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Willie D. Wise
WILLIE D. WISE

CLERK CIRCUIT COURT
CALHOUN COUNTY, FLORIDA

FLOOD DAMAGE PREVENTION ORDINANCE

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DEPARTMENT OF STATE
TALLAHASSEE, FLORIDA

ARTICLE 1. STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE, AND OBJECTIVES.

SECTION A. STATUTORY AUTHORIZATION.

The Legislature of the State of Florida has in
Ch. 166, Florida Statutes delegated the responsibility to
(statutes)
local governmental units to adopt regulations designed to promote the
public health, safety, and general welfare of its citizenry. Therefore,
the County Commission of Calhoun County,
(governing body) (local unit)
Florida, does ordain as follows:
(state)

SECTION B. FINDINGS OF FACT.

- (1) The flood hazard areas of Calhoun County are
(local unit)
subject to periodic inundation which results in loss of life
and property, health and safety hazards, disruption of
commerce and governmental services, extraordinary public
expenditures for flood protection and relief, and impairment
of the tax base, all of which adversely affect the public
health, safety and general welfare.
- (2) 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.

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SECTION C. STATEMENT OF PURPOSE.

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

- (1) restrict or prohibit uses which are dangerous to health,
safety and property due to water or erosion hazards, or which

result in damaging increases in erosion or in flood heights or velocities;

- (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;
- (4) control filling, grading, dredging and other development which may increase erosion or flood damage, and;
- (5) prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

SECTION D. OBJECTIVES.

The objectives of this ordinance are:

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

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ARTICLE 2. 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.

"Addition (to an existing building)" means any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common loadbearing wall other than a fire wall. Any walled and roofed addition which is connected by a fire wall or is separated by independent perimeter load-bearing walls is new construction.

"Appeal" means a request for a review of the County Building Inspector 's (local administrator) interpretation of any provision of this ordinance or a request for a variance.

"Area of shallow flooding" means a designated AO or VO Zone on a community's Flood Insurance Rate Map (FIRM) with base flood depths from one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

"Area of special flood hazard" is the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year.

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

"Basement" means that portion of a building having its floor subgrade (below ground level) on all sides.

"Breakaway wall" means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or the supporting foundation system.

"Building" means any structure built for support, shelter, or enclosure for any occupancy or storage.

"Coastal High Hazard Area" means the area subject to high velocity waters caused by, but not limited to, hurricane wave wash. The area is designated on a FIRM as Zone V1 - 30, VE or V.

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

operations, or permanent storage of materials.

"Elevated building" means a non-basement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns (posts and piers), shear walls, or breakaway walls.

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

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

"Flood Hazard Boundary Map (FHBM)" means an official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the areas of special flood hazard have been defined as Zone A.

"Flood Insurance Rate Map (FIRM)" means an official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

"Flood Insurance Study" is the official report provided by the Federal Emergency Management Agency. The report contains flood profiles, as well as the Flood Boundary Floodway Map and the water surface elevation of the base flood.

"Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

"Floor" means the top surface of an enclosed area in a building (including basement), i.e., top of slab in concrete slab construction or top of wood flooring in wood frame construction. The term does not include the floor of a garage used solely for parking vehicles.

"Functionally dependent facility" means a facility which 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, ship repair, or seafood processing facilities. The term does not include long-term storage, manufacture, sales, or service facilities.

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

"Mangrove stand" means an assemblage of mangrove trees which is mostly low trees noted for a copious development of interlacing adventitious roots above the ground and which contain one or more of the following species: black mangrove (Avicennia nitida); red mangrove (Rhizophora mangle); white mangrove (Longuncularia racemosa); and buttonwood (Conocarpus erecta).

"Mean Sea Level" means 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 ordinance, the term is synonymous with National Geodetic Vertical Datum (NGVD).

"Manufactured home" means 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 dates or longer and intended to be improved property.

"National Geodetic Vertical Datum (NGVD)" as corrected in 1929 is a vertical control used as a reference for establishing varying elevations within the floodplain.

"New construction" means buildings for which the "start of construction" commenced on or after the effective date of this ordinance.

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

"Start of construction" (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (P. L. 97-348)), 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 the placement of a

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

"Structure" means a walled and roofed building that is principally above ground, a manufactured home, a gas or liquid storage tank, or other man-made facilities or infrastructures.

"Substantial improvement" means any combination of repairs, reconstruction, alteration, or improvements to a building, taking place during (the life of a building) ~~in a ten-year period~~, in which the cumulative cost equals or exceeds fifty percent of the market value of the building. The market value of the building should be (1) the appraised value of the building prior to the start of the initial repair or improvement, or (2) in the case of damage, the value of the building prior to the damage occurring. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. The term does not, however, include any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions.

"Variance" is a grant of relief 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.

ARTICLE 3. GENERAL PROVISIONS.

SECTION A. LANDS TO WHICH THIS ORDINANCE APPLIES.

This ordinance shall apply to all areas of special flood hazard within the jurisdiction of Calhoun County.
(local unit)

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

The areas of special flood hazard identified by the Federal Emergency Management Agency in its Flood Insurance Study, dated June 18, 1987, with accompanying maps and other supporting data, and any revision thereto, are adopted by reference and declared to be a part of this ordinance.

SECTION C. ESTABLISHMENT OF DEVELOPMENT PERMIT.

A Development Permit shall be required in conformance with the provision of this ordinance prior to the commencement of any development activities.

SECTION D. 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.

SECTION E. ABROGATION AND GREATER RESTRICTIONS.

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

SECTION F. INTERPRETATION.

In the interpretation and application of this ordinance all provisions shall be: (1) considered as minimum requirements; (2) liberally construed in favor of the governing body, and; (3) deemed neither to limit nor repeal any other powers granted under state statutes.

SECTION G. WARNING AND DISCLAIMER OF LIABILITY.

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. 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 land outside the areas of special

flood hazard or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of Calhoun County or by any officer or (local unit) employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

SECTION H. 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 variance 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 \$ 200.00 or imprisoned for not more than 10 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 Calhoun County from taking such other lawful (local unit) actions as is necessary to prevent or remedy any violation.

ARTICLE 4. ADMINISTRATION.

SECTION A. DESIGNATION OF Building Inspector (local administrator).

The Building Inspector is hereby appointed to administer (local administrator) and implement the provisions of this ordinance.

SECTION B. PERMIT PROCEDURES.

Application for a Development Permit shall be made to the Building Inspector on forms furnished by him or her prior to any (local administrator) development activities, 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:

- (i) 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 registered professional engineer or architect that the non-residential flood-proofed building will meet the flood-proofing criteria in Article 5, Section B (2);
- (d) Description of the extent to which any watercourse will be altered or relocated as result of proposed development, and;

(2) Construction Stage.

Provide a floor elevation or flood-proofing certification after the lowest floor is completed, or instances where the building is subject to the regulations applicable to Coastal High Hazard Areas, after placement of the horizontal structural members of the lowest floor. Upon placement of the lowest floor, or flood-proofing by whatever construction means, or upon placement of the horizontal structural members of the lowest floor, whichever is applicable, it shall be the duty of the permit holder to submit to the _____ Building Inspector _____ (local administrator) a certification of the elevation of the lowest floor, flood-proofed elevation, or the elevation of the lowest portion of the horizontal structural members of the lowest floor, whichever is applicable, as built, in relation to mean sea level. Said certification shall be prepared by or under the direct supervision of a 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 _____ Building Inspector _____ (local administrator) shall review the floor elevation survey data submitted. Deficiencies

detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. 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.

SECTION C. DUTIES AND RESPONSIBILITIES OF THE Building Inspector
 (local administrator)
 Duties of the Building Inspector shall include, but not be
 (local administrator)
 limited to:

- (1) Review all development permits to assure that the permit requirements of this ordinance have been satisfied;
- (2) Advise permittee that additional federal or state permits may be required, and if specific federal or state permit requirements are known, require that copies of such permits be provided and maintained on file with the development permit.
- (3) Notify adjacent communities and the State Coordinating Agency
 (state coordinating
 Office of Governor _____ agency) prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
- (4) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- (5) Verify and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved buildings, in accordance with Article 4, Section B (2).
- (6) 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 Article 4, Section B (2).
- (7) In Coastal Hazard Areas, certification shall be obtained from a registered professional engineer or architect that the building is designed to be securely anchored to adequately

anchored pilings or columns in order to withstand velocity waters and hurricane wave wash.

- (8) In Coastal High Hazard Areas, the Building Inspector
(local administrator) shall review plans for adequacy of breakaway walls in accordance with Article 5, Section B (5)(h).
- (9) When flood-proofing is utilized for a particular building, the Building Inspector
(local administrator) shall obtain certification from a registered professional engineer or architect, in accordance with Article 5, Section B (2).
- (10) Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the Building Inspector
(local 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 article.
- (11) When base flood elevation data or floodway data have not been provided in accordance with Article 3, Section B, then the Building Inspector
(local administrator) shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer the provisions of Article 5.
- (12) All records pertaining to the provisions of this ordinance shall be maintained in the office of the Building Inspector
(local administrator) and shall be open for public inspection.

SECTION D. VARIANCE PROCEDURES.

- (1) The County Commission
(Appeal Board) Calhoun County
(local unit) shall hear and decide appeals and requests for variances from the requirements of this ordinance.
- (2) The County Commission
(Appeal Board) shall hear and decide appeals when it is alleged there is an error in any requirement,

decision, or determination made by the _____
 _____ (local
Building Inspector _____ in the enforcement or admin-

 istration of this ordinance.

- (3) Any person aggrieved by the decision of the _____
 _____ (Appeal
County Commission _____ or any taxpayer may appeal such decision

 Board)
 to the _____ Circuit Court of Calhoun County _____, as

 (name of the appropriate court)
 provided in F.S. 166 _____.

 (statute)

- (4) Variances may be issued for the reconstruction,
 rehabilitation or restoration of buildings listed on the
 National Register of Historic Places or the State Inventory
 of Historic Places without regard to the procedures set forth
 in the remainder of this section, except for Article 4,
 Section D, (8)(a) and (d), and provided the proposed
 reconstruction, rehabilitation, or restoration will not
 result in the building losing its historical designation.

- (5) In passing upon such applications, the County Commission
 _____ (Appeal Board)
 shall consider all technical evaluations, all relevant
 factors, all standards specified in other sections of this
 ordinance, and:

- (a) the danger that materials may be swept onto other lands
 to the injury of others;
- (b) the danger to life and property due to flooding or
 erosion damage;
- (c) the susceptibility of the proposed facility and its
 contents to flood damage and the effect of such damage
 on the individual owner;
- (d) the importance of the services provided by the proposed
 facility to the community;
- (e) the necessity of the facility to a waterfront location,
 in the case of a functionally dependent facility;
- (f) the availability of alternative locations, not subject
 to flooding or erosion damage, for the proposed use;
- (g) the compatibility of the proposed use with existing and
 anticipated development;

- (h) the relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
 - (i) the safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (j) 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, and;
 - (k) 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.
- (6) Upon consideration of the factors listed above, and the purposes of this ordinance, the County Commission (Appeal Board) may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.
- (7) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- (8) Conditions for Variances:
- (a) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and in the instance of a historical building, a determination that the variance is the minimum necessary so as not to destroy the historic character and design of the building;
 - (b) Variances shall only be issued upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship, and; (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause

fraud on or victimization of the public, or conflict with existing local laws or ordinances.

- (c) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation and the elevation to which the building is to be built and stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
- (d) The Building Inspector
(local administrator) shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

ARTICLE 5. PROVISIONS FOR FLOOD HAZARD REDUCTION.

SECTION A. GENERAL STANDARDS.

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

- (1) New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure;
- (2) Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces.
- (3) New construction and 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 shall be designed and/or located so as to prevent water from entering

accumulating within the components during conditions of flooding.

- (6) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (7) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;
- (8) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding, and;
- (9) Any alteration, repair, reconstruction or improvements to a building which is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance.

SECTION B. SPECIFIC STANDARDS.

In all areas of special flood hazard where base flood elevation data have been provided, as set forth in Article 3, Section B, or Article 4, Section C (11), the following provisions are required:

- (1) Residential Construction. New construction or substantial improvement of any residential building (or manufactured home) shall have the lowest floor, including basement to or elevated ~~no lower than xxxxxxxx feet~~ above the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of flood waters shall be provided in accordance with standards of Article 5, Section B (3).
- (2) Non-Residential Construction. New construction or substantial improvement of any commercial, industrial, or non-residential building (or manufactured home) shall have the lowest floor, including basement, elevated ~~to or xxxxxxxx feet~~ ~~xxxxxxx feet~~ above the level of the base flood elevation. Buildings located in all A-zones may be flood-proofed in lie

of being elevated provided that all areas of the building 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 effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in Article 4, Section B (3).

- (3) Elevated Buildings. New construction or substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation shall be designed to preclude finished living space and designed 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 the following minimum criteria:

- (i) 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;
- (ii) The bottom of all openings shall be no higher than one foot above grade; and,
- (iii) Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both direction.

(b) Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or 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 partitioned or finished into separate rooms.
- (4) Floodways. Located within areas of special flood hazard established in Article 3, Section B, are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and has erosion potential, the following provisions shall apply:
 - (a) Prohibit encroachments, including fill, new construction, substantial improvements and other developments unless certification (with supporting technical data) by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during occurrence of the base flood discharge;
 - (b) If Article 5, Section B(4)(a) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article 5.
 - (c) Prohibit the placement of manufactured homes (mobile homes), except in an existing manufactured homes (mobile homes) park or subdivision. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring standards of Article 5, Section A(2), and the elevation standards of Article 5, Section B(1) and the encroachment standards of Article 5, Section B(4)(a), are met.
- (5) Coastal High Hazard Areas (V Zones). Located within the areas of special flood hazard established in Article 3, Section B, are areas designated as Coastal High Hazard areas. These areas have special flood hazards associated with wave wash, therefore, the following provisions shall apply:
 - (a) All building shall be located (50 feet) landward of the reach of the mean high tide;

- (b) All buildings shall be elevated so that the bottom of the lowest supporting horizontal member (excluding pilings or columns) is located ^{at or} ~~not lower than~~ (~~xxxxxx~~ feet) above the base flood elevation level, with all space below the lowest supporting member open so as not to impede the flow of water. Open lattice work or decorative screening may be permitted for aesthetic purposes only and must be designed to wash away in the event of abnormal wave action and in accordance with Article 5, Section B (5)(h);
- (c) All buildings or structures shall be securely anchored on pilings or columns;
- (d) All pilings and columns and the attached structures shall be anchored to resist flotation, collapse, and lateral movement due to the effect of wind and water loads acting simultaneously on all building components. The anchoring and support system shall be designed with wind and water loading values which equal or exceed the 100 year mean recurrence interval (one percent annual chance flood).
- (e) A registered professional engineer or architect shall certify that the design, specifications and plans for construction are in compliance with the provisions contained in Article 5, Section B(5)(b), (c) and (d) of this ordinance.
- (f) There shall be no fill used as structural support." Non-compacted fill may be used around the perimeter of a building for landscaping/aesthetic purposes provided the fill will wash out from storm surge, (thereby rendering the building free of obstruction) prior to generating excessive loading forces, ramping effects, or wave deflection. The Building Inspector shall (local administrator) approve design plans for landscaping/aesthetic fill only after the applicant has provided an analysis by an engineer, architect, and/or soil scientist, which

demonstrates that the following factors have been fully considered:

- (i) Particle composition of fill material does not have a tendency for excessive natural compaction;
 - (ii) Volume and distribution of fill will not cause wave defection to adjacent properties; and
 - (iii) Slope of fill will not cause wave run-up or ramping.
- (g) There shall be no alteration of sand dunes or mangrove stands which would increase potential flood damage;
- (h) Lattice work or decorative screening shall be allowed below the base flood elevation provided they are not part of the structural support of the building and are designed so as to breakaway, under abnormally high tides or wave action, without damage to the structural integrity of the building on which they are to be used and provided the following design specifications are met:
- (i) No solid walls shall be allowed, and;
 - (ii) Material shall consist of lattice or mesh screening only.
- (i) If aesthetic lattice work or screening is utilized, such enclosed space shall not be designed to be used for human habitation, but shall be designed to be used only for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises.
- (j) Prior to construction, plans for any buildings that will have lattice work or decorative screening must be submitted to the Building Inspector for approval;
(local administrator)
- (k) Any alteration, repair, reconstruction or improvement to a structure shall not enclose the space below the lowest floor except with lattice work or decorative screening,

as provided for in Article 5, Section B(5)(h) and (i).

- (1) Prohibit the placement of manufactured homes (mobile homes), except in an existing manufactured homes (mobile homes) park or subdivision. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring standards of Article 5, Section B(5)(e), and the elevation standards of Article 5, Section B(5)(b) are met.

SECTION C. STANDARDS FOR STREAMS WITHOUT ESTABLISHED BASE FLOOD ELEVATION AND/OR FLOODWAYS.

Located within the areas of special flood hazard established in Article 3, Section B, where small streams exist but where no base flood data have been provided or where no floodways have been provided, the following provisions apply:

- (1) No encroachments, including fill material or structures shall be located within a distance of the stream bank equal to five (5) times the width of the stream at the top of bank or twenty feet each side from top of bank, whichever is greater, unless certification by a registered professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- (2) New construction or substantial improvements of buildings shall be elevated or flood-proofed to elevations established in accordance with Article 4, Section C (11).

SECTION D. STANDARDS FOR SUBDIVISION PROPOSALS.

- (1) All subdivision proposals shall be consistent with the need to minimize flood damage;
- (2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;
- (3) All subdivision proposals shall have adequate drainage

provided to reduce exposure to flood hazards, and;

- (4) Base flood elevation data shall be provided for subdivision proposals and other proposed development (including manufactured home parks and subdivisions) which is greater than the lesser of fifty lots or five acres.

SECTION E. STANDARDS FOR AREAS OF SHALLOW FLOODING (AO ZONES).

Located within the areas of special flood hazard established in Article 3, Section B, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one to three feet (1' -3') where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore, the following provisions apply:

- (1) All new construction and substantial improvements of residential buildings shall have the lowest floor, including basement, elevated to the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement, shall be elevated, at least two (2) feet above the highest adjacent grade.
- (2) All new construction and substantial improvements of non-residential buildings shall:
 - (a) have the lowest floor, including basement, elevated to the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement shall be elevated at least two (2) feet above the highest adjacent grade, or;
 - (b) together with attendant utility and sanitary facilities be completely flood-proofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effect of buoyancy.

Adopted on July 7th, 1987.

BY: Ronald W. Wood
R. L. Hines
Imperial
Willie L. Mount

(Signatures of Governing Board)

Certified by: Willie L. Mount

Date: July 7, 1987

THE RECOMMENDED MODEL ORDINANCE CONTAINS FOUR (4) SECTIONS THAT EXCEED THE MINIMUM FEDERAL REQUIREMENTS OF TITLE 44, CHAPTER I, SUBCHAPTER B, PARTS 59 AND 60, OF THE FEDERAL REGULATIONS. The four sections address cumulative substantial improvements vs. non-cumulative substantial improvements; lattice-work or decorative screening breakaway walls vs. solid breakaway walls; and prohibition of manufactured homes in floodways and Coastal High Hazard Zones vs. allowance of manufactured homes in floodways and Coastal High Hazard Zones.

Should the community desire to substitute the minimum Federal requirements in place of the recommended requirements in one or more of the sections, the following sections would be substituted in the Recommended Model Ordinance:

Substantial Improvement

"Substantial improvement" means any repair, reconstruction, alteration, or improvement to a structure, the cost of which equals or exceeds fifty percent of the market value of the structure, either (1) before the improvement or repair is started, or (2) if the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of 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, however, include any project for improvement of a structure required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions.

Solid Breakaway Walls

1. Article 5, Section B(5)(b). Last sentence to read,
 "Breakaway walls may be permitted and must be designed to wash away in the event of abnormal wave action and in accordance with Article 5, Section B(5)."

2. Article 5, Section B(5)(h). "Non-supporting breakaway walls, open lattice-work, or mesh screening shall be allowed below the base flood elevation provided they are not part of the structural support of the building and are designed so as to breakaway, under abnormally high tides or wave action, without damage to the structural integrity of the building on which they are to be used and provided the following design specifications are met:
 - (i) Design safe loading resistance of each wall shall be not less than 10 nor more than 20 pounds per square foot; or
 - (ii) If more than 20 pounds per square foot, a registered professional engineer or architect shall certify that the design wall collapse would result from a water load less than that which would occur during the base flood event, and the elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components during the base flood event. Maximum wind and water loading values to be used in this determination shall each have one percent chance of being equalled or exceeded in any given year (100-year mean recurrence interval).
3. Article 5, Section B(5)(i). "If breakaway walls are utilized, such enclosed space shall not be designed to be usable for human habitation but shall be designed to be usable only for parking of vehicles, buildings access, or limited storage of maintenance equipment used in connection with the premises."
4. Article 5, Section B(5)(j). "Prior to construction, plans for any buildings that will have breakaway walls must be submitted to the _____ for approval;"
5. Article 5, Section B(5)(k). "Any alteration, repair, reconstruction, or improvement to a building shall not

enclose the space below the lowest floor except with breakaway walls, as provided for in Article 5, Section B(5)(h) and (i)."

Manufactured Homes in Floodways

Omit Article 5, Section B(4)(c).

Manufactured Homes in Coastal High Hazard Areas

Omit Article 5, Section B(5)(1).