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**THE TOWN OF KILL DEVIL HILLS**  
NORTH CAROLINA

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**PLANNING DEPARTMENT**

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March 9, 2020

Memorandum

To: Debbie Diaz

From: Meredith Guns, Planning Director 

Subject: Proposed 2020 Flood Damage Prevention Ordinance—Draft (2) Review

Attached is the proposed Kill Devil Hills 2020 Flood Damage Prevention Ordinance and Summary of Changes. On January 22, 2020 at the Board of Commissioners joint work session with the Planning Board, staff distributed a draft of the 2020 Flood Damage Prevention Ordinance for review. Since that time, there have been a few minor revisions to the ordinance for clarity/consistency and State comments (changes since 1-22-2020 are in *italic*). On February 11, 2020 the Planning Board reviewed the revised plan in depth. There were a few recommendations that have been incorporated into this draft. None of the changes were substantial.

History:

The preliminary National Flood Insurance Program (NFIP)- Flood Insurance Rate Maps (FIRMs) for Dare County were released June 30, 2016. The maps were developed by the North Carolina Floodplain Mapping Program in conjunction with the Federal Emergency Management Agency (FEMA). The Town received the Final Letter of Determination on December 19, 2019, which then gives the Town 6 months to formally adopt the maps and revised Flood Damage Prevention Ordinance to remain in the National Flood Insurance Program (Deadline for adoption June 19, 2020).

The maps are not an accurate depiction of flood risk for the Town of Kill Devil Hills. Because of this fact, Staff has been working along all Dare County planners to develop higher regulatory standards for our Town. These standards include a *Regulatory Flood Protection Elevation* which establishes a minimum elevation for all established special flood hazard areas (AE, AO and VE) as well as the Shaded X and X Zones. The minimum elevation established by ordinance for the Town of Kill Devil Hills is 8 Feet NAVD 1988.

The attached revised draft ordinance is based on Planning Board recommendations and incorporates State changes to the model ordinance (shown in **RED**) and local changes (shown in **BLUE**).

Staff recommends the Board of Commissioners review the ordinance and to place the item on the March 25, 2020 agenda for further discussion and public input prior to the public hearing.

PUBLIC OUTREACH UPDATE:

There will be a community meeting to provide information regarding the new maps, the proposed ordinance and insurance information on March 11, 2020 from 4-6pm. Staff is also in process of creating an informative video to run on our social media outlets.

**ATTACHMENT NB-1A**

**Town of Kill Devil Hills  
Proposed 2020 Flood Damage Prevention Ordinance  
Summary of Changes**

The State model ordinance has been modified and should be adopted as modified except the few items that were listed optional. State additions and modification are indicated in GREEN. Kill Devil Hills staff has recommended several additions to the state ordinance to help clarify the ordinance and to create a regulatory flood elevation for areas outside the Special Flood Hazard Area. Staff recommended changes are in PURPLE. Staff recommendations are consistent with the CRS Users Group and have been reviewed and approved by the State. Staff recommends a minimum building elevation of 8 feet throughout the entire Town either through freeboard requirements in the AE, AO and VE or local elevation standard of 8 feet in the X and Shaded X Zones.

**Article 1, Section D Objectives**

- State added objectives for model ordinance and Kill Devil Hills added objective to regulate the “X” and “Shaded X” flood Zone

**Article 2 Definitions**

- State clarified/modified several definitions that were included in the 2006 ordinance. The State added the following Definitions: Coastal “A” Zones, Design Flood, Development Activity, Digital Flood Insurance Map (DFIRM), Existing Building and Existing Structure, Flood Resistant Material, Letter of Map Change (LOMA), Light Duty Truck, Limit of Moderate Wave Action (LiMWA), *Map Repository*, Technical Bulletin and Technical Fact Sheet, Temperature Controlled.
- Kill Devil Hills is recommending adding several definitions to clarify existing procedures and to create a regulatory flood level in the “X” and “Shaded X” Flood Zone. Staff is recommending adding the following:
  - Breakaway Walls, Free of Obstruction, Local Elevation Standard, Reference Level, Regulatory Flood Protection Elevation (RFPE), Secondary Structure, Shaded X Zone and X Zone.
    - *Clarifying reference level to be measured from the bottom of the lowest floor or the bottom of the lowest attendant utility in the AE, AO, X and shaded X (a change from current code and adding in X zones). In the VE zone reference shall be measured from the lowest horizontal structural member (same a current code).*
    - The RFPE is the definition that creates regulatory elevation standards for all Flood Zones including “X” and “Shaded X”.
    - *Establish a freeboard in the AE, VE and AO Zones.*
    - *Modify the definition of Coastal High Hazard Area to include land east of NC12*

**Article 3 General Provision**

- The State modified “Penalties for Violations”
- *Added Section for Establishment of Local Elevation Standards*

**Article 4 Administration**

- Designate the Planning Director or their designee as the Flood Plain Administrator (previously was the Building Inspector)

March 9, 2020

- Application Requirements:
  - Requiring plot plans from a land surveyor or professional engineer
  - Clarification on the datum used for determining elevation
  - State requirement for V-Zone Certification with plans and specifications by a professional engineer in addition to the V Zone Certification required prior to Certificate of Occupancy
- Permit Requirements
  - Limitation of use below the RFPE
  - Clarification of V Zone construction limits
  - Materials allowed below RFPE
- Certification Requirements
  - State clarification on certification requirements
  - Staff recommendation to require an elevation certificate in the AE, AO and VE Zone before construction, during construction (foundation completion) and as built. This is the Town's current regulation (The pre and foundation elevation certificates are optional in the State Ordinance)
  - Staff recommends requiring a pre-construction and as-built elevation certificate in the "X" and "Shaded X" to meet the RFPE (eliminating the foundation certification). However, allowing site survey or other approved FEMA form by a licensed professional may be used to demonstrate natural grade exceeds the RFPE of 8, instead of an elevation certificate for both preconstruction and as-built.
  - State changes to the Flood Proofing Certifications
  - Staff recommended Non-Conversion Agreements for areas developed below the RFPE (this is currently required)
  - Require Acknowledgement forms for construction completed by property owners at the time construction permits are issued. These acknowledgement forms indicate the specific flood zone designation for the subject property; outlines the construction standards for elevation of the structure to the regulatory flood elevation and explains the use restrictions associated with the property.
- Variance Procedure
  - Staff recommends extending variance options to the "X" and "Shaded X" because of the RFPE required.

#### **Article 5 Provision for Flood Hazard Reduction**

- General Standards
  - State specifying type of equipment that shall be above RFPE
  - *Add provision for use of engineered vents for hydrostatic equilibration*
- Specific Standards
  - Elevated Buildings – Clarifying what is allowed in enclosures below the RFPE
  - *Add use of Engineered Flood opening to list of permissible to equalize hydrostatic flood forces.*
  - Staff recommends adding property east of NC12 to the other VE Zone properties that are required to have 1 foot free of obstruction to allow water to freely flow under the

building. This would apply to the oceanfront properties regardless of flood zone and prevent slab on grade construction on the oceanfront.

- State clarification of the “50% rule” for existing structures and the type of improvements that fall under this rule and the time frame of one year (which the Town currently enforces)
- Staff recommends setting standards for improvements within the “X” and the “Shaded X’ zones with the required RFPE. Staff recommends to NOT apply substantial damage or substantial improvement regulations in these zones. Staff recommends allowing interior renovations to existing living space regardless of RFPE. Allowing lateral additions at the existing structure level. Staff recommends requiring the RFPE be met if the house is relocated on the lot. Finally, not to allow conversion of existing unconditioned space to conditioned space if the area is below RFPE.
- Staff recommends a provision for other structures on a lot in addition the principal use that finished living space be required to meet all the requirements of the applicable general and specific standards.
- State made several changes to the Coastal High Hazard Area including clarifying specifications for concrete pads and swimming pools and elevators that were previously only outlined in the technical bulletins (not regulatory). *This would apply to all property east on NC12 as redefined.*
- Add language requiring a V-Zone Certification for construction within V-Zones and East of NC-12
- *Added language to the Filling/Grading limiting prohibiting structural fill and to be consistent with Federal Registry and current ordinance.*
- State clarified and codified several construction elements in the Coastal High Hazard Zones including filling/grading, alterations to sand dunes, deck construction, bulkheads and fencing.