COUNCIL WORKSHOP MEETING

A G E N D A

TOWN OF CHINCOTEAGUE

March 19, 2015, 5:00 P.M. –Council Room - Town Hall

CALL TO ORDER

INVOCATION BY COUNCILMAN TAYLOR

PLEDGE OF ALLEGIANCE

AGENDA ADDITIONS/DELETIONS AND ADOPTION:

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1. Discuss possible revisions to the Flood Ordinance
2. Award of the Robert N. Reed Waterfront Park Annex Bid Proposal
3. Committee Member Comments

ADJOURN:

STAFF REPORT

To:	Mayor Tarr and Town Council Members
Through:	Robert Ritter, Town Manger
From:	Bill Neville, Director of Planning
Date:	March 19, 2015
Subject:	Town Council Workshop Floodplain Ordinance Revision (Town Code Section 30 – Floods)

❖ **Consider amending the Floodplain Ordinance to include additional local standards**

On March 2, 2015 Town Council held a public hearing regarding the new FEMA Flood Insurance Study, Flood Insurance Rate Maps and minor amendments to the Town Floodplain Ordinance.

Mayor Tarr opened the public hearing on the possible adoption of the FEMA Flood Maps, Flood Study and revised Flood Ordinance (Ch. 30 of the Town Code). He invited public comment at this time. Planning Commission Chairman Rosenberger concurred with the Staff recommendation to adopt the new FEMA maps and consider the possibility of freeboard as a local standard. No other members of the public provided comment. Councilman Frese motioned to recess the public hearing until Monday, April 6th at 7:00 p.m., seconded by Councilman Jester. This motion was unanimously approved.

Councilman Frese also motioned, seconded by Councilman Ellis to adopt the modified Flood Insurance Rate Maps and Flood Insurance Study for the Town of Chincoteague as provided by the Federal Emergency Management Agency with an effective date of May 18, 2015. This motion was unanimously approved.

The public hearing and record was kept open in order to allow for consideration of additional amendments to the Town Floodplain Ordinance, specifically a 'freeboard' standard.

Freeboard *is an additional height requirement for the lowest floor elevated above the base flood elevation (BFE) that provides a margin of safety against extraordinary or unknown risks. This reduces the damage from flooding and makes the structure eligible for a lower flood insurance rate.* *(Guidance for Local Floodplain Ordinances in VA, October 2011)*

Freeboard

FEMA publishes a number of exhibits which encourage communities to adopt a freeboard standard for elevating new construction or substantially improved structures higher than the minimum base flood elevation necessary for compliance with the National Flood Insurance Program.

Reasons for considering this option include:

- Provides an added measure of safety against flooding from storms greater than the 1% annual chance (100 year storm)
- Ductwork, piping, wiring, etc. must be installed above the BFE by Building Code – often this results in the lowest floor being elevated 12 to 18 inches even without freeboard
- Results in significantly lower flood insurance rates due to lower flood risk
- Qualifies the community for additional discounts in flood insurance rates under the Community Rating System (CRS) program
- Accounts for future flood increases due to physical and federal management changes on Assateague Island, variability in storm magnitude, and uncertainties in the flood hazard computer model used by FEMA

	Annual Savings	30-year Savings
A Zone*	$537 (51%)	$16,110
	$700 (66%)	$21,000
	$748 (71%)	$22,440

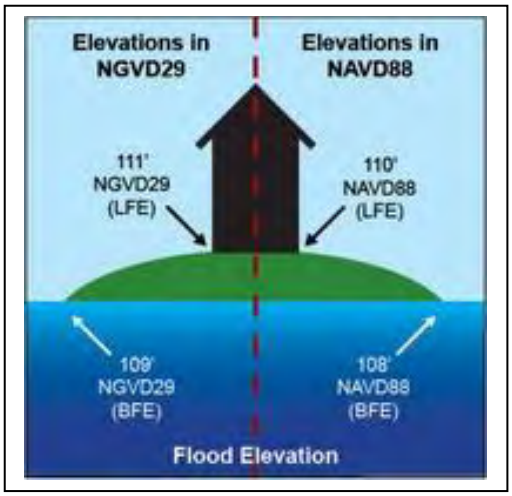
*NFIP premiums based on October 2013 rates for a multiple floor residential structure with no basement or enclosure built after a FIRM was issued. $1,000 deductible/$250,000 coverage for the building, no contents coverage. The replacement cost of V Zone buildings is greater than $500,000.

Freeboard has been adopted by other (similar) communities in Virginia:

Community	Inside SFHA*	Outside SFHA*	Notes
Hampton	3 Feet	18" above grade in Shaded X	
Norfolk	3 Feet	18" above grade in Shaded X	
Gloucester	2 Feet	N/A	
James City County	2 Feet	N/A	
Roanoke	2 Feet	N/A	
Portsmouth	1.5 Feet (proposing 3)	N/A	
Poquoson	1.5 Feet (proposing 3)	N/A	
York County	1.5 Feet (proposing 3)	N/A	
Newport News	1 Foot (proposing 2)	N/A	
Chesapeake	1.5 Feet	N/A	
Lancaster	1.5 Feet	N/A	A Zone measured from lowest horizontal structural member
Isle of Wight County	1.5 Feet	N/A	
Richmond	1 Foot	N/A	
Accomack County	1 Foot (proposing 2)	N/A	See County report attached

(*SFHA = Special Flood Hazard Area or 100 year Floodplain as mapped by FEMA)

Vertical Datum Conversion

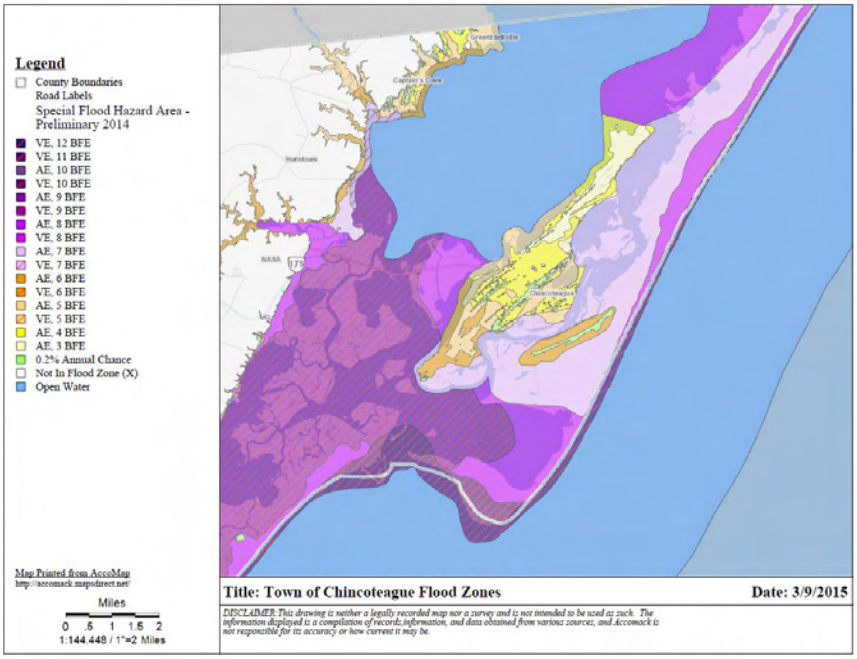


A vertical datum is a base measurement point from which all elevations are determined. The Federal Government has adopted the North American Vertical Datum of 1988 - NAVD88 which replaces NGVD29. The datum change does not change the relationship of the ground heights to the water surface; elevations in a local area all shift by the same amount, so the relative relationships are not changed. For Accomack County the conversion factor is -0.81 feet (note: elevations on the flood risk map are rounded to the nearest foot, however NFIP compliance and insurance ratings are based on the Flood Insurance Study and an Elevation Certificate that are measured to the tenth of a foot)

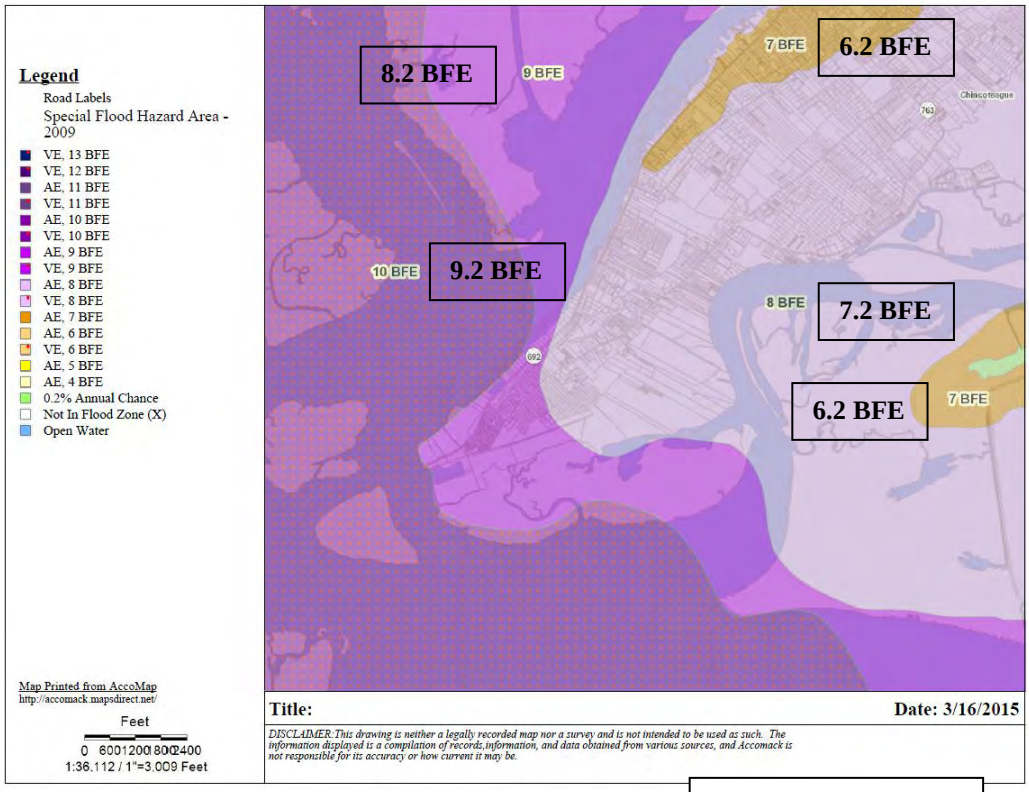
For example, on Chincoteague Island the conversion from NGVD 29 (flood elevation 8) to NAVD88 (flood elevation 7.2) must be completed to allow a comparison between the old and new FEMA Flood Maps. A structure which is located in an AE flood risk zone elevation 4 (NAVD88) on the new Flood Maps will be considered at less risk with a base flood elevation that is 3.2 feet lower than the old Flood Maps (7.2 – 4 = 3.2). This conversion should be considered separately from the change in flood elevations resulting from the new RiskMAP study.

Flood Insurance Rate Map Changes (FIRM)

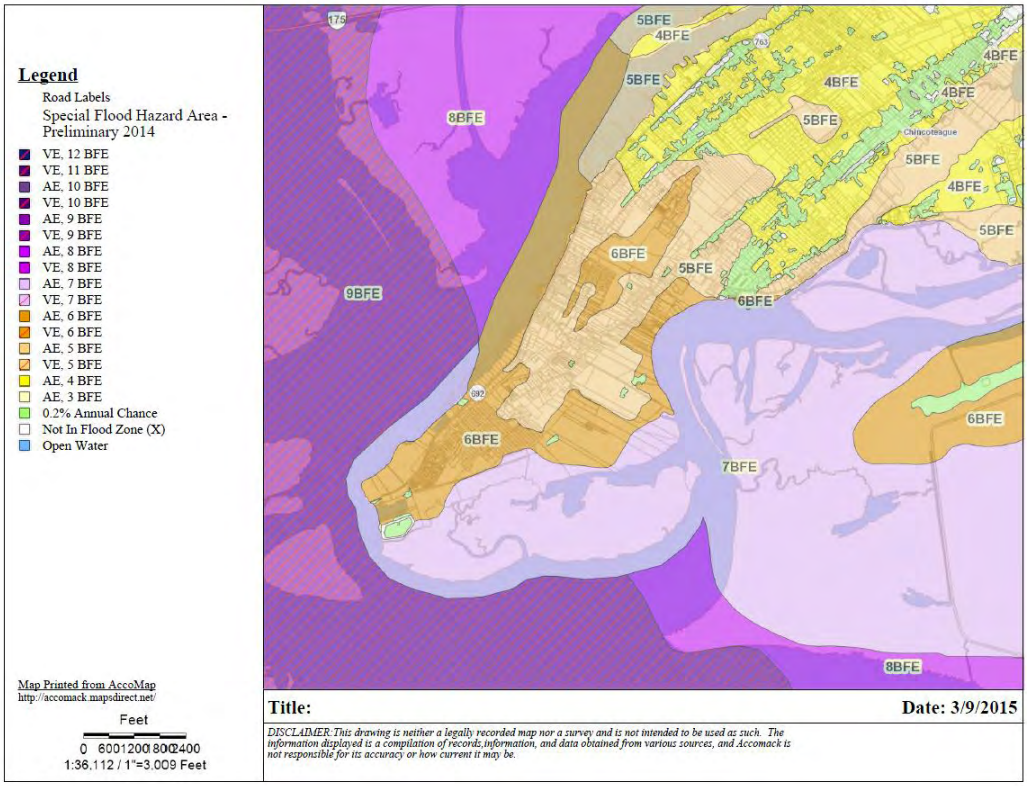
During previous meetings, Town Council reviewed the FIRM changes which lower base flood elevations for every property on Chincoteague Island, allowing certain properties on higher ground to be removed from the 1% chance (100 year) floodplain, and all properties to benefit from a lower base flood elevation.



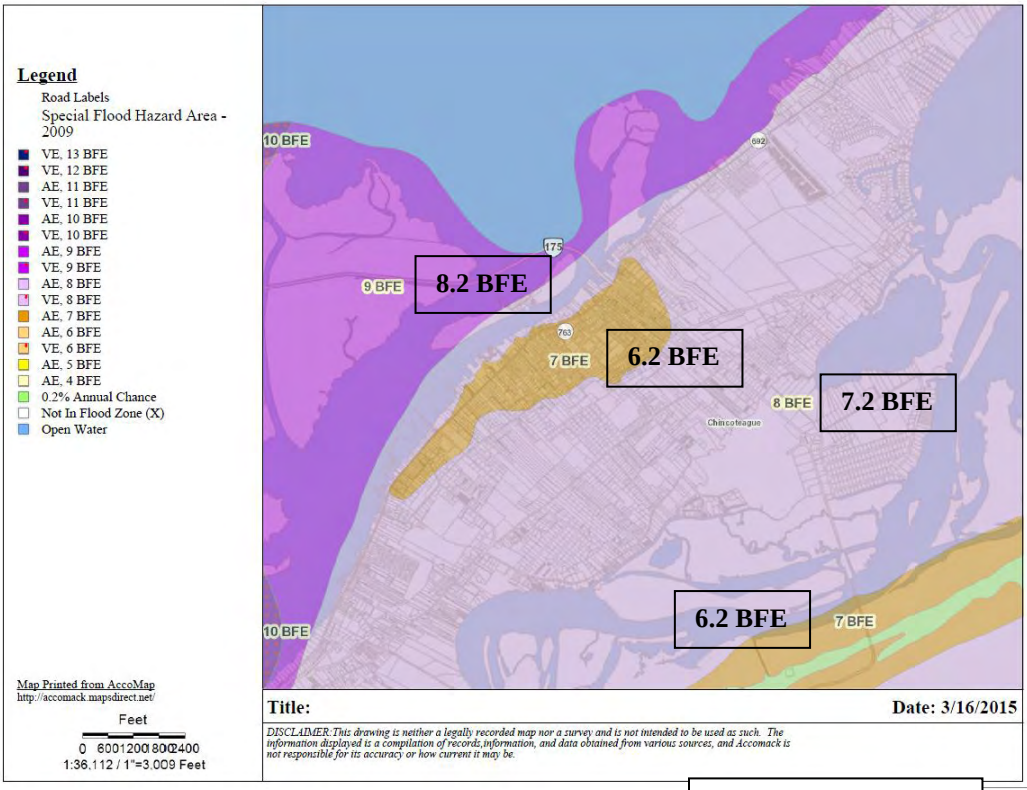
(Source: AccoMap - http://accomack.mapsdirect.net/#)



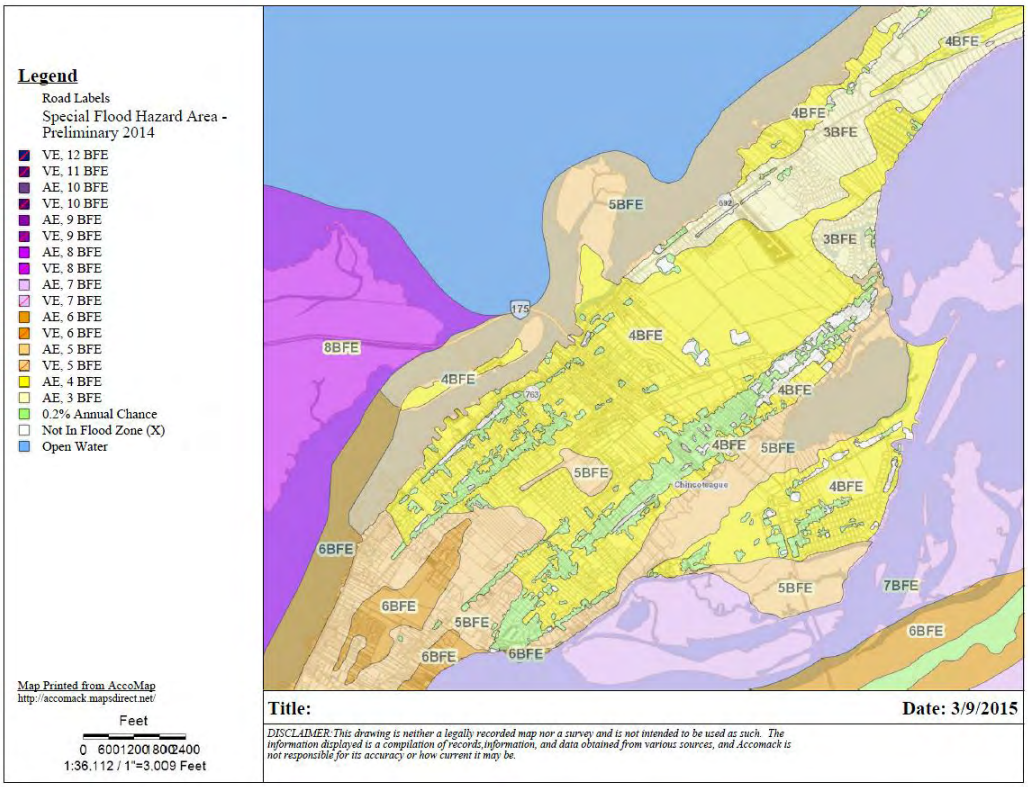
Existing FIRM (NGVD 29) | NAVD 88 Conversion



New FIRM (NAVD 88) after May 18, 2015



Existing FIRM (NGVD 29) | NAVD 88 Conversion



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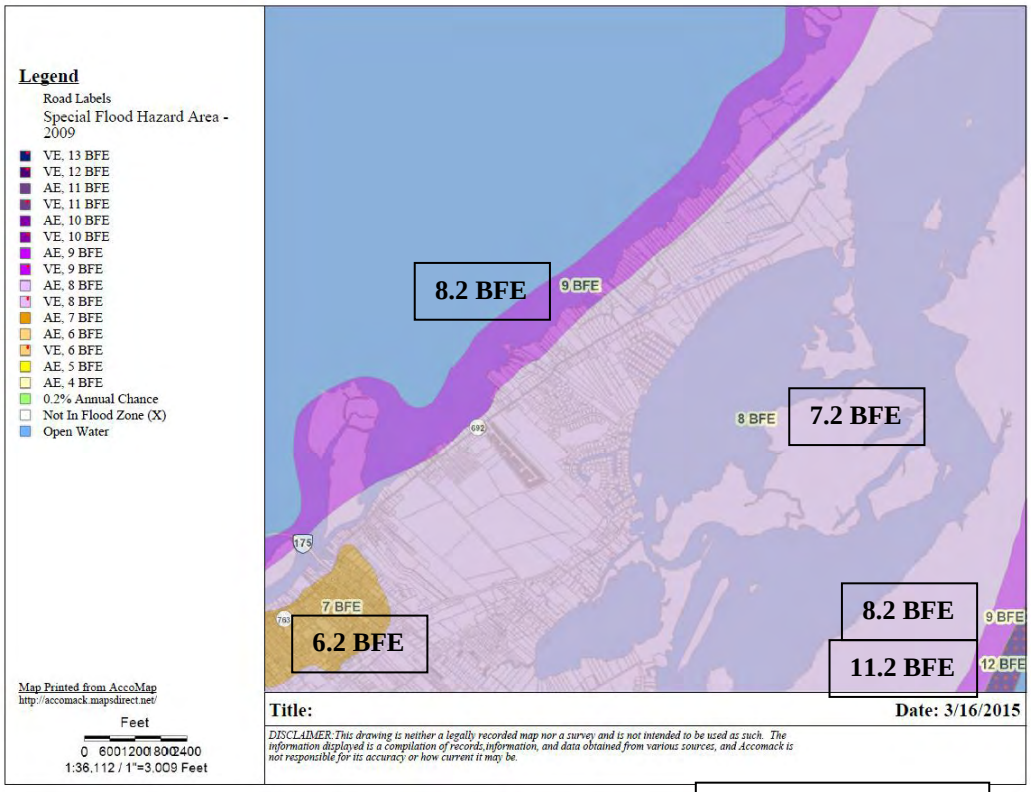
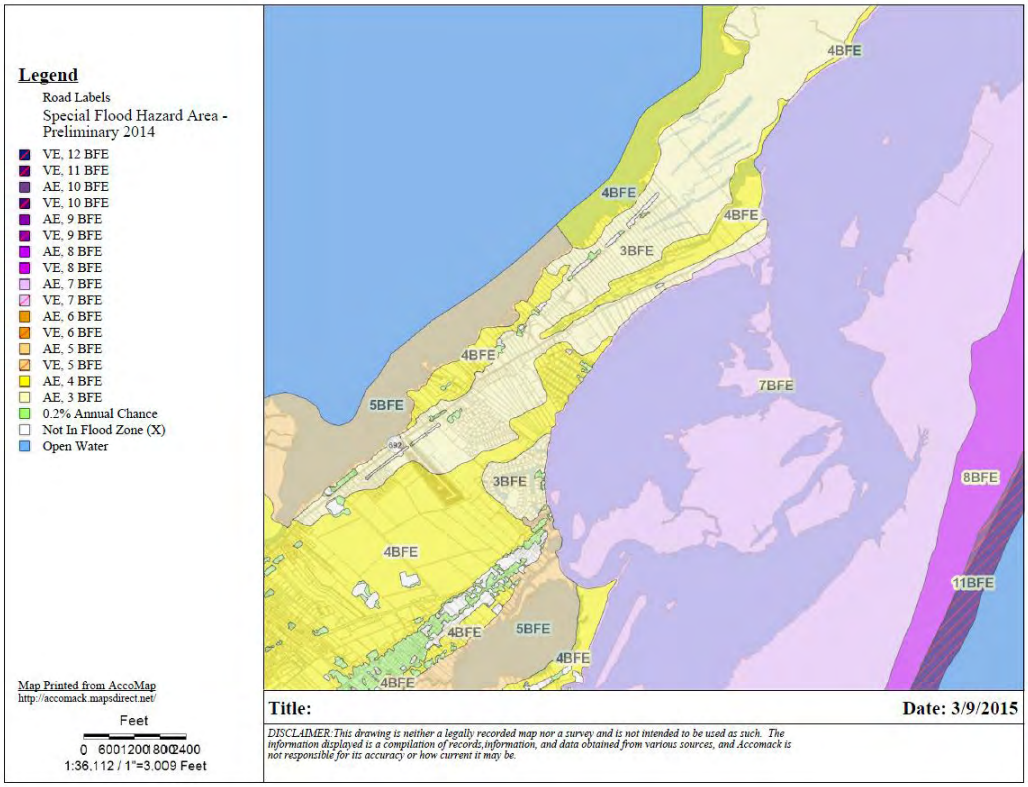


Existing FIRM (NGVD 29) | NAVD 88 Conversion



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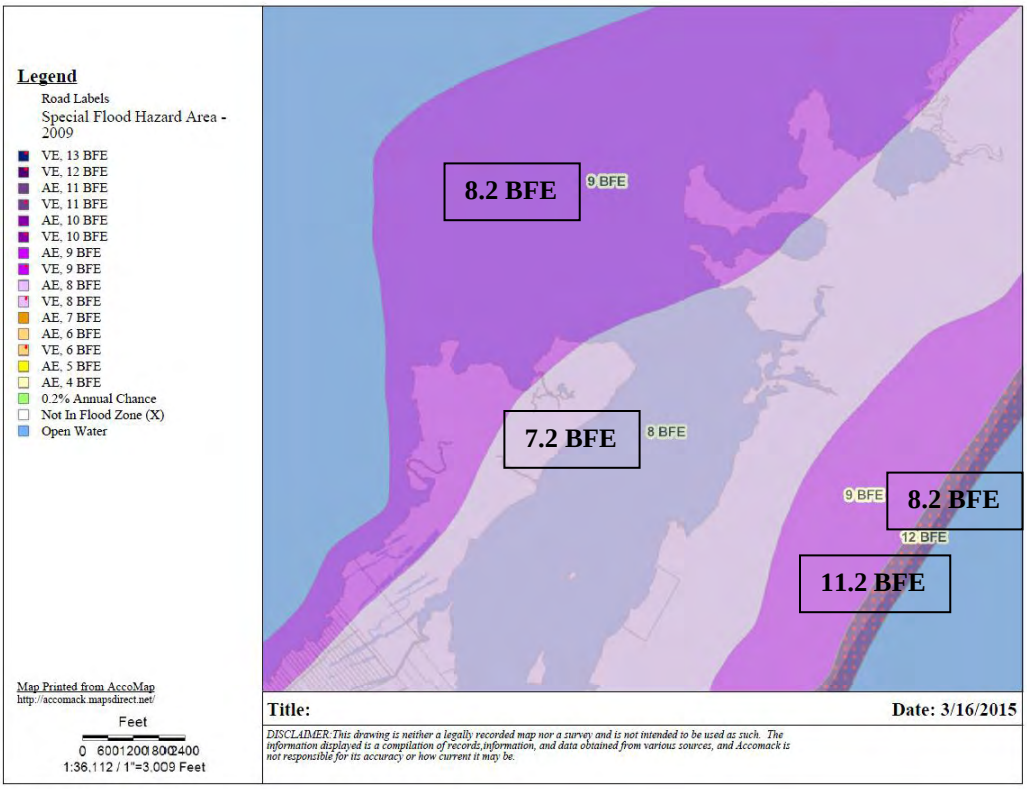
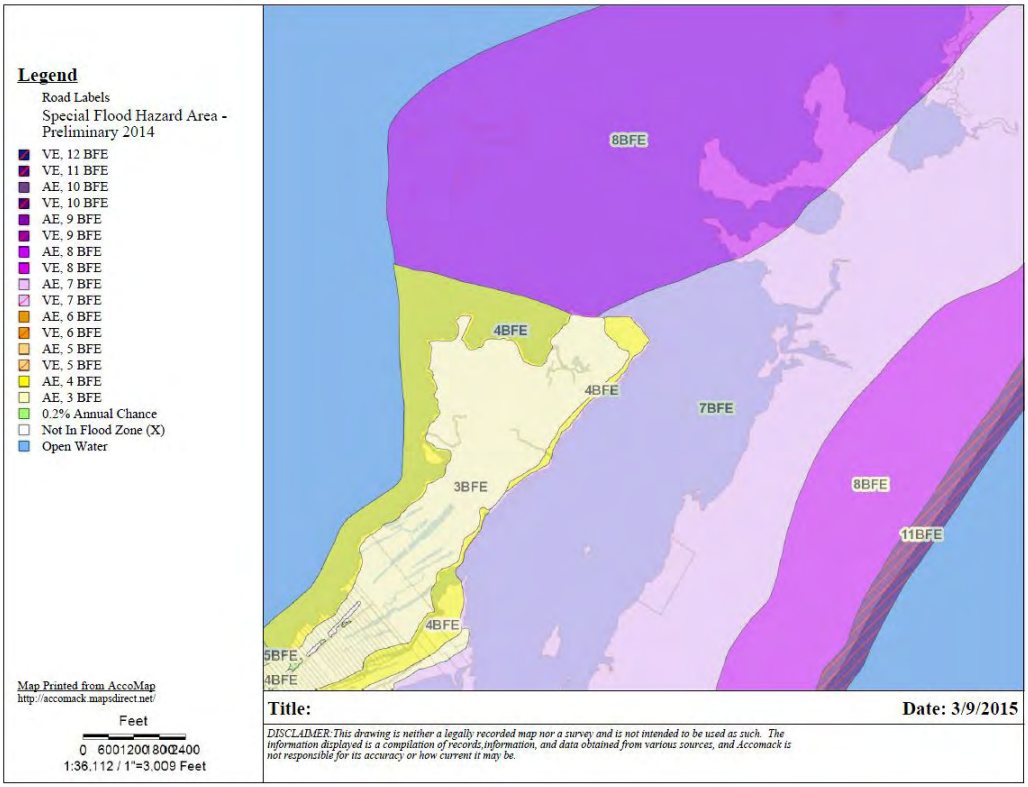


Existing FIRM (NGVD 29) | NAVD 88 Conversion



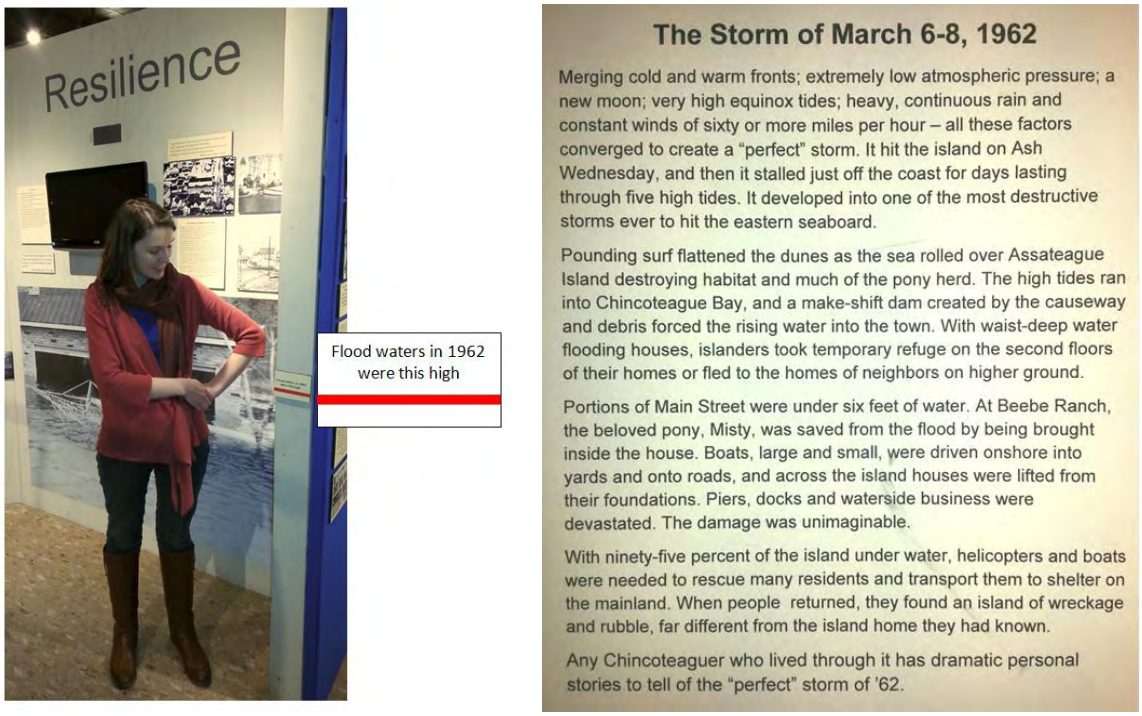
New FIRM (NAVD 88) after May 18, 2015

Staff Analysis

Adoption of a single uniform freeboard standard within the Town's floodplain management regulations may not accomplish the intended purpose as a result of the change in base flood elevation from the south end of Chincoteague Island to the north end.

Two concerns have been identified which influence the FEMA RiskMAP model used to prepare the new FIRMs.

1) The FEMA computer model was field verified by transects (cross sections) which accounted for accurate information about land elevation, structures, trees and sand dunes affecting flood height. These sections were extended to the mainland for the southern half of the Island and were not extended across Chincoteague Bay for the northern half of the island. Flood elevations for the northern half of the Island appear to be under estimated.
2) Protection from storm surge and ocean waves provided by Assateague Island and the managed dune line which was constructed after the 1962 storm is generally confirmed by the FEMA computer model and illustrated on AccoMap. A change in federal land management policies is proposed in the Draft USFWS Comprehensive Conservation Plan which could re-create the conditions of the '62 storm with ocean flooding at both north and south ends of Chincoteague Island.



Credit: Museum of Chincoteague Island, Executive Director Ennis Barbery shows high water mark display from the '62 Storm

Town Staff considered an example of two structures built along the same street, one in 2014 and the other in 2015 after the new FEMA flood elevations are adopted, in order to evaluate what freeboard standard would result in the new structure meeting approximately the same measure of safety as the previous one. The following chart describes a simple strategy for a variable freeboard standard that aligns with the former flood zone elevation 8 (NGVD 29).

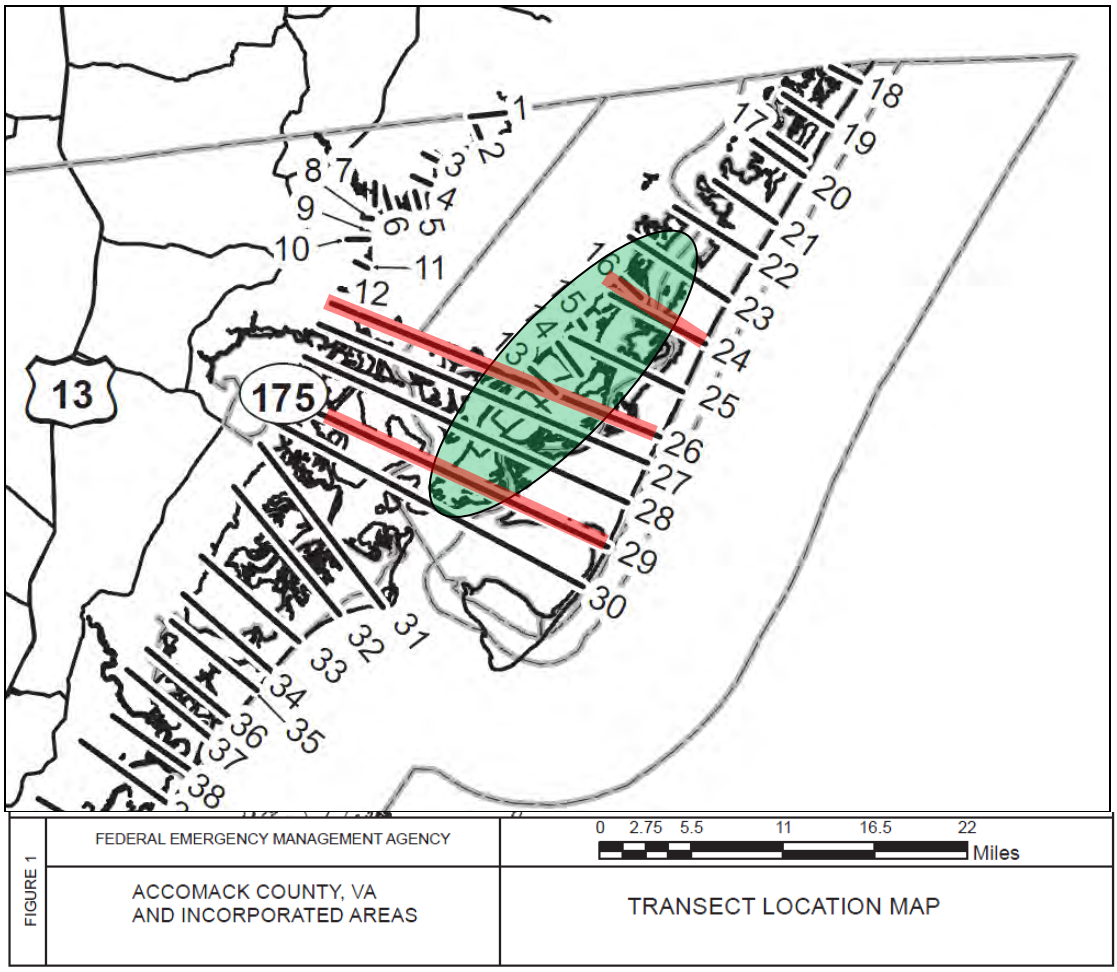
New Base Flood Elevation Zones (NAVD 88)	Freeboard Equivalent (height above BFE)
7	0
6	1
5	2
4	3
3	4
Zone X (Shaded)	*
Out of SFHA	*

(* Other communities in Virginia have required 18" freeboard standards above highest adjacent grade for property outside of the SFHA that may still be subject to flood risk)

The FEMA Flood Insurance Study includes elevations along transects (cross sections) which should be used to evaluate the effectiveness of adopting a particular freeboard standard. Three examples are shown below at south, center, and north locations across Chincoteague Island. In general, a two foot or three foot freeboard requirement would elevate a structure's lowest floor above the 0.2% annual chance flood (500 year floodplain). FEMA estimates that approximately three feet of freeboard is also roughly equivalent to the height of a Category 2 storm surge based on the SLOSH computer model.

TABLE 3 – TRANSECT DATA (continued)

Flood Source	Transect	Starting Wave Conditions for the 1% Annual Chance			Starting Stillwater Elevations (feet NAVD88)			
		Coordinates	Significant Wave Height H_s (ft)	Peak Wave Period T_p (sec)	10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Chincoteague Bay	13	N 37.938988 W -75.371486	3.2	2.7	3.0	3.4	3.6	3.8
Chincoteague Bay	14	N 37.946147 W -75.360735	3.8	3.2	2.7	3.1	3.3	4.0
Chincoteague Bay	15	N 37.952979 W -75.353038	3.1	3.9	2.6	2.9	3.1	4.1
Chincoteague Bay	16	N 37.965155 W -75.337252	3.8	3.0	2.4	2.7	3.0	4.9
Atlantic Ocean	24	N 37.945274 W -75.306061	30.0	13.5	5.3	6.3	7.2	9.9
Atlantic Ocean	26	N 37.917930 W -75.323487	27.6	13.5	5.3	6.3	7.2	10.0
Atlantic Ocean	29	N 37.885691 W -75.343515	24.4	13.9	5.2	6.3	7.1	9.8



Alternate methods of evaluating the effectiveness of adopting a local freeboard standard will be available over the next several years as improved flood risk mapping is completed by FEMA, USACE, TNC, NASA, USFWS and other federal agencies.

Town Council Workshop – January 15, 2015

In a previous workshop, Town Council reviewed 5 sample sites on Chincoteague Island to better understand how the new flood map elevations will affect future building and development. The properties illustrated the base flood elevation differences from south to north, and each site presented different building types: campground and manufactured home, commercial, civic and residential.

- Inlet View (BFE 7 and 6)
- Anchor Inn (BFE 5 and 4)
- CVFC Deep Hole Road (BFE 4)
- Oyster Bay 1 (BFE 4 and 3)
- Leonard Lane (BFE 4 and 3)

Another area which should be considered is approximately 10 to 15% of the Town land area that is no longer considered within the high flood risk zone (1% chance flood/100 year floodplain). The Town of Chincoteague Floodplain Ordinance contains general standards for any

development within the special flood hazard areas (Sec. 30-15), specific standards for residential construction, non-residential construction, elevated buildings, manufactured homes and recreational vehicles (Sec. 30-16), and anchoring fuel tanks (Sec. 30-20). The FPO does not currently include development standards for areas identified on the new flood maps outside the 100 year floodplain.

Staff Recommendations

1) **Adopt Minimum Required Changes to Town Code – Section 30 Floods**
Incorporate the appropriate reference to the new Flood Insurance Rate Maps and Flood Insurance Study Report (effective May 18, 2015) into the Town Floodplain Ordinance along with other minor corrections requested in the VA NFIP Coordinator's review as follows:

Sec. 30-7. Definitions.

Existing construction, means structures for which the "start of construction" commenced before March 1, 1977~~the effective date of the FIRM or before January 1, 1975 for FIRMs effective before that date~~ within the former Town limits prior to annexation, and June 1, 1984 within the areas annexed from Accomack County. "Existing construction" may also be referred to as "existing structures."

New construction means for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after ~~3/1/~~March 1, 1977 within the former Town limits prior to annexation, and June 1, 1984 within the areas annexed from Accomack County, and includes any subsequent improvements to such structures. For floodplain management purposes, new construction means structures for which start of construction commenced on or after ~~the~~June 1, 1984 within areas annexed from Accomack County and on or after February 2, 1989 for area within the former Town limits prior to annexation, ~~2/2/1989~~ and includes any subsequent improvements to such structures.

Post-FIRM structures, means a structure for which construction or substantial improvement occurred after March 1, 1977 within the former Town limits prior to annexation, and June 1, 1984 within the areas annexed from Accomack County~~February 2, 1989~~.

Pre-FIRM structures, means a structure for which construction or substantial improvement occurred on or before March 1, 1977 within the former Town limits prior to annexation, and June 1, 1984 within the areas annexed from Accomack County~~February 2, 1989~~.

Repetitive Loss Structure, means a building covered by a contract for flood insurance that has incurred flood-related damages on two occasions within a 10-year period, in which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event; and at the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage.

Sec. 30-9. Description of districts.

(a) Basis of Districts - The various floodplain districts shall include special flood hazard areas subject to a one (1%) percent or greater chance of being flooded in any given year. The basis for the delineation of these districts shall be the Flood Insurance Study (FIS) and the Flood Insurance Rate Maps (FIRM) for the Town of Chincoteague (Community number 510002) prepared by the Federal Emergency Management Agency, Federal Insurance Administration, dated ~~March 16, 2009~~ May 18, 2015, and any subsequent revisions or amendments thereto.

Sec. 30-10. Official floodplain map.

The boundaries of the Special Flood Hazard Area and Floodplain Districts are established
as shown on the Flood Insurance Rate Map panels 51001C0065G, 51001C0070G, 51001C0260G, 51001C0270G, 51001C0280G, 51001C0285G, 51001C0290G, 51001C0485G, and 51001C0505G which ~~is~~ are declared to be a part of this ordinance and which shall be kept on file at the town offices.

Sec. 30-15. General standards.

In all special flood hazard areas the following provisions shall apply:

(a) New construction and~~or~~ substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

(d) New construction and~~or~~ substantial improvements shall be constructed by methods and practices that minimize flood damage.

Sec. 30-16. Specific standards.

In all special flood hazard areas the following provisions shall apply:

(c) Elevated Buildings - Enclosed areas, of new construction or substantially improved
structures, which are below the lowest floor elevation shall:

(3) in the Coastal High Hazard District, follow the standards for elevation outlined in Article IV, Section 30-19~~8~~.

ARTICLE VII. ENACTMENT

This ordinance shall become effective upon passage on April 7, 2014. Amended _____.

2) Adopt a local standard for Freeboard

a. that is specific to each new flood district

Sec. 30-16. Specific standards.

In all special flood hazard areas the following provisions shall apply:

(a) Residential Construction - New construction or substantial improvement of any residential structure (including manufactured homes) shall have the lowest floor, including basement, elevated no lower than base flood elevation~~.~~, plus the applicable freeboard requirement as follows:

Base Flood Elevation (NAVD 88 Datum)	Freeboard (height above BFE)
7	0
6	1
5	2
4	3
3	4

(b) 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 no lower than base flood elevation~~.~~, plus the applicable freeboard requirement as follows:

Base Flood Elevation (NAVD 88 Datum)	Freeboard (height above BFE)
7	0
6	1
5	2
4	3
3	4

Non-residential construction may be flood-proofed in lieu of being elevated provided that all areas of the building components below the elevation corresponding to the BFE plus ~~one foot~~ applicable freeboard requirement 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, including the specific elevation (in relation to mean sea level) to which such structures are flood-proofed, shall be maintained by the Zoning Administrator

Sec. 30-18. Standards for the coastal 'A' zone

The Coastal A Zone shall be those areas, as defined by the VA USBC, that are

subject to wave heights between 1.5 feet and 3 feet, and identified on the FIRM by Limits of Moderate Wave Action (LiMWA). For these areas, the following provisions shall apply:

(a) Buildings and structures within this zone shall have the lowest floor elevated to or above the base flood elevation plus ~~one foot of~~applicable freeboard requirement as follows, and must comply with all other applicable provisions of this ordinance.

Base Flood Elevation (NAVD 88 Datum)	Freeboard (height above BFE)
7	0
6	1
5	2
4	3
3	4

OR an alternative freeboard standard

b. that is uniform in all new flood zones

Adopting a uniform freeboard requirement for all base flood elevation zones on Chincoteague Island should be supported by findings such as:

- Consist with Accomack County recommended standards (2')
- Meets State Building Code requirements for protection of utility and HVAC systems which usually results in 12" to 18" of freeboard on new construction (1.5')
- Meets proposed new Federal property requirements under Executive Order #13690 (2' above the 1% chance flood, or the 0.2% chance flood elevation/500 year flood)

3) Consider a possible revision to the zoning ordinance definition for 'building height'

Sec. 2.24 *Building Height – the vertical distance measured from the base flood elevation, including freeboard, at the site of the structure to the highest point of any roof.*

If a local freeboard standard is adopted, the current definition of building height would otherwise reduce the permitted building height (36 feet) in each zoning district by the amount of the freeboard.

4) Consider floodplain management development standards in areas located outside of the 1% chance flood risk zone (100 year floodplain).

MEMORANDUM

TO: Board of Supervisors
Dr. Miner
Rich Morrison

FROM: Tom Brockenbrough

DATE: March 6, 2015

SUBJECT: Flood Hazard Overlay District Regulations Public Hearing

The Federal Emergency Management Agency **(**FEMA) has issued a new set of Flood Insurance Rate Maps (FIRMs) for Accomack County to be effective May 18, 2015. The County will need to adopt the new maps along with the accompanying Flood Insurance Study. As part of the process the County is also being required by FEMA to change its Flood Hazard Overlay District Regulations (Article XV) of the Accomack County Zoning Ordinance.

Staff has adapted a model ordinance from the Virginia Department of Conservation and Recreation (DCR) to repeal and replace the existing language in the Zoning Ordinance. Staff adaptations were reviewed by DCR and additional modifications were recommended. With the exception of the freeboard requirement, there is not much latitude for the the Board of Supervisors to make changes and be in compliance with FEMA requirements.

The proposed ordinance increases the freeboard requirement from the current one foot to three feet. Staff has recommended an increase to two feet. The Planning Commission conducted a Public Hearing on the changes on February 11, 2015 and has also recommended the changes to the Board of Supervisors along with 2 feet of freeboard.

There were some changes from the draft version sent to the Virginia Department of Conservation and Recreation for review and comment. Almost all of them were the suggestion of DCR to expedite FEMA review. Many of these changes simply clarify the role between the County and FEMA as opposed to someone actually seeking zoning clearance for a project. Other information refers to different zones that may appear on FIRMs in general but do not appear on the new Accomack FIRMs. Some of the changes from the existing ordinance include:

- Inclusion of several definitions *(such as Basement, Coastal Barrier Resources System Areas, Floodway, Primary Frontal Dune, Severe Repetitive Loss Structure, etc.)*
- Stronger references to implementation of requirements of 44 CFR 60.3 (c) and 60.3 (e) from the FEMA requirements
- Expanded duties and responsibilities of the Floodplain Administrator

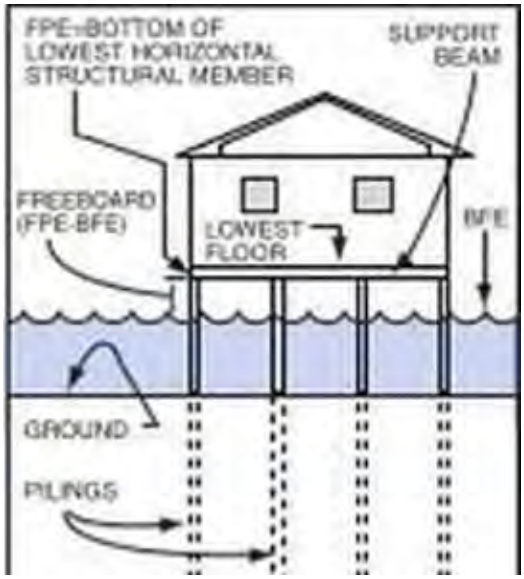
- Inclusion of language on Jurisdictional Boundary Changes as well as Submitting Technical Data and Letters of Map Revision.
- Language on Floodway Zones, A Zones, AH Zones, none of which are currently on FEMA FIRMs for Accomack County, along with notations that they do not appear on the local maps.
- Staff also added language reiterating that these requirements apply solely to the unincorporated areas of Accomack County.

FEMA needs time to review the ordinance for compliance prior to the new FIRMs taking effect on May 18. ***Failure of the County to act in a timely manner would mean that the County's ordinance could be found not in compliance by FEMA by May 18 which could result in a prohibition on new NFIP policies in the unincorporated areas of Accomack County and that existing flood insurance policies would not be renewed.***

Base Flood Elevation and Freeboard Requirement:
Base Flood Elevation (BFE) is the number of feet above sea level in the area that has a 1% chance of flooding that would beat or exceed it in any given year. FEMA requires new, replacement, and substantially improved structures in the Special Flood Hazard Area (SFHA), often referred to as the height above mean sea level) to build the bottom floor of inhabitable space at the minimum of Base Flood Elevation as shown on the FIRM. As an example if a new home was being built in a SFHA in an area where the ground level is 5 feet and the BFE is 8 feet, the structure would need to be constructed a minimum of 3 feet above ground in order to meet the FEMA requirement (5 feet ground elevation plus foundation 3 feet above ground equals 8 feet BFE).

Building at Base Flood Elevation is a FEMA minimum requirement. There are benefits to building higher. They include:

- Provides additional safety factor by being higher out of the flood zone
- Ductwork, piping, wiring, etc. must be above BFE. Building higher allows these items to be run underneath the first floor.
- Can protect home and furnishings from storms greater than the 1% annual chance (100 year storm)
- Lowered flood insurance premiums
- May keep home in compliance in the even FEMA FIRMs change and the BFE increases
- Assists Accomack's participation in Community Rating System, which provides further reductions in premiums for property owners



The additional height the floor is located above the BFE is referred to as **freeboard**. In the example above, if the homeowner put in a foundation of 5 feet instead of the required 3 feet, the structure would be considered to have 2 feet of freeboard.

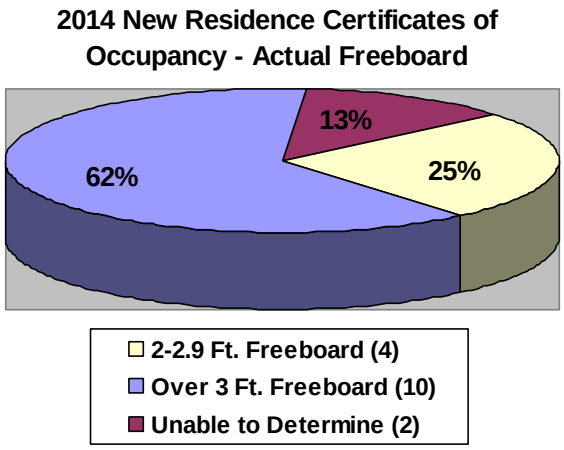
The County established a one foot freeboard requirement in 2000 as many constructing in the flood zone were already constructing higher than the minimum base flood elevation.

An increased freeboard requirement is cost effective for property owners. Of two similar structures, one built at base flood elevation, and one built at two feet above BFE, the higher elevated structure can achieve a significant savings each year in insurance premiums. While the construction costs are slightly higher, they are normally recouped within a few years due to insurance savings and the monthly payment over a 30 year note is actually lower as the insurance savings more than offsets the additional costs of construction. The examples below are based on rates from October 2013. Rates have been increasing and it is likely the annual savings from having a higher freeboard requirement would also increase.

V Zone*	1' Freeboard	$2,575 (22%)	$77,250	A Zone*	$537 (51%)	$16,110
	2' Freeboard	$4,900 (41%)	$147,000		$700 (66%)	$21,000
	3' Freeboard	$6,775 (56%)	$203,250		$748 (71%)	$22,440

*NFIP premiums based on October 2013 rates for a multiple floor residential structure with no basement or enclosure built after a FIRM was issued. $1,000 deductible/$250,000 coverage for the building, no contents coverage. The replacement cost of V Zone buildings is greater than $500,000.

It appears that the possibility of lower insurance premiums has already impacted construction activity in Accomack. Homes are already being constructed with additional freeboard. During 2014 there were 16 Certificates of Occupancy (C.O.) issued for new residences in the unincorporated area of Accomack County. The elevation certificates for each were reviewed to evaluate the difference between the required minimum elevation and the elevation of the bottom area of living space. Of the 16 C.O.s, 10 (62.5%) had a freeboard of 3 feet or greater, 4 had a freeboard between 2 and 3 feet. The remaining two were unable to be determined (the ground elevation was already above the minimum requirement so no final elevation certificate was obtained). In every verifiable case the freeboard on the structure was at or above the level recommended by the Planning Commission and staff. The average freeboard was in excess of 3½ feet. The 2 feet freeboard recommendation follows what has already been adopted in the marketplace.



In Coastal Virginia, many jurisdictions have a freeboard requirement and increasingly jurisdictions have been increasing their freeboard requirement as part of their flood programs and to adjust to long term impacts of relative sea level change which are not accommodated as

part of the FEMA FIRM. Table I shows the requirements of coastal Virginia communities that have a freeboard requirement.

Locality	Freeboard Requirement
Accomack	**1 Foot**
Newport News*	**1 Foot**
Northampton	**1 Foot**
Northumberland	**1 Foot**
Richmond	**1 Foot**
Chesapeake	**1.5 Feet**
Isle of Wight	**1.5 Feet**
Lancaster	**1.5 Feet**
Poquoson*	**1.5 Feet**
Portsmouth*	**1.5 Feet**
Gloucester	**2 Feet**
James City	**2 Feet**
Virginia Beach	**2 Feet**
Hampton	**3 Feet**
Norfolk	**3 Feet**
York	**3 Feet**

** Currently Proposing Increases to Double Freeboard Requirement*

An increased freeboard requirement assists the County with its Community Rating System program. Currently property owners in the Special Flood Hazard Area receive a 10% reduction on FEMA flood insurance premiums as a result of floodplain management activities the County undertakes that are above the minimum NFIP requirements. The most recent data shows that property owners in the unincorporated areas of Accomack County saved a total of $240,330 on their annual premiums. The Rating is based on complex scoring criteria and currently incorporates the 1 foot freeboard requirement under Element 432b. The County's program will be audited during 2015 using updated criteria. Increasing the freeboard requirement by 100% will increase the credit the County receives for the Element by 125%. By formally capturing what is already occurring in the marketplace, the County is able to gain additional credit under the CRS program.

Finally, the Federal Government appears to be moving towards a minimum 2 foot freeboard requirement on projects involving federal funds to reduce the cost of future flood disasters. A higher standard was first adopted for federally funded projects using Hurricane Sandy funds and the newly established Federal Flood Risk Management Standard also incorporates the possibility of an increased freeboard requirement as part of federally funded projects.

Recommendation:
Staff is recommending that the Board of Supervisors hold the public hearing and following the hearing, and if the Board's review is complete, approve the changes with the Planning Commission's and staff's recommendation of a freeboard requirement of 2 feet. Below is the recommendation of the Planning Commission:

The Planning Commission recommends repeal of Article XV (Flood Hazard Overlay District) of the Accomack County Zoning Ordinance and replacement with the proposed language, including a 2 feet freeboard requirement of the Accomack County Zoning Ordinance to the Board of Supervisors. The Flood Insurance Study and the Flood Insurance Rate Map for Accomack County prepared by the Federal Emergency Management Agency to become effective May 18, 2015, and any subsequent revisions or amendments thereto shall form the basis of the special flood hazard districts in the Ordinance. The following reasons are offered to support its recommendation on the freeboard requirement:

1. **The County is required to make the changes in order for its citizens to continue to participate in the National Flood Insurance Program.**
2. **Raising the freeboard requirement to 2 feet provides added protections to the public and property owners during storm events of which the added construction costs are usually more than offset by lower insurance premiums.**
3. **The freeboard requirement assists the County with its participation in the Community Rating System**

Draft Ordinance and Resolution:

The draft provided to you has two minor changes from the version that went before the Planning Commission. They are changes in section numbers that changed when the document was edited prior to the public hearing. Also, while both the Planning Commission and staff have recommended increasing the freeboard requirement from 1 foot to 2 feet, the draft ordinance and the public notice both have language providing for a freeboard requirement of 3 feet to provide the Board with greater flexibility should they wish to increase the freeboard requirement above the amount recommended. Depending on option the Board chooses with respect to freeboard (0 – 3 feet) the freeboard amount needs to be incorporated into 5 locations under Section 106-364 A. Those locations have been highlighted in yellow. The Board will need to specify their preferred freeboard requirement where indicated in the Resolution to adopt the changes.

Attachments:

1. Flood Hazard Overlay District Repeal and Replacement Resolution and Ordinance
2. FEMA Letter of Final Determination
3. FEMA Flood Insurance Study for Accomack County
4. Power Point Presentation

MEMORANDUM

Town of Chincoteague, Inc.

Date: March 17, 2015

To: Mayor and Council

From: Robert Ritter, Town Manager

Subject: Bids for Robert N. Reed Annexation Project

Staff advertised the Robert N. Reed Park Annex improvements bid in the Saturday, February 21, 2015 edition of the Eastern Shore News. On Monday, March 2, 2015 at 2 pm in the Town conference room, we conducted a pre bid meeting. Friday, March 13, 2015, at 2:00 pm we received two (2) **lump sum** bids:

1. Branscome ($180,137.00) add alternate kiosk ($15,100.00)
2. Conrad Brothers ($218,900.00) add alternate kiosk ($ 7,800.00)

The staff proposes to value engineer to get closer to the Engineers estimate (see attached engineers estimate). The following savings can be found:

1. Storm drainage work to be performed by Town Public works = $10,000 savings
2. Half the cost of brand specific fixtures or furnishings = $15,000 savings. Same type/quantities just different styles and/or manufacturers.
3. Also plan to construct the kiosk in house,

This puts us close to the Town budgeted amount of $155,000, if we award the bid of $155,137 to Branscome.

Staff recommends a motion that could read:

Motion to " award Branscome the lowest responsive bidder the Robert N. Reed Annex improvement project for an amount not to exceed one hundred fifty five thousand one hundred thirty seven dollars ($155,137.00)."

ROBERT REED PARK COST ESTIMATE
TOWN OF CHINCOTEAGUE VIRGINIA
January 20, 2015

GENERAL ITEMS and ALLOWANCES

A.	ITEM	DESCRIPTION		UNIT	QUANTITY	UNIT PRICE	ITEM TOTAL
		Mobilization		LS	1.00	$7,000.00	$7,000.00
		Earthwork		LS	1.00	$3,000.00	$3,000.00
						SECTION SUBTOTAL	**$10,000.00**

EROSION AND SEDIMENTATION CONTROL ITEMS

B.	ITEM	DESCRIPTION		UNIT	QUANTITY	UNIT PRICE	ITEM TOTAL
		Temp. Silt Fence		LS	1.00	$2,500.00	$2,500.00
		Inlet Protection		EA	1.00	$115.00	$115.00
						SECTION SUBTOTAL	**$2,615.00**

PAVEMENT AND SURFACE ITEMS

D.	ITEM	DESCRIPTION		UNIT	QUANTITY	UNIT PRICE	ITEM TOTAL
		CG-2 Curb		LF	30.00	$23.00	$690.00
		7" Concrete Entrances		SY	24.00	$90.00	$2,160.00
		Flush Curb		LF	100.00	$20.00	$2,000.00
						SECTION SUBTOTAL	**$4,850.00**

SPECIALITY PAVING

E.	ITEM	DESCRIPTION		UNIT	QUANTITY	UNIT PRICE	ITEM TOTAL
		60mm Brick Paver For Walks (Running Bond Pattern)		SY	140.00	$105.00	$14,700.00
		80mm Brick Paver For Crosswalks and Vehicle areas(Herringbone Pattern)		SY	111.00	$150.00	$16,650.00
						SECTION SUBTOTAL	**$31,350.00**

PLANTINGS NEW

H.	ITEM	DESCRIPTION		UNIT	QUANTITY	UNIT PRICE	ITEM TOTAL
		Planting and seed		LS	1.00	$7,500.00	$7,500.00
						SECTION SUBTOTAL	**$7,500.00**

SITE FURNISHINGS

I.	ITEM	DESCRIPTION		UNIT	QUANTITY	UNIT PRICE	ITEM TOTAL
		Park Bench 8'		EA	4.00	$1,400.00	$5,600.00
		Tables		EA	5.00	$1,500.00	$7,500.00
		Grills		EA	4.00	$600.00	$2,400.00
		Trash Receptacle		EA	4.00	$1,400.00	$5,600.00
		Bike Racks		EA	2.00	$150.00	$300.00
		Lighting		EA	1.00	$2,500.00	$2,500.00
		Fence		LF	76.00	$20.00	$1,520.00
		Kiosk		EA	1.00	$10,000.00	$10,000.00
		Pergola		EA	1.00	$8,000.00	$8,000.00
		Shelter		EA	1.00	$40,000.00	$40,000.00
						SECTION SUBTOTAL	**$83,420.00**

SUBTOTAL	**$139,735.00**
5% CONTINGENCY	**$6,986.75**
TOTAL ESTIMATE	**$146,721.75**

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