

Ordinance No. 2020-7-O

AN ORDINANCE AMENDING CHAPTER 17.62 OF THE LINDON CITY CODE AMENDING THE FLOOD DAMAGE PREVENTION ORDINANCE AND ADOPTING PENDING FEMA FLOOD INSURANCE STUDY AND FLOOD INSURANCE RATE MAPS

WHEREAS, Lindon City’s community officials have elected to join the program, participate, and enforce this Flood Damage Prevention Ordinance and the requirements and regulations of the National Flood Insurance Program; and

WHEREAS, The National Flood Insurance Program, established in the National Flood Insurance Act of 1968, provides that areas of the Lindon City having a special flood hazard be identified by Federal Emergency Management Agency, and that floodplain management measures be applied in such flood hazard areas; and

WHEREAS, The Federal Emergency Management Agency has a pending Flood Insurance Study and Flood Insurance Rate Maps that will be adopted June 19, 2020; and

WHEREAS, Lindon City elects to comply with the requirements of the National Flood Insurance Act of 1968; and

WHEREAS, the City Council is authorized by state law to enact and amend ordinances establishing land use regulations; and

WHEREAS, the proposed amendment is consistent with the goal of the General Plan to update existing floodplain ordinances and building requirements to be consistent with current Federal Emergency Management Agency standards and best floodplain management principles. Efforts to exceed minimum National Flood Insurance Program requirements, therefore lowering flood insurance for Lindon residents, should be pursued; and

WHEREAS, on April 28, 2020, the Planning Commission held a properly noticed public hearing to hear testimony regarding the ordinance amendment; and

WHEREAS, after the public hearing, the Planning Commission further considered the proposed ordinance and recommended that the Council adopt the attached ordinance;

WHEREAS, the Council held a public hearing on May 4, 2020, to consider the recommendation and the Council received and considered all public comments that were made therein.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Lindon, Utah County, State of Utah, as follows:

SECTION I: Amendment. Amend Lindon City Code Section 17.62 as follows:

**Chapter 17.62
FLOOD DAMAGE PREVENTION**

Sections:

- 17.62.010 Statutory authorization.
- 17.62.020 Finding of Fact
- 17.62.030 Statement of Purpose
- 17.62.040 Definitions.
- 17.62.050 Methods of Reducing Flood Losses
- 17.62.060 Lands to which this Ordinance Applies
- 17.62.070 Annexation
- 17.62.080 Basis for Establishing the Areas of Special Flood Hazard
- 17.62.090 Use of Best Available Data
- 17.62.100 Severability
- 17.62.110 Compliance
- 17.62.120 Abrogation and Greater Restrictions.
- 17.62.130 Interpretation
- 17.62.140 Liability
- 17.62.150 Establishment of Floodplain Development Permit
- 17.62.160 Stop Work Order
- 17.62.170 Penalties for Non-Compliance
- 17.62.180 Designation of the Flood Plain Administrator
- 17.62.190 Duties and Responsibilities of the Floodplain Administrator
- 17.62.200 Requirements to Submit New Technical Data
- 17.62.210 Use of Elevation Certificates
- 17.62.220 Variance Procedures
- 17.62.230 Watercourse Alterations
- 17.62.240 General Standards
- 17.62.250 Substantial Improvement, Substantial Damage, and Determinations
- 17.62.260 Standards for Subdivision Proposals
- 17.62.270 Specific Standards
- 17.62.280 Standards for Areas of Shallow Flooding (AO/AH Zones)

17.62.010 Statutory authorization.

The Legislature of the State of Utah has in 10-3-701 delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses. Therefore, the Lindon City Council of Lindon City, Utah, does ordain as follows:

The City of Lindon elects to comply with the requirements of the National Flood Insurance Act of 1968 (P.L. 90-488, as amended). The National Flood Insurance Program (NFIP) is a voluntary program administered by the Federal Emergency Management Agency (FEMA), a component of the U.S. Department of Homeland Security, and Lindon City’s community officials have elected

to join the program, participate, and enforce this Flood Damage Prevention Ordinance and the requirements and regulations of the NFIP. The NFIP, established in the aforesaid act, provides that areas of the Lindon City having a special flood hazard be identified by FEMA, and that floodplain management measures be applied in such flood hazard areas. Furthermore, Lindon City may elect to administer the Flood Damage Prevention Ordinance to areas not identified as Special Flood Hazard Areas (SFHAs) by FEMA on the community's effective Flood Insurance Rate Map (FIRM), if the community has documentation to support that there is an inherent risk of flooding in such areas.

17.62.020 Findings of Fact.

1. The flood hazard areas of Lindon City are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare of the inhabitants of Lindon City.

2. These potential flood losses are caused by:

1. The cumulative effect of obstructions in floodplains that are known to cause increases in flood heights and velocities;
2. The occupancy of flood hazard areas by structures vulnerable to floods because they are inadequately elevated or otherwise unprotected from flood damages; and
3. Uses deemed unsuitable for floodplain areas or that do not account for the increased flood risk.

17.62.030 Statement of Purpose.

It is the purpose of this ordinance to promote the public health, safety, and general welfare of the community, 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 public expenditure on flood control projects;
3. Minimize the need for rescue and relief efforts associated with flooding and are generally undertaken at the expense of the public;
4. Minimize prolonged business interruptions caused by flooding;
5. Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; streets; and bridges located in areas of special flood hazard;
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. Promote that potential buyers are notified if properties are a flood area;
Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions;
8. Minimize damage to public infrastructure, including but not limited to utilities, streets, and bridges that are susceptible to flooding; and

9. Protect and safeguard the welfare and safety of first responders should an emergency response be needed.

17.62.040 Definitions.

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application. Where terms are not defined, definitions as most currently adopted by FEMA will be used.

“Accessory Structure” is a structure that is detached from a principal building and customarily incidental and subordinate to the principal building or use. An accessory structure is a non-residential structure of typically lesser value than the principal building or use and is used for the parking of vehicles and storage of tools, materials, or equipment.

“Addition” is any improvement that expands the enclosed footprint or increases the square footage of an existing structure. This includes lateral additions added to the side, front, or rear of a structure; vertical additions added on top of a structure; and enclosures added underneath a structure.

“Alluvial Fan Flooding” means flooding occurring on the surface of an alluvial fan or similar landform that originates at the apex. It 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.

“Appurtenant Structure”—see Accessory Structure.

“Area of Future-Conditions Flood Hazard” means the land area that would be inundated by the 1-percent-annual-chance (100-year) flood, based on future-conditions hydrology.

“Area of Shallow Flooding” means a designated AO, AH, AR/AO, or AR/AH zone on a community's Flood Insurance Rate Map (FIRM) with a one (1) percent or greater annual chance of flooding to an average depth of 1 to 3 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-Related Erosion Hazard” is the land within a community that is most likely to be subject to severe flood-related erosion losses. The area may be designated as Zone E on the Flood Hazard Boundary Map (FHBM). After the detailed evaluation of the special flood-related erosion hazard area, in preparation for publication of the FIRM, Zone E may be further refined.

“Area of Special Flood-Related Erosion Hazard” is the land within a community that is most likely to be subject to severe flood-related erosion losses. The area may be designated as Zone E on the Flood Hazard Boundary Map (FHBM). After the detailed evaluation of the special flood-

related erosion hazard area, in preparation for publication of the Flood Insurance Rate Map (FIRM), Zone E may be further refined.

“Area of Special Flood Hazard (SFHA)” is the land in the flood plain 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 ratemaking has been completed in preparation for publication of the Flood Insurance Rate Map (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, or V1-30, VE, or V. For purposes of these regulations, the term “special flood hazard area” is synonymous in meaning with the phrase “area of special flood hazard”.

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

“Base Flood Elevation (BFE)” is the water surface elevation of the 1-percent-annual-chance flood event. It is the height in relation to mean sea level expected to be reached by the waters of the base flood at pertinent points in the floodplains of coastal and riverine areas. It is also the elevation shown on the 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 1-percent chance of equaling or exceeding that level in any given year.

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

“Best Available Data” is existing flood hazard information adopted by a community and reflected on an effective Flood Insurance Rate Map (FIRM), Flood Boundary and Floodplain Map (FBFM), and/or within an Flood Insurance Study (FIS) report; or draft or preliminary flood hazard information supplied by Federal Emergency Management Agency (FEMA) or from another source. Other sources may include, but are not limited to, state, other federal agencies, or local studies, the more restrictive of which would be reasonably used by the community. Refer to section 17.62.090

“Building” — see Structure.

“Channelization” means the artificial creation, enlargement, realignment, or alteration of a stream channel’s slope, shape, or alignment. Streambank restoration may be deemed as channelization.

“Crawlspace” means an under-floor space that has its interior floor area (finished or not) no more than 4 feet from the bottom floor joist the next higher floor elevation, designed with proper openings that equalize hydrostatic pressures of flood water, and is not used for habitation. Refer to section 17.62.270.

“Development” means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving,

demolition, excavation or drilling operations, or storage either temporary or permanent of equipment or material.

“Elevated Building” is a non-basement building built, in the case of a building in Zone A1-30, AE, A, A99, AR, AO, AH, B, C, X and D, to have the top of the elevated floor above the ground level by means of pilings, columns (post and piers), or shear walls parallel to the flow of the water and adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In the case of a building in Zone A1-30, AE, A, A99, AR, AO, AH, B, C, X and D, an “elevated building” also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters.

“Enclosure” refers to an enclosed walled-in area below the lowest floor of an elevated building. Enclosures below the BFE may only be used for building access, vehicle parking, and storage.

“Erosion” means the process of the gradual wearing away of land masses by wind, water, or other natural agents.

“Existing Construction” refers to structures for which the “start of construction” commenced before the effective date of the Flood Insurance Rate Map (FIRM) or before January 1, 1975, for FIRMs effective before that date. It 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.

“Existing Structures” — see Existing Construction.

“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 manufacturing 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).

“FEMA” means the Federal Emergency Management Agency.

“Fill” refers to the placement of materials, such as dirt, sand, or rock to elevate a structure, property, or portion of a property above the natural elevation of the site, regardless of where the material was obtained from. The common practice of removing unsuitable material and replacing with engineered material is not considered fill if the elevations are returned to the existing conditions. Any fill placed or used prior to the area being mapped as a flood hazard area is not deemed as fill.

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

- a. The overflow of inland or tidal waters; ~~and/or surface waters from any source.~~

- b. The unusual and rapid accumulation or runoff of surface waters from any source.

“Flood Insurance Rate Map (FIRM)” means an official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

“Flood Insurance Study (FIS)” is the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, water surface elevation of the base flood, as well as the Flood Boundary-Floodway Map (if applicable), Flood Insurance Rate Map and supporting technical data.

“Floodplain Development Permit” is a community issued permit or document that is used for any development that occurs within a Special Flood Hazard Area (SFHA) identified by Federal Emergency Management Agency (FEMA) or the community. It is used to address the proposed development to ensure compliance with the community’s ordinance.

“Floodplain or Flood-Prone Area” means any land area susceptible to being inundated by water from any source whether or not identified by Federal Emergency Management Agency (FEMA) (see definition of Flooding).

“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, mitigation plans, 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 flood damage prevention and reduction.

“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 an SFHA and to reduce 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 that reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

“Floodway” (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.

“Floodway Encroachment Lines” mean the lines marking the limits of floodways on federal, state, and local flood plain maps.

“Freeboard” means a factor of safety usually expressed in feet above a flood level for purposes of flood plain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

“Functionally Dependent Use” means a development that cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and repair facilities. It does not include long-term storage or related manufacturing facilities.

“Highest Adjacent Grade (HAG)” means the highest natural elevation of the 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;
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 reservation programs that have been approved by the Secretary of the Interior; or
4. Individually listed on a local inventory of 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 that 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 Adjacent Grade (LAG)” means the lowest natural elevation of the ground surface prior to construction next to the proposed walls of a structure. For an existing structure, it means the lowest point where the structure and ground touch, including but not limited to attached garages, decks, stairs, and basement windows.

“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 requirements of this ordinance.

“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 attached to the required utilities. The term “manufactured home” does not include a “recreational vehicle;” however, a manufactured home may be used for both residential and non-residential use.

“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.

“Map” means the Flood Hazard Boundary Map (FHBM) or the Flood Insurance Rate Map (FIRM) for a community issued by Federal Emergency Management Agency (FEMA).

“Mean Sea Level” means, for purposes of the NFIP, the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD) of 1988, or other datum, to which BFEs shown on a community's FIRM are referenced.

“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. For the purposes 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.

“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-Rise Certifications” are formal certifications signed and stamped by a professional engineer licensed to practice in the state, demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that a proposed development will not result in any increase (0.00 feet) in flood levels within the community during the occurrence of a base flood event.

“Physical Map Revision (PMR)” is FEMA’s action whereby one or more map panels are physically revised and republished.

“Riverine” means relating to, formed by, or resembling a river (including tributaries), stream, brook, creek, etcetera, which can be intermittent or perennial.

“Special Flood Hazard Area (SFHA)” — see Area of Special Flood 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 a 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 flood plain management purposes, a walled and roofed building, culvert, bridge, dam, or a gas or liquid storage tank that is principally above ground, as well as a manufactured home. Structure for insurance purposes mean:

1. A building with two or more outside rigid walls and a fully secured roof, which is affixed to a permanent site;
2. A manufactured home (“a manufactured home,” also known as a mobile home, is a structure: built on a permanent chassis, transported to its site in one or more sections, and affixed to a permanent foundation); or
3. A travel trailer without wheels built on a chassis and affixed to a permanent foundation, that is regulated under the community's floodplain management and building ordinances or laws.

For insurance purposes, “structure” does not mean a recreational vehicle or a park trailer or other similar vehicle, except as described in paragraph (3) of this definition, or a gas or liquid storage tank.

Substantial Damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred.

“Substantial improvement” means any reconstruction, rehabilitation, addition, or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage,” regardless of the actual repair work performed. Refer to section 17.62.250

a. The term does not, however, include either:

- i. Any project for improvement of a structure to comply with correct existing violation of state or local health, sanitary, or safety code specifications that have been identified by

the local code enforcement official and are the minimum necessary to assure safe living conditions; or

ii. Any alteration of a “historic structure,” if the alteration will not preclude the structure’s continued designation as a “historic structure.”

“Variance” means a grant of relief by a community from the terms of a flood plain management regulation. Reference: 17.62.220.

“Violation” means the failure of a structure or other development to be fully compliant with the community’s flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Sections 44 CFR 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) 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, such as the 1-percent-annual-chance flood event, in the flood plains of coastal or riverine areas.

“Watercourse” means the channel and banks of an identifiable water in a creek, brook, stream, river, ditch or other similar feature.

17.62.050 Method of Reducing Flood Losses.

To accomplish the purposes outlined in 17.62.030 Statement of Purpose, this ordinance applies the following methods:

1. Restricts or prohibits land uses that are dangerous to health, safety, or property in times of flooding, cause excessive increases in flood heights or velocities;
2. Requires that land uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;
3. Controls the alteration of natural flood plains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;
4. Controls filling, grading, dredging, and other development that may increase flood damage; and
5. Prevents or regulates the construction of flood barriers that will unnaturally divert flood waters or may increase flood hazards to other areas. (Ord. 110 §1.4, amended, 1984)

17.62.060 Lands to which this Ordinance Applies.

This ordinance shall apply to all areas of special flood hazards identified by Federal Emergency Management Agency (FEMA) or, if elected in Section 17.62.090, Use of Best Available Data, areas identified and documented flood risk supported using Best Available Data within the Jurisdiction of Lindon City. (Ord. 110 §3.1, amended, 1984)

17.62.070 Annexation.

When the community annexes any land from a neighboring jurisdiction, Lindon City will manage and regulate the annexed land under this ordinance.

17.62.080 Basis for Establishing the Areas of Special Flood Hazard.

The areas of special flood hazard identified by the Federal Emergency Management Agency (FEMA) in a scientific and engineering report entitled, “Flood Insurance Study for Utah County, Utah and Incorporated Areas”, dated June 19, 2020, with accompanying Flood Insurance Rate Maps and Flood Boundary-Floodway Maps (FIRM and FMFM) and any revisions thereto are hereby automatically adopted by reference and declared to be a part of this ordinance. The Flood Insurance Rate Map and Flood Insurance Study (FIS) are on file at 100 N. State Street, Lindon, Utah. (Ord. 160 §12, amended, 1987)

17.62.090 Use of Best Available Data

The community has elected to adopt Best Available Data, defined in Section 17.62.060, Lands to Which this ordinance applies, to regulate floodplain development in addition to utilizing the effective Flood Insurance Rate Maps (FIRMs), Flood Insurance study (FIS), and/or Flood Boundary and Floodway Map (FBFM). Where Best Available Data contradicts the FIRMs, FIS, and/or the FBFM, the more restrictive data shall be utilized.

17.62.100 Severability

If any section, provision, or portion of this ordinance is adjudged unconstitutional or invalid by a court, the remainder of the ordinance shall not be affected.

17.62.110 Compliance.

No structure or developments including buildings, recreational vehicles, or manufactured homes or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Nothing herein shall prevent the Lindon City Council from taking such lawful action as is necessary to prevent or remedy any violations. (Ord. 110 §3.3, amended, 1984)

17.62.120 Abrogation and greater restrictions.

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (Ord. 110 §3.4, amended, 1984)

17.62.130 Interpretation.

In the interpretation and application of this ordinance, 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. 110 §3.5, amended, 1984)

17.62.140 Warnings and Disclaimer or Liability.

The degree of flood protection required by this ordinance 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 man-made or natural causes.

This ordinance 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 ordinance shall not create liability on the part of the city, or any official or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder. (Ord. 160 §12, amended, 1987)

17.62.150 Establishment of Floodplain Development Permit.

A Floodplain Development Permit shall be required to ensure conformance with the provisions of this ordinance.

Application for a Floodplain Development Permit shall be made on forms furnished by City and may include, but not be limited to:

1. Duplicated plans drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations;
 2. Duplicated plans drawn to scale showing the location, dimensions, and elevation of existing and proposed structures, including the placement of manufactured homes;
 3. Location of the foregoing in relation to SFHAs;
 4. Elevation (in relation to mean sea level), of the lowest floor (including basement and crawlspace) of all new and substantially improved structures, if applicable;
 5. Elevation (in relation to mean sea level), to which any nonresidential structure (if applicable) has been flood-proofed;
 6. A certificate from a registered professional engineer or architect that the nonresidential structure (if applicable) shall meet the flood-proofing criteria of this ordinance and the NFIP Regulations;
 7. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development, if applicable;
 8. At the community's discretion, the community may charge a fee for issuance of Floodplain Development Permits;
 9. Copies of all Floodplain Development Permits and the associated documents shall become property of the community and a permanent record.
- (Ord. 110 §4.1, amended, 1984)

Approval or denial of a Floodplain Development Permit by the Floodplain Administrator shall be based on all of the provisions of this ordinance 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 flood waters 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;

17.62.160 Stop Work Order.

1. Authority. Whenever the floodplain administrator or other community official discovers any work or activity regulated by this ordinance being performed in a manner contrary to the provision of this ordinance, the floodplain administrator is authorized to issue a stop work order.
2. Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.
3. Unlawful continuance. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by local or state law including but not limited to the penalties outlined.

17.62.170 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 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 Class C misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$200.00 in a residential zone and 400.00 in a commercial or industrial zone, for each violation assessed daily, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent Lindon City from taking such other lawful action as is necessary to prevent or remedy any violation.

17.62.180 Designation of the Flood Plain Administrator.

The Planning Director is hereby appointed the Flood Plain Administrator to administer and implement this ordinance and other appropriate sections of the National Flood Insurance Program (NFIP) regulations and 44 CFR pertaining to floodplain management. (Ord. 110 §4.2, amended, 1984)

17.62.190 Duties and Responsibilities of the Floodplain Administrator.

Duties and responsibilities of the Floodplain Administrator shall include, but not be limited to, the following: (Ord. 110 §4.3, amended, 1984)

1. Uphold the goals of the community and the National Flood Insurance Program (NFIP) to reduce risk when possible and increase the community's resistance to future disasters.
2. Review, approve, or deny all applications for Floodplain Development Permits required by adoption of this ordinance.
3. Review all Flood Plain Development permits to determine that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required.
4. Assure that the flood carry capacity with the altered or relocated portion of any watercourse is maintained.
5. Maintain and hold open for public inspection all records pertaining to the provisions of this ordinance, including the actual elevation of the lowest floor (including basement or crawlspace) of all new or substantially improved structures and any floodproofing certificates, including the data supporting such certificates.
6. Maintain and hold open for public inspection maps that identify and locate the boundaries of the Special Flood Hazard Area's (SFHAs) to which this ordinance applies, including, but not limited to, the Flood Insurance Rate Map (FIRM).
7. Review development proposals to determine whether a proposed building site, including sites designed for the placement of manufactured homes, will be reasonably safe from flooding.
8. Ensure 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 the Endangered Species Act of 1973) from which prior approval is required.
9. 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.
10. When Base Flood Elevation (BFE) data has not been provided by Federal Emergency Management Agency (FEMA), the Floodplain Administrator shall obtain, review, and reasonably utilize any BFE data and floodway data available from a federal, state, or other source including data provided by the applicant, in order to administer the provisions of this ordinance.
11. When a regulatory floodway has not been designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30, AE, and AH 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 0.50 foot at any point within the community unless the community has adopted higher standard options.

12. Under the provisions of 44 CFR Chapter 1, Section 65.12 of the NFIP Regulations, a community may approve certain development in Zones A1-30, AE, and AH on the community's FIRM, which increases the water surface elevation of the base flood by more than 0.50 foot, provided that the community first meets the requirements of Section 65.12 for a conditional FIRM revision through FEMA's Conditional Letter of Map Revision process.
13. **Zone A Areas:** When a regulatory floodway has not been designated and if the project is determined or reasonably believed to cause an adverse impact, the Floodplain Administrator may require new construction, substantial improvements, or other development (including fill, grading or excavation) permitted in a Zone A to have an encroachment analysis done prior to issuance of a Floodplain Development Permit. The encroachment analysis shall create a baseline of existing conditions model and compare it to the proposed conditions model to determine the potential impact of the project. Based on the findings, the floodplain administrator may require as a condition of the permit a Conditional Letter of Map Revision (CLOMR) to be submitted and approved prior to any work occurring and/or that a Letter of Map Revision (LOMR) be submitted to FEMA within 6 months of completion of the development.
14. May inspect development at appropriate times during the period of construction to ensure compliance with all provisions of this ordinance, including proper elevation of structures.
15. In addition to utilizing the effective Flood Insurance Rate Maps (FIRMs), Flood Insurance Study (FIS), Flood Boundary and Floodway Map (FBFM), permit reviews may utilize Best Available Data. See section 17.62.090.
16. If the project is determined or reasonably believed to cause an adverse effect on the BFE(s), boundaries of the floodplain or any insurable structures, technical justification for the proposed development shall be submitted and the community may require a CLOMR or LOMR to be submitted prior to the permit approval or as a requirement of the permit.
17. Fill placed within the Special Flood Hazard Area (SFHA) should not result in any net loss of natural floodplain storage or increase in water surface elevations during the base flood. The City may require that the volume of the loss of floodwater storage due to filling in the SFHA be offset by providing an equal volume of flood storage by excavation or other compensatory measures at or adjacent to the development site.

17.62.200 Requirement to Submit New Technical Data.

1. The property owner or developer shall notify Federal Emergency Management Agency (FEMA) by submittal of a Letter of Map Revision (LOMR) within 6 months of project completion when an applicant had obtained a Conditional Letter of Map Revision (CLOMR) from FEMA or when development altered a watercourse, modified floodplain boundaries, or modified Base Flood Elevation (BFE).
2. The property owner or developer shall be responsible for preparing technical data to support the CLOMR or LOMR application and paying any processing or application fees to FEMA. The property owner or developer is responsible for submitting the CLOMR

and LOMR to FEMA and shall provide all necessary data to FEMA if requested during the review process to ensure the CLOMR or LOMR is issued.

3. The Floodplain Administrator shall be under no obligation to sign the Community Acknowledgement Form, which is part of the CLOMR/LOMR application, until the applicant demonstrates that the project will or has met the requirements of this ordinance and all applicable state federal, and local laws.

17.62.210 Use of Elevation Certificates.

Lindon City may require that the following Elevations Certificates be completed for any new residential or non-residential building construction within the Special Flood Hazard Area (SFHA):

1. Proposed Conditions: A proposed conditions Elevation Certificate is required to be completed by a professional and licensed engineer, surveyor, or architect as part of the Floodplain Permit package;
2. Building Under Construction: a building under construction Elevation Certificate is required to be completed by a professional and licensed engineer, surveyor, or architect after foundation has been poured; and
3. Finished Construction: a finished construction Elevation Certificate is required to be completed by a professional and licensed engineer, surveyor, or architect once the structure is completed, utilities are installed, and grading and landscaping has been completed.

17.62.220 Variance Procedures.

The Lindon City Board of Adjustment, as established by Lindon City, shall hear and render judgment on requests for variances from the requirements of this ordinance after a Floodplain Development Permit has been denied.

1. Any person or persons aggrieved by the decision of the Lindon City Board of Adjustment may appeal such decision in the courts of competent jurisdiction.
2. The Board of Adjustment shall hear and render judgement 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 of administration of this ordinance.
3. The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report variances to Federal Emergency Management Agency (FEMA) and the State Coordinating Agency upon issuing a variance.
4. 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 17.62.220 have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

5. Upon consideration of the factors noted above and the intent of this ordinance, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this ordinance.
6. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
7. 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. The term “substantial improvement” does not include any alteration of a structure or facility listed on the National Register of Historic Places or a State Inventory of Historic Places.

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. 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, conflict with existing local laws or ordinances, considers the need of ingress and egress during times of floods, and does not jeopardize first responders' health and welfare.
2. Any applicant to whom 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 BFE, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
3. 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 17.62.220 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.
4. Variance Procedures for Freeboard and Allowable Increases
 - a. Variances shall not be issued to:
 - i. Reduce the freeboard requirement as described in section 17.62.270 for residential and non-residential structures; or
 - ii. Reduce allowed increase in BFE for floodplain Zones A1-30, AE, and AH as described in section 17.62.190 subsection 12.

17.62.230 Watercourse Alterations.

The Floodplain Administrator shall:

1. Notify adjacent communities and the Utah Division of Water Resources prior to any alteration or relocation of a watercourse requiring a State issued stream alteration permit and submit evidence of such notification to the Federal Emergency Management Agency.
2. Require that maintenance is provided within the altered or relocated portion of such watercourse so that the flood-carrying capacity is not diminished. (Ord. 160 §12, amended, 1987)

17.62.240 General Standards.

In all areas of special flood hazards, the Following provisions are required for all new construction and substantial improvements: (Ord. 110 §5.1, amended, 1984)

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 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
7. On-site waste disposal systems shall be designed or located to avoid impairment to them or contamination from them during flooding.

17.62.250 Substantial Improvement, Substantial Damage, and Determinations within a Special Flood Hazard Area (SFHA).

1. Any combination of repair, reconstruction, rehabilitation, addition, or improvement of a building or structure, if the cumulative cost of the entire project equals or exceeds fifty (50) percent of the market value of the structure only (not of the structure and land value combined) before the improvement or repair is started then the work shall be considered as substantial improvement. If the structure has sustained substantial damage, any repairs are considered substantial improvements regardless of the actual repair work performed. The term does not, however, include either:
 - a. Any project for improvement of a building required to correct existing health, sanitary, or safety code violations identified by the building official and that are the minimum necessary to assure safe living conditions; and
 - b. Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

2. Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed fifty (50) percent of the market value of the structure only, unless a higher standard option is selected, before the damage occurred. This term also applies to structures which have incurred any damage that equals or exceeds fifty (50) percent of the structure's market value regardless of the actual repair work performed. When a structure or building has been determined as substantially damaged, any work or repair on said structure or building will be considered as substantial improvement and will be required to meet the development requirements set forth within this ordinance for substantial improvement.
3. For applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, and any other improvement of or work on such buildings and structures, the Floodplain Administrator, in coordination with the applicable community officials and staff, shall:
 - a. Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure only, not of land and building, before the start of construction of the proposed work. In the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made.
 - b. Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure.
 - c. Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; the determination requires evaluation of previous permits issued for improvements and repairs as specified in this ordinance.
 - d. Utilize Federal Emergency Management Agency (FEMA's) Substantial Improvement/Substantial Desk Reference when making any determination on Substantial Improvement and/or Substantial Damage.
 - e. The substantial improvement regulations apply to all of the work that is proposed as the improvement, even if multiple permits are issued. Therefore, the determination of the cost of the improvement should consider all costs of all phases of the work before issuance of the first permit.
 - f. Notify the applicant that if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood, this ordinance is required.

17.62.260 Standards for Subdivision Proposals.

1. All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with the provisions of this ordinance;
2. 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;

3. All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet Floodplain Development Permit requirements of this ordinance;
4. All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood damage;
5. Base flood elevation data shall be generated for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivisions, which is greater than fifty (50) lots or five acres (whichever is less); and
6. New subdivision development proposals shall be designed, to the maximum extent practicable, so residential buildings sites, walkways, driveways, and roadways are located on land with elevation not less than the BFE and with dry land access.

(Ord. 110 §5.1-4, amended, 1984)

17.62.270 Specific Standards

In all Special Flood Hazard Area's (SFHA's), and if 17.62.090 – Use of Best Available Data has been selected, areas of known or suspected flood risk areas the following provisions are required:

1. Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to the Base Flood Elevation (BFE), unless a freeboard option is noted below. If a freeboard option is noted, new construction and substantial improvement shall have the lowest floor (including basement) elevated to the freeboard elevation. A registered professional engineer, architect, or land surveyor shall submit certified elevations to the Floodplain Administrator that the standards of this ordinance are satisfied.
 - a. Lindon City has elected to adopt a freeboard option for new construction and substantial improvement of any residential structure. The freeboard option requires that lowest floor elevation to be built above the BFE by the height selected. Lindon City has elected a one (1) foot of freeboard meaning the lowest floor must be built one (1) foot above the BFE.
2. Non-residential Construction. New construction and substantial improvements of any commercial, industrial, or other nonresidential structure shall either have the lowest floor (including basement) elevated to the base flood level, unless a freeboard option is noted below, 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 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 that includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator. If the use or occupancy of the building changes in the future to residential, then the dry floodproofing of the structure cannot be used when determining compliance of the structure to the residential construction of this ordinance, Section 17.62.260(1). As

such, the building will not be grandfathered into compliance and will be required to be brought into compliance with the residential construction requirements of this ordinance.

- a. Lindon City has elected to adopt a freeboard option for new construction and substantial improvement of any nonresidential structure. The freeboard option requires that lowest floor elevation to be built above the BFE by the height selected. Lindon City has elected a one (1) foot of freeboard meaning the lowest floor must be built one (1) foot above the BFE.
3. Non-residential Construction Access (Ingress and Egress). New development proposals will be designed, to the maximum extent practicable, so non-residential building sites, walkways, driveway, and roadways are located on land within elevation not less than the BFE and with dry land access.
4. Non-residential Construction Wet Floodproofing. New construction and substantial improvements of any commercial, industrial, or other non-residential structure including but not limited to detached garages, agricultural buildings, and storage buildings may be allowed to be wet floodproof provided that:
 - a. The structure is strictly a nonresidential structure used for building access, parking or storage only;
 - b. The structure is an accessory or appurtenant structure of low value;
 - c. Designed to allow for the automatic entry and exit of flood waters through the use of openings;
 - d. Be constructed of flood resistant materials;
 - e. Be properly anchored to resist flotation, collapse, and lateral movement;
 - f. Mechanical and utility equipment must be elevated or floodproofed to or above the BFE;
 - g. Must comply with the floodway encroachment provisions of the National Flood Insurance Program (NFIP) and this ordinance; and
 - h. Designed and built to adhere to Federal Emergency Management Agency (FEMA) Technical Bulletins 1, 2, and 7.

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 that includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator. If the use or occupancy of the building changes in the future to residential, then the wet floodproofing of the structure cannot be used when determining compliance of the structure to the residential construction of this ordinance, section 17.62.206, As such, the building will not be grandfathered into compliance and will be required to be brought into compliance with the residential construction of this ordinance.

5. Wet Floodproofing Non-conversion Agreement. For any nonresidential construction that has been wet floodproofed, a non-conversion agreement must be completed as part of the permitting process. The non-conversion agreement:
 - a. Acknowledges the risk associated with this building practice;

- b. Acknowledges the use of the area that was wet floodproof will be used solely on nonresidential accessory or appurtenant structure of low value whose usage is only for building access, parking or storage; and
 - c. Allows for community, state and/or federal officials to conduct periodic inspections to ensure compliance.
 - d. This section shall follow Federal Emergency Management Agency Policy # 104-008-03, Floodplain Management Requirements for Agricultural Structures and Accessory Structures or as periodically updated by FEMA. A copy is on file at the Lindon City Community Development Office.
6. Crawlspace. New construction and substantial improvements built on a crawlspace or sub-grade (below grade) crawlspace may be permitted if the development is designed and meets or exceeds the standards found in Federal Emergency Management Agency's (FEMA's) Technical Bulletins 1, 2, and 11, which include but are not limited to the following:
 - a. The structure must be affixed to a permanent foundation, designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Because of hydrodynamic loads, crawlspace construction is not allowed in areas with flood velocities greater than five (5) feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer;
 - b. The crawlspace is an enclosed area below the Base Flood Elevation (BFE) and, as such, must have openings that equalize hydrostatic pressures by allowing the automatic entry and exit of floodwaters. The bottom of each flood vent opening can be no more than one (1) foot above the Lowest Adjacent Grade (LAG);
 - c. The crawlspace enclosure must have proper openings that allow equalization of hydrostatic pressure by allowing automatic entry and exit of floodwaters. To achieve this, a minimum of one (1) square inch of flood opening is required per one (1) square foot of the enclosed area subject to flooding;
 - d. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace used to elevate the building, but also any joists, insulation, piers, or other materials that extend below the BFE. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters;
 - e. Any building utility systems within the crawlspace must be elevated above the BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions;
 - f. The interior grade of a crawlspace below the BFE must not be more than Two (2) feet below the LAG;
 - g. The height of the below-grade crawlspace, measured from the lowest interior grade of the crawlspace floor to the bottom of the floor joist of the next higher floor cannot exceed four (4) feet at any point;
 - h. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event; and

- 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
10. Accessory Structures. Accessory structures located within zones A, A1-A30, AH, AO, or AE must be:
- a. Detached from a residence;
 - b. On the same parcel of property as the principal structure to be insured;
 - c. Incidental to the use of the principal structure;
 - d. Is solely used for parking or limited storage and not human habitation;
 - e. Is low valued, represents a minimal investment, and must be unfinished on the interior;
 - f. As required in the 44 CFR Section 60.3(a)3:
 - i. “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;”
 - ii. “be constructed with materials resistant to flood damage” below the BFE, be designed to allow for the automatic entry of flood waters and meet all applicable building codes;”
 - iii. “be constructed by methods and practices that minimize flood damages;”
 - iv. “be constructed with electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities that are designed and/or located to prevent water from entering or accumulating within the components during conditions of flooding.”.
 - g. Comply with the floodway encroachment “no-rise” provisions of the National Flood Insurance Program (NFIP) regulations;
 - h. Not be used for human habitation including but not limited to working, sleeping, and living;
 - i. Include, in the submittal for Floodplain Development Permit, sufficient documentation demonstrating full compliance with this section, including, but not limited to, the use of flood resistant materials, anchoring, and flood openings.
 - j. This section shall follow Federal Emergency Management Agency Policy # 104-008-03, Floodplain Management Requirements for Agricultural Structures and Accessory Structures or as periodically updated by FEMA. A copy is on file at the Lindon City Community Development Office.

17.62.280 Standards for Areas of Shallow Flooding (AO/AH Zones).

Located within the areas of special flood hazard are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and 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. Require within Zone AO that all new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as

2. high as the depth number specified in feet on the community's Flood Insurance Rate Map (FIRM) (at least two feet if no depth number is specified).
3. Require within Zone AO that all new construction and substantial improvements of non-residential structures;
 - a. have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or;
 - b. 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 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 and Section 17.62.200 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.

SECTION II: The provisions of this ordinance and the provisions adopted or incorporated by reference are severable. If any provision of this ordinance is found to be invalid, unlawful, or unconstitutional by a court of competent jurisdiction, the balance of the ordinance shall nevertheless be unaffected and continue in full force and effect.

SECTION III: Provisions of other ordinances in conflict with this ordinance and the provisions adopted or incorporated by reference are hereby repealed or amended as provided herein.

SECTION IV: This ordinance shall take effect immediately upon its passage and posting as provide by law.

PASSED and ADOPTED and made EFFECTIVE by the City Council of Lindon City, Utah, this 4 day of May, 2020.



Jeff Acerson, Mayor

ATTEST:



Kathryn A. Moosman,

Lindon City Recorder

