ORDINANCE 2009-28

AN ORDINANCE AMENDING CHAPTER 13, CONSTRUCTION SUBJECT TO GEOLOGIC, FLOOD, OR OTHER NATURAL HAZARD, OF THE TOOELE COUNTY LAND USE ORDINANCE, ADOPTING A FLOOD DAMAGE PREVENTION ORDINANCE (TEMPORARY)

NOW, THEREFORE, BE IT ORDAINED BY THE LEGISLATIVE BODY OF TOOELE COUNTY, UTAH AS FOLLOWS:

SECTION I - PURPOSE. The Board of County Commissioners has been delegated by the Legislature of the State of Utah the responsibility of adopting a Flood Damage Prevention Ordinance to minimize flood losses and promote the public health, safety, and general welfare of County citizens. Due to an upcoming and immediate deadline for adoption of this ordinance and pursuant to Utah State Code 17-27a-504, this amendment is temporary pending the upcoming public hearings before the Erda, Pine Canyon, and Tooele County Planning Commissions and their recommendations regarding passage of this ordinance. The ordinance will then come back before the County Commission where a decision to make the ordinance permanent may be made.

SECTION II - CHAPTER AMENDED. Chapter 13, Construction Subject to Geologic, Flood, or Other Natural Hazard, of the Tooele County Land Use Ordinance is hereby amended to read as attached hereto, which attachment is, by this reference, made a part hereof. (Temporary)

SECTION III - REPEALER. Ordinances and resolutions in conflict herewith are hereby repealed to the extent of such conflict.

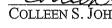
SECTION IV - EFFECTIVE DATE. In the opinion of the County Commission, this ordinance is necessary for the immediate preservation of the peace, health, and safety of the county and the county's inhabitants. Therefore, this ordinance shall be in full force and effect from and after its passage and approval.

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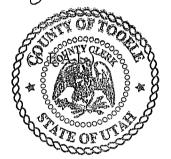
IN WITNESS WHEREOF the Tooele County Commission, which is the legislative body of Tooele County, passed, approved and enacted this ordinance this 27th day of October 2009.

ATTEST:

TOOELE COUNTY COMMISSION:



COLLEEN S. JOHNSON, Chairman



APPROVED AS TO FORM:

Doug Hogan Tooele County Attorney

Commissioner Johnson voted Commissioner Clegg voted Commissioner Hurst voted

CERTIFICATION

It is hereby found and declared by Tooele County that severe flooding has occurred in the past within its jurisdiction and will certainly occur within the future; that flooding is likely to result in infliction of serious personal injury or death, and is likely to result in substantial injury or destruction of property within its jurisdiction; in order to effectively comply with minimum standards for coverage under the National Flood Insurance Program; and in order to effectively remedy the situation described herein, it is necessary that this ordinance become effective immediately.

Therefore, this ordinance, being necessary for the immediate preservation of the public peace, health, and safety, shall be in full force and effect from and after its passage and approval.

APPROVED:

Colleen S. Johnson, Commission Chairman

ctober 27, 2009

PASSED:

I, Marilyn K. Gillette, Tooele County Clerk, do hereby certify that the above is a true and correct copy of an ordinance duly adopted by Tooele County, at a regular meeting duly convened on

Marilyn K. Gillette, Clerk

CHAPTER 13

CONSTRUCTION SUBJECT TO GEOLOGIC, FLOOD, OR OTHER NATURAL HAZARD

Part

13-1. Requirements.

13-2. Flood Damage Prevention Ordinance.

PART 13-1

REQUIREMENTS

- 1. When the Planning Commission or the Director of the Department of Engineering deems it necessary, any application for a conditional use permit, building permit, subdivision or planned unit development approval, shall be accompanied by a geologic and soils survey, and/or hydrological report for the land, lot or parcel for which application approval is sought. The report shall be prepared at applicant's expense by a geologist or soils engineer and shall show the suitability of soils on the property to accommodate the proposed construction, and any discernible flood or earthquake hazards.
- 2. Whenever a geologic and soils survey and/or hydrological report indicates a parcel to be subject to unusual potential or actual hazards, the applicant shall meet the special conditions required by the Planning Commission or Director of the Department of Engineering, to reduce or eliminate such hazard, or if such conditions cannot be met, or will not be met, the application shall be denied.

PART 13-2

FLOOD DAMAGE PREVENTION ORDINANCE

ARTICLE I

STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

SECTION A. STATUTORY AUTHORIZATION

The Legislature of the State of Utah delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses. Therefore, the Board of County Commissioners of Tooele County, Utah, does ordain as follows:

SECTION B. FINDINGS OF FACT

- 1. The flood hazard areas of Tooele County 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.
- 2. These flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, floodproofed, or otherwise protected from flood damage.

SECTION C. STATEMENT OF PURPOSE

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

- 1. Protect human life and health;
- 2. Minimize expenditure of public money for costly flood control projects;
- 3. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- 4. Minimize prolonged business interruptions;
- Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in floodplains;
- 6. Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and
- 7. Insure that potential buyers are notified that property is in a flood area.

In order to accomplish its purposes, this ordinance uses the following methods:

- Restrict or prohibit uses that are dangerous to health, safety, or property in times of flood, or cause excessive increases in flood heights or velocities:
- 2. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction:
- 3. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;
- Control filling, grading, dredging, and other development which may increase flood damage;
- Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

ARTICLE II

DEFINITIONS

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

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

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

AREA OF SHALLOW FLOODING - means a designated AO, AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a one percent

chance or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL FLOOD HAZARD - is the land in the floodplain within a community subject to a one percent 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 FIRM, Zone A usually is refined into Zones A, AE, AH, AO, A1-99, VO, V1-30, VE, or V.

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

BASEMENT - means any area of the building having its floor sub-grade (below ground level) on all sides.

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 man-made change in 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 a non-basement building (i) built, in the case of a building in Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, to have the top of the elevated floor, or in the case of a building in Zones V1-30, VE, or V, to have the bottom of the lowest horizontal structure member of the elevated floor elevated above the ground level by means of pilings, columns (posts and piers), or shear walls parallel to the floor of the water and (ii) 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 Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, "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. In the case of Zones V1-30, VE, or V, "elevated building" also includes a building otherwise meeting the definition of "elevated building," even though the lower area is enclosed by means of breakaway walls if the breakaway walls met the standards of Section 60.3(e)(5) of the National Flood Insurance Program regulations.

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

EXISTINGMANUFACTURED 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.

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.

FLOOD INSURANCE STUDY - 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.

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, including but not limited to emergency preparedness

plans, flood control works, and floodplain management regulations.

FLOODPLAIN MANAGEMENT REGULATIONS

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

FLOOD 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 areas 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.

FLOOD PROOFING - means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

FLOODWAY (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.

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.

HIGHEST ADJACENT GRADE - 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:

- 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;
- 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 Interior; or
- 4. Individually listed on a local inventory or historic places in communities with historic preservation programs that have been certified either:
 - a) by an approved state program as determined by the Secretary of the Interior;
 or
 - b) directly by the Secretary of the Interior in states without approved programs.

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

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

LOWEST FLOOR - means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirement of Section 60.3 of the National Flood insurance Program regulations.

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

MANUFACTURED HOME PARK OR SUBDIVISION - means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

MEAN SEA LEVEL - means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

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

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

RECREATIONAL VEHICLE - means a vehicle which is:

- 1. built on a single chassis;
- 2. 400 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.

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 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 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 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."

VARIANCE - is a grant of relief to a person from the requirement of this ordinance when specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner otherwise prohibited by this ordinance. (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 Section 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 National Geodetic Vertical Datum (NGVD) of 1929 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

ARTICLE III

GENERAL PROVISIONS

SECTION A. <u>LANDS TO WHICH THIS</u> ORDINANCE APPLIES

The ordinance shall apply to all areas of special flood hazard within the jurisdiction of unincorporated Tooele County.

SECTION B. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "The Flood Insurance Study for Tooele County," dated November 18, 2009, with accompanying Flood Insurance Rate Maps and Flood Boundary-Floodway Maps (FIRM and FBFM) and any revisions thereto are hereby adopted by reference and declared to be a part of this ordinance and automatically adopts any revisions thereto. Tooele County also automatically adopts effective flood insurance studies and automatically adopts effective flood insurance rate maps.

SECTION C. <u>ESTABLISHMENT</u> OF DEVELOPMENT PERMIT

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

SECTION D. COMPLIANCE

No structure or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this ordinance and other applicable regulations.

SECTION E. <u>ABROGATION AND GREATER</u> 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.

SECTION F. 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.

SECTION G. WARNING AND DISCLAIMER OF 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 community or any official or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

ARTICLE IV

ADMINISTRATION

SECTION A. <u>DESIGNATION OF THE</u> FLOODPLAIN ADMINISTRATOR

The Tooele County Engineer is hereby appointed the Floodplain Administrator to administer and implement the provisions of this ordinance and other appropriate sections of 44 CFR (National Flood Insurance Program Regulations) pertaining to floodplain management.

SECTION B. <u>DUTIES & RESPONSIBILITIES OF</u> 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 ordinance.
- 2. Review permit application to determine whether proposed building site, including the placement of manufactured homes, will be reasonably safe from flooding.
- 3. Review, approve, or deny all applications for development permits required by adoption of this ordinance.
- 4. Review permits for proposed development to assure that all necessary permits have been obtained from those Federal, State, or local governmental agencies (including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334) from which prior approval is required.
- 5. Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), the Floodplain Administrator shall make the necessary interpretation.
- 6. Notify, in riverine situations, adjacent communities and the State Coordinating Agency which is the Utah National Flood Insurance Program Coordinator, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

- 7. Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.
- 8. When base flood elevation data has not been provided in accordance with Article 3, Section B, the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation data and floodway data available from a Federal, State, or other source in order to administer the provisions of Article 5.
- 9. When a regulatory floodway has not been designated, the Floodplain Administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.
- 10. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program regulations, a community may approve certain development in Zones A1-30, AE, AH, on the community's FIRM which increases the water surface elevation of the base flood by more than one foot, provided that the community first applies for a conditional FIRM revision through FEMA (Conditional Letter of Map Revision).

SECTION C. PERMIT PROCEDURES

Application for a Development Permit shall be presented to the Floodplain Administrator on forms furnished by him/her and may include, but not be limited to, plans in duplicate drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information is required:

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

- 2. Elevation in relation to mean sea level to which any nonresidential structure shall be floodproofed;
- 3. A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of Article 5, Section B(2);
- 4. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.
- 5. Maintain a record of all such information in accordance with Article 4, Section (B)(1).

Approval or denial of a 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.

SECTION D. VARIANCE PROCEDURES

- 1. The Appeal Board as established by the community shall hear and render judgment on requests for variances from the requirements of this ordinance.
- 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 ordinance.
- 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.
- 5. 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 ordinance.
- 6. Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in Section C(2) of this Article have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
- 7. Upon consideration of the factors noted above and the intent of this ordinance, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this ordinance (Article 1, Section C).

- 8. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- 9. 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.
- 10. Prerequisites for granting variances:
 - a) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 - b) Variances shall only be issued upon:
 - 1) showing a good and sufficient cause;
 - 2) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and
 - 3) 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.
 - c) 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 base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
- 11. 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 Article 4, Section D(1)-(9) 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.

ARTICLE V

PROVISIONS FOR FLOOD HAZARD REDUCTION

SECTION A. 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 flood waters into the system;
- 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 located to avoid impairment to them or contamination from them during flooding.

SECTION B. SPECIFIC STANDARDS

In all areas of special flood hazards where base flood elevation data has been provided as set forth in (i) Article 3, Section B, (ii) Article 4, Section B(8), or (iii) Article 5, Section C(3), 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 at least one foot above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the Floodplain Administrator that the standard of this subsection as proposed in Article 4, Section C(1), is satisfied.
- 2. Nonresidential Construction - new construction and substantial improvements of any commercial, industrial, or other nonresidential structure shall either have the lowest floor (including basement) elevated to at least one foot or above the base flood level 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 which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator.
- 3. Enclosures new construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access, or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a

registered professional engineer or architect or meet or exceed the following minimum criteria:

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

4. Manufactured Homes -

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

- existing manufactured home park or subdivision with Zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of paragraph (4) of this section be elevated so that either:
- 1) the lowest floor of the manufactured home is at or above the base flood elevation; or
- 2) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- 5. 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.
 - b) be fully licensed and ready for highway use,
 - c) meet the permit requirements of Article 4, Section C(1), and the elevation and anchoring requirements for "manufactured homes" in paragraph (4) of this section. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

SECTION C. <u>STANDARDS FOR SUBDIVISION</u> PROPOSALS

- 1. All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with Article 1, Sections B, C, and D of this ordinance.
- 2. All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet Development Permit requirements of Article 3, Section C; Article 4, Section C; and the provisions of Article 5 of this ordinance.

- 3. Base flood elevation data shall be generated for subdivision proposals and other proposed developments including the placement of manufactured home parks and subdivisions which are greater than 50 lots or 5 acres, whichever is lesser, if not otherwise provided pursuant to Article 3, Section B or Article 4, Section B (8) 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 hazards.
- 5. 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.

SECTION D. <u>STANDARDS FOR AREAS OF</u> SHALLOW FLOODING (AO/AH ZONES)

Located within the areas of special flood hazard established in Article 3, Section B, are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of one to three 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. All new construction and substantial improvements of **residential** structures 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).
- 2. 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;
 - 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, as proposed in Article 4, Section C (1), are satisfied.
- Require within Zones AH or AO adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

SECTION E. FLOODWAYS

Located within areas of special flood hazard established in Article 3, Section B, are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions shall apply:

- 1. Encroachments are prohibited, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
- 2. If Article 5, Section E (1) above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article 5.
- 3. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Regulations, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision through FEMA.

SECTION F. <u>PENALTIES FOR</u> 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 ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$1,000 or imprisoned for not more than three days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent Tooele County from taking such other lawful action as is necessary to prevent or remedy any violation.

CHAPTER 13

CONSTRUCTION SUBJECT TO GEOLOGIC, FLOOD, OR OTHER NATURAL HAZARD

Part

- 13-1. Requirements.
- 13-2. Flood Damage Prevention Ordinance.

 Artificial Obstructions Within a Floodway
 Prohibited
- 13-3. Permissible Uses Within Floodways.
- 13-4. Construction Within Floodways and Floodplains Restricted.
- 13-5. Setbacks From Streams Outside Designated Floodplains.
- 13-6. Natural Drainage System Utilized to Extent Feasible:

PART 13-1

REQUIREMENTS

- (1) When the Planning Commission or the Director of the Department of Engineering deems it necessary, any application for a conditional use permit, building permit, subdivision or planned unit development approval, shall be accompanied by a geologic and soils survey, and/or hydrological report for the land, lot or parcel for which application approval is sought. The report shall be prepared at applicant's expense by a geologist or soils engineer and shall show the suitability of soils on the property to accommodate the proposed construction, and any discernible flood or earthquake hazards.
- (2) Whenever a geologic and soils survey and/or hydrological report indicates a parcel to be subject to unusual potential or actual hazards, the applicant shall meet the special conditions required by the Planning Commission or Director of the Department of Engineering, to reduce or eliminate such hazard, or if such conditions cannot be met, or will not be met, the application shall be denied.

PART 13-2

FLOOD DAMAGE PREVENTION ORDINANCE

ARTICLE I

STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

SECTION A. STATUTORY AUTHORIZATION

The Legislature of the State of Utah delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses. Therefore, the Board of County Commissioners of Tooele County, Utah, does ordain as follows:

SECTION B. FINDINGS OF FACT

- (1) The flood hazard areas of Tooele County 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.
- (2) These flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, floodproofed, or otherwise protected from flood damage.

SECTION C. STATEMENT OF PURPOSE

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

- 1. Protect human life and health;
- 2. <u>Minimize expenditure of public money for costly flood control projects;</u>

- 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; and
- 7. Insure that potential buyers are notified that property is in a flood area.

$\frac{\textbf{SECTION D. METHODS OF REDUCING FLOOD}}{\textbf{LOSSES}}$

In order to accomplish its purposes, this ordinance 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:
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- 3. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;
- 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 flood waters or which may increase flood hazards to other lands.

ARTICLE II

DEFINITIONS

<u>Unless</u> specifically defined below, words or phrases used in this ordinance shall be interpreted to give them

the meaning they have in common usage and to give this ordinance its most reasonable application.

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

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

AREA OF SHALLOW FLOODING - means a designated AO, AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a one percent chance or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL FLOOD HAZARD - is the land in the floodplain within a community subject to a one percent 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 FIRM, Zone A usually is refined into Zones A, AE, AH, AO, A1-99, VO, V1-30, VE, or V.

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

BASEMENT - means any area of the building having its floor sub-grade (below ground level) on all sides.

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 man-made change in 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 a non-basement building (i) built, in the case of a building in Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, to have the top of the elevated floor, or in the case of a building in

Zones V1-30, VE, or V, to have the bottom of the lowest horizontal structure member of the elevated floor elevated above the ground level by means of pilings, columns (posts and piers), or shear walls parallel to the floor of the water and (ii) 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 Zones A1-30, AE, A, A99, AO, AH, B, C, X, and D, "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. In the case of Zones V1-30, VE, or V, "elevated building" also includes a building otherwise meeting the definition of "elevated building," even though the lower area is enclosed by means of breakaway walls if the breakaway walls met the standards of Section 60.3(e)(5) of the National Flood Insurance Program regulations.

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

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

EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION- means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FLOOD OR FLOODING - means a general and temporary condition of partial or complete inundation of normally dry land areas from:

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

FLOOD 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.

FLOOD INSURANCE STUDY - 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.

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, including but not limited to emergency preparedness plans, flood control works, and floodplain management regulations.

FLOODPLAIN MANAGEMENT REGULATIONS

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

PLOOD 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 areas 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.

FLOOD PROOFING - means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

FLOODWAY (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.

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.

HIGHEST ADJACENT GRADE - means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

<u>HISTORIC STRUCTURE</u> - 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 Interior; or
- 4. Individually listed on a local inventory or historic places in communities with historic preservation programs that have been certified either:
 - <u>a)</u> by an approved state program as determined by the Secretary of the Interior; or
 - b) <u>directly by the Secretary of the Interior in states without approved programs.</u>

LEVEE - means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain,

control, or divert the flow of water so as to provide protection from temporary flooding.

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

LOWEST FLOOR - means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirement of Section 60.3 of the National Flood insurance Program regulations.

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

MANUFACTURED HOME PARK OR SUBDIVISION - means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

MEAN SEA LEVEL - means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

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

NEW MANUFACTURED HOME PARK OR SUBDIVISION - means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are

to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

RECREATIONAL VEHICLE - means a vehicle which is:

- 1. built on a single chassis;
- 2. 400 square feet or less when measured at the largest horizontal projections:
- 3. <u>designed to be self-propelled or permanently</u> towable by a light duty truck; and
- 4. <u>designed primarily not for use as a permanent</u> dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

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 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 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 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."

VARIANCE - is a grant of relief to a person from the requirement of this ordinance when specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner otherwise prohibited by this ordinance. (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 Section 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 National Geodetic Vertical Datum (NGVD) of 1929 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

ARTICLE III

GENERAL PROVISIONS

SECTION A. LANDS TO WHICH THIS ORDINANCE APPLIES

The ordinance shall apply to all areas of special flood hazard within the jurisdiction of unincorporated Tooele County.

SECTION B. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "The Flood Insurance Study for Tooele County," dated November 18, 2009, with accompanying Flood Insurance Rate Maps and Flood Boundary-Floodway Maps (FIRM and FBFM) and any revisions thereto are hereby adopted by reference and declared to be a part of this ordinance and automatically adopts any revisions thereto. Tooele County also automatically adopts effective flood insurance studies and automatically adopts effective flood insurance rate maps.

SECTION C. ESTABLISHMENT OF DEVELOPMENT PERMIT

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

SECTION D. COMPLIANCE

No structure or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this ordinance and other applicable regulations.

$\frac{\textbf{SECTION E. ABROGATION AND GREATER}}{\textbf{RESTRICTIONS}}$

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.

SECTION F. INTERPRETATION

In the interpretation and application of this ordinance, all provisions shall be:

- 1. considered as minimum requirements;
- 2. <u>liberally construed in favor of the governing body; and</u>

<u>3.</u> <u>deemed neither to limit nor repeal any other</u> powers granted under State statutes.

SECTION G. WARNING AND DISCLAIMER OF 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 community or any official or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

ARTICLE IV

ADMINISTRATION

SECTION A. DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR

The Tooele County Engineer is hereby appointed the Floodplain Administrator to administer and implement the provisions of this ordinance and other appropriate sections of 44 CFR (National Flood Insurance Program Regulations) pertaining to floodplain management.

SECTION B. DUTIES & RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

<u>Duties and responsibilities of the Floodplain</u> <u>Administrator shall include, but not be limited to, the following:</u>

- 1. Maintain and hold open for public inspection all records pertaining to the provisions of this ordinance.
- 2. Review permit application to determine whether proposed building site, including the placement of manufactured homes, will be reasonably safe from flooding.
- 3. Review, approve, or deny all applications for development permits required by adoption of this ordinance.
- 4. Review permits for proposed development to assure that all necessary permits have been

- obtained from those Federal, State, or local governmental agencies (including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334) from which prior approval is required.
- 5. Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), the Floodplain Administrator shall make the necessary interpretation.
- 6. Notify, in riverine situations, adjacent communities and the State Coordinating Agency which is the Utah National Flood Insurance Program Coordinator, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
- 7. Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.
- 8. When base flood elevation data has not been provided in accordance with Article 3. Section B, the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation data and floodway data available from a Federal, State, or other source in order to administer the provisions of Article 5.
- 9. When a regulatory floodway has not been designated the Floodplain Administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.
- 10. Under the provisions of 44 CFR Chapter 1,
 Section 65.12, of the National Flood Insurance
 Program regulations, a community may
 approve certain development in Zones A1-30,
 AE, AH, on the community's FIRM which
 increases the water surface elevation of the
 base flood by more than one foot, provided

that the community **first** applies for a conditional FIRM revision through FEMA (Conditional Letter of Map Revision).

SECTION C. PERMIT PROCEDURES

Application for a Development Permit shall be presented to the Floodplain Administrator on forms furnished by him/her and may include, but not be limited to, plans in duplicate drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information is required:

- 1. Elevation (in relation to mean sea level)
 of the lowest floor (including basement)
 of all new and substantially improved
 structures;
- Elevation in relation to mean sea level to which any nonresidential structure shall be floodproofed:
- 3. A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of Article 5, Section B(2);
- 4. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.
- 5. Maintain a record of all such information in accordance with Article 4, Section (B)(1).

Approval or denial of a 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:
- 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.

SECTION D. VARIANCE PROCEDURES

- 1. The Appeal Board as established by the community shall hear and render judgment on requests for variances from the requirements of this ordinance.
- 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 ordinance.
- 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.
- 5. 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 ordinance.
- 6. Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in Section C(2) of this Article have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
- 7. Upon consideration of the factors noted above and the intent of this ordinance, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this ordinance (Article 1, Section C).
- 8. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- 9. 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.

10. Prerequisites for granting variances:

- <u>a)</u> Variances shall only be issued upon
 <u>a</u> determination that the variance is
 <u>the minimum necessary, considering</u>
 <u>the flood hazard, to afford relief.</u>
- b) Variances shall only be issued upon:

- 1) showing a good and sufficient cause:
- a determination that failure to grant the variance would result in exceptional hardship to the applicant, and
- 3) 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.
- c) 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 base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
- 11. 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 Article 4, Section D(1)-(9) 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.

ARTICLE V

PROVISIONS FOR FLOOD HAZARD REDUCTION

SECTION A. 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 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 located to avoid impairment to them or contamination from them during flooding.

SECTION B. SPECIFIC STANDARDS

In all areas of special flood hazards where base flood elevation data has been provided as set forth in (i) Article 3, Section B, (ii) Article 4, Section B(8), or (iii) Article 5, Section C(3), 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 at least one foot above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the Floodplain Administrator that the standard of

- this subsection as proposed in Article 4, Section C(1), is satisfied.
- 2. Nonresidential Construction new construction and substantial improvements of any commercial, industrial, or other nonresidential structure shall either have the lowest floor (including basement) elevated to at least one foot or above the base flood level 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 which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator.
- 3. Enclosures new construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access, or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
 - a) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
 - b) The bottom of all openings shall be no higher than one foot above grade.
 - c) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

4. Manufactured Homes -

- a) Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.
- b) Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites (i) outside of a manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- c) Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision with Zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of paragraph (4) of this section be elevated so that either:
 - the lowest floor of the manufactured home is at or above the base flood elevation; or
 - 2) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less

- than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- 5. 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.
- b) be fully licensed and ready for highway use, or
- c) meet the permit requirements of Article 4,
 Section C(1), and the elevation and
 anchoring requirements for
 "manufactured homes" in paragraph (4)
 of this section. A recreational vehicle is
 ready for highway use if it is on its wheels
 or jacking system, is attached to the site
 only by quick disconnect type utilities
 and security devices, and has no
 permanently attached additions.

SECTION C. STANDARDS FOR SUBDIVISION PROPOSALS

- 1. All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with Article 1.

 Sections B, C, and D of this ordinance.
- 2. All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet Development Permit requirements of Article 3, Section C; Article 4, Section C; and the provisions of Article 5 of this ordinance.
- 3. Base flood elevation data shall be generated for subdivision proposals and other proposed developments including the placement of manufactured home parks and subdivisions which are greater than 50 lots or 5 acres, whichever is lesser, if not otherwise provided pursuant to Article 3, Section B or Article 4, Section B (8) 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 hazards.
- 5. 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.

SECTION D. STANDARDS FOR AREAS OF SHALLOW FLOODING (AO/AH ZONES)

Located within the areas of special flood hazard established in Article 3, Section B, are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of one to three 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. All new construction and substantial improvements of residential structures 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).
- 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, as proposed in Article 4, Section C (1), 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 E. FLOODWAYS

Located within areas of special flood hazard established in Article 3, Section B, are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions shall apply:

- 1. Encroachments are prohibited, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
- 2. If Article 5, Section E (1) above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article 5.
- 3. Under the provisions of 44 CFR Chapter 1, Section 65.12. of the National Flood Insurance Regulations, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision through FEMA.

SECTION F. 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 ordinance or fails to comply with any of

its requirements shall upon conviction thereof be fined not more than \$1,000 or imprisoned for not more than three days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent Tooele County from taking such other lawful action as is necessary to prevent or remedy any violation.

ARTIFICIAL OBSTRUCTIONS WITHIN A PLOODWAY PROHIBITED

No artificial obstruction shall be located within any floodway, except as provided in Section 13 - 3. For the purpose of this Chapter, an artificial obstruction is any obstruction, other than a natural obstruction, that is capable of reducing the water carrying capacity of a stream. A natural obstruction includes any rock, tree, gravel, or analogous natural matter that is an obstruction and has been located within the floodway by a nonhuman cause.

PART 13-3

PERMISSIBLE USES WITHIN FLOODWAYS

- No permit to make use of land within a floodway may be issued unless the proposed use is listed as permissible both in the zoning district regulations and in the following list:
- (1) General farming, pasture, outdoor plant nurseries, horticulture, forestry, wildlife sanctuary, game farm, and other similar agricultural, wildlife, and related uses.
- (2) Ground-level loading areas, parking areas, rotary aircraft ports, and other similar ground-level area uses.
- (3) Lawns, gardens, play areas, and other similar uses.
- (4) Golf courses, tennis courts, driving ranges; archery ranges, picnic grounds, parks, hiking or horseback riding trails, open space, and other similar private and public recreational uses.

PART 13-4

CONSTRUCTION WITHIN FLOODWAYS AND FLOODPLAINS RESTRICTED

- (1) No subdivision, planned unit development, building permit or conditional use permit shall be issued for any development within a floodplain until the permit-issuing authority has reviewed the plans for any such development to assure that:
- (a) The proposed development is consistent with the need to minimize flood damage, and
 - (b) The area has had an evaluation by the U.
 S. Army Corp of Engineers to determine a
 classification as a wetlands, and
- (c) All public utilities and facilities such as water, sewer, gas electrical, and water systems are located and constructed to minimize or eliminate flood damage, and
- (d) Adequate drainage is provided to minimize or reduce exposure to flood hazards, and
- (e) All necessary permits have been received from those agencies from which approval is required by federal and state law.
- (f) A geological survey establishes fifty (50) and one hundred (100) year flood levels,
- (2) No building shall be constructed and no addition to an existing building shall take place within any floodway. Mobile home parks that are nonconforming because they are located within a floodway, shall be allowed to place mobile homes in such parks only if they comply with Section 13 4(g).
- (3) No new residential building shall be constructed and no substantial improvement of a residential building may take place within any floodplain unless the lowest floor (including basement) of the building or improvement is elevated to, or above the base flood level.
- (a) Residential accessory structures shall be allowed within floodplains provided that they are firmly anchored to prevent flotation.
 - (b) Anchoring of any accessory buildings shall be done by bolting the building to a concrete slab or by over-the-top ties. When bolting to a concrete slab, one-half inch bolts, six (6) feet on center with a minimum of two per side shall be required. If over-the-top ties are used, a minimum of two ties with a force adequate to secure the building is required.
- (4) No new residential building shall be constructed and no substantial improvements of a nonresidential building shall take place within any floodplain unless the lowest floor (including basement) of the building or improvement is elevated or flood proof to, or above the base flood level. Where flood proofing is used in lieu of elevation, a registered professional engineer or architect shall certify that any new construction or substantial improvement has been designed to withstand the

- flood depths, pressure, velocities, impact, and uplift forces associated with the base flood at the location of the building and that the walls below the base flood level are substantially impermeable to the passage of water:
- (5) For purposes of this section, "substantial improvement" means for a building constructed prior to the effective date of this chapter, any repair, reconstruction, addition, or improvement of a building the cost of which equals or exceeds fifty (50) percent of the market value of the structure either:
 - (a) before the improvement or repair is started, or
- (b) if the structure has been damaged and is being restored, before the damage occurred.
- "Substantial improvement" occurs when the first alteration on any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. The term shall not, however, include either:
 - (a) any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications that are solely necessary to insure safe living conditions, or
 - (b) any alteration of a building listed on the National Register of Historic Places or a State Inventory of Historic Places.
- (6) No building permit or conditional use permit shall be issued for any development within a floodplain until the permit-issuing authority has reviewed the plans to assure that any new construction or substantial improvements shall be:
- (a) Designed (or modified) and adequately anchored to prevent flotation collapse, or lateral movement of the structure.
- (b) Constructed with materials and utility equipment resistant to flood damage.
- (c) Constructed by methods and practices that minimize flood damage.
- (7) Notwithstanding any other provision of this chapter; no mobile home shall be located or relocated within that portion of the floodplain outside of the floodway, unless the following criteria is met:
 - (a) Ground anchors for tie downs are provided in accordance with Chapter 10 of this ordinance.
 - (b) The following tie-down requirements are met:
 - (i) Over the top ties are required at each of the four corners of the mobile home, with one additional tie per side at an intermediate location, for mobile homes less than fifty (50) feet long. Two

- additional ties per side are required for mobile homes more than fifty (50) feet long:
- (ii)Frame ties are required in conjunction with each over-the-top tie.
- (iii)All components of the anchoring must be capable of carrying a force of 4,800 pounds.
- (c) Lots or pads are elevated on compacted fill or by any other method approved by the Department of Engineering so that the lowest habitable floor of the mobile home is at or above the base flood level.
- (d) Adequate surface drainage and easy access for mobile home hauler is provided:
- (e) Load-bearing foundation supports such as piers or pilings shall be placed in accordance with Chapter 10 of this ordinance, except that if the support height is greater than seventy two (72) inches, the support must contain steel reinforcement.
- (8) Whenever any portion of a floodplain is filled in with dirt, slopes shall be adequately stabilized to withstand the erosive force of the base flood.

PART 13-5

SETBACKS FROM STREAMS OUTSIDE DESIGNATED FLOODPLAINS

In any area that is located outside a designated floodplain but where a stream is located, no building or fill may be located within a distance of the stream bank equal to five times the width of the stream at the top of the bank or twenty (20) feet on each side, whichever is greater, or outside of the one hundred (100) year flood area if a geological survey has been conducted.

PART 13-6

NATIONAL DRAINAGE SYSTEM UTILIZED TO EXTENT FEASIBLE

To the extent practicable, all development shall conform to the natural contours of the land and natural and preexisting man-made drainage ways shall remain undisturbed. Drainage shall be directed to onsite containment and flow from there to the natural contours of the land.