

ITEM BEFORE THE BOARD

The item before the Board is a recommendation to the City Commission regarding a privately-initiated request for an amendment to LDR Section 4.3.4 "Base District Development Standards", Subsection (J) "Height", Subsection (2) "Basis for measurement", to change the basis for measurement of height for buildings located within the Federal Emergency Management Agency (FEMA) "V" flood zone and situated seaward (or partially seaward) of the Coastal Construction Line (1997); and amending Appendix A "Definitions" to amend the definition of "Grade".

PROPOSED AMENDMENT

The amendment to the Land Development Regulations (LDR) is privately-initiated to amend the basis for measurement of height for buildings located within the FEMA "V" flood zone and situated seaward (or partially seaward) of the Coastal Construction Line (1997).

ANALYSIS

On October 5, 2017, the Flood Insurance Rate Maps (FIRM) became effective. These maps generally updated and increased the level of accuracy of the flood zones within the City of Delray Beach. The new maps also utilize a different datum (or starting point for elevation measurements) for the maps, changing from National Geodetic Vertical Datum of 1929 (NGVD 29) to the North American Vertical Datum of 1988 (NAVD 88). The difference (or conversion factor) between the datum is approximately 1.53 to 1.56 feet. The new maps establish the flood zones as well as the minimum base flood elevation for structures within the respective zones.

In addition, the Florida Building Code (FBC) was amended and became effective on January 1, 2018. Among several changes to the FBC, one amendment related to the FIRM and FEMA flood zones was to require structures to be built an additional 12 inches above the minimum base flood elevation or published finished floor.

Both the FEMA and FBC requirements are designed to minimize loss due to flooding in flood hazard areas. However, applying these new regulations within the City's Land Development Code (LDR) results in reducing the buildable height of buildings, particularly within the "V" flood zone. The reduction is due to the defined basis for measurement of height LDRs. For most areas of the City, height is generally measured from the mean elevation of the crown of the street along the lot frontage. For properties located within the V flood zone and adjacent to the unaltered dune, the difference between the mean elevation of the crown of the street and the minimum base flood elevation required (plus 12 inches as required by the FBC) may be as much as 10 feet. The applicant's justification for the proposed text amendment is attached. A map of the V flood zone and a map with the V flood zone overlaid on the zoning map are attached.

The applicant's letter request to amend the LDRs is attached and summarized as follows (text underlined is proposed):

Section 4.3.4(J)(2)

- (a) For buildings adjoining one street, the grade is established from the mean elevation of the crown of the street along the lot frontage; provided, however, in order to comply with

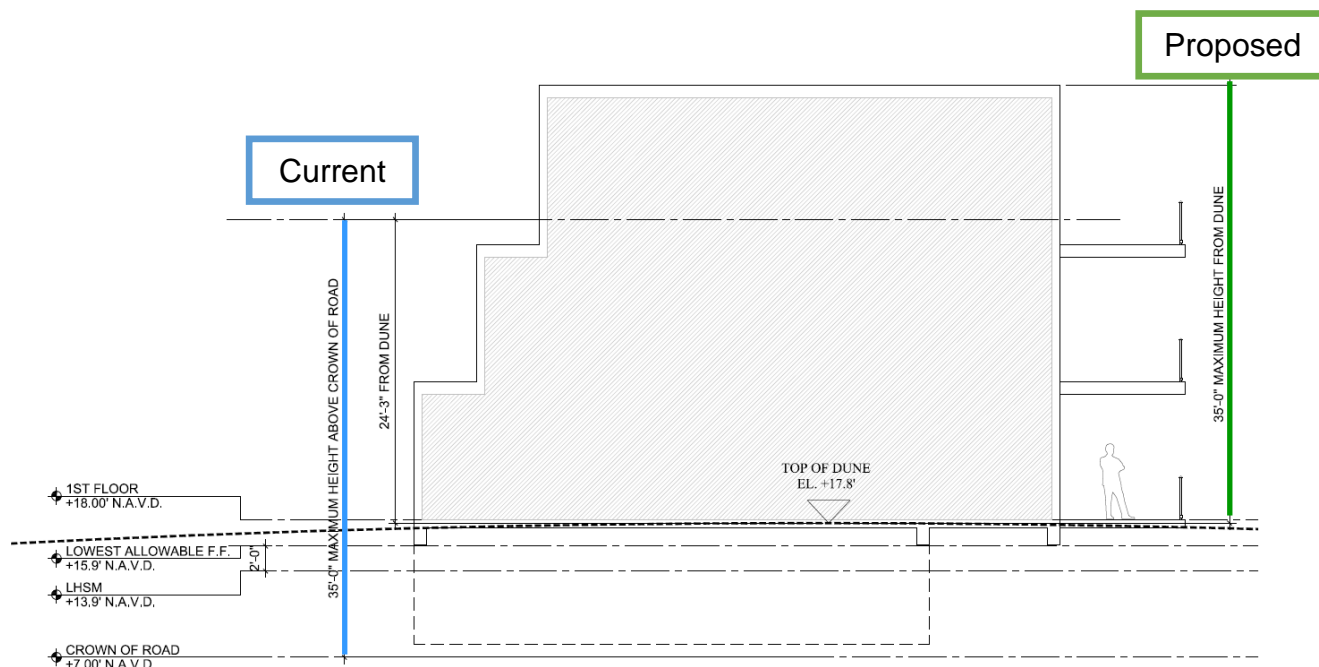
the intent of the Federal Emergency Management Agency (FEMA) regulations for buildings to be constructed within a flood zone designated by FEMA as "V", and is situated seaward (or partially seaward) of the Coastal Construction Control Line (CCCL, 1997), in determining the maximum height, the basis for measurement shall be the higher of the following:

- (i) Allowable lowest horizontal structural member of the lowest floor by Section 1612, Florida Building Code plus two feet; or
- (ii) Allowable lowest horizontal structural member of the lowest floor by Section 3109, Florida Building Code plus two feet; or
- (iii) Highest point of the unaltered dune.

This same section of the LDRs provides for an alternative basis of measurement for height for single family detached dwelling units, less than three stories, within residentially zoned districts. The grade for these structures is established as the mean elevation of the finished surface of the ground adjacent to the exterior walls of the building. However, the grade is not permitted to be higher in elevation than the highest point of the unaltered dune or the crown of the street.

In addition, the section provides for an alternative basis for measurement of height with the Central Business District. The basis is similar to the amendment in the proposed ordinance and states:

"...height is measured from the average crown of road or the FEMA published minimum finished floor elevation (whichever is greater) to the highest finished roof surface of a flat roof or the soffit of a gable, hip, or gambrel roof."



The Planning staff has analyzed the proposed text and recommends amending the LDRs as provided in the proposed ordinance and below.

Section 4.3.4(J)(2)

(Subsections a-d remain unchanged)

(e) For buildings located within Zone "V" on the latest adopted Flood Insurance Rate Maps (FIRM), the grade is established as the higher of the following:

- (i) The minimum required floor or base flood elevation as required by FEMA and the Florida Building Code, or,
- (ii) Highest point of the unaltered dune within the property limits.

For reference, the sections of the FBC noted in the applicant's proposed amendment language are provided – Section 1612 Flood Loads; Section 3109 Structures Seaward of a Coastal Construction Control Line. A National Flood Hazard Layer FIRMette for a portion of the Zone V is also provided for reference.

A survey of the methods and definition for measuring building height in the cities of Boca Raton, Boynton Beach, Lake Worth, Palm Beach Gardens, and Jupiter, is provided. Boca Raton, Boynton Beach, and Lake Worth measure height as the vertical distance from the minimum base flood elevation. Palm Beach Gardens and Jupiter measure height from the grade elevation at the base of the building. West Palm Beach measures height from the mean grade of a lot at the frontage of the building. Each of these methods for measuring building height are consistent with the proposed change presented in the ordinance.

Pursuant to **LDR Section 2.4.5(M)(5), Findings**, in addition to LDR Section 1.1.6(A), the City Commission must make a finding that the text amendment is consistent with and furthers the Goals, Objectives and Policies of the Comprehensive Plan. A review of the objectives and policies of the adopted Comprehensive Plan was conducted. The following are objectives and policies in compliance with the proposed amendment to the Land Development Regulations. A positive finding regarding consistency with the Comprehensive Plan is made.

Future Land Use Element

Objective A-1

Property shall be developed or redeveloped, in a manner so that the future use, intensity and density are appropriate in terms of soil, topographic, and other applicable physical considerations; encourage affordable goods and services; are complementary to and compatible with adjacent land uses; and fulfill remaining land use needs.

Policy A-5.2

The City shall continue to enforce its Flood Damage Protection Ordinance.

Coastal Management Element

Objective A-1

The City shall continue its established and ongoing programs that meet the following objectives:
1) Maintain, restore, and enhances the overall quality of the coastal zone environment, including its amenities and aesthetic values, 1) Preserve the existence of viable populations of all species of wildlife and marine life, 3) Protect the utilization and preservation of all living and non-living coastal zone resources, 4) Avoid irreversible and irretrievable loss of coastal zone resources, 5) Limit public expenditures that subsidize development in coastal high-hazard areas, 7) protect human life against the effects of natural disasters, 8) Preserve historic and archeological

resources, including sensitive adaptive use, and 9) Consider the development of an adaption action area for low-lying coastal areas that experience coastal flooding due to extreme high tides and storm surge, and are susceptible to sea level rise. A report of the status of those programs shall be prepared annually and made available to the public at the Town Hall Meeting, at City Hall, and on the City's website.

Policy D-1.4

Based upon modeling of current and future sea level rise, using the NOAA Sea Level Rise Bathtub Inundation Methodology, the City of Delray Beach shall identify potential adverse impacts and identify and map areas vulnerable to these impacts. This shall include the identification of existing, pending, and proposed development and infrastructure that would be inappropriate or unsafe as a consequence of current and future flood hazard.

Policy D-4.3

As part of the existing permitting and zoning approval procedures, the City shall review all plans for construction within the floodplain area to be consistent with, or more stringent than the minimal requirements addressed in the Florida Building Code.

Policy D-4.4

The City shall continue to participate in the Southeast Florida Regional Climate Change Compact, and evaluate the feasibility of involvement in the following:

- a) Participation with the South Florida Regional Council on future sea level rise vulnerability prediction modeling.
- b) Adoption of the Southeast Florida Regional Climate Change Compact Regional Climate Action Plan recommended adaptation strategies and engineering solutions to eliminate inappropriate and unsafe development as a consequence of current and future flood hazards.

Policy D-4.5

The City shall consider policies within the coastal management element that improve resilience to coastal flooding to areas that may include: areas below, at, or CM – 27 near mean higher high water; areas which have a hydrological connection to coastal waters; or areas designated as evacuation zones for storm surge (F.S., 163.3164 and 163.3177(6)(g)).

Policy D-4.6

The City shall continue to participate in the National Flood Insurance Program Community Rating System administered by the Federal Emergency Management Agency to achieve flood insurance premium discounts for residents.

COURTESY NOTICES

A courtesy notice was sent to the Beach Property Owner's Association in anticipation of the Planning and Zoning Board meeting of May 21, 2018.

ALTERNATIVE ACTIONS

- A. Continue with direction.
- B. Move a recommendation of approval to the City Commission of the amendment to Land Development Regulations Section 4.3.4(J)(2) and Appendix A "Definitions" to amend the

basis of measurement for height within the FEMA “V” flood zone or adjacent to unaltered dune, by adopting the findings of fact and law contained in the staff report, and finding that the text amendment and approval thereof is consistent with the Comprehensive Plan and meets the criteria set forth in LDR Section 2.4.5(M).

- C. Move a recommendation of denial to the City Commission of the amendment to Land Development Regulations Section 4.3.4(J)(2) and Appendix A “Definitions” to amend the basis of measurement for height within the FEMA “V” flood zone or adjacent to unaltered dune, and finding that the text amendment and approval thereof is not consistent with the Comprehensive Plan and does not meet the criteria set forth in LDR Section 2.4.5(M).

RECOMMENDED ACTION

Recommend approval to the City Commission of the amendment to Land Development Regulations Section 4.3.4(J)(2) and Appendix A “Definitions” to amend the basis of measurement for height within the FEMA “V” flood zone or adjacent to unaltered dune, by adopting the findings of fact and law contained in the staff report, and finding that the text amendment and approval thereof is consistent with the Comprehensive Plan and meets the criteria set forth in LDR Section 2.4.5(M).

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