IV.C.

FYI 17PZ00138 DONOVAN HOMES

Natural Resources Management

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Legend

S_Fld_Haz_Ar

FLD_ZONE

AE

IV.C.

Brevard County Board of County Commissioners Meeting

February 1, 2018

- PRESENTED ON BEHALF OF -

DONOVAN HOMES, LLC

ITEM IV.C. Change of Zoning Classification, Re: AU to RU-1-11. Donovan Homes, LLC. The property is 0.83 acre, located at 1050 N. Tropical Trail, Merritt Island. (17PZ00138)(District 2)

(P&Z Recommendation: Denied, and further requested direction from the Board of County Commissioners on how the P&Z board should evaluate rezoning requests that would create drainage problems for surrounding property owners.)

KIMBERLY BONDER REZANKA, ESQ.
Cantwell & Goldman, P.A.
96 Willard Street, Suite 302
Cocoa, FL 32922

Brevard County Property Appraiser

Titusville • Merritt Island • Viera • Melbourne • Palm Bay

PROPERTY DETAILS

Phone: (321) 264-6700
https://www.bcpao.us

Account	2420805
Owners	Anders, Larry; Anders, Virginia
Mailing Address	105 Forrest Ave Pmb 537 Cocoa FL 32922
Site Address	1050 N Tropical Trl Merritt Island FL 32953
Parcel ID	24-36-27-00-10
Property Use	0110 - Single Family Residence
Exemptions	HEX1 - Homestead First HEX2 - Homestead Additional
Taxing District	2200 - Unincorp District 2
Total Acres	0.83
Subdivision	N/A
Site Code	0001 - No Other Code Appl.
Plat Book/Page	N/A
Land Description	Part Of Lot 1 As Des IN Db 133 Pg 259

VALUE SUMMARY

Category	2017	2016	2015
Total Market Value	$64,700	$63,180	$60,010
Agricultural Market Value	$0	$0	$0
Assessed Value Non-School	$55,260	$54,130	$53,760
Assessed Value School	$55,260	$54,130	$53,760
Homestead Exemption	$25,000	$25,000	$25,000
Additional Homestead	$5,260	$4,130	$3,760
Other Exemptions	$0	$0	$0
Taxable Value Non-School	$25,000	$25,000	$25,000
Taxable Value School	$30,260	$29,130	$28,760

SALES/TRANSFERS

Date	Price	Type	Parcel	Deed
08/29/2001	$99,500	WD	Improved	4412/1611
01/01/1977	$26,000	--	--	1705/0235
06/01/1975	$217,000	--	--	1536/0150

BUILDINGS

PROPERTY DATA CARD #1

Building Use	Year Built	Story Height	Floors	Residential Units	Commercial Units
0110 - Single Family Residence	1934	8	2	1	0

Materials

Exterior Wall:	Plywd/T111
Frame:	Wood Frame
Roof:	Asph/Asb Shngl
Roof Structure:	Hip/Gable

Sub Areas

Base Area (1st)	994
Base Area (2nd)	384
Open Porch	60
Open Porch	230
Total Base Area	1378
Total Sub Area	1668

Extra Features

No Data Found

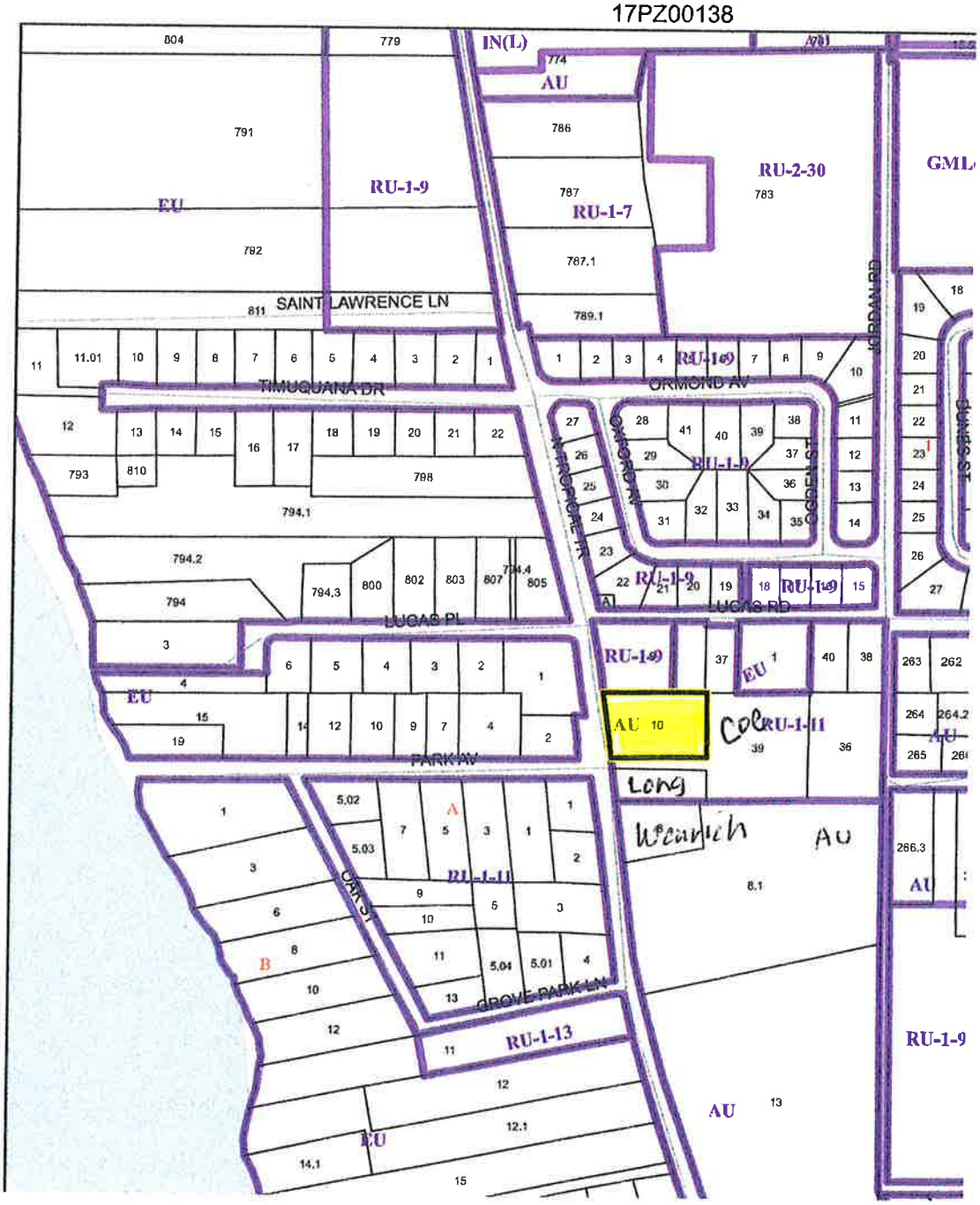
Additional Extra Features

No Data Found

ZONING MAP

DONOVAN HOMES, LLC

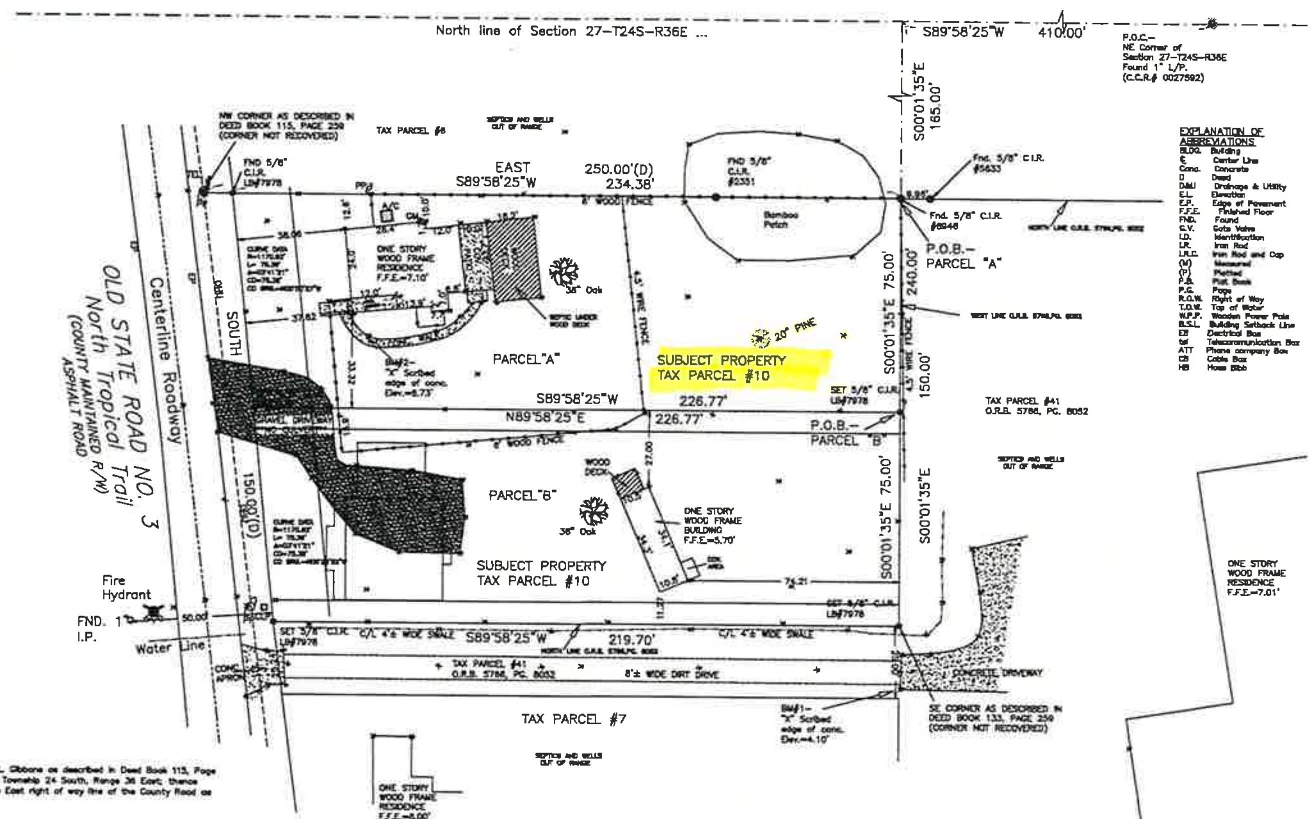
17PZ00138



Map of Survey

IN A PORTION OF SECTION 27, TOWNSHIP 24 SOUTH,
RANGE 36 EAST, BREVARD COUNTY, FLORIDA

GRAPHIC SCALE



EXPLANATION OF ABBREVIATIONS

BLDG.	Building
℄	Center Line
Conc.	Concrete
D	Deed
D&UE	Drainage & Utility
EL	Elevation
E.P.	Edge of Pavement
F.F.E.	Finished Floor
FND.	Found
G.V.	Gate Valve
I.D.	Identification
I.R.	Iron Rod
I.R.C.	Iron Rod and Cap
(M)	Measured
(P)	Platted
P.B.	Plat Book
P.G.	Page
R.O.W.	Right of Way
T.O.W.	Top of Water
W.P.P.	Wooden Power Pole
B.S.L.	Building Setback Line
EB	Electrical Box
tel	Telecommunication Box
ATT	Phone company Box
CB	Cable Box
HB	Hose Bibb

SURVEYOR'S REPORT:

1. The intended purpose of this survey is to depict the boundary and topographic information of the subject property.
2. The undersigned surveyor has not been provided a current title opinion or abstract of matters affecting title or boundary pertaining to the subject property. It is possible that there are documents of record, unrecorded deeds, easements or other instruments that could affect the boundaries of the subject property.
3. The elevations shown, IF ANY, are based on NAVD 1988 Datum, from a Brevard County Benchmark designated "388–22" having a published elevation of 7.198 feet NAVD 88'.
4. The bearings shown are based on the deed of record and may not be a true North Azimuth.
5. The horizontal accuracy of this Survey meets or exceeded an allowable minimum of one foot of error in 10,000 feet of traverse.
6. No underground utilities were located except as shown hereon. This surveyor makes no guarantee that the underground utilities shown heron comprise of all such utilities in the area, either in service or abandoned.
7. All dimensions shown on this drawing are based of US feet measurement and or decimal parts there of.
8. All measurement are in agreement with record or deed calls unless otherwise stated or shown.
9. This Survey is not valid without the signature and raised seal of a Florida Licensed Surveyor.
10. Only Heritage trees, 20" diameter or bigger located for the purpose of this Survey.

LEGAL DESCRIPTION OF PARENT TRACT AS FURNISHED

Beginning at the Northwest corner of land bought from Douglas Gibbons and his wife, Abbie L. Gibbons as described in Deed Book 115, Page 259, of the Public Records of Brevard County, Florida, the same being a part of Section 27, Township 24 South, Range 36 East; thence running East 250 feet to a point; thence run South 150 feet to a point; thence run West to East right of way line of the County Road as presently located; thence Northerly to the place of beginning.

Parcel "A" Description as prepared

Commence at the Northeast corner of said Section 27, said corner is marked with a one inch diameter pipe in the center of LUCAS ROAD whose report has been filed with the State of Florida Department of Environmental Protection and is filed under Certified Corner Report #0027592; thence run S 89 degrees 58'25" W along the North line of said Section 27 and along the centerline of LUCAS ROAD for 410.00 feet; thence run S 00 degrees 01'35" E along said West line and along the West line of the East 410.00 feet for 165.00 feet to a point on the South line of the North 165.00 feet of said Section, said point lies on the North line of that certain parcel of land described in Official Records Book 5786 at Page 8052 of the Public Records of Brevard County, Florida, and said point being the Point of Beginning; thence continue S 00 degrees 01'35" W along said West line for 75.00; thence run S 89 degrees 58' 35" West for 226.77 feet to the Easterly line of the maintained limits of North Tropical Trail, said point lies on the arc of a circular curve to the left, thence run Northwesterly along the arc of said curve having a radius of 1170.92 feet, chord bearing of N 05 degrees 50'27"W through a central angle of 03 degrees 41'21" for an arc distance of 75.39 feet to a point on the South line of the North 165.00 feet of said Section 27; thence run N 89 degrees 58'35" E along said South line for 234.38 feet to the Point of Beginning.

Parcel "B" Description as prepared

Commence at the Northeast corner of said Section 27, said corner is marked with a one inch diameter pipe in the center of LUCAS ROAD whose report has been filed with the State of Florida Department of Environmental Protection and is filed under Certified Corner Report #0027592; thence run S 89 degrees 58'25" W along the North line of said Section 27 and along the centerline of LUCAS ROAD for 410.00 feet; thence run S 00 degrees 01'35" E along said West line and along the West line of the East 410.00 feet for 240.00, said point lies on the West line of that certain parcel of land described in Official Records Book 5786 at Page 8052 of the Public Records of Brevard County, Florida; thence continue S 00 degrees 01'35" W along said West line for 75.00; thence run S 89 degrees 58' 35" West for 219.70 feet to the Easterly line of the maintained limits of North Tropical Trail, said point lies on the arc of a circular curve to the left, thence run Northwesterly along the arc of said curve having a radius of 1170.92 feet, chord bearing of N 05 degrees 23'32"W through a central angle of 03 degrees 41'21" for an arc distance of 75.39 feet to a point on the South line of the North 240.00 feet of said Section 27; thence run N 89 degrees 58'25" E along said South line for 226.77 feet to the Point of Beginning.

LEGEND

- ● Found Iron Rod
- ▲ Found P.K. Nail
- △ Set P.K. Nail & Disc (I.D. 7978)
- ○ Set 5/8" I.R.C. (I.D. 7978)
- ■ Found Concrete Monument
- □ Set Concrete Monument (7978)
- Fire Hydrant
- Gate Valve
- Wooden Power Pole
- OH — Overhead Electric
- Flow Arrows

FEMA FLOOD
FOR INFORMATION ONLY

I hereby certify that the survey shown hereon is true and correct based on actual measurements taken in the field. This survey meets the Standards of Practice as set forth by the Florida Board of Professional Land Surveyors found in Chapter 5J–17.005, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes.

UNLESS IT BEARS THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER THIS DRAWING, SKETCH, PLAT OR MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.

John R. Campbell
Professional Surveyor & Mapper #2351
State of Florida

Revisions	
4	
3	
2	
1	

STREET ADDRESS: 1050 N. TROPICAL TRAIL

Campbell Surveying

BOUNDARY/TOPOGRAPHIC SURVEY
LOT SPLIT

CERTIFIED TO:
Total Homes Contractors

Drawn By: WFG
Scale: 1"=20'
Date: 09/28/2017
Project #

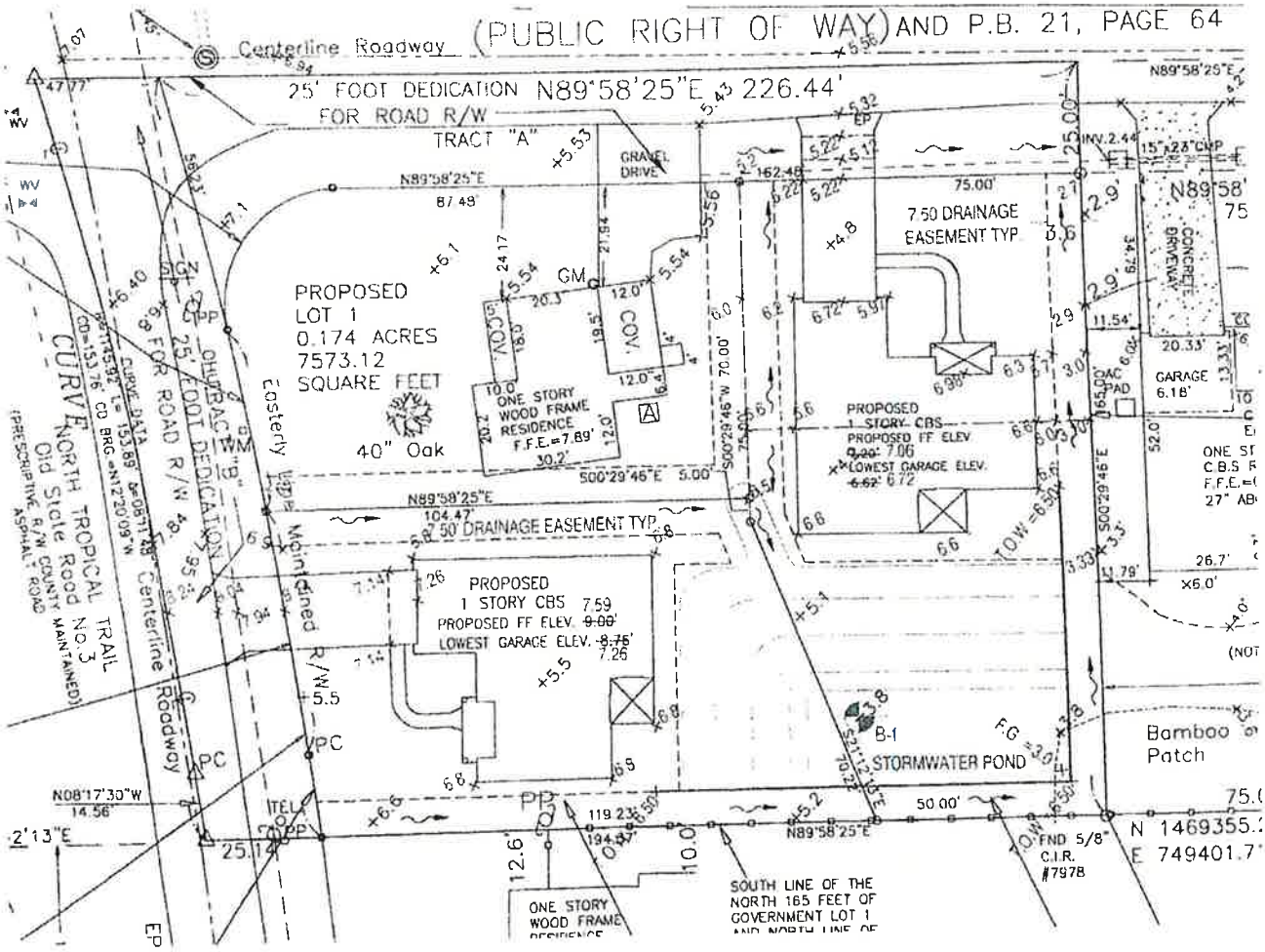
Brevard County Property Appraiser

Titusville • Merritt Island • Viera • Melbourne • Palm Bay

PROPERTY DETAILS

Phone: (321) 264-6700
https://www.bcpao.us

Account	2420801
Owners	Rjjac Homes LLC
Mailing Address	2482 Glenridge Cir Merritt Island FL 32953
Site Address	1060 N Tropical Trl Merritt Island FL 32953
Parcel ID	24-36-27-00-6
Property Use	0110 - Single Family Residence
Exemptions	None
Taxing District	2200 - Unincorp District 2
Total Acres	0.68
Subdivision	N/A
Site Code	0001 - No Other Code Appl.
Plat Book/Page	N/A
Land Description	N 165 Ft Of Govt Lot 1E Of Rd R/W Exc E 475 Ft



Sec. 22-48. - Lowest floor elevation and lot drainage.

(a) *Purpose and intent.* The purpose of this section is to ensure new residential construction and additions to existing residential structures increasing the floor area footprint, provide for drainage of surface water away from structures to protect buildings from flooding and to maintain ground stabilization for supporting foundations.

(b) *Policies and procedures.* The county manager or designee is authorized to create policies and procedures for the administration and enforcement of this section in order to clarify the application of its provisions. Such administrative policies and procedures shall be in compliance with this section and shall not have the effect of waiving the requirements specifically provided for herein.

(c) *Site drainage plan required.* All building permit applications for new residential buildings, mobile and manufactured home installations, additions to residences and substantial improvements to residential buildings affecting or altering existing drainage patterns shall be accompanied by a site drainage plan meeting the minimum standards established by this section. The site drainage plan must demonstrate that surface water is diverted to the road right-of-way, or to a storm water conveyance or surface water discharge improvement designed and constructed to receive surface water discharge from the lot. The site drainage plan must, at a minimum, contain the following information:

(1) The site drainage plan must be dimensioned and drawn to scale, and identify the vertical datum used for elevations. The plan must include the location of all proposed and existing improvements on the property and show dimensions from all existing and proposed buildings to property boundary lines. The plan must show the location and elevation of existing and proposed septic tank drain field (if applicable).

(2) The drainage plan must show centerline elevations of the abutting roadway(s).

(3) The drainage plan must show the existing and proposed elevations at all lot corners and lot grade elevations sufficient to demonstrate slopes and drainage pattern(s). The plan must identify the centerline location and slope of existing and proposed swales. The minimum allowable slope for the centerline of swales conveying surface water is one percent.

(4) The drainage plan must clearly indicate the flow direction of proposed surface water drainage and show the discharge location(s) of surface water from the lot.

(5) The drainage plan must show the location of existing and proposed drainage features including, but not limited to: swales, berms, ditches, ponds, lakes, drainage structures, easements, etc.

(6) The drainage plan must show the lowest floor elevations of all existing buildings on the property and the lowest floor elevations for proposed buildings enclosed by a solid roof and walls, including garages.

(7) The drainage plan must include the floor elevation(s) of existing dwellings on abutting properties.

(8) Properties in a Federal Emergency Management Agency FEMA special flood hazard area or in an approved engineered subdivision shall have all elevations based on a North American Vertical Datum of 1988 (NAVD '88) or National Geodetic Vertical Datum of 1929 (NGVD '29) certified benchmark.

(9) The drainage plan must identify any specialized drainage improvements to include, but not limited to onsite retention of surface water in lieu of discharge off the lot, use of stem walls, pilings, retaining walls, installation of piping, inlets, terracing, or steeper slopes with low maintenance ground cover vegetation, etc. Such specialized drainage improvements may require design by a professional engineer where topographic conditions exist that warrant professional design.

(d) *Minimum standards for finish floor elevations.*

(1) All new one and two family residential buildings including the installation of manufactured homes, or additions to residences increasing the building footprint, must provide for the lowest floor, including the floor of an attached garage, to be elevated above the street on which the property abuts. Concrete floor slabs on grade shall also have a minimum six-inch clearance between the top floor surface and the adjacent finished grade to protect the floor to wall joint from water intrusion. The floor elevation must be sufficiently high to provide for building foundation drainage as prescribed by the Florida Residential Building Code.

The lowest floor elevation shall be based upon the lot drainage types as follows:

(a) *Type A drainage.* The lowest floor elevation for buildings on interior lots designed with type A (rear to front) drainage must be at least 24 inches above the crown elevation of the street on which the property abuts, measured at a point approximate to the center of the lot.

(b) *Type B drainage.* The lowest floor elevation for buildings on interior lots designed with type B (split) drainage must be at least 18 inches above the crown elevation of the street on which the property abuts, measured at a point approximate to the center of the lot.

(c) *Type C drainage.* The lowest floor elevation for interior lots designed with type C (front to rear) drainage must be sufficiently high to provide for flood protection and drainage of surface water from the lot, and provide for foundation drainage as prescribed by the Florida Residential Building Code.

(d) *Corner lots.* The lowest floor elevation for corner lots must be at least 24 inches above the crown elevation of the street on which the property abuts, measured at a point approximate to the center of the lot on the street which the building faces.

(e) On properties where topographic conditions make compliance with the minimum lowest floor elevation standards contained herein impractical, such as irregularly shaped lots, tracts, or parcels, flag stem lots, unusually large properties, roads with inverted crown or similar conditions, a lower elevation may be approved by the county manager or designee where sufficient evidence is provided to ensure said lower floor elevation will provide for flood protection and drainage of surface water from the lot. In all cases the floor elevation design must provide grading for building foundation drainage as prescribed by the Florida Building Code.

(2) All habitable structures located in a Federal Emergency Management Agency (FEMA) designated special flood hazard area shall have the lowest floor, including the floor of an attached garage and all appurtenant building equipment, elevated a minimum of 12 inches above the 100-year base flood elevation. All structures shall comply with all the standards set in chapter 62, article XI.

For properties within special flood hazard areas adjacent to FEMA defined regulatory floodways, the lowest finished floor of all new construction and substantial improvements of non-residential and residential structures, including attached garages and basements if applicable, shall be elevated at least 12 inches above the floodway encroachment elevation for that regulatory floodway as established by FEMA and defined in the FEMA flood insurance study for the county.

(3) All rental and condominium association manufactured home parks with a county approved site plan having lowest floor elevations established shall comply with the county approved site plan provided they meet the current standards set in chapter 62, article XI and Federal Emergency Management Agency designated special flood hazard areas.

(4) In approved engineered subdivisions, the lowest floor elevation shall not be less than the designed floor elevation as depicted on the approved subdivision construction plans. Lower floor elevations shall require site specific engineered design.

(f) *Alternative designs and methods.* Alternate lot drainage designs utilizing alternate construction methods that are at least equivalent in effectiveness and performance to the minimum standards of this section may be permitted subject to the approval of the county manager or designee. The following performance standards must be considered in approval of alternate lot drainage or floor elevation design or method:

(1) Alternate site drainage plans shall be designed by a professional engineer licensed in the state when site conditions exist that require specialized drainage design to protect buildings from flood. Such specialized design may include, but is not limited to: design of onsite retention of surface water in lieu of discharge of surface water off the lot, the use of stem walls, pilings, retaining walls, and pumped on-site sewage systems with elevated drain fields, installation of piping, inlets, and terracing, steeper slopes with low maintenance ground cover vegetation.

(2) All structures located in a Federal Emergency Management Agency (FEMA) designated special flood hazard area shall have the lowest floor elevated a minimum of 12 inches above the 100-year base flood elevation.

(3) If the alternate design relies on percolation of surface water, then the design must include evaluation of geotechnical soils investigation, water table, and soil percolation characteristics.

(g) *Foundation survey required.* A foundation survey prepared by a state professional land surveyor must be submitted to the county for review after placement or construction of the building concrete floor slab on grade or floor at ground level. The foundation survey must show the floor elevation(s) and setback dimensions from the building to property lines. Inspections for construction above or beyond the floor will not be performed until the county reviews said foundation survey for compliance with the approved site drainage plan and county regulations and approves and releases the construction to continue.

(h) *Final survey required.* A final as-built survey prepared by a state professional land surveyor must be submitted and approved by the county prior to the issuance of a certificate of occupancy. The final survey must include elevations sufficient to demonstrate compliance with the approved site drainage plan and the lot grading and finished floor elevation standards contained herein and provide at a minimum topographic elevations at each lot corner, elevations along each property line at 25-foot intervals, and elevations of swales or berms on the lot at 25-foot intervals.

(i) *FEMA elevation certificate.* A FEMA elevation certificate prepared by [a] state land surveyor must be submitted prior to issuance of a certificate of occupancy for structures located in a Federal Emergency Management Agency (FEMA) designated special flood hazard area.

(j) *Certificate of occupancy.* The issuance of a certificate of occupancy shall not be construed as a warranty of the drainage system. Deviation or modification of the drainage system after issuance of the certificate of occupancy or failure to maintain the drainage system that results in the intrusion of water on adjacent properties shall be the responsibility of the property owner.

(Code 1979, § 6-1.1(b); Ord. No. 95-52, § 1, 10-24-95; Ord. No. 2000-27, § 1, 5-2-00; Ord. No. 02-09A, § 2, 2-26-02; Ord. No. 2003-42, § 1, 8-26-03; Ord. No. 2015-06, § 2, 3-31-15)

Editor's note— Ord. No. 2015-06, § 2, adopted March 31, 2015, amended the title of § 22-48 to read as set out herein. Previously § 22-48 was titled floor elevation to be above grade of adjacent thoroughfare.

Sec. 62-4032. - Duties of building official.

Duties of the building official, pursuant to his authority, shall include but not be limited to the following:

(1) The building official shall verify and record the actual elevation, in relation to mean sea level or other acceptable datum, of the lowest floor, including basement, of all new and substantially improved structures.

(2) The building official shall verify and record the actual elevation, in relation to mean sea level or other acceptable datum, to which the new and substantially improved structures have been floodproofed.

(3) The building official shall verify that the design, plans, specifications and construction of structures within coastal high-hazard areas are in compliance with all the provisions, conditions and criteria established and set forth in chapter 22, article V. For construction within the county coastal construction control line, certification shall be obtained from a professional engineer or architect registered in the state. Such certification shall state that the design, plans and specifications for the construction are in compliance with all the provisions, conditions and criteria established and set forth in article XII.

(4) In coastal high-hazard areas, the building official shall review plans for the adequacy of breakaway walls in accordance with section 62-4062(6)h.

(5) When floodproofing is utilized for a particular structure, the building official shall require, prior to the issuance of any certificate of completion or certificate of occupancy:

a. Submittal of a FEMA floodproofing certificate, based upon finished construction and completed by a professional engineer or architect licensed to practice in the state;

b. Submittal of a flood emergency operation plan where the chosen floodproofing method and materials require any human intervention; and

c. Submittal of an annual inspection and maintenance plan to insure that all components will operate properly and effectively under flood conditions.

(6) All supporting documentation for issuance of building permits in accordance with the provisions of this article shall be maintained in the office of the building official and shall be open for public inspection.

(Code 1979, § 14-100; Ord. No. 2014-14, § 1, 5-1-14)

Sec. 62-4033. - Development permit.

(a) Application for a development permit for the construction of structures (building permit) shall be made to the county prior to any development activities, and may include but shall not be limited to the following: plans in duplicate, drawn to scale, showing the nature, location, dimensions and elevations of the area in question; and existing or proposed structures, fill, storage of materials and drainage facilities, and their location. Specifically, the following information is required:

(1) The elevation, in relation to mean sea level or other acceptable datum, of the proposed lowest floor, including basement, of all structures.

(2) The elevation, in relation to mean sea level or other acceptable datum, to which any nonresidential

structure will be floodproofed.

(3) Certification from a professional engineer or architect licensed to practice in the state, in the form of a FEMA floodproofing certificate, that any nonresidential floodproofed structure will meet the floodproofing criteria in section 62-4062(2).

(4) A description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

(b) The building official shall be responsible for all construction and substantial improvement of residential and nonresidential structures, including prefabricated or manufactured homes, and shall have the lowest floor elevation preliminarily field-certified by a professional surveyor licensed in the state, as being at or exceeding 12 inches above the 100-year flood elevation for the appropriate flood hazard zone. Such certification should take place after completion of the foundation or slab for the intended structure, and shall be submitted to the county prior to the pre-lath inspection. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. Notwithstanding other provisions of this article, no variance shall be granted where the slab elevation as constructed does not comply with the permit approved by the county prior to construction.

(c) In addition, prior to the inspection at the next phase of construction, a detailed survey shall be provided to the county certifying the following information:

(1) The legal description of the property;

(2) The lot dimension and total lot area;

(3) The building location and setbacks from the property lines;

(4) Any accessory structures, with size and setbacks indicated;

(5) The lowest floor elevation (mean sea level); and

(6) The elevation (mean sea level) of the crown of all roads abutting the property where projected lot lines intersect with the crown of such roads.

(d) However, no building permit shall be issued unless the applicant for the permit first provides the building division with a proposed or estimated building slab or lowest floor elevation (mean sea level). Such proposed elevation will be utilized by the building official for the purpose of judging the conformity of the proposed construction with this article and all other applicable building codes and regulations.

(Code 1979, § 14-101; Ord. No. 02-09C, § 4, 2-26-02; Ord. No. 2014-14, § 1, 5-1-14)

D.4.9.2.2 AE Zone

AE Zones are areas of inundation by the 1% annual chance flood, including areas with TWL less than 3.0 feet above the ground, or areas with wave heights less than 3.0 feet. These areas are also subdivided into elevation zones with BFEs assigned. The AE Zone generally will extend inland to the limit of the 1% annual chance flood still water elevation or TWL, whichever dominates.

D.4.9.2.3 AH Zone

AH Zones are areas of shallow flooding or ponding with water depths generally limited to 1.0 to 3.0 feet. These areas are usually not subdivided, and a BFE is assigned.

D.4.9.2.4 AO Zone

AO Zones are areas of sheet-flow shallow flooding where the product of hv^2 is less than 200 ft^3/sec^2, or where the potential runup is less than 3.0 feet above an overtopped barrier crest (ΔR<3.0 feet). Sheet flow in these areas will either flow into another flooding source (AE Zone), result in ponding (AH Zone), or deteriorate because of ground friction and energy losses to merge into the X Zone. AO areas are designated with 1-, 2-, or 3-foot depths of flooding.

D.4.9.2.5 X Zone

X Zones are areas above the 1% annual chance flood level. On the FIRM, a shaded X Zone area is inundated by the 0.2% annual chance flood, and an unshaded X Zone area is above the 0.2% annual chance flood.

D.4.9.3 Wave Envelope

The seaward portion of the wave envelope is a combination of the potential wave runup elevation with the controlling wave crest elevation profile. The wave crest elevation profile is plotted along a transect (from the 0.0 map datum elevation landward) based on results of the Wave Height Analysis for Flood Insurance Studies (WHAFIS) model or other methodology output. A horizontal line is extended seaward from the potential wave runup elevation to its intersection with the wave crest profile to obtain the wave envelope, as shown in Figure D.4.9-3. If the runup elevation is greater than the maximum wave crest elevation, the wave envelope will be represented as a horizontal line (extending to the elevation 0.0 location on the transect) at the runup elevation, and the BFE for mapping purposes will be based on that elevation. Conversely, if the wave runup is negligible, the wave crest elevation profile becomes the wave envelope.

The landward portion of the wave envelope (landward of the bluff edge, crest of eroded dune, or seaward edge of a coastal structure) will be a combination of an overtopping bore or splash area and sheet flow.