CITY OF SEABROOK

ORDINANCE NO. 2016-27
FLOOD DAMAGE PREVENTION

AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE CITY OF SEABROOK, TEXAS BY DELETING THE CURRENT CHAPTER 38, "FLOOD", ARTICLE II, "FLOOD DAMAGE PREVENTION" AND REPLACING IT WITH A NEW ARTICLE II, UNDER THE SAME TITLE, "FLOOD DAMAGE PREVENTION" WHICH CONTAINS SECTIONS FOR STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS; DEFINITIONS; GENERAL PROVISIONS INCLUDING ADOPTING THE FLOOD INSURANCE RATE MAP (FIRM) AND FLOOD INSURANCE RATE STUDY (FIS), DATED JANUARY 6, 2017; ADMINISTRATION, PERMITTING AND VARIANCE PROCEDURES; AND PROVISIONS FOR FLOOD DAMAGE REDUCTION. THE CONTENTS OF THE NEW REPLACEMENT ARTICLE ARE SMILAR TO THE CURRENT ARTICLE BUT ARE SOMETIMES WRITTEN IN A DIFFERENT MANNER.

THIS ORDINANCE PROVIDES FOR A PENALTY IN AN AMOUNT OF $500.00, OR THE MAXIMUM PROVIDED BY LAW, FOR VIOLATION OF ANY PROVISIONS HEREOF BY INCLUSION INTO THE CODE; REPEALS ALL ORDINANCES OR PARTS OF ORDINANCES INCONSISTENT OR IN CONFLICT HEREWITH, SPECIFICALLY INCLUDING ORDINANCES NOS. 87-07, 91-17, 93-30, 96-19, 97-08, 08-10, 08-28 AND 08-29; AND PROVIDES FOR SEVERABILITY AND NOTICE.

WHEREAS, in March of 2013, the City was provided copies of the Preliminary Flood Insurance Rate Map (FIRM) panels; and

WHEREAS, in November of 2013, the Department of Homeland Security's Federal Emergency Management Agency (FEMA) published a notice of proposed flood hazard determinations for our community; and FEMA did not receive any appeals of the proposed flood hazard determinations. Therefore, the determination of FEMA as to the proposed flood hazard determinations for our community is considered final. The Flood Insurance Rate Map (FIRM) for our community will become effective on January 6, 2017, and will revise the FIS report and FIRM which were in effect prior to this date; and

WHEREAS, as a requirement to participate in the National Flood Insurance Program (NFIP) the City of Seabrook is required to revise its Code of Ordinances, Chapter 38, titled "Floods" and as part of this update, is also required to adopt the Flood Insurance Rate Maps (FIRM) and Flood Insurance Study (FIS) dated for January 2017; now therefore,

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SEABROOK, STATE OF TEXAS:

SECTION 1. AMENDMENT TO THE CODE.

The Code of the City of Seabrook, is hereby amended by deleting the current Chapter 38, entitled "Floods", Article II, "Flood Damage Prevention" in its entirety as shown on Attachment "A" which is made a part of this ordinance and replacing it with a new Article II entitled "Flood Damage Prevention" as shown as Attachment "B" which is made a part of this Ordinance.

SECTION 2. INCORPORATION INTO THE CODE; PENALTY CLAUSE.

This Ordinance is hereby incorporated and made a part of the Seabrook City Code. Violation of this Ordinance is subject to the penalty section of said Code of Ordinances, Section 1-15, "General penalty; continuing violations" which provides that any person who shall violate any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction, shall be fined in an amount not to exceed $500.00, or the maximum amount provided by law. Each day of violation shall constitute a separate offense.

SECTION 3. SEVERABILITY.

In the event any clause phrase, provision, sentence, or part of this Ordinance or the application of the same to any person or circumstances shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Ordinance as a whole or any part of provisions hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Seabrook, Texas declares that it would have passed each every part of the same notwithstanding the omission of any such part thus declared to be invalid or unconstitutional, whether there be one or more parts.

SECTION 4. REPEAL OF PREVIOUS ORDINANCE.

All ordinances or parts of ordinances in conflict or inconsistent with this Ordinance are hereby expressly repealed, specifically including Ordinance No. 87-07, "Flood Damage Prevention" and subsequent amending Ordinance Nos. 91-17, 93-30, 96-19, 97-08, 08-10, 08-28 and 08-29 any other amending ordinances relating to Floods or Flood Damage Prevention are hereby repealed upon the adoption of Ordinance No. 2016-27.

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SECTION 5. NOTICE.

The City Secretary shall give notice of the enactment of this Ordinance by promptly publishing it or its descriptive caption and penalty after final passage in the official newspaper of the City; the Ordinance to take effect upon publication.

PASSED AND APPROVED on first reading this 18th day of October, 2016.

PASSED AND APPROVED on second and final reading this 1st day of November, 2016.

By: _____
Glenn Royal
Mayor

ATTEST:

By: _____
Robin Hicks, TRMC
City Secretary

THE CITY OF SEABROOK TEXAS

APPROVED AS TO FORM:

_____
Steven L. Weathered, City Attorney

Chapter 38 - FLOODS

ARTICLE I. - IN GENERAL

Secs. 38-1—38-25. - Reserved.

ARTICLE II. - FLOOD DAMAGE PREVENTION [1]

Footnotes:

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Editor's note—Ordinance No. 2008-10, § 1, adopted July 15, 2008, repealed the former art. II, §§ 38-26—38-81, and enacted a new art. II as set out herein. The former art. II pertained to similar subject matter and derived from Code 1976; Code 1996; Ord. No. 96-19, adopted Nov. 19, 1996; and Ord. No. 97-08, adopted June 3, 1997.

State Law reference— Authority of city to adopt regulations designed to minimize flood losses, V.T.C.A., Water Code §§ 16.315 and 16.321; Flood Control and Insurance Act authorizes city to take all necessary actions to comply with requirements of National Flood Insurance Program, Vernon's Ann. Texas Civ. St., art. 8280-13 (Water Aux.).

DIVISION 1. - GENERAL PROVISIONS

Sec. 38-26. - Statutory authorization.

The legislature of the State of Texas has in the Flood Control Insurance Act, V.T.C.A., Water Code, § 16.315, delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses and promote the public health, safety and general welfare of its citizenry. Therefore, the city council of the City of Seabrook, Texas does ordain as follows.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-27. - 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, flood proofed or otherwise protected from flood damage.

(c) Special flood hazard areas (SFHA) in the city are identified on the Harris County Flood Insurance Rate Maps (FIRMs) and the accompanying flood insurance study (FIS) published by the Federal Emergency Management Agency (FEMA).

(d) The term floodplain has broader scope than the special flood hazard areas (SFHAs) and refers to any land which is subject to periodic inundation. Floodplains are important to the city because they convey and store floodwaters; they contribute to better water quality and water supply; they provide habitat for fish, game and wildlife; they provide open space for leisure and recreational activities; and they have productive soils for agriculture and timber. Floodplains, by nature, change over time due to natural processes and from human development.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-28. - Statement of purpose.

It is the purpose of this article to promote the public health, safety and general welfare, to minimize public and private losses due to flood conditions in specific areas, and to maintain healthy and functional floodplains 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;

(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;

(7) Ensure that potential buyers are notified that property is in a flood area;

(8) Help citizens to realize that those who occupy areas of special flood hazard assume responsibility for their actions;

(9) Ensure that floodplains continue to convey and store flood waters; contribute to the better water quality and water supply; provide habitat for fish, game and wildlife; provide open space for leisure and recreational activities; and have productive soils for agriculture and timber; and

(10) Comply with V.T.C.A., Water Code, § 16.315.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-29. - Methods of reducing flood losses.

In order to accomplish its purposes, this article 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 floodwaters;

(4) Control filling, grading, dredging and other development which may increase flood damage;

(5) Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands;

(6) Promote uses of land in the floodplain that are consistent with the natural and beneficial functions of the floodplain.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-30. - Definitions.

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

A zone. See "Area of shallow flooding" and "Area of special flood hazard."

Accessory structure means a structure which is on the same parcel of property as the principal structure and the use of which is incidental and subordinate to the use of the principal structure. This includes, but is not limited to, a detached garage, storage shed, gazebo, picnic pavilion, boathouse, barn or other similar building.

Addition means an improvement that increases the square footage of structures including lateral additions added to the side or rear of a structure, vertical additions added on top of a structure, and enclosures added underneath a structure. Related to "substantial improvement."

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. Alluvial fan flooding is depicted on a flood insurance rate map (FIRM) as zone AO, with a flood depth and velocity.

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.

Appurtenant structure. See "Accessory structure."

Area of future conditions flood hazard 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) with a one percent 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 means the land in the floodplain within a community subject to a one percent 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.

Area of special mudslide (i.e., mudflow) hazard means the land within a community most likely to be subject to severe mudslides (i.e., mudflows). The area may be designated as zone M on the FHBM. After the detailed evaluation of the special mudslide (i.e., mudflow) hazard area in preparation for publication of the FIRM, zone M may be further refined.

Base flood means the flood having a one percent chance of being equaled or exceeded in any given year.

Base flood elevation (BFE) means the computed 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 chance of equaling or exceeding that level in any given year, also called "the base flood."

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

Benchmark. See "Reference mark."

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. Use of breakaway walls must be certified by a registered engineer or architect and shall meet the following conditions:

(1) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood, and

(2) The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of the base flood.

Building. See "Structure."

Chief executive officer of the community (CEO) means the official of the community who is charged with the authority to implement and administer laws, ordinances and regulations for that community.

Coastal high hazard area means an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. The area is designated on a flood insurance rate map (FIRM) as zones V1—V30, VE, or V.

Community means any state or area or political subdivision thereof, or any indian tribe or authorized tribal organization, or Alaska Native village or authorized native organization, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction.

Critical facility. Typical critical facilities include hospitals, fire stations, police stations, storage of critical records, and similar facilities. These facilities should be given special consideration when formulating regulatory alternatives and floodplain management plans.

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.

Development means any manmade 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 nonbasement building, which has its lowest elevated floor, raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

Elevation reference mark. See "Reference mark."

Enclosure means a fully enclosed walled in area below the lowest floor of an elevated building (includes crawlspaces). See "Lowest floor."

Encroachment means the advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a regulatory floodplain which may impede or alter its flow capacity.

Erosion means the process of the gradual wearing away of land masses.

Exemption certificate means a certificate issued by the community defining that the proposed activity within the special flood hazard area does not meet the definition of development and not subject to the requirements of this article. Activities may include painting, minor repairs and landscaping.

Existing construction means for the purposes of determining flood insurance 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).

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;

(3) Mudslides (i.e., mudflows) which are proximately caused by flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

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 hazard boundary map (FHBM) means an official map of a community, issued by the administrator, where the boundaries of the flood, mudslide (i.e., mudflow) related erosion areas having special hazards have been designated as zones A, M, and/or E.

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) means official report provided by the Federal Emergency Management Agency that examines, evaluates and determines the flood hazards and, if appropriate, corresponding flood profiles and water surface elevations. It can also be the examination, evaluation, and determination of mudslide and/or flood-related erosion hazards.

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.

Floodplain or *flood-prone area* means any land area susceptible to being inundated by water from any source (See definition of "flooding").

Floodplain management means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain including, but not limited to, emergency preparedness plans,

flood control works, floodplain management regulations, subdivision regulations, open space plans and floodplain management plans.

Floodplain management regulations means this article, zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as grading ordinance and erosion control ordinances) and other applications of police power which apply to the development and land use in flood-prone areas. The term describes such federal, state or local regulations, in any combination thereof, which provide standards for the purpose of floodplain management.

Flood-proofing means any combination of structural and nonstructural 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. Also see "Wet flood-proofing." Refer to FEMA technical bulletins TB 1-93, TB 3-93, and TB 7-93 for guidelines on dry and wet flood-proofing.

Flood-related erosion area or *flood-related erosion prone area* means a land area adjoining the shore of a lake or other body of water, which due to the composition of the shoreline or bank and high water levels or wind-driven currents, is likely to suffer flood-related erosion damage. Also see "Special flood-related erosion hazard area."

Flood-resistant means any building material capable of withstanding direct and prolonged contact with floodwaters for at least 72 hours without sustaining any damage requiring more than low-cost cosmetic repair (such as painting). Refer to FEMA Technical Bulletin 2-93, "Flood-resistant materials requirements for buildings located in the special flood hazard areas in accordance with the National Flood Insurance Program."

Floodway. See "Regulatory floodway."

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 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.

Future conditions flood hazard areas or *future conditions floodplain.* See "Area of future conditions flood hazard."

Future conditions hydrology means the flood discharges associated with projected land-use conditions based on a community's zoning maps and/or comprehensive land-use plans and without consideration of projected future construction of flood detention structures or projected future hydraulic modifications within a stream or other waterway, such as bridge and culvert construction, fill, and excavation.

Governing body means the local governing unit (i.e., county or municipality) that is empowered to adopt and implement regulations to provide for the public health, safety and general welfare of its citizenry.

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

Highway ready with respect to a recreational vehicle means 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, and is fully licensed.

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;

(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.

Hydrodynamic forces are imposed on an object, such as a building, by water flowing against and around it. Among the forces are positive frontal pressure against the structure, drag effect along the sides, and negative pressure in the downstream side.

Hydrostatic forces. Standing water or slowly moving water can induce horizontal hydrostatic forces against a structure, especially when floodwater levels on different sides of a wall are not equal. Also flooding can cause vertical hydrostatic forces, or flotation.

Letter of map change (LOMC) means a general term used to refer to the several types of revisions and amendments to FEMA maps that can be accomplished by letter. They include letter of map amendment (LOMA), letter of map revision (LOMR), and letter of map revision based on fill (LOMR-F).

Levee means a manmade 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.

Limited storage means the type of storage permitted in an enclosed area below the base flood elevation and is limited to that which is incidental and accessory to the principal use of the structure. For example, if the structure is a residence, storage should be limited to items such as lawn and garden equipment, snow tires, and other low value items which can be conveniently moved to the elevated part of the building.

Lowest floor means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking or 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.

Lowest horizontal structural member in an elevated building means the lowest beam, joist, or other horizontal member that supports the building. Grade beams installed to support vertical foundation members where they enter the ground are not considered lowest horizontal members.

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 National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum of 1988 (NAVD 88), or

other datum, to which base flood elevations shown on a community's flood insurance rate map are referenced.

Mudslide (i.e., mudflow) describes a condition where there is a river, flow or inundation of liquid mud down a hillside usually as a result of a dual condition of loss of brush cover, and the subsequent accumulation of water on the ground preceded by a period of unusually heavy or sustained rain. A mudslide (i.e., mudflow) may occur as a distinct phenomenon while a landslide is in progress, and will be recognized as such by the Administrator only if the mudflow, and not the landslide, is the proximate cause of damage that occurs.

Mudslide (i.e., mudflow) prone area means an area with land surfaces and slopes of unconsolidated material where the history, geology and climate indicate a potential for mudflow.

National Flood Insurance Program (NFIP) means a federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the federal government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the federal government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods. The U.S. Congress established the National Flood Insurance Program (NFIP) with the passage of the National Flood Insurance Act of 1968.

New construction for floodplain management purposes 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.

Nonresidential structure means a structure that is primarily used for uses other than residential including, but is not limited to: small business concerns, churches, schools, farm buildings (including grain bins and silos), pool houses, boat houses, clubhouses, recreational buildings, mercantile structures, agricultural and industrial structures, warehouses, hotels and motels with normal room rentals for less than six months' duration, and nursing homes.

One percent annual chance flood. See "Base flood."

One hundred year flood or *100-year flood.* See "Base flood."

Primary frontal dune means a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively mild slope.

Recreational vehicle means a vehicle which is:

(1) Built on a single chassis;

(2) Four hundred square feet or less when measured at the largest horizontal projections;

(3) Designed to be self-propelled or permanently towable by a light duty truck; and

(4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Reference mark means a point of vertical ground elevation reference to be shown on the FIRM for comparison to the BFE. ERMs shall be referenced to the National Geodetic Vertical Datum (NGVD) or the North American Vertical Datum (NAVD).

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.

Repetitive loss (RL) means any insurable building for which two or more claims of more than $1,000.00 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978. A RL property may or may not be currently insured by the NFIP.

Residential structure means a structure that is considered to be a domicile or is used for residential purposes for six months or more. Residential structures include a single family home, multiple unit apartment buildings, a residential condominium, or a manufactured or modular home.

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

Sand dunes mean naturally occurring accumulations of sand in ridges or mounds landward of the beach.

Severe repetitive loss property means a residential property that is covered under flood insurance by the National Flood Insurance Program (NFIP):

(1) That has at least four NFIP claim payments over $5,000.00 each, when at least two such claims have occurred within any ten-year period, and the cumulative amount of such claims payments exceeds $20,000.00, or

(2) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the value of the property, when two such claims have occurred within any ten-year period.

Special flood hazard area. See "Area of special flood hazard."

Special flood-related erosion hazard area. See "Area of special flood-related erosion hazard."

Start of construction (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.

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 "start of construction" of the improvement. 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

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

V zone. See "Coastal high hazard area."

Variance means a grant of relief by a community from the terms of a floodplain management regulation. (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 this ordinance is presumed to be in violation until such time as that documentation is provided.

Watercourse means a definite channel with bed and banks within which concentrated water flows continuously, frequently or infrequently.

Water surface elevation means the height, in relation to the National Geodetic Vertical Datum of 1929 (NGVD 29), North American Vertical Datum of 1988 (NSVD 88), or other datum, where specified, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

Wet flood-proofing includes permanent or contingent measures applied to a structure or its contents that prevent or provide resistance to damage from flooding while allowing floodwaters to enter the structure or area.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-31. - Lands to which this article applies.

The article shall apply to all areas within the jurisdiction of Seabrook, Texas, including areas of special flood hazard.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-32. - 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 Harris County, Texas," dated January 6, 2017, with accompanying flood insurance rate maps dated January 6, 2017, and all subsequent amendments and/or revisions thereto are hereby adopted by reference and declared to be a part of this article. Such maps are available for review in the office of the floodplain administrator.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-33. - Establishment of development permit.

A floodplain development permit or exemption certificate shall be required to ensure conformance with the provisions of this article.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-34. - Compliance.

No development shall occur, nor any structure or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this article and other applicable regulations.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-35. - Abrogation and greater restrictions.

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

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-36. - Interpretation.

In the interpretation and application of this article, 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. 2008-10, § 1, 7-15-2008)

Sec. 38-37. - Warning and disclaimer or liability.

The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions greater floods can and will occur and flood heights may be increased by manmade or natural causes. This article does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This article shall not create liability on the part of the community or any official or employee thereof for any flood damages that result from reliance on this article or any administrative decision lawfully made hereunder.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-38. - Severability.

This article and the various parts thereof are hereby declared to be severable. Should any section of this article be declared by the courts to be unconstitutional or invalid, such decision

shall not affect the validity of the article as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.

(Ord. No. 2008-10, § 1, 7-15-2008)

Secs. 38-39—38-55. - Reserved.

DIVISION 2 - ADMINISTRATION, VARIANCE PROCEDURES AND PENALTIES

Sec. 38-56. - Designation of the floodplain administrator.

The chief building official is hereby appointed the "floodplain administrator" to administer and implement the provisions of this article and other appropriate sections of 44 CFR (Emergency Management and Assistance—National Flood Insurance Program Regulations) pertaining to floodplain management.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-57. - 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 article. This includes, but is not limited to:

a. All application, review and permitting forms;

b. All current and past versions of the flood insurance rate maps (FIRMs), flood boundary and floodway maps (FBFMs), flood insurance studies (FISs);

c. Any other studies, information or data used in regulating development in the floodplain;

d. Applicable elevation certificates;

e. Applicable flood-proofing certificates; and

f. Correspondence, applications, studies, and reports related to letters of map amendments, letters of map revisions and conditional letters of map revision as submitted to and approved by FEMA.

(2) Review all development to:

a. Determine that all requirements of this article have been satisfied;

b. Ensure that the proposed building site project, including the placement of manufactured homes, will be reasonably safe from flooding;

c. Ensure that development in flood-prone areas would not adversely impact other properties;

d. 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; and compliance with Sections 9 and 10 of the Endangered Species Act) from which prior approval or permits are required; and

e. Assure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained.

(3) Determine regulatory floodplain and floodway designation, delineation, and elevation:

a. For the purposes of determining if a floodplain development permit is required in accordance with this article;

b. 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; and

c. When base flood elevation data has not been provided in accordance with section 38-32, the floodplain administrator shall either:

1. 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 subsection (5). Reference: "Managing Floodplain Development in Approximate Zone A Areas—A Guide for Obtaining and Developing Base (100-year) Flood Elevations," dated July 1995, or

2. Require the applicant to provide hydrological and hydraulic data prepared by a professional engineer licensed in the State of Texas which established the base flood elevation.

d. 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.

(4) Notify, in riverine situations, adjacent communities and the state coordinating agency which is the Texas Water Development Board (TWDB), prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

(5) 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.

(6) Take action to remedy violations of this article as specified in sections 38-59 and 38-60 of this article.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-58. - Permit procedures.

A floodplain development permit shall be obtained before any construction or other development may begin in any special flood hazard area or other regulatory floodplain within the jurisdiction of Seabrook, Texas. A record of all such information shall be maintained in accordance with subsection 38-57(1).

(1) Application for a floodplain development permit shall be presented to the floodplain administrator, on forms furnished by him/her. Applications must be filled out completely and include:

a. Site plan, drawn to scale, which include, but is not limited to:

1. Location and dimensions of all existing and proposed structures, including manufactured homes;

2. Ground elevations at building corners of proposed new and substantially improved structures;

3. Location, dimensions and elevation of proposed landscape and terrain alterations;

4. Proposed locations of water supply, sanitary sewer, and utilities;

5. The location of the special flood hazard area and floodway; and

6. If available, the base flood elevation from the flood insurance study.

b. Building plans, if applicable, drawn to scale, which include, but are not limited to:

1. Elevation in relation to mean sea level of the lowest floor (including basement) of all existing and proposed new and substantially improved structures;

2. For a crawl space foundation, the elevation of the crawl space, location and total net area of foundation openings and venting (see FEMA Technical Bulletins 1-93 and 7-93);

3. For foundations placed on fill, the location and height of fill, and compaction to be achieved (compacted to a minimum of 95 percent using the standard proctor test method);

4. Proposed elevation in relation to mean sea level to which any nonresidential structure will be flood-proofed, (see FEMA Technical Bulletin TB 3-93).

c. If applicable, a certificate from a registered professional engineer that the nonresidential flood-proofed structure shall meet the flood-proofing criteria of section 38-30; and

d. A description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.

e. All elevation requirements noted in this article shall be documented using the elevation certificate, FEMA Form 086-0-33 (7/15) and shall be certified by a registered professional engineer or surveyor, and shall be submitted to the floodplain administrator (reference to architect removed).

(2) Approval or denial of a floodplain development permit by the floodplain administrator shall be based on all of the provisions of this article and the following relevant factors:

a. The danger to life and property due to flooding or erosion damage;

b. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

c. The danger that materials may be swept onto other lands to the injury of others;

d. The compatibility of the proposed use with existing and anticipated development;

e. The safety of access to the property in times of flood for ordinary and emergency vehicles;

f. 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;

g. 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;

h. The necessity to the facility of a waterfront location, where applicable;

i. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use; and

j. The relationship of the proposed use to other community plans (hazard mitigation, flood management, comprehensive, neighborhood) applicable to that area.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-59. - Variance procedures.

(a) *Variance process.*

(1) The appeal board, as established by the community, shall hear and render judgment on requests for variances from the requirements of this article. The appeal board for Seabrook, Texas is the "Board of Adjustments."

(2) 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 article.

(3) Any person or persons aggrieved by the decision of the appeal board may appeal such decision in the courts of competent jurisdiction.

(4) 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.

(b) *Variance considerations.*

(1) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief. The appeals board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this article and the:

a. Danger that materials may be swept onto other lands to the injury of others;

b. Danger of life and property due to flooding or erosion damage;

c. Susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the existing individual owner and future owners of the property;

d. Importance of the services provided by the proposed facility to the community;

e. Necessity to the facility of a waterfront location, where applicable;

f. Availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

g. Compatibility of the proposed use with existing and anticipated development;

h. Relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

i. Safety of access to the property in time of flood for ordinary and emergency vehicles;

j. Expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site; and

k. Costs of providing governmental services during and after flood conditions, including rescue services, maintenance and repair of public utilities and facilities

such as sewer, gas, electrical, and water system, and maintenance and repair of streets and bridges.

(2) 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 article.

(3) 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.

(4) Upon consideration of the factors noted above and the intent of this article, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this article (section 38-28).

(5) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(6) Variances shall only be issued upon:

a. Showing a good and sufficient cause;

b. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

c. 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.

(7) 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:

a. The criteria outlined in section 38-28 are met, and

b. 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.

(8) Under some circumstances it may be appropriate to wet-flood-proof certain types of agricultural structures when located in wide, expansive floodplains through issuance of a variance. This should only be done for structures used for temporary storage of equipment or crops or temporary shelter for livestock and only in circumstances where it can be demonstrated that agricultural structures can be designed in such a manner that results in minimal damage to the structure and its contents and will create no additional threats to public safety.

(9) Under limited circumstances, variances may be issued for functionally dependent uses provided that the structure is protected by methods that minimize flood damages during the base flood and there are no additional threats to public safety.

(c) *Issuance and record of a variance.*

(1) 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;

(2) A copy of the notice shall remain on file with the city; and

(3) A copy of the notice shall be recorded with the office of the city secretary (or other recording office) as a public record and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-60. - Penalties for noncompliance.

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the provisions of this ordinance 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 article or fails to comply with any of its requirements shall upon conviction thereof be fined not more than $500.00, (or the maximum amount permitted by law); or imprisoned for not more than 30 days (or the maximum amount permitted by law); or both, 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.

(Ord. No. 2008-10, § 1, 7-15-2008)

Secs. 38-61—38-75. - Reserved.

DIVISION 3. - PROVISIONS FOR FLOOD HAZARD REDUCTION

Sec. 38-76. - 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 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 floodwaters into the system;

(6) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from the systems into flood waters;

(7) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding;

(8) A structure shall be deemed to be substantially improved or substantially damaged when the costs of the improvements or damage repairs, equal or exceed 50 percent of the market value of the structure;

(Ord. No. 2008-10, § 1, 7-15-2008)

Sec. 38-77. - Specific standards (A and AE zones).

In all areas of special flood hazards where base flood elevation data has been provided as set forth in (i) section 38-32, (ii) section 38-33, or (iii) section 38-35, the following provisions are required:

(1) *All development.*

a. If fill material is to be used to elevate any structure, the following will apply:

1. Fill material must be compacted to at least 95 percent of standard laboratory maximum density (standard proctor) according to ASTM Standard D—698.

2. Fill soils must be fine grained soils of low permeability, such as those classified as CH, CL, SC, or ML according to ASTM Standard D—2487, "Classification of soils for engineering purposes".

3. The fill material must be homogeneous and isotropic; that is, the soil must be all of one material, and the engineering properties must be the same in all directions.

b. All elevation requirements noted in this article shall be documented using the elevation certificate, FEMA Form 086-0-33 (7/15), and shall be certified by a registered professional engineer or surveyor, and shall be submitted to the floodplain administrator (reference to architect removed).

(2) *Residential construction (including manufactured homes).* New construction and substantial improvement of any residential structure as well as all manufactured homes to be placed or substantially improved within a SFHA:

a. Shall have the lowest floor (including basement), any ductwork, exposed plumbing and electrical components elevated to or above a minimum of eighteen inches above the base flood elevation;

b. If a detailed base flood elevation is unavailable, the lowest floor (including basement) and any ductwork, and exposed plumbing and electrical components shall be elevated a minimum of eighteen inches above the highest adjacent grade;

c. Shall 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 manufactured home anchoring requirements for resisting wind forces;

d. For any area below the elevation which is eighteen inches above the base flood elevation, all structures must be installed with flood-resistant materials.

(3) *Nonresidential construction.* New construction and substantial improvements of any commercial, industrial or other nonresidential structure:

a. Shall either have the lowest floor (including basement) elevated to or above a minimum of eighteen inches above the base flood elevation.

b. Together with attendant utility and sanitary facilities, be designed so that the structure is watertight to a minimum level eighteen inches above the base flood elevation with walls substantially impermeable to the passage of water and with

structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

c. 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.

d. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are flood-proofed shall be maintained by the floodplain administrator.

(4) *Enclosures.* New construction and substantial improvements may have enclosures below the lowest floor provided that the enclosure is:

a. Used solely for parking of vehicles, building access or limited storage in an area other than a basement,

b. 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:

1. 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.

2. The bottom of all openings shall be no higher than one foot above grade.

3. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

c. Enclosed areas below the lowest floor elevation must be constructed using flood-resistant materials.

(5) *Recreational vehicles.* Require that recreational vehicles placed on sites within zones A1—30, AH, and AE on the community's FIRM either:

a. Be on the site for fewer than 180 consecutive days, or

b. Be fully licensed and ready for highway use.

If neither of these conditions can be achieved, it is considered to be a manufactured home and is subject to the requirements of subsection (2).

(6) *Utilities.* If a proposed building site is in a special flood hazard area (SFHA), the building support utility systems for all new construction and substantial improvements shall:

a. 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;

b. Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of flood waters into the systems;

c. Require within flood-prone areas new and replacement sewage systems be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into flood waters; and

d. Require on-site water disposal systems be located to avoid impairment to them or contamination from them during flooding.

(Ord. No. 2008-10, § 1, 7-15-2008; Ord. No. 2008-29, § 1, 11-18-2008)

Sec. 38-78. - Specific standards for areas of shallow flooding (AO/AH zones).

Located within the areas of special flood hazard established in section 38-32, 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 development.*

a. If fill material is to be used to elevate any structure, the following will apply:

1. Fill material must be compacted to at least 95 percent of standard laboratory maximum density (standard proctor) according to ASTM standard D-698;

2. Fill soils must be fine grained soils of low permeability, such as those classified as CH, CL, SC, or ML according to ASTM standard D-2487, "Classification of soils for engineering purposes".

3. The fill material must be homogeneous and isotropic; that is, the soil must be all of one material, and the engineering properties must be the same in all directions.

b. All elevation requirements noted in this article shall be documented using the elevation certificate, FEMA Form 086-0-33 (7/15), and shall be certified by a registered professional engineer, surveyor, or architect, and shall be submitted to the floodplain administrator.

(2) *Residential construction.* New construction and substantial improvements of residential structures as well as manufactured homes to be placed or substantially improved within the SFHA:

a. Shall have the lowest floor (including basement) any ductwork, exposed plumbing and electrical components elevated to or above a minimum of eighteen inches above the base flood elevation or a minimum of eighteen inches above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least eighteen inches if no depth number is specified);

b. If a detailed base flood elevation is unavailable, the lowest floor (including basement) and any ductwork, and exposed plumbing and electrical components shall be elevated a minimum of eighteen inches above the highest adjacent grade;

c. Shall 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 manufactured home anchoring requirements for resisting wind forces;

d. For any area below the elevation which is eighteen inches above the base flood elevation, all structures must be installed with flood resistant materials.

(3) *Nonresidential construction.* All new construction and substantial improvements of nonresidential structures:

a. Have the lowest floor (including basement) elevated to or above a minimum of eighteen inches above the base flood elevation or a minimum of eighteen inches above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least eighteen inches if no depth number is specified);

b. Together with attendant utility and sanitary facilities be designed so that the structure is watertight to a minimum level eighteen inches above the base flood elevation or a minimum of eighteen inches above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least eighteen inches if no depth number is specified) 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;

c. A registered professional engineer or architect shall submit a certification to the floodplain administrator that the standards of this section, as proposed in section 38-76 are satisfied;

d. Require within zones AH or AO that adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.

(4) *Enclosures.* New construction and substantial improvements may have enclosures below the lowest floor provided that the enclosure is:

a. Used solely for parking of vehicles, building access or limited storage in an area other than a basement,

b. 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:

1. 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.

2. The bottom of all openings shall be no higher than one foot above grade.

3. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

c. For any enclosed area below the lowest floor which is eighteen inches above the base flood elevation, all structures must be installed with flood-resistant materials.

(5) *Recreational vehicles.* Require that recreational vehicles placed on sites within zones A1—30, AH, and AE on the community's FIRM either:

a. Be on the site for fewer than 180 consecutive days, or

b. Be fully licensed and ready for highway use.

If neither of these conditions can be achieved, it is considered to be a manufactured home and is subject to the requirements of subsection 38-77(2).

(6) *Utilities.* If a proposed building site is in a special flood hazard area (SFHA), the building support utility systems for all new construction and substantial improvements shall:

a 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;

b Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of floodwaters into the systems;

c. Require within flood-prone areas new and replacement sewage systems be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters; and

d. Require on-site water disposal systems be located to avoid impairment to them or contamination from them during flooding.

(Ord. No. 2008-10, § 1, 7-15-2008; Ord. No. 2008-29, § 1, 11-18-2008)

Sec. 38-79. - Floodways.

Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following provisions shall apply to floodways:

(1) Encroachments to the floodway, including fill material of any kind, new construction and substantial improvements are prohibited;

(2) Drilling of water, gas and/or oil wells is prohibited;

(3) Storage of hazardous materials, in any form, is prohibited;

(4) Storage of any unanchored materials (which aren't considered fill or construction) are prohibited;

(5) For any other proposed development, hydrologic and hydraulic analyses must performed in accordance with standard engineering practice to demonstrate that the proposed development would not result in any increase in flood levels within the community during the occurrence of the base flood discharge;

(6) Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program Regulation, 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. 2008-10, § 1, 7-15-2008)

Sec. 38-80. - Coastal high hazard areas. (Zones V1-30, VE, and/or V)

Located within the areas of special flood hazard established in section 38-76, are areas designated as coastal high hazard areas (zones V1-30, VE, and/or V). These areas have special flood hazards associated with high velocity waters from tidal surges and hurricane wave wash; therefore, in addition to meeting all provisions outlined in this article, the following provisions must also apply:

(1) Obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement. The floodplain administrator shall maintain a record of all such information.

(2) All new construction shall be located landward of the reach of mean high tide.

(3) All new construction and substantial improvements shall be elevated on pilings and columns so that:

a. The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated a minimum of eighteen inches above the base flood level,

b. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those

required by applicable state or local building standards. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of subsection (3) a. and b. of this section.

(4) Provide that all new construction and substantial improvements have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.

For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than ten and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or state codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

a. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood, and

b. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards. Such enclosed space shall be useable solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation.

(5) Prohibit the use of fill for structural support of buildings.

(6) Prohibit manmade alteration of sand dunes and mangrove stands that increase potential flood damage.

(7) Manufactured homes—Require that manufactured homes placed or substantially improved within zone V1-30, V, and VE 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 the result of a flood, meet the standards of subsections (1) through (6) and that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within zones V1—30, V, and VE on the community's FIRM meet the requirements of subsection 38-77(2) of this article.

(8) Recreational vehicles— Require that recreational vehicles placed on sites within zones V1—30, V, and VE on the community's FIRM either:

a. Be on the site for fewer than 180 consecutive days;

b. Be fully licensed and ready for highway use;

If neither of these conditions can be achieved, it is considered to be a manufactured home and is subject to the requirements of subsection 38-77(2).

c. Or meet the requirements of subsection 38-77(1)—(6).

(9) Utilities—If a proposed building site is in a special flood hazard area (SFHA), the building support utility systems for all new construction and substantial improvements shall:

a. 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;

b. Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of floodwaters into the systems;

c. Require within flood-prone areas new and replacement sewage systems be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters; and

d. Require on-site water disposal systems be located to avoid impairment to them or contamination from them during flooding.

(Ord. No. 2008-10, § 1, 7-15-2008; Ord. No. 2008-29, § 1, 11-18-2008)

Sec. 38-81. - Standards for subdivision proposals within the SFHA.

(a) All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with section 38-32 of this article.

(b) All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet floodplain development permit requirements of section 38-58 of this article.

(c) Base flood elevation data shall be generated (or provided to the community) for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivisions which is greater than 20 lots or two acres, whichever is lesser, if not otherwise provided pursuant to section 38-76 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. 2008-10, § 1, 7-15-2008)

Sec. 38-82. - Areas outside of the SFHA.

(a) *Residential construction outside of SFHA (including manufactured homes).* New construction and substantial improvement of any residential structure as well as all manufactured homes to be placed or substantially improved outside of a SFHA (or, but within 200 feet of a watercourse) shall have the lowest floor, any ductwork, exposed plumbing and electrical components elevated eighteen inches above the natural grade.

(b) *Areas between limits of 100-year flood and 500-year flood (shaded zone X).* All new construction and substantial improvement of residential and nonresidential structures within shaded zone X designations shall meet the following standards:

(1) All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated 18 inches above the nearest adjacent A zone base flood elevation specified in feet on the community flood insurance rate map, as determined by the floodplain administrator.

(2) All new construction and substantial improvements of nonresidential structures shall:

a. Have the lowest floor, including basement, elevated 18 inches above the nearest adjacent A zone base flood elevation specified in feet on the community flood insurance rate map, as determined by the floodplain administrator;

b. Together with attendant utility and sanitary facilities, be designed so that below the base flood level of the nearest adjacent A zone 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 effect of buoyancy. A registered professional engineer or architect shall submit a certification to the floodplain administrator that the standards of this subsection as proposed are satisfied;

c. A registered professional engineer or registered public surveyor shall submit a certification to the floodplain administrator that the standards of this subsection, as proposed are satisfied.

(Ord. No. 2008-10, § 1, 7-15-2008; Ord. No. 2008-29, § 1, 11-18-2008)

Sec. 38-83. - Alteration of a watercourse.

(a) In a case where alterations are made to the channels of rivers, stream, or drainage ways, the flood carrying capacity must be the same or greater as the original watercourse. Additionally, once the alteration is made, the capacity of the altered or relocated watercourse must be maintained over time.

(b) If a development permit application proposes a stream alteration, the local official must notify adjacent communities, the Texas Water Development Board, and provide a copy to the FEMA region VI office.

(Ord. No. 2008-10, § 1, 7-15-2008)