulletin 7-93.~~

(1) Residential construction.

- a. Within an area of special flood hazard, new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, and all components of the mechanical, electrical, and plumbing systems and any other service facility elevated to at least the 500-year floodplain elevation or 24 inches above the base flood elevation, whichever is higher. Additionally, plumbing systems shall be designed and/or located so as to prevent floodwaters from entering or damaging them. Slab on grade construction shall not be permitted for the new construction of residential dwellings.
- b. Within a moderate flood hazard area, new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, and all components of the mechanical, electrical, and plumbing systems and any other service facility elevated to at least the 500-year floodplain elevation or 18 inches above the base flood elevation, whichever is higher. Additionally, plumbing systems shall be designed and/or located so as to prevent floodwaters from entering or damaging them.
1. If the natural grade of an individual lot, as indicated on a pre-construction elevation certificate, is no more than 12 inches below its 500-year floodplain elevation, then slab on grade construction may be allowed by the floodplain administrator provided that:
- (i) The finished floor elevation is no more than 0.1 feet above the 500-year floodplain elevation;
 - (ii) No more than six inches of vertical concrete is exposed along the perimeter of the slab; and

(iii) The edge of any slab on grade concrete is no less than five feet from a side or rear lot line.

2. If the natural grade of an individual lot is more than 12 inches below its 500-year floodplain elevation, then slab on grade construction shall not be permitted for the new construction or substantial improvement of residential dwellings.

(2) Nonresidential construction. New construction and substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated to or above the base flood level ~~elevated to 18 feet~~ feet inches above the base flood elevation or together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the floodplain administrator.

(3) Critical facilities. New construction and substantial improvement of any Critical Facilities shall have the lowest floor (including basement and all essential plumbing and utilities, including duct work), elevated or floodproofed to a minimum of 24 inches above the base flood elevation.

(3)(4) Enclosures. New construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

- a. A minimum of two openings on separate walls having a total net area of not less than one square-inch for every square foot of enclosed area subject to flooding shall be provided.
- b. The bottom of all openings shall be no higher than one foot above grade.
- c. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(4)(5) Manufactured homes.

- a. Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.
- b. Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites (i) outside of a manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

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- c. Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision with Zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of paragraph (4) of this section be elevated so that either:
 1. The lowest floor of the manufactured home is at or above the base flood elevation, or
 2. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

(5)(6) Recreational vehicles. Require that recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM either (i) be on the site for fewer than 180 consecutive days, or (ii) be fully licensed and ready for highway use, or (iii) elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(6)(7) Prohibited uses. The following uses are prohibited within a designated floodplain:

- a. -Storage or processing of materials that are hazardous, flammable, or Explosiveexplosive in the identified special flood hazard area.
- b. Storage of material or equipment that, in times of flooding, could become buoyant and pose an obstruction to flow in identified floodway areas.

Sec. 105-58. Standards for subdivision proposals.

- (a) All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with article I, sections (b), (c), and (d) of this chapter.
- (b) All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet floodplain development permit requirements of article III, section (c); article IV, section (c); and the provisions of article V of this chapter.
- (c) Base flood elevation data shall be provided for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivisions which is greater than 50 lots or five acres, whichever is lesser, if not otherwise provided pursuant to article III, section (b) or article 4, section (b)(8) of this article.
- (d) All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.
- (e) All subdivision proposals including the placement of manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-59. Standards for areas of shallow flooding (including AO/AH zones).

Located within the areas of special flood hazard established in article III, section (b), Sec. 105-22 are areas designated as shallow flooding. These areas have special flood hazards associated with flood depths of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, the following provisions apply:

- (1) All new construction and substantial improvements of residential structures, including manufactured homes, have the lowest floor (including basement) elevated to or above the base flood elevation elevated 12 feet inches above the base flood elevation or the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM or Base Level Engineering assessment (at least two feet 24 inches if no depth number is specified).
- (2) All new construction and substantial improvements of non-residential structures;
 - a. Have the lowest floor (including basement) elevated to or above the base flood elevation or the highest adjacent grade at least as high as the depth number specified in feet or inches on the community's FIRM or Base Level Engineering assessment (at least two feet or 24 inches if no depth number is specified), or
 - b. Together with attendant utility and sanitary facilities be designed so that below the base specified flood depth in an AO Zone, or below the base flood elevation in an AH Zone, or estimated flood depth in a Base Level Engineering assessment, level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy.
- (3) A registered professional engineer or architect shall submit a certification to the floodplain administrator that the standards of this section, as proposed in article IV, section (c) are satisfied.
- (4) Require within Zones AH or AO adequate drainage paths around structures on slopes, to guide flood waters around and away from proposed structures.
- (5) In Zone AO areas where the flood depth is not shown on the community flood insurance rate map, the lowest floor, including basements, shall be elevated 18 inches above natural grade or above the crown of the nearest street, whichever is higher.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-60. Floodways.

Floodways—Located within areas of special flood hazard established in article III, section (b), are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions shall apply:

- (1) Encroachments are prohibited, including fill, new construction, substantial improvements and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice and certification by a registered professional engineer is provided demonstrating that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
- (2) If article V, section (e)(1) above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of article V.

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- (3) Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program Regulations, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first completes all of the provisions required by section 65.12.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-61. Severability.

If any section, clause, sentence, or phrase of this chapter is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way affect the validity of the remaining portions of this chapter.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)

Sec. 105-62. Penalties for non compliance.

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this chapter and other applicable regulations. Violation of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this chapter or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$500.00 for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the city from taking such other lawful action as is necessary to prevent or remedy any violation.

Sec. 105-63. Stop Work Orderwork order, emergencies.

All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage; Upon notice from the Floodplain Administrator that work on any building, structure, dike, bridge or any improvement which would affect water drainage is being done contrary to the provisions of this Chapter, or in a dangerous or unsafe manner, such work shall be immediately stopped. Such notice shall be in writing and shall be given to the owner of the property or to his agent, or to the person doing the work, and shall state the conditions under which work may be resumed. Where an emergency exists, no written notice shall be required to be given by the Floodplain Administrator; provided however, written notice shall follow within 24 hours from the time oral notice to stop is issued.

(Ord. No. 2018-6 , § II(Exh. A), 2-7-2018)