



Meeting Date: 9/14/2011

Agenda Item # 54

# CITY COUNCIL AGENDA ITEM

**Contact Name:** Jim Kerr, City Planner *JHK*      **Department Director:** Alison Stettner  
**Department/Contact #** 386 775-5414      **City Manager:** Jamie Croteau

**Type of Item:**       Public Hearing       Resolution  
 Ordinance First Reading       Discussion & Action  
 Ordinance Second Reading       Council Approval

**Subject: Adoption of Flood Hazard Management Ordinance No. 465**

**BACKGROUND:**

Over the past several years, the Federal Emergency Management Agency (FEMA) has conducted a Flood Insurance Study (FIS) and has updated and modernized the flood hazard data for all communities nation-wide, including Orange City. Flood hazard data is provided in the form of a Flood Insurance Rate Map (FIRM), referred to as "flood maps".

The FIRM maps will serve to create an awareness of flood hazards, especially to those who may live or work in flood hazard areas. Each time the FIRM maps are updated, the City is required to adopt an amendment to the existing flood plain regulations to meet the standards of the National Flood Insurance Program (NFIP). The FIRM maps will provide Orange City with information needed for land use planning purposes and to reduce flood risk of floodplain development as well as implement other health and safety requirements. The amended language in the attached Ordinance No. 465 reflects the minimum regulations provided by FEMA.

By Federal Law, FEMA cannot offer flood insurance in communities that do not have regulations that meet or exceed these minimum requirements.

**RECOMMENDATIONS:**

City staff recommends that City Council approve and adopt Ordinance No. 465, therein amending and adopting Orange City's flood hazard management requirements in Chapter 13 of the City's land development code.

**ATTACHMENTS:**

Ordinance No. 465, and Attachment A

**FINANCIAL IMPACT:** None anticipated

**Reviewed by City Attorney** \_\_\_\_\_  
**Reviewed by Finance Dept.** \_\_\_\_\_  
**Reviewed by:** \_\_\_\_\_

<b>1<sup>st</sup> Discussion Date:</b> 9/14/2011	<b>2<sup>nd</sup> Discussion Date:</b> Click here to enter a date.	<b>Third Discussion Date:</b> Click here to enter a date.	<b>Other Dates:</b> Click here to enter a date.
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## ORDINANCE NO. 465

AN ORDINANCE OF THE CITY OF ORANGE CITY, FLORIDA, AMENDING THE ORANGE CITY CODE OF ORDINANCES, APPENDIX A, THE ORANGE CITY LAND DEVELOPMENT CODE; SPECIFICALLY AMENDING CHAPTER 13, FLOOD HAZARD MANAGEMENT; TO FORMALLY ADOPT THE MOST CURRENT EDITION OF THE NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOODPLAIN MANAGEMENT REGULATIONS THAT MEET THE STANDARDS SET FORTH IN TITLE 44 OF THE CODE OF FEDERAL REGULATIONS (44 CFR), SECTION 60.3; ADOPTING THE FIRM PANELS FOR THE CITY OF ORANGE CITY BY AMENDING THE APPROPRIATE SECTIONS OF THE CODE OF ORDINANCES; CONTAINING A REPEALER PROVISION, A SEVERABILITY CLAUSE AND PROVIDING FOR AN EFFECTIVE DATE.

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**WHEREAS**, the Legislature of the State of Florida has authorized and delegated in Chapter 166, Florida Statutes, the responsibility of local governments to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry; and

**WHEREAS**, the National Flood Insurance Program (NFIP) was established with the passage of the National Flood Insurance Act of 1968; and

**WHEREAS**, the National Flood Insurance Program is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and local community floodplain management regulations that reduce future flood damages; and

**WHEREAS**, the City of Orange City actively participates in the National Flood Insurance Program (NFIP); and

**WHEREAS**, on April 10, 1990, the City Council of the City of Orange City adopted Ordinance No. 90-03-01, thereby creating the Flood Prevention Ordinance, and

**WHEREAS**, on August 12, 2003, the City Council of the City of Orange City adopted Appendix A, Land Development Code, via Ordinance No. 157, thereby establishing a unified land development code to implement the Comprehensive Plan and establish a development review process, setting forth regulations and procedures governing the use and development of land for the purpose of protecting the health, safety, and general welfare of the citizens of Orange City, to the end of improving the overall quality of life within the community; and

**WHEREAS**, on August 12, 2003, the City Council of the City of Orange City by adopting Appendix A, Land Development Code, via Ordinance No. 157, amended Ordinance No. 90-03-01, therein re-titled as Chapter 13, Flood Damage Prevention, and

**WHEREAS**, under Map Modernization, the Federal Emergency Management Agency (FEMA) has updated and modernized the flood hazard maps and provided this data to the City of Orange City in the form of a Flood Insurance Rate Map (FIRM), and the City is required to adopt said new maps.

**NOW, THEREFORE, BE IT ENACTED BY THE COUNCIL OF THE CITY OF ORANGE CITY, FLORIDA:**

**SECTION 1. Legislative Findings and Intent.** The findings set forth in the recitals above are hereby adopted as legislative findings pertaining to this Ordinance. (Words that are underlined are additions; words that are ~~stricken~~ through are deletions).

**SECTION 2. Adoption.** Chapter 13, of the Land Development Code of the City of Orange City, Florida is hereby amended and attached hereto as "Attachment A", and adopted by reference incorporated herein with full force and effect.

**SECTION 3. Repealer:** That all ordinances or parts of ordinances and all resolutions in conflict herewith be and the same are hereby repealed, as well as any portion in conflict herewith, including but not limited to Ordinance No. 90-03-01, adopted on April 10, 1990.

**SECTION 4. Severability:** If any section, part of a section, paragraph, clause, phrase or word of this ordinance is declared invalid, the remaining provisions of this ordinance shall not be affected.

**SECTION 5. Effective Date:** This Ordinance shall take effect immediately upon its adoption by the City Council of the City of Orange City, Florida.

**ROLL CALL VOTE AS FOLLOWS (Ordinance No. 465):**

First Reading this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

Jeff H. Allebach	_____	Thomas Laputka	_____
Tom Abraham	_____	Anthony Pupello	_____
Gary Blair	_____	O. William Crippen, Vice Mayor	_____
Harley Strickland, Mayor	_____		

**ROLL CALL VOTE AS FOLLOWS (Ordinance No. 465):**

Second Reading this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

Jeff H. Allebach	_____	Thomas Laputka	_____
Tom Abraham	_____	Anthony Pupello	_____
Gary Blair	_____	O. William Crippen, Vice Mayor	_____
Harley Strickland, Mayor	_____		

PASSED and ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

**ATTEST:**

**AUTHENTICATED:**

\_\_\_\_\_  
Deborah J. Renner, CMC, City Clerk

\_\_\_\_\_  
Harley Strickland, Mayor

Approved as to form and legal sufficiency:

\_\_\_\_\_  
William E. Reischmann, Jr., City Attorney

# Attachment A

## Ordinance No. 465

Words that are underlined are additions; words that are ~~stricken~~ through are deletions.

### ~~CHAPTER 13. FLOOD DAMAGE PREVENTION~~

#### ~~Section 13.1. Findings of fact.~~

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

~~B. These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands that are inadequately elevated, floodproofed or otherwise unprotected from flood damage.~~

#### ~~Section 13.2. Purpose.~~

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

~~A. Restrict or prohibit uses that are dangerous to health, safety and property due to water or erosion hazards, or that result in damaging increases in erosion, in flood heights or flood velocities;~~

~~B. Require that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;~~

~~C. Control the alteration of natural floodplains, stream channels and natural protective barriers that are involved in the accommodation of floodwaters;~~

~~D. Control filling, grading, dredging and other development that may increase erosion of flood damage; and~~

~~E. Prevent or regulate the construction of flood barriers that will unnaturally divert floodwaters or that may increase flood hazards to other lands.~~

#### ~~Section 13.3. Objectives.~~

~~A. To protect human life and health.~~

~~B. To minimize expenditure of public money for costly flood control projects.~~

~~C. To minimize the need for rescue and relief efforts associated with flooding generally undertaken at the expense of the general public.~~

~~D. To minimize prolonged business interruptions.~~

~~E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, sewer lines, streets and bridges located in floodplains.~~

~~F. To help maintain a stable tax base by providing for sound use and development of flood prone areas in a manner as to minimize flood blight areas.~~

~~G. To ensure that potential homebuyers are notified that property is in a flood area.~~

#### ~~Section 13.4. Chapter applicability.~~

~~This chapter shall apply to all areas of special flood hazard within the jurisdiction of the City of Orange City.~~

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### ~~Section 13.5. Basis for establishing areas of special hazard.~~

~~The areas of special flood hazard identified by the Federal Insurance Administration in its flood insurance rate map dated April 15, 2002, and any revision thereto, is adopted by reference and declared to be a part of this code.~~

### ~~Section 13.6. Compliance.~~

~~No structure or land shall hereafter be located, extended, converted or structurally altered without full compliance with the terms of this chapter and other applicable regulations.~~

### ~~Section 13.7. Abrogation and greater restrictions.~~

~~This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants or deed restrictions. However, where this chapter and other regulations conflict or overlap, whichever imposes the more stringent restrictions shall prevail.~~

### ~~Section 13.8. Warning and disclaimer of liability.~~

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

### ~~Section 13.9. Chief building official (CBO) designated as administrator; review of permits by CBO.~~

~~The CBO is hereby appointed to administer and implement this chapter by granting or denying development permit applications for building permits in accordance with these permit provisions. Duties of the CBO shall include, but not be limited to, the following.~~

- ~~A. Review all development permit application for building to assure that the requirements of this chapter have been satisfied.~~
- ~~B. Advise permittees that additional federal or state permits may be required. If specific federal or state permit requirements are known, the CBO shall require that copies of such permits be provided and maintained on file with the building permit.~~
- ~~C. Review all development permits to determine if proposed development adversely affects the flood-carrying capacity of the floodplain. For purposes of this chapter, "adversely affects" means damage to adjacent properties because of rises in flood stages attributed to physical changes of the channel and the adjacent overbank areas.
  - ~~1. If it is determined that there is no adverse effect and the development is not a building, the permit shall be granted without further consideration.~~
  - ~~2. If it is determined that there is an adverse effect. Technical justification (i.e., a professional engineering analysis) for the proposed development shall be required.~~~~

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~~3. If the proposed development is a building, the provisions of this chapter shall apply.~~

~~Section 13.10. Development permit established, application for permit and certification of elevation.~~

~~A. A development permit shall be required in conformance with the provisions of this chapter.~~

~~B. Application for a development permit shall be made on forms furnished by the CBO and may include, but not be limited to, the following: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials; drainage facilities; and the location of the foregoing. Specifically, the following information is required:~~

~~1. Elevation in relation to mean sea level (MSL) of the lowest floor (including basement) of all proposed structures.~~

~~2. Elevation in relation to mean sea level to that any nonresidential structure will be floodproofed.~~

~~3. Certification by a registered professional engineer or architect that the nonresidential floodproofed structure will meet the floodproofing criteria in section 13.16 of this chapter.~~

~~4. Description of the extent to that any watercourse will be altered or relocated as a result of proposed development.~~

~~5. A flood elevation or floodproofing certification shall be provided by the permit holder. Upon placement of the lowest floor or floodproofing, whichever is applicable, it shall be the duty of the permit holder to submit to the CBO a certification of the elevation in relation to mean sea level, of the lowest floor or floodproofed elevation as built. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer, and certified by same. When floodproofing is used for a particular building, said certification shall be prepared by or under the direct supervision of a professional engineer or architect, and certified by same. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The CBO shall review the submitted floor elevation survey data. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being permitted. Failure to submit the survey or to make the required corrections shall be cause to issue a stop work order for the project.~~

~~Section 13.11. Use of other base flood data.~~

~~When base flood elevation data or floodway data has not been provided in accordance with section 13.5 of this chapter. The CBO shall obtain, review and reasonably use any base flood elevation and floodway data available from a federal, state or other authorized source, in order to administer section 13.16 of this chapter.~~

~~Section 13.12. Information to be obtained and maintained.~~

~~The following information shall be obtained and maintained:~~

~~A. Verify and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures.~~

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~~B. Verify and record the actual elevation (in relation to mean sea level) to that the new or substantially improved structures have been floodproofed. Certification of such floodproofing shall be obtained in accordance with section 13.13 of this chapter.~~

~~C. All records pertaining to the provisions of this chapter shall be maintained in the office of the CBO and shall be open for public inspection.~~

### ~~Section 13.13. Alteration of watercourses.~~

~~If a watercourse is to be altered or modified;~~

~~A. Notify adjacent communities and the St. John's Water Management District prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.~~

~~B. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.~~

### ~~Section 13.14. Interpretation of FHBM or FIRM boundaries.~~

~~Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual physical conditions), the CBO shall make the necessary interpretation.~~

### ~~Section 13.15. General standards.~~

~~In all areas of special flood hazard the following provisions are required:~~

#### ~~A. Anchoring.~~

~~1. New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.~~

~~2. Manufactured homes to be placed within zone A on a community's FIRM shall be installed using methods and practices that minimize flood damage. For the purpose 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 to be 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. Construction materials and methods.~~

~~1. New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.~~

~~2. New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.~~

~~3. Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.~~

#### ~~C. Utilities.~~

~~1. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.~~

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~~2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.~~

~~3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.~~

~~D. Subdivision proposals.~~

~~1. Subdivision proposals shall be consistent with the need to minimize flood damage.~~

~~2. Subdivision proposals shall have public utilities facilities such as sewer, gas, electric and water systems located and constructed to minimize flood damage.~~

~~3. Subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards. Base flood elevation data shall be provided for subdivision proposals and other proposed development that is greater than 50 lots or five acres, whichever is lesser.~~

~~E. Encroachments. The cumulative effect of any proposed development shall not adversely affect the area of special flood hazard. This determination shall be made in accordance with section 13.9 of this chapter.~~

~~Section 13.16. Specific standards.~~

~~In all areas of special flood hazard where base elevation data has been provided, as set forth in section 13.5 of this chapter, the following provisions are required.~~

~~A. Residential construction. New construction or substantial improvement of any residential structure (including manufactures homes) shall have the lowest floor, including basement, elevated to or above the base flood elevation.~~

~~B. Nonresidential construction. New construction or substantial improvement of any commercial, industrial or nonresidential structure (including manufactured homes) shall either have the lowest floor, including basement, elevated to the level of the base flood elevation, or, together with attendant utility and sanitary facilities, be flood proofed 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 certify that the standards of this chapter are satisfied. Such certification shall be provided to the CBO as set forth in section 13.1. of this chapter.~~

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### Chapter 13. FLOOD HAZARD MANAGEMENT

#### Section 13.1. Statutory Authorization.

The Legislature of the State of Florida has authorized and delegated in Chapter 166, Florida Statutes, the responsibility to local governments to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the City Council of the City of Orange City does hereby adopt the following floodplain management regulations.

#### Section 13.2. Findings of Fact.

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

B. These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, flood-proofed, or otherwise unprotected from flood damages.

#### Section 13.3. Statement of Purpose

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

- A. Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, which result in damaging increases in erosion or in flood heights and velocities;
- B. Require that uses vulnerable to floods including facilities which serve such uses be protected against flood damage throughout their intended life span;
- C. Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters;
- D. Control filling, grading, dredging and other development which may increase erosion or flood damage; and
- E. Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

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### **Section 13.4. Objectives.**

The objectives of this Chapter are to:

- A. Protect human life, health and to eliminate or minimize the risk of property damage;
- B. Minimize expenditure of public money for costly flood control projects;
- C. Minimize the need for rescue and relief efforts associated with flooding generally undertaken at the expense of the general public;
- D. Minimize prolonged business interruptions;
- E. Minimize damage to public facilities and utilities such as, but not limited to, water and gas mains, electric, telephone and sewer lines, roadways, and bridges and culverts located in floodplains;
- F. Maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas; and
- G. Ensure that potential homebuyers are notified that property is in a flood hazard area.

### **Section 13.5. Applicability.**

This Chapter shall apply to all areas of special flood hazard within the jurisdiction of the City of Orange City.

### **Section 13.6. Definitions.**

Unless specifically defined below, or in Chapter 2.2, Specific Terms Defined, of Orange City's Land Development Code, words or phrases used in this Chapter shall be interpreted so as to give them the meaning they have in common usage and to give this Chapter it's most reasonable application consistent with the purpose and objectives stated herein. The below listed definitions are to be used for floodplain management purposes only unless specifically referred to in another portion of the City's Land Development Code:

**Accessory structure:** A structure that is located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Accessory structures typically constitute a minimal investment, are not to be used for human habitation, and are designed to have minimal flood damage potential. Examples of accessory structures are detached garages, carports, storage sheds, pole barns, and hay sheds.

**Appeal:** A request for a review of the Floodplain Management Administrator's interpretation of any provision of this Chapter or a request for a variance.

**Area of shallow flooding:** A designated AO or AH Zone on the community's Flood Insurance Rate Map (FIRM) with base flood depths from one to three (3) feet where a clearly defined channel does not exist, where the path of flooding is

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unpredictable and indeterminate, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

**Area of special flood hazard:** The land in the floodplain within the City subject to a one percent or greater chance of flooding in any given year. This term is synonymous with the phrase “special flood hazard area” (SFHA).

**Base flood:** The flood having a one percent chance of being equaled or exceeded in any given year (also called the “100 year flood” and the “regulatory flood”). Base flood is the term used throughout this Chapter.

**Base Flood Elevation:** The water surface elevation associated with the base flood.

**Basement:** Any portion of a building having its floor sub-grade (below ground level) on all sides.

**Building** – see Structure

**Conditional Letter of Map Revision (CLOMR)** is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). The letter does not revise an effective NFIP map; it indicates whether the project, if built as proposed, would be recognized by FEMA.

**Datum:** A reference surface used to ensure that all elevation records are properly related. The datum is the North American Vertical Datum (NAVD) of 1988.

**Development:** Any man-made change to improved or unimproved real estate, including, but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavating, drilling operations, or storage of materials or equipment.

**Elevated building:** A non-basement building built to have the lowest floor elevated above the ground level by foundation walls, posts, piers, columns, pilings, or shear walls.

**Encroachment:** The advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain, which may impede or alter the flow or storage capacity of a floodplain.

**Existing Construction:** means, for the purposes of floodplain management, structures for which the start of construction commenced before April 10, 1990. This term may also be referred to as “existing structures”.

**Existing manufactured home park or subdivision:** 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) was completed before April 10, 1990.

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**Expansion to an existing manufactured home park or subdivision:** 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. 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.

B. The collapse or subsidence of land along a shore of a lake or other body of water as the result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph A.1 of this definition.

**Flood Insurance Rate Map (FIRM):** An official map of the community, issued by FEMA, which delineates both the areas of special flood hazard and the risk premium zones applicable to the community.

**Flood Insurance Study (FIS):** The official hydrology and hydraulics report provided by FEMA. The study contains an examination, evaluation, and determination of flood hazards, and, if appropriate, corresponding water surface elevations, or an examination, evaluation, and determination of mudslide (i.e., mudflow) and other flood-related erosion hazards. The study may also contain flood profiles, as well as the FIRM, FHBM (where applicable), and other related data and information.

**Floodplain:** Any land area susceptible to being inundated by water from any source (see definition of "Flood or Flooding").

**Floodplain management:** The operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

**Floodplain Management Administrator:** The individual appointed to administer and enforce the floodplain management regulations of the City.

**Floodplain management regulations:** This Chapter and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance, and erosion control ordinance), and other applications of police power which control development in flood-prone areas. This term describes Federal, State of Florida, or local regulations in any

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combination thereof, which provide standards for preventing and reducing flood loss and damage.

**Floodproofing:** 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:** The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

**Floodway fringe:** That area of the one-percent (base or 100-year) floodplain on either side of the regulatory floodway.

**Freeboard:** The additional height, usually expressed as a factor of safety in feet, above a flood level for purposes of floodplain management. Freeboard tends to compensate for many unknown factors, such as wave action, blockage of bridge or culvert openings, and hydrological effect of urbanization of the watershed, which could contribute to flood heights greater than the heights calculated for a selected frequency flood and floodway conditions.

**Functionally dependent use:** A use that cannot be used for its intended purpose unless it is located or carried out in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

**Hardship:** As related to variances from this Chapter means the exceptional difficulty associated with the land that would result from a failure to grant the requested variance and must be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors likewise cannot, as a rule, qualify as an exceptional hardship. All of these problems may be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

**Highest adjacent grade:** The highest natural elevation of the ground surface, prior to the start of construction, next to the proposed walls of a structure.

**Historic Structure:** Any structure that is:

- A. 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; or
- B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic or a district preliminarily determined by the Secretary to qualify as a registered historic district; or

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C. Individually listed on the Florida inventory of historic places, which has been approved by the Secretary of the Interior; or

D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

1. By the approved Florida program as determined by the Secretary of the Interior, or

2. Directly by the Secretary of the Interior.

**Letter of Map Revision (LOMR)** is FEMA's modification to an effective Flood Insurance Rate Map (FIRM) based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs) or the Special Flood Hazard Area (SFHA).

**Lowest adjacent grade:** The lowest elevation, after the completion of construction, of the ground, sidewalk, patio, deck support, or basement entryway immediately next to the structure.

**Lowest floor:** The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, used solely for parking of vehicles, building access, or storage, in an area other than a basement, 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 standards of this Chapter.

**Manufactured home:** A building, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term also includes park trailers, travel trailers, and similar transportable structures placed on a site for 180 consecutive days or longer and intended to be improved property.

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

**Market value:** The building value, which is the property value excluding the land value and that of the detached accessory structures and other improvements on site (as agreed to between a willing buyer and seller) as established by what the local real estate market will bear. Market value can be established by an independent certified appraisal (other than a limited or curbside appraisal, or one based on income approach), Actual Cash Value (replacement cost depreciated for age and quality of construction of building), or adjusted tax-assessed values.

**Mean Sea Level:** The average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. For purposes of this Chapter, the term is synonymous with the North American Vertical Datum (NAVD) of 1988.

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**New Construction:** Any structure for which the “start of construction” commenced on or after April 10, 1990 based upon specific technical base flood elevation data that establishes the area of special flood hazard. The term also includes any subsequent improvements to such structures.

**New manufactured home park or subdivision:** 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 April 10, 1990.

**North American Vertical Datum (NAVD)** of 1988 means a vertical control used as a reference for establishing varying elevations within the floodplain.

**Principally above ground:** At least 51 percent of the actual cash value of the structure is above ground.

**Reasonably safe from flooding:** Base floodwaters will not inundate the land or damage structures to be removed from the Special Flood Hazard Area (SFHA) and that any subsurface waters related to the base flood will not damage existing or proposed buildings.

**Recreational vehicle:** means a vehicle that is:

1. Built on a single chassis;
2. 400 square feet or less when measured at the largest horizontal projection;
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.

**Regulatory floodway:** 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.

**Remedy a deficiency or violation:** To bring the regulation, procedure, structure or other development into compliance with State of Florida, Federal, or local floodplain management regulations; or if this is not possible, to reduce the impacts of its noncompliance. Ways the impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this Chapter or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

**Repetitive loss:** Flood related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

**Riverine:** Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

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**SFHA (Special flood hazard area)** – see Area of special flood hazard

**Start of construction:** Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation or placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main building. For substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

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

**Substantial damage:** 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. This term also includes “repetitive loss” structures as defined herein.

**Substantial improvement:** Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures that have incurred “substantial damage” regardless of the actual repair work performed. This term does not, however, include any repair or improvement of a structure to correct existing violations of State of Florida or local health, sanitary, or safety code specifications, which have been identified by the local code enforcement official prior to the application for permit for improvement, and which are the minimum necessary to assure safe living conditions. This term does not include any alteration of a historic structure, provided that the alteration will not preclude the structure’s continued designation as a historic structure.

**Substantially improved existing manufactured home parks or subdivisions:** Where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds 50 percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

**Variance:** The grant of relief from the requirements of this Chapter.

**Violation:** The failure of a structure or other development to be fully compliant with the requirements of this Chapter. A structure or other development without the

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elevation certificate, other certifications, or other evidence of compliance required in this Chapter is presumed to be in violation until such time as that documentation is provided.

**Watercourse:** A lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

**Water surface elevation:** The height, in relation to the North American Vertical Datum (NAVD) of 1988, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

#### **Section 13.7. General provisions.**

A. *Lands to which this Chapter applies.* This Chapter shall apply to all areas of special flood hazard within the jurisdiction of the City of Orange City.

B. *Basis for establishing the areas of special flood hazard.* The areas of special flood hazard identified by the Federal Emergency Management Agency (hereinafter "FEMA") in the Flood Insurance Study (hereinafter "FIS") for Volusia County, dated April 15, 2002, with the accompanying maps and other supporting data, and any subsequent revisions thereto, are adopted by reference and declared to be a part of this Chapter. The FIS and FIRM are on file at: City of Orange City, Development Services Department, 205 East Graves Avenue, Orange City, Florida 32763.

C. *Designation of floodplain management administrator.* The City Council hereby appoints the City Manager or designee to administer and implement the provisions of this Chapter and is herein referred to as the Floodplain Management Administrator.

D. *Establishment of Development Permit.* A development permit shall be required in conformance with the provisions of this Chapter prior to the commencement of any development activities within all areas of special flood hazard.

E. *Compliance.* No structure or land shall hereafter be located, extended, converted or structurally altered without full compliance with the terms of this Chapter and other applicable regulations.

F. *Abrogation and greater restrictions.* This Chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Chapter and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

G. *Interpretation.* In the interpretation and application of this Chapter all provisions shall be:

1. Considered as minimum requirements;
2. Liberally construed in favor of the City Council; and
3. Deemed neither to limit nor repeal any other powers granted under State of Florida statutes.

H. *Warning and disclaimer of liability.* The degree of flood protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific

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and engineering consideration. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This Chapter shall not create liability on the part of the City Council of the City of Orange City or by any officer or employee thereof for any flood damages that result from reliance on this Chapter or any administrative decision lawfully made thereunder.

I. *Penalties for violation.* Violation of the provisions of this Chapter or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance, shall be punishable for a non-criminal violation. Any person who violates this Chapter or fails to comply with any of its requirements shall, upon adjudication therefore, be fined not more than \$500, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the Floodplain Management Administrator from taking such other lawful actions as are necessary to prevent or remedy any violation.

#### **Section 13.8. Administration.**

A. *Permit procedures.* An application for a Development Permit shall be made to the Floodplain Management Administrator prior to any development activities within floodplains, and may include, but not be limited to, the following plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing and/or proposed structures, earthen fill, storage of materials or equipment, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

1. Application Stage:

- a. Elevation in relation to mean sea level of the proposed lowest floor (including basement) of all buildings;
- b. Elevation in relation to mean sea level to which any non-residential building will be flood-proofed;
- c. Certificate from a Florida registered professional engineer, or architect that the non-residential flood-proofed building will meet the flood-proofing criteria in Section 13.8.A.2 and Section 13.9.B.2;
- d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development;

2. Construction Stage: Upon placement of the lowest floor, or flood-proofing by whatever construction means, or bottom of the lowest horizontal structural member it shall be the duty of the permit holder to submit to the Floodplain Management Administrator a certification of the NAVD elevation of the lowest floor or flood-proofed

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elevation, or bottom of the lowest horizontal structural member of the lowest floor as built, in relation to mean sea level. Said certification shall be prepared by or under the direct supervision of a Florida registered land surveyor or professional engineer and certified by same. When flood proofing is utilized for a particular building said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The Floodplain Management Administrator shall review the lowest floor and flood-proofing elevation survey data submitted. The permit holder immediately and prior to further progressive work being permitted to proceed shall correct violations detected by such review. Failure to submit the survey or failure to make said corrections required hereby shall be cause to issue a stop-work order for the project.

#### B. Duties and responsibilities of the Floodplain Management Administrator.

Duties of the Floodplain Management Administrator shall include, but are not limited to:

1. Review permits to assure sites are reasonably safe from flooding;
2. Review all development permits for alterations to floodplains to assure that the permit requirements of this Chapter have been satisfied;
3. Require that copies of all necessary Federal, State of Florida, and local permits, especially as they relate to Chapters 161.053; 320.8249; 320.8359; 373.036; 380.05; 381.0065; and 553, Part IV, Florida Statutes, be submitted along with the development permit application and maintain copies of such permits on file with the development permit;
4. Notify adjacent communities, the Florida Division of Emergency Management – State Floodplain Management Office, the St. Johns River Water Management District, the Federal Emergency Management Agency, and other Federal and/or State of Florida agencies with statutory or regulatory authority prior to any alteration or relocation of a watercourse;
5. Notify FEMA within six months when new technical or scientific data becomes available to the City concerning physical changes affecting flooding conditions so that risk premium rates and floodplain management requirements will be based on current data.
6. Assure that the applicant provides for maintenance within all altered or relocated portions of said watercourse so that the flood-carrying and storage capacity is maintained;
7. Verify and record the actual elevation (in relation to mean sea level) of the lowest floor (A-Zones) of all new and substantially improved buildings, in accordance with Section 13.9.B.1 and 2;

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8. Verify and record the actual elevation (in relation to mean sea level) to which the new or substantially improved buildings have been flood-proofed, in accordance with Section 13.9.B.2;
9. Review certified plans and specifications for compliance. When flood-proofing is utilized for a particular building, certification shall be obtained from a registered engineer or architect certifying that all areas of the building, together with attendant utilities and sanitary facilities, below the required elevation are water tight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy in compliance with Section 13.9.B.2 of this Chapter.
10. Interpret the exact location of boundaries of the areas of special flood hazard. When there appears to be a conflict between a mapped boundary and actual field conditions, the Floodplain Management Administrator shall make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this Chapter;
11. When base flood elevation data and/or floodway data have not been determined in accordance with Section 13.7.B, the Floodplain Management Administrator shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State of Florida, or any other source as the Floodplain Management Administrator deems reliable, in order to administer the provisions of Section 13.9;
12. Coordinate all change requests to the FIS, and FIRM with the requester, State of Florida, and FEMA; and
13. Where Base Flood Elevation is utilized, obtain and maintain records of lowest floor and floodproofing elevations for new construction and substantial improvements in accordance with Sections 13.9.B.1 and 2, respectively.

#### **Section 13.9. Provisions for flood hazard reduction.**

A. *General Standards.* In all areas of special flood hazard, all development sites including new construction and substantial improvements shall be reasonably safe from flooding, and meet the following provisions:

1. New construction and substantial improvements shall be designed or modified and adequately anchored to prevent flotation, collapse and/or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
2. Manufactured homes shall be anchored to prevent flotation, collapse, and/or lateral movement. Methods of anchoring may include, but are not

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limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable State of Florida requirements for resisting wind forces;

3. New construction or substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
4. New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
5. Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities, including duct work, shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
6. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
7. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters;
8. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding;
9. Any alteration, repair, reconstruction or improvements to a building that is in compliance with the provisions of this Chapter, shall meet the requirements of "new construction" as contained in this Chapter;
10. Any alteration, repair, reconstruction or improvements to a building that is not in compliance with the provisions of this Chapter, shall be undertaken only if said non-conformity is not furthered, extended, or replaced;
11. All applicable additional Federal, State of Florida, and local permits shall be obtained and submitted to the Floodplain Management Administrator along with the development permit application. Copies of such permits shall be maintained on file with the development permit. State of Florida permits may include, but are not limited to the following:
  - a. St. Johns River Water Management District: in accordance with Chapter 373.036(2)(a), Florida Statutes, Flood Protection and Floodplain Management.
  - b. Department of Community Affairs: in accordance with Florida Statutes, Chapter 380.05, Areas of Critical State Concern, and Florida Statutes, Chapter 553, Part IV, Florida Building Code.
  - c. Department of Health: in accordance with Florida Statutes, Chapter 381.0065, Onsite Sewage Treatment and Disposal Systems.
12. Standards for Subdivision Proposals and other new Proposed Development (including manufactured homes)

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- a. Such proposals shall be consistent with the need to minimize flood damage.
  - b. Such shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage; and
  - c. Such proposals shall have adequate drainage provided to reduce exposure to flood hazards.
13. When proposed new construction and substantial improvements are partially located in an area of special flood hazard, the entire structure shall meet the standards for new construction.
14. When proposed new construction and substantial improvements are located in multiple flood hazard risk zones or in a flood hazard risk zone with multiple base flood elevations, the entire structure shall meet the standards for the most hazardous flood hazard risk zone and the highest base flood elevation.

B. *Specific standards:*

In all A-Zones where base flood elevation data have been provided (Zones AE, A1-30, A (with base flood elevation), and AH) as set forth in Section 13.7.B, the following provisions shall apply:

- 1. Residential Construction. All new construction and all substantial improvement of any residential building (including manufactured home) shall have the lowest floor, including basement, elevated to no lower than one (1) foot above the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, there must be a minimum of two openings on different sides of each enclosed area sufficient to facilitate automatic equalization of flood hydrostatic forces in accordance with standards of Section 13.9.B.3.
- 2. Non-Residential Construction. All new construction and all substantial improvement of any commercial, industrial, or non-residential building (including manufactured home used solely for non-residential purposes) shall have the lowest floor, including basement, elevated to no lower than one (1) foot above the base flood elevation. All non-residential buildings located in A-Zones may be flood-proofed, in lieu of being elevated, provided that all areas of the building components, together with attendant utilities and sanitary facilities, below the base flood elevation are watertight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. A registered

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professional engineer or architect shall certify that the standards of this subsection are satisfied using the FEMA Floodproofing Certificate. Such certification along with the corresponding engineering data and the operational and maintenance plans shall be provided to the Floodplain Management Administrator.

3. Enclosure below the Lowest Floor. New construction and substantial improvements that include fully enclosed areas formed by foundation and other exterior walls below the lowest floor shall be designed to preclude finished living space and designed in accordance with FEMA requirements to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.

a. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet or exceed the following minimum criteria:

1. Provide 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;

2. The bottom of all openings shall be no higher than one foot above adjacent interior grade (which must be equal to or higher in elevation than the adjacent exterior grade); and

3. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided they provide the required net area of the openings and permit the automatic flow of floodwaters in both directions.

b. Fully enclosed areas below the lowest floor shall be used solely for parking of vehicles, storage, and building access. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door), limited storage of maintenance equipment used in connection with the premises (standard exterior door), or entry to the living area (stairway or elevator); and

c. The interior portion of such enclosed area shall not be finished or partitioned into separate rooms.

4. Standards for Manufactured Homes and Recreational Vehicles

a. All manufactured homes that are placed, or substantially improved within Zones A1-30, AH, and AE, on sites (i) outside of an existing 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

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manufactured home park or subdivision on which a manufactured home has incurred “substantial damage” as the result of a flood, the lowest floor shall be elevated on a permanent foundation to no lower than one (1) foot above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and/or lateral movement.

b. All manufactured homes to be placed or substantially improved in an existing manufactured home park or subdivision that are not subject to the provisions of paragraph 4.a of this section, shall be elevated so that either:

1. The lowest floor of the manufactured home is elevated to no lower than one foot above the base flood elevation; or

2. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least an equivalent strength that are no less than 36 inches in height above the grade and securely anchored to an adequate foundation system to resist flotation, collapse, and/or lateral movement.

c. All recreational vehicles must either:

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

2. Be fully licensed and ready for highway use (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), or

3. Meet all the requirements for new construction, including anchoring and elevation standards in accordance with Section 13.9.B.4.a and b.

5. Adequate drainage paths around structures shall be provided on slopes to guide water away from structures within Zone AH.

6. Standards for waterways with established Base Flood Elevations, but without Regulatory Floodways located within the areas of special flood hazard established in Section 13.7.B, where streams exist for which base flood elevation data has been provided by FEMA without the delineation of the regulatory floodway (Zones AE and A1-30). In addition to those requirements set forth in Section 13.9.B.1 through 5, the following provisions shall apply:

a. Until a regulatory floodway is designated, no new construction, substantial improvements, or other development including fill shall be permitted within the areas of special flood hazard, unless it is

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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.

b. Development activities which increase the water surface elevation of the base flood by more than one foot may be allowed, provided that the developer or applicant first applies, with Orange City's approval, for a conditional FIRM revision, and receives the approval of the FEMA.

7. Standards for Streams With Established Base Flood Elevations and Floodways. Located within areas of special flood hazard established in Section 13.7.B, are areas designated as floodways. Since the floodway is an extremely hazardous area due to the high velocity of floodwaters which carry debris, potential projectiles and have significant erosion potential. In addition to those requirements set forth in Section 13.9.B.1 through 5, the following provisions shall apply

a. Prohibit encroachments, including fill, new construction, substantial improvements and other developments within the regulatory floodway unless certification (with supporting technical data) by a registered professional engineer is provided through hydrologic and hydraulic analyses performed in accordance with standard engineering practice demonstrating that encroachments would not result in any increase in flood levels during occurrence of the base flood discharge.

b. Development activities including new construction and substantial improvements within the regulatory floodway that increase the base flood elevation may be allowed, provided that the developer or applicant first applies, with the City's endorsement, for a conditional FIRM revision, and receives the approval of FEMA.

c. When fill is proposed, in accordance with the permit issued by the Florida Department of Health, within the regulatory floodway, the development permit shall be issued only upon demonstration by appropriate engineering analyses that the proposed fill will not increase the water surface elevation of the base flood in accordance with Section 13.9.B.7.a.

C. Specific standards for A-Zones without base flood elevations and regulatory floodways. Located within the areas of special flood hazard established in Section 13.7.B, where there exist A-Zones for which no base flood elevation data and regulatory

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floodway have been provided or designated by FEMA, the following provisions shall apply:

1. The General Standards set forth in Section 13.9.A must be met.
2. Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data. Standards set forth in Section 13.9.B shall apply.
3. The Floodplain Management Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State of Florida, or any other source, in order to administer the provisions of this Chapter. When such data is utilized, provisions of Section 13.9.B shall apply. The Floodplain Management Administrator shall:
  - a. Obtain the elevation (in relation to the mean sea level) of the lowest floor (including the basement) of all new and substantially improved structures,
  - b. Obtain, if the structure has been floodproofed in accordance with the requirements of Section 13.9.B.2, the elevation in relation to the mean sea level to which the structure has been floodproofed, and
  - c. Maintain a record of all such information.
4. In riverine situations, notify adjacent communities, the State of Florida Division of Emergency Management, State Floodplain Management Office, and the St. Johns Water Management District prior to any alteration or relocation of a watercourse, and submit copies of such notifications to FEMA.
5. Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.
6. Manufactured homes shall be installed using methods and practices that minimize flood damage. They must be elevated and anchored to prevent flotation, collapse, and/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 of Florida and local anchoring requirements for resisting wind forces.
7. When the data is not available from any source, in accordance with standards set forth in Section 13.9.C.2 of this Chapter, the lowest floor of the structure shall be elevated to no lower than above the highest adjacent grade. Standards set forth in Section 13.9.B shall apply.

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D. Specific standards for AO-Zones. Located within the areas of special flood hazard established in Section 13.7.B are areas designated as shallow flooding areas. These areas have flood hazards associated with base flood depths of one (1) to three (3) feet, where a clearly defined channel does not exist and the path of flooding is unpredictable and indeterminate. Therefore, in addition to those requirements set forth in Section 13.9.A, the following provisions shall apply:

1. All new construction and substantial improvements of residential structures in all AO-Zones shall 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 Flood Insurance Rate Map. If no flood depth number is specified, the lowest floor, including basement, shall be elevated to no less than two (2) feet above the highest adjacent grade.
2. All new construction and all substantial improvements of non-residential structures shall:
  - 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 Flood Insurance Rate Map. If no flood depth number is specified, the lowest floor, including basement, shall be elevated to at least two (2) feet above the highest adjacent grade, or
  - b. Together with attendant utility and sanitary facilities, be completely floodproofed to that level to meet the floodproofing standard specified in Section 13.9.D.2.a.
3. Adequate drainage paths around structures shall be provided on slopes to guide water away from structures.
4. Fully enclosed areas below the lowest floor that are subject to flooding shall meet the non-elevation design requirements of Section 13.9.B.

#### **Section 13.10. Variance and appeal procedures.**

A. Designation of variance and appeals board. The Planning Commission of the City of Orange City (hereinafter referred to as the "Commission") as established by the City Council of the City of Orange City, shall hear and decide appeals of decisions of the Floodplain Management Administrator and requests for variances from the requirements of this Chapter.

B. Duties of variance and appeals board. The Commission shall hear and decide appeals when it is alleged an error in any requirement, decision, or determination is made by the Floodplain Management Administrator in the enforcement or administration of this Chapter. The Commission shall also hear and decide requests for variances from

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the requirements of this Chapter. Any person aggrieved by the decision of the Commission may appeal such decision to the City Council utilizing the procedures set forth in Chapter 3, Section 3.11, Appeals.

C. *Variance procedures.* In acting upon such applications, the Commission shall consider all technical evaluations, all relevant factors, and standards specified in other sections of this Chapter, and:

1. The danger that materials may be swept onto other lands to the injury of others;
2. The danger of life and property due to flooding or erosion damage;
3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
4. The importance of the services provided by the proposed facility to the City;
5. The necessity to the facility of a waterfront location, where applicable;
6. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
7. The compatibility of the proposed use with existing and anticipated development;
8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
9. The safety of access to the property in times of flood for ordinary and emergency vehicles;
10. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

D. *Conditions for variances.*

1. Variances shall only be issued when there is:
  - a. A showing of good and sufficient cause;
  - b. A determination that failure to grant the variance would result in exceptional hardship; and
  - c. A determination that the granting of a variance will not result in an increased flood height, cause a threat to public safety or public

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expense, create a nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

2. Variances shall only be issued upon a determination that the variance is the minimum necessary deviation from the requirements of this Chapter.
3. Variances shall not be granted after-the-fact.
4. The Floodplain Management Administrator shall maintain the records of all variance actions, including justification for their issuance or denial, and report such variances upon request to FEMA and the State of Florida, Division of Emergency Management, Floodplain Management Office.

#### **Section 13.11. Variance notification.**

A. Any applicant to whom a variance is granted shall be given written notice over the signature of a City official that:

1. The issuance of a variance to construct a structure below the base flood elevation will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 (or more) of insurance coverage, and
2. Such construction below the base flood level increases risks to life and property.

B. A copy of the notice shall be recorded by the Floodplain Management Administrator in the Office of the Clerk of Court and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

#### **Section 13.12. Historic structures.**

Variances may be issued for the repair or rehabilitation of "historic" structures, meeting the definition in this Chapter, upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a "historic" structure.

#### **Section 13.13. Structures in regulatory floodway.**

Variances shall not be issued within any designated floodway if any impact in flood conditions or increase in flood levels during the base flood discharge would result.