

THE NATIONAL FLOOD INSURANCE PROGRAM REVISITED--AN  
UPDATED MODEL ORDINANCE FOR IMPLEMENTATION OF  
ITS LAND MANAGEMENT CRITERIA

by

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College of Law  
University of Florida

TECHNICAL PAPER NO. 3

December 1977

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**Florida Sea Grant**

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THE NATIONAL FLOOD INSURANCE PROGRAM REVISITED - AN UPDATED MODEL ORDINANCE  
FOR IMPLEMENTATION OF ITS LAND MANAGEMENT CRITERIA

BY: Frank E. Maloney\* and Dennis C. Dambly\*\*

INTRODUCTION

In 1975 a study of the National Flood Insurance Program (NFIP)<sup>1</sup> was undertaken at the University of Florida's Holland Law Center. The purpose of the study was to develop a model flood plain zoning ordinance that would be of assistance to communities in implementing the land management regulations adopted as a part of the NFIP.

The background, research and results of that study, including a model ordinance, are set forth in the July 1976 issue of the Natural Resources Journal.<sup>2</sup> The model ordinance was based on the requirements set forth in the proposed federal regulations appearing in Volume 40 of the Federal Register on March 26, 1975, at pages 13420-13433.

On October 26, 1976 the Federal Insurance Administration (FIA) published<sup>3</sup> the final land use regulations adopted under the NFIP. Significant differences

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1. 42 U.S.C.A. §§4001-4128 (1973).

2. Maloney and Dambly, The National Flood Insurance Program--A Model Ordinance For Implementation of Its Land Management Criteria, 16 Nat. Res. J. 665 (1976).

3. 41 Fed. Reg. 46962-46992 (1976).

between the proposed and final regulations led to requests that the model ordinance be updated. The entire updated model ordinance and commentary thereto are set forth below.\*

Some of the changes suggested in the original article in Volume 16 of the Natural Resources Journal were adopted in the final federal regulations as noted in the accompanying commentary. For example, the final federal regulations now define "habitable floor" as any floor "usable" for living rather than "used" for living.

Citations appearing in the commentary are to the final federal regulations appearing in Volume 41 of the Federal Register on October 26, 1976, at pages 46962-46992.<sup>4</sup>

\* It is suggested that any community planning to utilize the updated model ordinance read the Natural Resources Journal article to assure a complete understanding of the purpose of all the provisions contained in the model.

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4. At the time that this update is being published, Congress has passed an amendment to the Flood Disaster Protection Act of 1973 (Act of December 31, 1973, Pub. L. No. 93-234, 87 Stat. 983) that greatly reduces the incentives for a community to enter the NFIP. The amendment is a part of the Housing and Community Development Act of 1977\* and would allow private lending institutions [banks, savings and loan associations, etc.] to make mortgage loans in communities that had not entered the program as long as they notified the purchaser that he was building in a flood plain.\*\*

\* (Act of October 12, 1977, Pub. L. No. 95-128, 91 Stat. 1111)

\*\* However, if a community chose to enter the program so that its residents could obtain flood insurance, the community would still have to adopt a flood plain ordinance complying with the federal regulations.

MODEL FLOOD PLAIN MANAGEMENT ORDINANCE

SECTION ONE. STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES.

1.1 Statutory Authorization

The Legislature of the State of \_\_\_\_\_ has in \_\_\_\_\_  
(state)  
\_\_\_\_\_ delegated the responsibility to local governmental  
(statutes)  
units to adopt regulations designed to minimize flood and associated losses.  
Pursuant thereto, the \_\_\_\_\_ of \_\_\_\_\_,  
(governing body) (local unit)  
\_\_\_\_\_, does ordain as follows:  
(state)

1.2 Findings of Fact

[(a) Areas of \_\_\_\_\_, \_\_\_\_\_, have been  
(local unit) (state)  
designated by the Federal Insurance Administration as flood hazard areas  
eligible to participate in the National Flood Insurance Program;]

[(b) The regulations adopted by the Federal Insurance Administration  
under the authority of the National Flood Insurance Act of 1968, 42 U.S.C.  
§§4001 et seq., as amended, require that participating communities adopt  
legislation designed to regulate flood plain development;]

(c) The flood hazard areas of \_\_\_\_\_ are subject  
(local unit)  
to periodic inundation which results in loss of life and property, health  
and safety hazards, disruption of commerce and governmental services,  
extraordinary public expenditures for flood protection and relief, and  
impairment of the tax base all of which adversely affect the public health,  
safety and general welfare;

(d) Flood and associated losses are caused in part by the occupancy  
of flood hazard areas by uses which are vulnerable to damage by floods or

erosion.

### 1.3 Statement of Purpose

It is the purpose of this ordinance to provide a uniform basis for the preparation and implementation of sound flood plain management regulation and to further the stated objectives.

(These provisions were modeled after USWRC-Vol. 1, p. 521, §§1.0-1.3. The material contained in the brackets in §1.2 (a), (b) should not be inserted unless the adopting community will be participating in the National Flood Insurance Program.)

### 1.4 Objectives

The objectives of this ordinance are:

- (a) To protect human life and health;
- (b) To minimize expenditure of public monies for costly flood control projects;
- (c) To minimize the need for rescue and relief efforts associated with flooding and 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 and sewer lines, and streets and bridges located in flood plains;
- (f) To help maintain a stable tax base by providing for sound use and development of flood prone areas in such a manner as to minimize future flood blight areas;
- (g) To insure that potential land and home buyers are notified that property is in a flood hazard area; and,
- [ (h) To qualify property owners for the insurance and subsidies provided by the National Flood Insurance Program.]

(These objectives are modeled after those laid out in the Wisconsin Flood Plain Management Program, Ch. NR 116 §116.03, Wisconsin Administrative Code. The provisions therein seemed to be the most comprehensive and forceful of those statements of purpose examined. The modifications made of the Wisconsin objectives have generally been with the goal of achieving greater specificity and impact. The bracketed material should again be deleted if a community is not planning to enter the NFIP.)

## SECTION TWO. DEFINITIONS

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

(Note: Those definitions which have been taken verbatim or almost verbatim from 41 Fed. Reg. §1909.1 (1976) are indicated by double asterisks (\*\*) and will not be further commented on except as noted.)

(1) Accessory use: A use of a nature customarily subordinate or incidental to, and located on the same parcel as, the principle use of any structure or property.

(This definition is taken from USWRC-Vol. 1, p. 535, §10.)

\*\*(2) Area of shallow flooding: That land within a flood fringe area with base flood depths from one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate.

(The federal definition adds to the end of the above the phrase "and where velocity flow may be evident". That phrase is intended to cover V0 zones on a community's Flood Insurance Rate Map. Without the additional phrase, the definition is applicable to A0 zones.

Section 1914.3(a)(1) of the final federal regulations defines an A0 zone



as an "area of special flood hazards having shallow water depths and/or unpredictable flow paths between (1) and (3) ft." The definition of a V0 zone is the same as the definition of an A0 zone except the words "and with velocity" are added to the end of the definition.

The final federal regulations impose requirements within A0 zones but have no provisions applying to V0 zones. Discussions with FIA officials indicate that they do not plan to designate any V0 zones, and thus no requirements were adopted applying to such zones.)

\*\*(3) Area of special flood hazard: That land within a community in the flood plain which is subject to a one percent (1%) or greater chance of flooding annually.

(4) Breakaway walls within the meaning of Section 8.2 (a)(3) shall include but not be limited to any type of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building materials, which are not part of the structural support of the building and which are so designed as to break away, under abnormally high tides or wave action, without damage to the structural integrity of the building on which they are used or any buildings to which they might be carried by flood waters.

(This definition is designed as a general guideline for what constitutes a breakaway wall. One problem encountered in preparing the ordinance and this particular definition is that there are presently no engineering standards available for design of breakaway walls.)

\*\*(5) Coastal high hazard area: That portion of the flood plain having special flood hazards that is subject to high velocity waters, including but not limited to hurricane wave wash and tsunamis.

(6) Density of residential development: The maximum number of residential units which may be constructed on a given amount of land under the existing zoning classification of that land, without consideration of the provisions of this ordinance.

(This definition was formulated to clarify the density transfer provisions of Section 12.3(b).)

\*\* (7) 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, excavation or drilling operations.

\*\* (8) Existing mobile home park or subdivision: A parcel or contiguous parcels of land divided into two or more mobile home lots for rent or sale for which the construction of facilities for servicing the lot on which the mobile home is to be affixed is completed prior to the effective date of this ordinance. Such facilities for servicing the lot include at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads, and the construction of streets.

\*\* (9) Expansion of an existing mobile home park or subdivision: The preparation of additional sites by the construction of facilities for servicing the lots on which the mobile homes are to be affixed, including the installation of utilities, either final site grading or pouring of concrete pads, or the construction of streets, in a mobile home park or subdivision existing on the effective date of this ordinance. ["Expansion of an existing mobile home park or subdivision" shall not include the rental, sale, or lease of any mobile home lot which is ready for use or occupancy on the effective date of this ordinance and is located within a mobile home park or subdivision existing

on the effective date of this ordinance.]

(The original model ordinance contained a definition similar to that set forth above, even though the proposed federal regulation did not. The final federal regulations contain the above definition except for the bracketed sentence which is still suggested for inclusion to further clarify the federal definition.)

(10) Fair market value: The fair market value of property or structures, as used in the definition of "substantial improvement" shall mean, the value as determined by the tax assessor, either (a) before the improvement was started, or (b) if the structure has been damaged and is being restored, before the damage occurred.

(This definition has been extracted from the federal definition of "substantial improvement," with the addition of the qualifier "fair" to the federal term "market value." 41 Fed. Reg. §1909.1 (1976).)

\*\* (11) Flood or flooding:

(1) A general and temporary condition of partial or complete inundation of normally dry land areas from:

- (a) the overflow of inland or tidal waters, or
- (b) the unusual and rapid accumulation or runoff of surface waters from any source.

(2) The collapse or subsidence of land along the shore of a lake or other body of water as a 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 force of nature, such as a flash flood or an abnormal tidal

surge, or by some similarly unusual event which results in flooding as defined in (a) above.

(The provisions in the federal definition referring to mudslides have been deleted and the phrases "unanticipated force of nature" and "unforeseeable event" have been altered to eliminate the words "unanticipated" and "unforeseeable" because it was felt that a problem might arise where flash floods, etc., were forecast and therefore anticipated or foreseen - the results should still be considered floods.)

(12) Flood control works: Any man-made construction, such as a dam, levee, groin or jetty designed to alter the flood potential of the body of water on or adjacent to which it is built.

(The final federal regulation contains a similar, although somewhat longer definition for the term "flood protection system" which could be substituted if so desired.)

(13) Flood Fringe Area: That area of the flood plain, including areas of shallow flooding, not required to carry and discharge the regulatory flood waters, nor within the Coastal High Hazard Area, but still lying within the area of special flood hazard.

\*\* (14) Flood plain: Any normally dry land area that is susceptible to being inundated by waters from any source (see definition of flooding).

\*\* (15) Floodproofing: A combination of structural and/or non-structural additions, changes, or adjustments to properties or structures subject to flooding which will reduce or eliminate flood damages to properties, water and sewer facilities, or structures and their contents.

(16) Floodway: The channel of a river or other watercourse and the

adjacent land areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water-surface elevation more than one foot at any one point.

("Floodway" and "flood fringe" have become, by general usage, the accepted terms designating the two sections of varying hazard within the flood plain of the regulatory flood. The definition here provided is one adopted from provisions found in the model ordinances of several states, including, among others:

ILLINOIS - Guides for Flood Plain Regulation (Department of Local Government Affairs), PMS 74-2 (1974);

OHIO - Model Flood Plain Zoning Regulations (Department of Natural Resources, Division of Planning: Water Resources Planning Section); and

OREGON - Flood Plain Management for Oregon Cities and Counties (Bureau of Governmental Research and Service, University of Oregon and Oregon State Water Resources Board) (1971) - with the additional exclusion of the Coastal High Hazard Area which would not be required in an ordinance restricted to riverine conditions.

Evidently, much confusion exists over the "one foot" provision in the federal definition of "floodway." The federal regulations do not allow uses in the floodway which will cumulatively raise the 100-year flood elevation by a maximum of one foot. Consultations with the FIA and the Corps of Engineers confirmed that the one foot increase is used in the initial determination of the floodway itself and is not meant to allow a subsequent heightening of the 100-year flood elevation, once the limits of the floodway have been so set. That is, in order to determine that portion of the flood plain which will be

designated as the floodway, one begins at the outer limits of the flood plain and assumes full development inward, toward the river or stream channel, on both sides of the flood hazard area, until the point is reached where development will cause the 100-year flood elevation to rise by one foot. The area remaining between this boundary and the channel is the floodway, and because any further development here would necessarily increase the 100-year flood elevation by more than one foot, no such development can be countenanced.)

\*(17) Habitable floor: Any floor usable for living, which includes working, sleeping, eating, cooking or recreation, or any combination thereof. A floor used only for storage purposes is not a habitable floor.

(The final federal regulations incorporate the suggestion contained in the original model ordinance that the standard for determining a "habitable floor" should be whether such floor is "usable for" rather than "used for" living purposes.)

(18) Mean high water: A tidal datum, determined by taking the arithmetic mean of the high water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch).

(19) Mean high water line: The intersection of the land with the water surface at the elevation of mean high water.

(20) Mean low water: A tidal datum, determined by taking the arithmetic mean of the low water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch).

(21) Mean low water line: The intersection of the land with the water surface at the elevation of mean low water.

(These definitions are based on those provided by the National Ocean Survey, National Oceanic & Atmospheric Administration: Tide & Current Glossary

(Washington, D.C., 1975). Similar definitions may also be found in the Florida Coastal Mapping Act of 1974, FLA. STAT. §177.27 (15)-(18).

\*\*(22) Mean sea level: The average height of the sea for all stages of the tide.

\*\*(23) Mobile home: A structure, 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. It does not include recreational vehicles or travel trailers.

\*\*(24) New construction: Those structures for which the start of construction commenced on or after the effective date of this ordinance.

\*\*(25) Person: Any individual or group of individuals, corporation, partnership, association, or any other entity including state and local governments and agencies thereof.

\*\*(26) Regulatory flood: For purposes of this ordinance, a flood event having a 1% chance of occurring in any given year, although the flood may occur in any year, i.e., the 100-year flood.

(This incorporates the 100-year flood as the standard; however, a different level could be adopted if desired. The 100-year flood is the standard being adopted by the National Flood Insurance Program and is therefore the minimum for anyone desiring to enter the program.)

(27) Regulatory flood elevation: The crest elevation in relation to mean sea level expected to be reached by the regulatory flood at any given point in an area of special flood hazard.

\*\*(28) Start of construction:

(a) The first placement of permanent construction of a structure, other than a mobile home, on a site, such as pouring of slabs or footings or

any work beyond the stage of excavation. Permanent construction does not include land preparation such as clearing, grading, or filling; nor does it include the installation of streets or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

(b) For a structure, other than a mobile home, without a basement or poured footings, the start of construction includes the first permanent framing or assembly of the structure of any part thereof on its piling or foundation.

(c) For mobile homes not within a mobile home park or subdivision, "start of construction" means the affixing of the mobile home to its permanent site.

(d) For mobile homes within mobile home parks or subdivisions "start of construction" is the date on which the construction of facilities for servicing the site on which the mobile home is to be affixed is completed. Such facilities for servicing the site include at a minimum, the construction of streets, either final site grading or the pouring of concrete pads, and the installation of utilities.

(The above ends the federal definition for "start of construction".)

[(e) For any residential development, such as a mobile home park or subdivision, which has received the necessary approval from federal, state, and local authorities, the start of construction of the first unit shall be deemed to constitute the start of construction for the entire development. However, the construction deemed to have been so begun must be completed



within \_\_\_\_\_ years, and if construction of the development is undertaken in phases, then the start of construction of each phase will be deemed to have taken place independently of the start of construction of any other phase. Any construction not completed within \_\_\_\_\_ years shall be deemed new construction and shall be regulated as such in compliance with the provisions of this ordinance.<sup>1</sup>

(The above paragraph (e) should not be used if a community is adopting this ordinance to comply with the NFIP. The paragraph was added to the model because it was felt that the federal definition was too restrictive and would be subject to attack under the doctrine of equitable estoppel. See generally, 49 ALR 13, Retroactive Effect of Zoning Regulation (1973), 28 AM. JUR. 2d Estoppel & Waiver §§81-113 (1966). See also Sakolsby v. City of Coral Gables, 151 So. 2d 433 (Fla. 1963); Bregar v. Britton, 75 So. 2d 753 (Fla. 1954); Town of Largo v. Imperial Homes Corp., 309 So. 2d 571 (2d D.C.A. Fla. 1975). By the time a developer has cleared his land, drawn up plans, put in roads, obtained permits, etc., it would appear that substantial reliance has been placed on the previous zoning of the property and to treat the start of construction of each individual home as a separate start raises serious legal questions.)

\*\*(29) Structure: A walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a mobile home. The words "building" and "structure" shall have the same meaning for the purpose of this ordinance.

(The final federal definition set forth above represents an expansion of the proposed definition which excluded "gas or liquid storage tanks". This final definition is in line with the suggestion made in the original model ordinance that the definition be expanded to cover all construction that

would normally be considered a structure.)

(30) Subdivision: (Put in the appropriate statutory definition.)

\*\*(31) Substantial improvement: Any repair, reconstruction, improvement or alteration of a structure, the cost of which equals or exceeds 50% of the fair market value of the property or structure.

["Substantial improvement" shall also mean any combination of repairs, improvements, reconstruction or alterations taking place within a period of \_\_\_\_\_ years any of which alone has a cost less than but which together (no.) have a cost equal to or exceeding 50% of the fair market value of the property or structure.]

Substantial improvement is considered to have occurred when the first alteration in any wall, ceiling floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term does not include a project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions nor does it include any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

(The bracketed words have been added to the definition in order to plug a loophole in the federal definition. Since there is no time limit set in the federal version, it would be possible for a person to subvert the intent of the ordinance by making a series of "unsubstantial improvements" which in a short period of time could conceivably double or triple the value of the

structure. Also "market value" has been removed from this definition and redefined as "fair market value" earlier in this section.)

(32) Variance: A grant of relief to a person from the requirements of this ordinance which permits construction in a manner otherwise prohibited by this ordinance where specific enforcement would result in unnecessary hardship.

### SECTION THREE. GENERAL PROVISIONS

#### 3.1 Lands to which this Ordinance applies

This ordinance shall apply to all lands within the jurisdiction of \_\_\_\_\_ that are depicted on the \_\_\_\_\_ (local unit) Official Zoning Map as being a Floodway, Flood Fringe or Coastal High Hazard District.

(This provision was modeled after USWRC-Vol. 1, p. 522, 2.1. The three districts correspond to the districts depicted on the Insurance Rate Maps supplied by the federal government which show the flood plain, floodway and coastal high hazard districts. The flood fringe district is that part of the flood plain outside the floodway and coastal high hazard areas. A local community could utilize the federal information or could extend the area coverage beyond that covered by the federal maps.)

#### 3.2 Establishment of Official Zoning Map

The Official Zoning Map for \_\_\_\_\_ together with all \_\_\_\_\_ (local unit) explanatory matter thereon and attached thereto on the effective date of this ordinance is hereby adopted by reference and declared to be a part of this ordinance.

(This provision is modeled after USWRC-Vol. 1, p. 522, §2.2.)

### 3.3 Interpretation of District Boundaries

The boundaries of the Flood Plain District shall be determined by scientific and engineering studies and the results thereof shall be plotted on the Official Zoning Map for \_\_\_\_\_. Boundaries for construction or use restrictions set forth within this ordinance shall be determined by scaling distances on the Official Zoning Map. Where interpretation is needed in order to allow a surveyor to locate the exact boundaries of the district as shown on the Official Zoning Map, the Flood Plain Administrator shall initially make the necessary interpretation based on flood profile information. The decision of the Flood Plain Administrator shall be subject to appeal to the Board of Adjustment in accordance with Section 4.7.

(This provision is modeled after USWRC-Vol. 1, p. 522, §2.3 but has been altered somewhat to conform to the remainder of this ordinance.)

### 3.4 Compliance

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

### 3.5 Abrogation and Greater Restrictions

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

(The validity of this provision has been expressly recognized in the final federal regulations which state: "Therefore, any flood plain management regulations adopted by a State or community which are more restrictive than

the criteria set forth in this Part are encouraged and shall take precedence." §1910.1 (d))

### 3.6 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 or repeal any other powers granted under the state statutes.

(This provision is modeled after USWRC-Vol. 1, p. 523, §2.4-2.6)

### 3.7 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. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that areas outside of flood hazard districts or land uses permitted within such districts will be free from flooding or flood damages. This ordinance shall not create liability on the part of \_\_\_\_\_ (local unit) or any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

(This provision is based upon Section 5 of Rule Number FPM-1 promulgated by the Indiana National Resources Commission which is somewhat similar to USWRC-Vol. 1, p. 523, §2.7.)

## SECTION FOUR. ADMINISTRATION

### 4.1 Flood Plain Administrator

Pursuant to \_\_\_\_\_ the \_\_\_\_\_ shall appoint  
(statute) (local governing body)  
a Flood Plain Administrator [who shall be a registered professional engineer  
of \_\_\_\_\_.] Said Administrator shall be appointed for  
(state)  
\_\_\_\_\_ years to implement the elevation and flood proofing pro-  
(number)  
visions of this ordinance, and to carry on such other duties as are assigned  
to him herein.

(This provision is modeled after USWRC-Vol. 1, p. 27, §6.1. The official's designation has been changed to "Flood Plain Administrator," since it has been noted by various sources during the development of the model ordinance, that this ordinance requires procedures distinct from those normally attributed to a local "zoning" ordinance. Rather than place responsibility for review of the applications on an already existing Building Inspector or County Engineer, as in the flood plain zoning ordinances found in Galveston, Texas, and Sierra Vista, Arizona, it was felt that designation of a specific official, the Flood Plain Administrator, would be more appropriate, since the Flood Plain Ordinance imposes rather technical and special conditions for building in the flood hazard area. Especially in Florida, there are large portions of land within this area, and the responsibility for the regulatory provisions of the Ordinance should be placed with an official who has both the expertise and time to give adequate consideration to the problems raised. For this reason, it has been further suggested that the Flood Plain Administrator be a qualified, registered engineer. If, however, it is felt that the ordinance could be adequately administered by someone other than an engineer, the bracketed words could be deleted.)

#### 4.2 Flood Plain Construction Authorization (FPCA) Permit

(a) An FPCA Permit issued by the Flood Plain Administrator in conformity with the provisions of this ordinance shall be secured prior to the erection, addition or alteration of any building or structure or portion thereof within the permitted area prior to the change of use of a building, structure, or land; and prior to the change or extension of a nonconforming use.

(b) Application for an FPCA Permit shall be made to the Flood Plain Administrator on forms furnished by him and shall include the following where applicable: plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question in relation to mean sea level; existing or proposed structures, fill, storage of materials; and the location of the foregoing, where applicable, in relation to mean high tide levels, drainage facilities, the regulatory flood protection elevation, and any applicable flood hazard district boundaries.

(This provision is modeled after USWRC-Vol. 1, p. 527, §6.2.)

(c) Such application shall be acted upon and notice of the action taken shall be given to the applicant within \_\_\_\_\_ days.  
(no.)

Any appeal of the denial of an application for an FPCA Permit must be made to the Board of Adjustment within 30 days of notice of the denial to the applicant.

(e) Approval of an application shall result in the issuance of an FPCA Permit.

#### 4.3 Construction and Use to be as Provided in Application, Plans, and Permits

FPCA permits or special exception permits issued on the basis of approved plans and applications authorize only the use, arrangement, and construction

set forth in such approved plans and applications, and no other use, arrangement or construction. Any use, arrangement, or construction at variance with that authorized shall be deemed a violation of the ordinance, and enjoined or punishable as provided by Section 13.

(This provision is modeled after USWR-Vol. 1, p 528, §6.24.)

#### 4.4 Building Permits

Whenever a building permit shall be required under the provisions of this ordinance, such permit shall be procured in accordance with \_\_\_\_\_ (statutory authority). In addition to factors and requirements therein provided, the issuer shall also require, where applicable, presentation of a valid FPCA Permit prior to the issuance of the building permit. The conditions, plans, etc., attached to the issuance of the FPCA Permit shall thereafter become part of the building permit.

(Procedurally, it is contemplated that the requirements for construction within the flood plain will be incorporated into those provisions previously established by the particular community for building within its jurisdiction. Obtaining the initial FPCA Permit does not eliminate the need to fulfill all other prerequisites for obtaining a building permit. However, when the building permit itself has been obtained, the FPCA Permit should become incorporated into it, so that compliance with its terms shall be subject to the continued supervision offered by the building permit procedures already in effect. Thus the certification of compliance generally required to be offered by an architect or engineer after completion of the structure will include, by reference, certification of compliance with the terms of the FPCA Permit. It is felt that in this way the most complete implementation of the goals of the Flood Plain Ordinance will be effected, without creating any un-



due burden of administration or leadership on either the applicant or the municipality.

Where an adopting community for any reason does not wish to designate separate flood plain administration procedures, implementation of the substantive provisions of this ordinance may be simplified by utilizing whatever type of local enforcement is already available.)

#### 4.5 Board of Adjustment

A Board of Adjustment is hereby established which shall consist of \_\_\_\_\_ members to be appointed by the \_\_\_\_\_ for a  
(no.) (legislative body)  
term of \_\_\_\_\_ years as specified in Section \_\_\_\_\_ of the  
(no.)  
\_\_\_\_\_ statutes.

(This provision is modeled after USWRC-Vol. 1, p. 528, §6.3.)

#### 4.6 Powers and Duties of the Board

(a) The Board of Adjustment shall adopt rules for the conduct of business and may exercise all of the powers conferred on such boards by state law.

(b) The Board shall hear and decide appeals from the denial of FPCA Permits.

(c) The Board shall hear and decide appeals when it is alleged there is error in any requirement, decision or determination made by an administrative official in the enforcement or administration of this ordinance.

(d) The Board shall hear and decide applications for Special Exceptions upon which it is authorized to pass under this ordinance.

(e) The Board may authorize, upon appeal from a decision of the Flood Plain Administrator, a variance from the requirements of this ordinance in cases which fall within the provisions of Section 10.

(f) The Board shall interpret the boundaries of the Flood Hazard Districts on appeal from a decision of the Flood Plain Administrator.

#### 4.7 Hearings and Decisions of the Board of Adjustment

(a) Upon the filing with the Board of Adjustment of an appeal from a decision of the Flood Plain Administrator, an application for a Special Exception permit, or an application for a Variance, the Board shall hold a public hearing. The Board shall fix a reasonable time for the hearing and give public notice thereof as well as due notice to parties in interest. At the hearing any party may appear in person or by agent or attorney and present written and oral evidence for the record which he may have transcribed by a court reporter. The written transcript, if presented to the Board by the appellant, shall be part of the record.

(b) The Board shall arrive at a decision on an appeal, Special Exception, or Variance within 30 days after the hearing. In passing upon an appeal the Board may in conformity with the terms of this ordinance reverse or affirm, wholly or in part, or modify the order, requirement, decision or determination appealed from. The decision shall be in writing setting forth the findings of fact and rationale of the Board. In granting Special Exceptions or Variances, the Board may attach appropriate conditions and safeguards which promote the objectives of this Ordinance. Violation of such conditions and safeguards shall be deemed violations of this Ordinance punishable under Section 13.

(c) Appeals from any decision of the Board may be taken by any person or persons, jointly or separately, aggrieved by any decision of the Board, or any taxpayer, or any officer, department, board or bureau of the

\_\_\_\_\_, to the \_\_\_\_\_  
(local government unit) (name of appropriate court)  
as provided in \_\_\_\_\_  
(statute)

(This provision is modeled after USWRC-Vol. 1, p. 529-30, §6.4. It includes a very broad standing provision which could be narrowed if desired.

In addition the 30-day period could be expanded to 60 days if a community feels that the 30-day limit would result in haphazard decisions.)

#### 4.8 Special Exceptions

(a) Applications for uses requiring Special Exception permits shall be submitted to the Flood Plain Administrator on forms furnished by him. Upon receipt of the properly completed application, the Administrator shall submit it to the Board. The application shall contain the following information and any additional information requested by the Board:

(1) A map in duplicate, drawn to scale, showing mean high water, and mean low water and coastal construction setback lines where applicable, dimensions of the lot, existing structures and uses on the lot and adjacent lots, soil type, dunes and natural protective barriers, if applicable, existing flood control and erosion control works, existing drainage elevations and ground contours, location and elevation of existing streets, water supply, and sanitary facilities, and other pertinent information.

(2) A preliminary plan showing the approximate dimensions, elevation and nature of the proposed use; amount, area and type of proposed fill; area and nature of proposed grading or dredging; proposed alteration of dunes, beaches or other natural protective barriers if applicable; proposed roads, sewers, water and other utilities; specifications for building construction and materials including floodproofing.

(b) The Board shall transmit one copy of the information described in Section 4.8(a) to the \_\_\_\_\_ engineer for technical assistance in evaluating the proposed project in relation to flood heights and velocities, threatened erosion or wave action, the adequacy of drainage facilities, and other technical matters.  
(local unit)

(c) The Board shall determine the specific flood or erosion hazard at the site and shall evaluate the suitability of the proposed use in relation to the flood hazard, and, if a permit is to be issued, may attach appropriate conditions.

In passing upon such applications, the Board shall consider the technical evaluation of the engineer, all relevant factors, and standards specified in other sections of this ordinance, and:

(1) The danger to life and property due to flooding or erosion damage.

(2) The danger that materials may be swept onto other lands to the injury of others.

(3) The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.

(4) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.

(5) The importance of the services provided by the proposed facility to the community.

(6) The necessity to the facility of a waterfront location, where applicable.

(7) The availability of alternative locations, not subject to flooding or erosion damage for the proposed use.

(8) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.

(9) The relationship of the proposed use to the comprehensive plan and flood plain management program for the area.

(10) The safety or access to the property in times of flood for ordinary and emergency vehicles.

(11) 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.

(12) The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities such as sewer, gas, electrical and water systems, and streets and bridges.

(This provision is modeled after USWRC-Vol. 1, p. 531-32, §6.53. In some states including Florida, additional consideration must be made of the provisions of Beach and Shore Preservation Acts, see e.g., FLA. STAT. Ch. 161, (1971) particularly FLA. STAT. §161.052 establishing coastal construction setback lines.)

(d) The Board shall hold a hearing on an application for a special exception to Section 4.7 of this Ordinance within 30 days from receiving the application.

(This provision is based on USWRC-Vol. 1, p. 532, §6.54, with the insertion of "30 days" as the requisite time limitation.)

(e) Upon consideration of the factors listed above and the purposes of this Ordinance, the Board may attach such conditions to the granting of Special Exceptions or Variances as it deems necessary to further the purposes of this Ordinance.

(This provision is generally based on USWRC-Vol. 1, p. 532, §6.55. However, enumeration of specific conditions which might be imposed by the Board was specifically omitted. Such enumeration is not necessary to further the clear intent of the ordinance, and might serve to limit the creative and imaginative use of property, which it is hoped this ordinance will encourage.)

## SECTION FIVE. ESTABLISHMENT OF ZONING DISTRICTS

The areas within the jurisdiction of \_\_\_\_\_  
(local unit)  
having special flood hazards are hereby divided into three types of Flood Hazard Districts: Floodway Districts (FWD), Flood Fringe Districts (FFD), and Coastal High Hazard Districts (CHHD). The boundaries of these districts shall be designated on the Official Zoning Map.

(This provision is modeled after USWRC-Vol. 1, p. 524, §3.0.)

## SECTION SIX. FLOODWAY DISTRICTS (FWD)

### 6.1 Applicability

The provisions of this section shall apply to all areas designated as FWD's on the Official Zoning Map.

### \*6.2 Requirements within a FWD

(a) Within a designated FWD, all fill, encroachments, new construction, substantial improvements or other development shall be prohibited, except as otherwise provided herein as a special or permitted use.

(This provision is modeled after 41 Fed. Reg. §1909.3(d)(3) and is designed to prevent future development in floodways to as great an extent as possible. Since floodways are required to carry the water in the event of a flood, they should be limited as far as possible to open space uses.)

\*(b) The construction of any portion of a new mobile park or subdivision, the expansion of an existing mobile home park or subdivision or the location of any new mobile home not in a mobile home park or subdivision is prohibited in any FWD.

(This provision is modeled after 41 Fed. Reg. §1909.3(d)(4). It is designed to prevent location of mobile homes in areas subject to high velocity

waters, thereby preventing damage to the mobile home themselves and to other structures which could be damaged by floating mobile homes in the event of flooding.)

(c) In the event that a mobile home location or relocation does not fall within the provisions of Section 6.2(b), the location or relocation shall be allowed provided that:

(1) Any mobile home site rental or leasing agreement or any contract for or deed of sale clearly states that the land in question has been designated as part of a floodway district and may be subject to flooding;

(This provision was included in the original ordinance. The final federal regulations suggest that its inclusion is encouraged. Section 1910.22 "Planning considerations for flood-prone areas" provides that communities should consider:

"(c)(3) Full disclosure to all prospective and interested parties (including but not limited to purchasers and renters) that (i) certain structures are located within flood-prone areas..."

(2) Any mobile home moved into or relocated within an existing mobile home park or subdivision shall be anchored in such manner as to resist flotation, collapse or lateral movement in the event of flooding. The requisite anchoring shall be accomplished by:

(i) over-the top ties at each of the four corners of the mobile home, with two additional ties per side at intermediate locations, except that mobile homes less than 50 feet long shall only require one additional tie; and

(ii) frame ties at each corner of the mobile home with five additional ties at intermediate points, except that mobile homes less than 50 feet long shall only require four additional ties;

(iii) using only ties capable of carrying a force of 4800 pounds; and

(iv) similarly anchoring any additions to the mobile home.

(This provision has been changed to coincide with §1910.3(b)(8) of the final federal regulations.)

(3) The owner, operator or manager of an existing mobile home park or subdivision shall file with the (appropriate disaster preparedness authorities) [and post in a prominent location within the existing mobile home park] an evacuation plan indicating alternate vehicular access and escape routes; and

(4) Easy access for a mobile home hauler is provided.

(This provision is modeled after 41 Fed. Reg. §1910.3(b)(9) which is incorporated into the floodway provisions of the federal regulations by 41 Fed. Reg. §1910.3(d)(1). This provision is designed to notify mobile home buyers or renters of the potential danger of the location and to prevent mobile homes from becoming floating "battering rams" in situations where actually prohibiting their location within a Flood Plain would raise serious "taking" problems. The bracketed portion has been added here and in §8.63(b)(3), since it is felt that residents of an existing mobile home park within a CHHD, as well as the official authorities, should have easy access to emergency information.)

### 6.3 Permitted Uses

The following and other similar uses having a low flood damage potential and not obstructing flood flows shall be permitted within the FWD to the extent that they are not prohibited by any other ordinance, and provided they do not require structures, fill, dikes, dumping of materials or waste, or storage of materials or equipment. No use shall be permitted which acting alone or in



combination with existing or reasonably foreseeable future uses, would result in a significant increase in the regulatory flood elevation.

(1) Agricultural uses, including general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming, and wild crop harvesting.

(2) Non-structural industrial-commercial uses, including loading areas, parking areas, and private airport landing strips.

(3) Private and public recreational uses, including golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries for native species, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, hiking and horseback riding trails.

(4) Residential uses such as: lawns, gardens, parking areas, and play areas.

(This provision is modeled after USWRC-Vol. 1, p. 524, §4.1, and is designed to delineate the types of open space uses that are acceptable in floodway areas.)

#### 6.4 Special Exception Uses

(a) The following uses may be permitted only upon application to the Flood Plain Administrator and the issuance of a special use permit by the Board as provided in Section 4.8 of this Ordinance, and provided that the use will not increase the regulatory flood level:

- (1) Uses accessory to permitted or special uses;
- (2) Circuses, carnivals and similar transient amusement or entertainment;
- (3) Drive-in theaters, parking areas, new and used car lots, and signs;

- (4) Extraction of sand, gravel and other materials;
- (5) Railroads, streets, bridges, utility transmission lines and pipelines;
- (6) Marinas, boat rentals, docks, piers, and wharves, exclusive of any structures connected with any of the abovementioned;
- (7) Private storage yards of non-floatable equipment, machinery or materials;
- (8) Other uses similar in nature.

(This provision is modeled after USWRC-Vol. 1, p. 524, §4.2.)

## SECTION SEVEN. FLOOD FRINGE DISTRICTS (FFD)

### 7.1 Applicability

The provisions of this section shall apply to all areas designed as flood fringe districts on the Official Zoning Map.

### \*7.2 Requirements within a FFD

\*(a) Building permits will be required for all proposed construction or substantial improvement within an FFD.

(b) The \_\_\_\_\_ shall review all building permit applications to determine if the proposed construction:

(local body)

(i) is designed and is to be anchored to prevent flotation, collapse or lateral movement of the structure;

(ii) is to be constructed with materials and utility equipment resistant to flood damage; and

(iii) is to be constructed by methods and practices that will minimize potential flood damage.

(This provision has been changed to implement § 1910.3(a)(3) of the final federal regulations.)

\*(c) New or replacement water supply and sanitary sewer systems located within a FFD must be floodproofed as specified in Section 9.

\*(d) New construction or substantial improvement of any residential structure within the FFD shall have the lowest habitable floor, including basement, elevated to [Optional: at least \_\_\_\_\_ feet above] the regulatory flood elevation;

\*(e) New construction or substantial improvement of any commercial-industrial or other non-residential structure shall either have the lowest floor including basement elevated to the level of [Optional: to a level at least \_\_\_\_\_ feet above] the regulatory flood elevation or together with attendant utility and sanitary facilities be floodproofed to the level of [Optional: to a level at least \_\_\_\_\_ feet above] the regulatory flood elevation. All floodproofing shall meet the requirements of Section 9.

(The planning considerations contained in §1910.22 of the final federal regulations provide that communities should consider: (c)(15) "Requirement of additional elevation above the base flood level for all new construction and substantial improvement within [floodway and flood fringe areas] ...to protect against such occurrences as wave wash and floating debris, to provide an added margin of safety against floods having a magnitude greater than the base flood, or to compensate for future urban development.")

### \*7.3 Mobile Home Restrictions

\*(a) The construction of a new mobile home park or subdivision, the expansion of an existing mobile home park or subdivision, the location of a new mobile home not in a mobile home park or subdivision or the substantial improvement of any of the above in a FFD shall be allowed only if the following criteria are met:

(1) Adequate surface drainage and easy access for a mobile home hauler are provided;

(2) Lots or stands are elevated on compacted fill or on pilings so that the lowest habitable floor on the mobile home is at or above the regulatory flood level.

(3) If pilings are used to comply with the provisions of subsection (2) above, the lot must be large enough to permit steps and piling foundations must be placed in stable soil no more than ten feet apart and reinforced if more than six feet above the ground.

(This provision has been changed to correspond to the requirements of §910.3(c)(5)-(6) of the final federal regulations.)

(b) In the event that a mobile home location or relocation is not deemed to constitute the expansion of an existing mobile home park as used in Section 7.3(a), the location shall be allowed provided that the provisions of Section 6.2(c)(1)-(4) are complied with.

#### 7.4 Areas of Shallow Flooding

The following provision shall apply to construction in areas of shallow flooding in lieu of the foregoing requirements of this section.

(a) New construction or substantial improvements of any residential structures shall have the lowest floor, including basements, elevated above the crown of the nearest street to or above the expected depth of shallow flooding.

(b) New construction or substantial improvements of any non-residential structures shall have the lowest floor, including basement, elevated above the crown of the nearest street to or above the expected depth of shallow flooding, or together with attendant utility and sanitary facilities be flood-

proofed to or above that elevation. All such floodproofing shall be accomplished in accordance with Section 9 of this ordinance.

(This provision implements §1910.3(c)(7)-(8) of the final federal regulations.)

## SECTION EIGHT. COASTAL HIGH HAZARD DISTRICTS (CHHD)

### 8.1 Applicability

The provisions of this section shall apply to all areas designated as coastal high hazard districts on the Official Zoning Map.

### 8.2 Requirements for Development in CHHD's

\*(a) Except as otherwise provided herein, all new construction and substantial improvements within a designated CHHD:

(1) Shall be located landward of the mean high water line [and of any coastal construction setback line where applicable];

(The Planning Considerations in §1910.22(c)(14) of the final federal regulations now state that construction setback lines should be considered in coastal high hazard areas.)

(2) Shall be elevated on adequately anchored piles or columns so that the lowest portion of the structural members of the lowest floor is elevated at least to the regulatory flood elevation [Optional: elevated at least \_\_\_\_\_ feet above] the regulatory flood elevation and securely anchored to such piles or columns;

(As indicated in the commentary on the model ordinance, the final federal regulations call for elevation of the lowest structural members rather than the lowest floor. §1910.3(e)(4))

(3) Shall have the space below the lowest floor free of obstruction

or constructed with breakaway walls intended to collapse under stress without jeopardizing the structural integrity of the building; and

(4) Shall be designed and constructed so as to minimize the impact and effect of abnormally high tides, wind-driven water or waves on the building.

(b) An application for a building permit in a CHHD shall be accompanied by a certificate signed by a [registered professional engineer, architect or other professional allowed by law to so certify] stating that the structure has been designed to meet the requirements of Section 8.2(a)(2),(3),(4).

(This provision which was optional in the first model ordinance is now required by § 1910.3(e)(4) of the final federal regulations.)

(c) Fill shall not be used for structural support within a CHHD.

(d) Man-made alteration of sand dunes and mangrove stands which will increase potential flood damage is prohibited within a CHHD.

(This provision implements §1910.3(e)(8) of the final federal regulations.)

### 8.3 Mobile Homes within a CHHD

\*(a) No new mobile home parks or subdivisions , expansion of existing mobile home parks or subdivisions or location of any new mobile home not in a mobile home park or subdivision shall be allowed within a designated CHHD.

\*(b) In the event that a mobile home location or relocation is not deemed to constitute the expansion of an existing mobile home park or subdivision as used in Section 8.3(a), the location or relocation shall be allowed provided that the provisions of Section 6.2(c)(1)-(4) are complied with.

#### 8.4 Guidance of Future Development

The \_\_\_\_\_ shall wherever possible through  
(Legislative body of local unit)  
zoning, other land use regulations or otherwise encourage open space uses in  
areas designated as CHHD's. Open space uses shall include but not be limited  
to those listed in Section 6.3.

(The basis for this provision is that CHHD's are areas which by their  
very nature are dangerous areas in which to live or build and are therefore  
much better suited to open space uses.)

### SECTION NINE. FLOODPROOFING

#### 9.1 Minimum Floodproofing Requirements

Wherever any of the provisions of this ordinance require that a  
building be floodproofed or specify that floodproofing may be used as an al-  
ternative to elevating a structure above the regulatory flood level, flood-  
proofing shall be deemed to include all of the following:

(a) Wherever possible the location, construction and installation of  
all electrical and gas utility systems in such manner as to assure the con-  
tinuing functioning of those systems in the event of a regulatory flood;

(b) The location, construction and installation of all potable water  
supply systems in such a manner as to prevent contamination from flood waters  
during the regulatory flood. No water supply well shall be located within  
the foundation walls of a building or structure used for human habitation,  
medical or educational services, food processing or public services;

(c) Approved backflow preventers or devices shall be installed on main  
water service lines, at water wells and at all building entry locations to  
protect the system from backflow or back siphonage of flood waters or other  
contaminants;

(d) Sanitary sewer and storm drainage systems that have openings below the regulatory flood elevation shall be equipped with automatic back water valves or other automatic backflow devices that are installed in each discharge line passing through a building exterior wall;

(e) Sanitary sewer systems, including septic tank systems, that are required to remain in operation during a flood shall be provided with a sealed holding tank and the necessary isolation and diversion piping, pumps, ejectors and appurtenances required to prevent sewage discharge during a flood. The holding tank shall be sized for storage of at least \_\_\_\_\_ days demand:

(f) All sewer system vents shall extend to an elevation of at least \_\_\_\_\_ feet above the regulatory flood elevation.

(g) All construction below the regulatory flood elevation shall be watertight with walls substantially impermeable to the passage of water.

\*(h) 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 regulatory flood at the location of the building.

(The final federal regulations give communities the option of either using paragraph (h) above or adopting and submitting detailed floodproofing specifications. §1910.3(c)(4). Paragraph (h) was included in the original model ordinance and it is felt that it provides more flexibility than adopting detailed floodproofing specifications.)



## \*9.2 Approval of Floodproofing

Prior to construction, plans for any structure that is required to be floodproofed must be submitted to the \_\_\_\_\_ Engineer  
(local unit)  
for approval. The \_\_\_\_\_ Engineer will review the plans for  
(local unit)  
compliance with the provisions of Section 9.1(a)-(h) for compliance with any other applicable building codes or regulations. The \_\_\_\_\_  
(local unit)  
Engineer shall approve, reject or recommend modifications of the plans within 30 days from their receipt.

## SECTION TEN. VARIANCES

### 10.1 Requirements for Variance

Upon the submission of a written application to the Board a variance may be granted permitting the erection of structures with a lowest floor elevation, including basement, lower than the regulatory flood elevation but at least 2 feet above the elevation of the adjoining street if all of the following are met:

- \*(a)(1) The property on which the structure is to be erected is an isolated lot of approximately one-half acre or less, contiguous to and surrounded by existing structures constructed below such required first floor elevation or
- (2) A structure listed on the National Register of Historic Places or a State Inventory of Historic Places is to be restored or reconstructed; and
- \*(b) Good and sufficient cause exists for the granting of the variance;
- \*(c) Failure to grant the variance would result in exceptional hardship to the applicant; and
- \*(d) The issuance of the variance would 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 ordinances;

\*(e) The variance would not have the effect of nullifying the intent and purpose of the ordinance.

(These provisions implement 41 Fed. Reg. §§1910.6(a)(1)-(4). It is also possible for a community-wide variance for basements to be granted under 41 Fed. Reg. §1910.6(b)(3), and it is even possible under 41 Fed. Reg. §1910.6(b)(1) to get a variance from the 100-year flood requirement. However, discussions with FIA officials have indicated that it is extremely unlikely that a variance would be granted under that provision.

#### 10.2 Procedure for Variances

\*[(a) Variances granted shall become effective only after a description of the variance and its effect on flood insurance eligibility and premiums has been recorded with the Clerk of the Circuit Court of \_\_\_\_\_ County prior to the issuance of the building permit.]

(The requirement to record the variance was deleted from the final federal regulations since it conflicted with some state statutes prohibiting the recording of variances. A check with a Florida Clerk indicated that there would be no problem in recording such a variance. It is suggested that where possible the above provision be utilized to provide maximum notice to potential property purchasers.

Additionally, the final federal regulations provide that states should consider amending recording acts to allow for adoption of such a requirement. §1910.25(15).)

(b)(1) All applications for variances shall be heard by the Board after reference to such committees and administrative officials as may be established for purposes of investigation and recommendation.

(2) Prior to the granting of a variance the Board must find that justification exists in accordance with the terms of this ordinance. These findings, together with the grant of a variance, shall be reduced to writing and made a part of municipal records. Any variance shall pertain to the particular parcel of land and apply only to the proposed structure set forth in the variance application.

(3) Such variance shall be freely transferable with the land and shall not be personal to the applicant.

(4) Unless otherwise provided therein, a variance shall be valid for a period of one year after the date of its issuance. If construction has not commenced pursuant thereto within such time, said variance shall become void. Lapse of a variance by the passage of time shall not preclude subsequent application for variance.

(5) No variance except as herein specifically permitted may be granted from the provisions of this ordinance. The variance procedures herein provided shall be the exclusive method for obtaining variances under the provisions herein.

(c) Each written application for a variance shall be accompanied by a fee of \_\_\_\_\_. Such application shall reflect the type of structure or structures for which a variance is sought, the size of such structures, the approximate location upon the parcel and the intended use thereof.

\*(d) Any applicant to whom a variance is granted shall be given notice that the proposed structure will be located in a flood prone area, that the

structure will be built with a lowest floor elevation \_\_\_\_\_ feet below the regulatory flood elevation; [and that the cost of the flood insurance will be commensurate with the increased risk resulting from the reduced first floor elevation.]

(This provision implements 41 Fed. Reg. §1910.6(a)(5). The bracketed material should be deleted if an adopting community is not entering the NFIP.)

#### SECTION ELEVEN. NONCONFORMING USES

A structure or the use of a structure or premises which was lawful before the passage or amendment of this ordinance but which is not in conformity with its provisions may be continued as a nonconforming use subject to the following conditions:

(a) No such use shall be expanded, changed, enlarged or altered in any way which increases its nonconformity.

(b) Any substantial improvement of a nonconforming structure shall be made in compliance with the provisions of this ordinance.

(c) If such use is discontinued for \_\_\_\_\_ consecutive months, any future use of the building premises shall conform to this ordinance.

(d) If any nonconforming use or structure is destroyed by any means, including flood, to an extent of 50% or more of its market value immediately prior to the destruction, it shall not be reconstructed except in conformity with the provisions of this ordinance.

(e) Any use which has been permitted as a Special Exception use and is in full compliance with this act and attached conditions shall be considered a conforming use.

## SECTION TWELVE. SUBDIVISION REGULATIONS IN FLOOD HAZARD AREAS

(The provision pertaining to subdivisions in the final federal regulations apply to subdivisions and to other developments greater than 50 lots or 5 acres whichever is the lesser. § 1910.3(b)(3). Therefore, if the statutory definition of subdivision is greater than 50 lots, appropriate modification of this ordinance should be made.)

### 12.1 Applicability

The provisions of this section shall apply to all subdivisions platted after the effective date of this ordinance which encompass any land which is designated as having special flood hazards and is shown on the Official Zoning Map as either a CHHD, FWD or FFD.

### 12.2 Subdivisions within a FWD

If any portion of a proposed subdivision lies within a FWD, the portion of land so located shall be developed in accordance with the provisions of Section 6 of this ordinance.

### 12.3 Subdivision within a FFD or CHHD

(a) If any portion of a proposed subdivision lies within a FFD or CHHD, the portion of land so located shall be developed in accordance with either the provisions of Sections 7 or 8 of this ordinance, whichever is applicable.

(These two types of districts were separated from the FWD because development is allowed in both, the only restrictions being in the nature of elevation requirements.)

(b) The Flood Plain Administrator shall require the developer of a residential subdivision to dedicate areas within a FFD or CHHD to open space uses such as those specified in Section 6.3 of this ordinance whenever possible within the provisions of this section. In return for such dedication, the

residential subdivisions shall be given density credits equal in value to the density of the residential development that would have occurred in the FFD or CHHD area had it not been dedicated to open space use. These density credits shall be transferable only to portions of the same proposed residential subdivision which lie outside flood hazard districts, thereby maintaining the same total density within the subdivision as if the FFD or CHHD had been developed.

The provisions of this section shall operate only if the Zoning Administrator finds:

(1) that the construction of the proposed residential subdivision without density credit transfer will have adverse effects on existing structures and uses in the event that flooding occurs; and

(2) that the density credit transfer will not increase the density of residential development on the land to which the transfer occurs by more than ([25%] [1.25 times the density of residential development permissible prior to the transfer.] ) If this subsection can be satisfied by density credit transfer from only a portion of the land lying within a CHHD or FFD, then this section shall apply to only said portion.

(The concept is that flood plains should not be developed if possible, but "taking" problems may exist if development is prohibited, especially since the development is allowed under the NFIP. Therefore, whenever possible, a community should "purchase" the development rights to flood plains from the subdivider by allowing him to build to the same total density of units as if all his land were available, but to confine actual construction only to areas outside the flood plain. The (1.25) figure was suggested by a local government official as a means of assuring that a density transfer would not result

in destruction of the overall integrity of an area, e.g., it would prevent a subdivider who obtained a large amount of flood plains land from transferring the density credits thereby accrued to a small parcel, resulting in an authorization for the construction of a highrise in an area of single family residences. A higher figure may be utilized in less populated areas.

The last sentence of the provision applies to the situation where, because a large portion of the planned subdivision is within the FFD or CHHD, the transfer of density credits as otherwise provided would result in an increase of the density of the land not within the FFD or CHHD by a factor greater than (1.25)(25%). If such a result would occur by strict application of the density credit transfer to the entire parcel, then credits will be awarded only for that portion of the land within the FFD or CHHD which will result in an increase in density of the adjacent land of (1.25 times)(25%) or less. No further density credits will be allowed, even if additional portions of the parcel are within the FFD or CHHD and would otherwise entitle the developer to density credits. A similar concept has been incorporated in Ordinance No. 0-1-74, Palatine, Illinois.)

#### 12.4 Regulation of Subdivisions already under Construction

If a subdivision plat has been approved, building permits obtained and construction of the subdivision has already started, as defined in Section 2(28) the following provisions shall apply to any remaining construction within a FWD, FFD, or CHHD.

(a) All utility systems installed shall be floodproofed in accordance with the provisions of Section 9 of this ordinance.

(b) All contracts for and deeds of sale entered into or executed after the effective date of this ordinance shall specify that the land in question

is located within a flood hazard district and may be subject to flooding.

(Due to the federal definition of "start of construction", these provisions would not be allowed in an ordinance adopted to comply with the federal regulations. Since each new unit constitutes a new "start of construction", the ordinance would be applicable to those homes "started" after its passage and not to those "started" before. There is no "start of construction" for a subdivision. However, if a court challenge proves successful-see those cases cited in Section 2(22)(d) for the doctrine of equitable estoppel-this provision can be inserted into the ordinance to plug the gap.)

#### 12.5 Plat Approval

(a) In addition to any other requirements imposed on subdivision plats, all preliminary or final plats submitted for approval to the \_\_\_\_\_ (platting authority) shall clearly delineate:

(1) All areas that are designated as being either FWD, FFD or CHHD zones on the Official Zoning Map;

(2) The regulatory flood elevation at all affected areas on the plat;

(3) The finished elevation for all streets and lots platted;

(4) All areas for which soil absorption sewage disposal systems will not properly function due to high ground water elevation or frequent flooding;

(5) All existing or proposed drainage facilities.

(The idea for these provisions was taken From the Draft Subdivision Ordinance, USWRC-Vol. 2, p. 57-73.)

(b) The \_\_\_\_\_ (platting authority) shall examine all plats for compliance with the above regulations and all other pertinent regulations and may either approve or reject the plat or approve the plat with modifications.



#### SECTION THIRTEEN. PENALTIES FOR VIOLATION

Violation of the provisions of this Ordinance or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of Variances or Special Exceptions, 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 \$\_\_\_\_\_ or imprisoned for not more than \_\_\_\_\_ days, or both, 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 \_\_\_\_\_  
(local unit)  
from taking such other lawful action as is necessary to prevent or remedy any violation.

#### SECTION FOURTEEN. SEVERABILITY

If any section, clause, provision or portion of this ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall remain in effect.

(These provisions are modeled after USWRC-Vol. 1, p. 534, 523, §8.0, §2.8.)