ORDINANCE 87-4

AN ORDINANCE AMENDING ORDINANCE 86-9 WHICH PROVIDES MINIMUM REQUIREMENTS FOR CONSTRUCTION WITHIN THE COASTAL BUILDING ZONE; AMENDING THE REQUIREMENTS; PROVIDING AN EFFECTIVE DATE.

WHEREAS, The Legislature of the State of Florida, has modified the Coastal Zone Protection Act, and

WHEREAS, The Department of Community Affairs of the State of Florida has recommended adoption of the 1986 revisions,

NOW THEREFORE BE IT ORDAINED this 25th day of November 1986, that the Board of County Commissioners hereby amends 86-9 as follows:

SECTION I - PURPOSE

1.1 - GENERAL

The purpose of the Coastal Code is to provide minimum standards for the design and construction of buildings and structures to reduce the harmful effects of hurricanes and other ~~natural disasters~~ severe storms occurring along the coastal area of the unincorporated areas of Nassau County which front on the Atlantic Ocean. These standards are intended to specifically address design features which affect the structural stability of the beach, dunes, and topography of adjacent properties. The Coastal Code is site specific to the coastal building zone ~~and coastal barrier island (unincorporated area of Amelia Island)~~ as defined herein and is not applicable to other locations. In the event of a conflict between this Ordinance and other Ordinances, the requirements resulting in the more restrictive design shall apply. No provisions in this ~~chapter~~ ordinance shall be construed to permit any construction in any area prohibited by ~~local~~ county , state or federal regulation.

Rescinded by 2005-17 3-28-05

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SECTION II - SCOPE

2.1 - Applicability

The requirements of this Coastal Code shall apply to the following types of construction in the coastal building zone on Amelia Island which is a coastal barrier island.

(A) The new construction of, or substantial improvement to major structures, nonhabitable major structures, and minor structures as defined herein.

(B) Construction which would change or ~~alter~~ otherwise have the potential for substantial impact on coastal zones (i.e. excavation, grading paving) ~~the character of the shoreline (e.g. excavation, grading, paving). The Coastal Code does not apply to minor work in the nature of normal beach cleaning or debris removal.~~

(C) Construction located partially within the coastal building zone.

(D) Reconstruction, redevelopment or repair of a damaged structure from any cause which meets the definition of substantial improvement as defined herein.

~~2.2 Existing Structures~~

~~The requirements of this chapter shall not apply to existing structures, structures under construction, or structures for which a valid and unexpired municipal or county building permit was issued prior to the adoption of the Coastal Code.~~

2.2 - Exceptions:

The requirements of the coastal code shall not apply to the following:

(A) Minor work in the nature of normal beach cleaning and debris removal.

(B) Structures in existence prior to the effective date of the code, except for substantial improvements as defined herein.

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(C) Construction for which a valid and unexpired building permit was issued prior to the effective date of this code.

(D) Construction extending seaward of the seasonal high-water line which is regulated by the provisions of section 161.041, Florida Statutes (i.e. groins, jetties, moles, breakwaters, seawalls, piers, revetments, beach nourishment, inlet dredging, etc.).

(E) Construction of non-habitable major structures as defined herein, except for the requirements of paragraph 04.4.

(F) Construction of minor structures as defined herein, except for the requirements of paragraph 04.5.

(G) Structures listed in the National Register of Historic Places or the State Inventory of Historic Places.

(H) Construction for improvement of a major structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions.

~~2.-3---Multi-Zone-Structures~~

~~For--structures--located--partially--in--the--coastal--building zone,--the--requirements--of--the--Coastal--Code--shall--apply--to--the entire-structure.~~

~~2.5--Application-for-Permits:~~ (See 2.3)

2.3 Application for Permits: Applications for ~~all~~ building permits for construction in the coastal building zone ~~on coastal-barrier-islands,~~ (unincorporated areas of Amelia Island) if not of normal or usual design, ~~as-determined-by-the-Building Official~~ may be required by the Building Official ~~shall~~ to be certified by an architect or professional engineer registered in the State of Florida. Such certifications shall state that the design plans and specifications for the construction are in

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compliance with the criteria established by this Coastal Code.

~~2.4---Construction-Seaward-of-Mean-High-Water Structures-or-construction-extending-seaward-of-the-mean high-water-line-which-are-regulated-by-Section-161.041,-Florida Statutes,-(e.g.-groins,-jetties,-moles,-breakwaters,-seawalls, revetments,-beach-nourishment,-inlet-dredging,-etc.),-are specifically-exempt-from-the-provisions-of-this-chapter.---In addition,-the-Coastal-Code-does-not-apply-to-piers,-pipelines,-or outfalls-which-are-regulated-pursuant-to-the-provisions-of Section-161.053,-Florida-Statutes.~~

~~2.5--Application-for-Permits.~~ See 2.3

SECTION 111 - DEFINITIONS

3.1 - General

The following terms are defined for general use in the Coastal Code.

(b) "Breakaway wall" or "frangible wall" means a partition independent of supporting structural members that will withstand design wind forces, but which will fail under ~~hydrostatic~~ hydrodynamic, wave, and runup forces associated with the design storm surge. Under such conditions, the wall shall fail in a manner such that it breaks up into components which minimize the potential for damage to life or adjacent property. It shall be a characteristic of a breakaway or frangible wall that it shall have a horizontal design loading resistance of no less than 10 nor more that 20 pounds per square foot.

(d) "Coastal Barrier Islands" means geological surface features above mean high water which are completely surrounded by marine waters that front upon the open waters of the Gulf of Mexico, Atlantic Ocean, Florida Bay, or Straits of Florida and are composed of quartz sands, clays, limestone, oolites, rock, coral, coquina, sediment, or other material, including ~~soil~~ spoil

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disposal. ~~which features lie above the line of mean high water~~. Mainland areas which were separated from the mainland by artificial channelization for the purpose of assisting marine commerce shall not be considered coastal barrier islands. Specifically, Amelia Island is a "Coastal Barrier Island".

(e) "Coastal Building Zone" means: the land area between the seasonal high-water line and a line 5000 feet landward ~~of~~ from the coastal construction control line ~~established pursuant to Section 161.053, Florida Statutes,~~ or the entire island, whichever is less.

~~(f) "Column Action"~~ (See g)

~~(g) "Construction"~~ (See h)

(f) "Coastal Construction Control Line" means the landward extent of that portion of the beach-dune system which is subject to severe fluctations based upon a 100-year storm surge, storm waves, or other predictable weather conditions as established by the Department of Natural Resources in accordance with section 161.053, Florida Statutes.

(g) "Column Action" means the potential elastic instability in piles or columns resulting in axial or lateral bending of the member due to compressive stress.

(h) "Construction" means the ~~carrying out of any building, clearing, filling, or excavation or the making of any material change in the size or use of any structure or the appearance of any land.~~ building of or substantial improvement to any structure or the clearing, filling, or excavation of any land. It shall also mean any alterations in the size or use of any existing structure or the appearance of any land. When appropriate to the context, "construction" refers to the act or construction or the result of construction.

~~(h) "Dune"~~ (See i)

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(i) "Dune" means a mound or ridge of loose sediments, usually sand-sized, ~~lying landward of the beach, and deposited by natural or artifical means.~~ and deposited by natural or artificial means, which lies landward of the beach.

~~(i) "Major Structure"~~ (See j)

(j) "Major Structure" includes but is not limited to residential buildings including mobile homes, commercial, institutional, industrial, and other construction having the potential for substantial impact on coastal zones.

~~(j) "Mean High Water Line"~~ (See k)

(k) "Mean High Water Line" means the intersection of the tidal plane of mean high water with the shore. Mean high water is the average height of high waters over a 19-year period. ~~(See Section 177.27(15), F.S.).~~

~~(k) "Minor Structure"~~ (See l)

(l) "Minor Structure" includes but is not limited to pile-supported, elevated due and beach walkover structures; beach access ramps and walkways; stairways; pile-supported elevated viewing platforms, gazebos, and boardwalks; lifeguard support stands; public and private bathhouses; sidewalks, driveways, parking areas, shuffleboard courts, tennis courts, handball courts, racquetball courts, and other uncovered paved areas; earth retaining walls; sand fences, privacy fences, ornamental walls, ornamental garden structures, aviaries, and other ornamental construction. It shall be a characteristic of minor structures that they are considered to be expendable under design wind, wave, and storm forces.

~~(l) "Nonhabitable Major Structure".~~ (See (n).

~~(m) "NGVD"~~ (See (O)

(m) "Mobile Home" means manufactured housing which

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conforms to the Federal Manufactured Housing Construction and Safety Standards or the Uniform Standards Code ANSO A-119.1 pursuant to Section 320.823, Florida Statutes.

~~(m)--"Nonhabitable-Major-Structure"~~ (See n)

(n) "Nonhabitable Major Structure" includes but is not limited to swimming pools; parking garages; pipelines; piers; canals, lakes, ditches, drainage structures, and other water retention structures; water and sewage treatment plants; electrical power plants, transmission and distribution lines, transformer pads, vaults, and substations; roads, bridges, streets, and highways; under ground storage tanks. ~~communications buildings-and-towers;-flagpoles-and-signs-over-15-feet-in-height~~.

(o) "NGVD" means National Geodetic Vertical Datum - a geodetic datum established by the National Ocean Service and frequently referred to as the 1929 Mean Sea Level Datum.

(p) "One Hundred Year Storm" or "100-year Storm" means a shore incident hurricane or any other storm with accompanying wind, wave, and storm surge intensity having a one percent chance of being equaled or exceeded in any given year, during any 100-year interval.

(q) "Seasonal High-Water Line" means the line formed by the intersection of the rising shore and the elevation of 150 percent of the local mean tidal range above mean high water.

(r) "State Minimum Building Code" means the building code adopted by the county pursuant to the requirements of Section 553.73, Florida Statutes.

(s) "Substantial Improvement" means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds a cumulative total of 50 percent of the market value of the structure either:

(a) Before the repair or improvement is started; or

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(b) 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 either any 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; or any alteration of a structure listed on the National Register of Historic Places or the State Inventory of Historic Places.

~~SECTION-IV---COASTAL-CONSTRUCTION-REQUIREMENTS~~ (REPEALED)

SECTION IV - COASTAL CONSTRUCTION REQUIREMENTS (NEW)

4.1 - General

Construction within the coastal building zone on Amelia Island shall meet the requirements of this ordinance. All structures shall be designed so as to minimize damage to life, property, and the natural environment. Assistance in determining the design parameters to minimize such damage may be found in the reference documents listed in Section 05.1.

4.2 - Structural Requirements for Major Structures

(a) Design and Construction: Major structures, except for mobile homes, shall be designed and constructed in accordance with section 1205 of the 1986 revisions to the 1985 Standard Building Code using a fastest-mile wind velocity of 110 miles per hour. Major structures, except mobile homes, shall also comply with the applicable standards for construction found elsewhere in the Southern Standard Building Code.

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(b) Mobile Homes: Mobile homes shall conform to the Federal Mobile Home Construction and Safety Standards or the Uniform Standards Code ANSI A119.1, pursuant to Section 320.823, Florida Statutes, as well as the requirements of subsection (c).

(c) Elevation, Floodproofing, Siting: All major structures shall be designed, constructed and located in compliance with the National Flood Insurance Regulations as found in 44 CFR Parts 59 and 60 or any local flood damage prevention ordinance if enacted, whichever is more restrictive.

4.3 Design Conditions

(a) Velocity Pressure: Major structures, except mobile homes, shall be designed in accordance with the requirements of Section 1205 of the 1986 revisions to the 1985 Standard Building Code using a minimum fastest-mile wind velocity of 110 or 115 mph as appropriate. These minimum design pressures are as follows:

Table 1
Velocity Pressure (psf)
Building Height 60 feet or less

Mean Roof Height (ft)	Fastest-Mile Wind Velocity, V (mph) 110
0-15	25
20	28
40	34
60	38

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Table 2
Gust Velocity Pressure (psf)
Building Height Greater Than 60 Feet

Height (ft)	Fastest-Mile Wind Velocity, V (mph) Coastal Exposure 110
0-30	35
31-50	40
51-100	47
100-200	54
200-300	61
300-400	66
400-500	70

(b) Foundations- The elevation of the soil surface to be used in the design of foundations, calculation of pile reactions and bearing capacities shall not be greater than that which would result from the erosion reasonably anticipated as a result of design storm conditions. Foundation design and construction of a major structure shall consider all anticipated loads acting simultaneously with dead loads. Erosion computations for foundations design shall account for all vertical and lateral erosion and scour-producing forces, including localized scour due to the presence of structural components. Foundation design and construction shall provide for adequate bearing capacity taking into consideration the type of soil present and the anticipated loss of soil above the design grade as a result of localized scour. Erosion computations are not required landward of coastal construction control lines established or updated since June 30, 1980. Upon request the Department of Natural Resources may provide information as to those areas within coastal building zones where erosion and scour of a 100-year storm event is applicable.

(c) Wave Forces.

(1) Calculations for wave forces resulting from design storm conditions on building foundations and superstructures may be based upon the minimum criteria and methods prescribed in the Naval Facilities Engineering Command Design Manual. NAVFAC DM-26, U. S. Department of Navy; Shore Protection Manual, U. S. Department of the Army Corps of Engineers; U. S. Department of the Army Coastal Engineering Research Center Technical Papers and Reports; the Technical and Design Memoranda of the Division of Beaches and Shores, Florida Department of Natural Resources; or other professionally recognized methodologies which produce equivalent design criteria.

(2) Breaking, broken, and nonbreaking waves shall be considered as applicable. Design wave loading analysis shall consider vertical uplift pressures and all lateral pressures to include impact as well as dynamic loading and the harmonic intensification resulting from repetitive waves.

(d) Hydrostatic Loads - Calculations for hydrostatic loads shall consider the maximum water pressure resulting from a fully peaked, breaking wave superimposed upon the design storm surge with dynamic wave setup. Both free and hydrostatic loads shall be considered. Hydrostatic loads which are confined shall be determined by using the maximum elevation to which the confined water would freely rise if unconfined. Vertical hydrostatic loads shall be considered both upward and downward on horizontal or inclined surfaces of major structures (i.e. floors, slabs, roofs, walls). Lateral hydrostatic loads shall be considered as forces acting horizontally above and below grade on vertical or inclined surfaces. Hydrostatic loads on irregular or curved

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geometric surfaces shall be determined by considering the separate vertical and horizontal components acting simultaneously under the distribution of the hydrostatic pressures.

(e) Hydrodynamic Loads - Hydrodynamic loads shall consider the maximum water pressures resulting from the motion of the water mass associated with the design storm. Full intensity loading shall be applied on all structural surfaces above the design grade which would affect the flow velocities.

4.4 - Structural Requirements for Nonhabitable Major Structures

(a) Nonhabitable Major Structures need not meet the specific structual requirements of Section 4.2, except that they shall be designed to porduce the minimum adverse impact on the beach and dune system and shall comply with the applicable standards of construction found in the Southern Building Code. All sewage treatment and public water supply systems shall be flood-proofed to prevent infiltration of surface water anticipated under design storm conditions. Underground utilities, excluding pad transformers and vaults, shall be flood-proofed to prevent infiltration of surface water expected under design storm conditions or shall otherwise be designed to function when submerged under such storm conditions.

4.5 Structural Requirements for Minor Structures: Minor structures need not meet the specific structural requirements of Section 4.2, except that they shall be designed to produce the minimum adverse impact on the beach and dune systems and shall comply with the applicable standards of construction found in the Southern Building Code.

4.6 Location of Construction: Construction, except for elevated walkways, lifeguard support stands, piers, beach access ramps, gazebos, and coastal or shore protection structures, shall

be located a sufficient distance landward of the beach to permit natural shoreline fluctuations and to preserve dune stability. Construction, including excavation, may occur to the extent that the natural storm buffering and protection capability of the dune is not diminished.

4.7 Public Access: Where the public has established an access way through private lands to lands seaward of mean high tide or water line by prescription, prescriptive easement, or other legal means, development or construction shall not interfere with such right of access unless a comparable alternative accessway is provided. The developer shall have the right to improve, consolidate, or relocate such public accessway so long as they are:

(a) Of Substantially similar quality and convenience to the public;

(b) Approved by the local government: and approved by the Department of Natural Resources whenever improvements are involved seaward of the coastal construction control line; and

(c) Consistent with the coastal management element of the local comprehensive plan adopted pursuant to Section 163.3178, Florida Statutes.

~~4.7--References~~ (See 5.1)

5.1 References

Coastal Construction Manual, Federal Emergency Management Agency, February, 1986. (Please note that the wind design section is based upon the 1982 edition of the Standard Building Code with the 1984 accumulated amendments and not the 1985 edition of the Standard Building Code with the 1986

revisions as required by section 161.55 (1) (d), Florida Statutes.)

ADOPTED this 25th day of November, 1986.

BOARD OF COUNTY COMMISSIONERS
NASSAU COUNTY, FLORIDA

BY: Gene Blackwelder
GENE BLACKWELDER, CHAIRMAN

ATTEST:

BY: T. J. Greeson
T. J. GREESON
Its: Ex-Officio Clerk