CURRENT ZONING ORDINANCE LANGUAGE

Sec. 21-13. Increase or decrease in natural elevation prohibited.

(1) Any importation of materials of any type or re-contouring of a lot's existing contours that increased a lot's existing ground elevation more than one (1) foot above existing grade and results or may result in elevating an existing or proposed structure is strictly prohibited.

(2) Any decrease in a lot's existing ground elevation is strictly prohibited.

Language from Page 61 of Town's Sea Level Adaptation and Resilience Plan

2. Consider altering fill material limits for development.

   a. Currently, the Town only allows one (1) foot of fill. The City of Isle of Palms similarly only allows 1 foot of fill provided that this requirement would not limit the elevation of a lot to an elevation lower than 7.4'. Consider implications for adopting similar language.

      i. If language is adopted, fill slopes should be constructed at a 4:1 or flatter to maintain mow-ability, reduce erosion, encourage establishment of vegetation, and not impede pedestrian movements. To protect adjacent properties from flooding, recommendations for buffer widths should be included. Charleston County recently added language to their stormwater design manual requiring varying widths of vegetated buffers based on slope, with 4:1 slopes requiring a 3-foot-wide buffer for every additional one foot in height.

      ii. If retaining walls are utilized, building codes should be reviewed and updated accordingly to distinguish between retaining walls for fill and sea-walls. Additional building code considerations should include safety measures depending on wall height (e.g., railing requirements).

Language from Page 24 of Town's Island-Wide Stormwater Master Plan and Infrastructure Improvement Strategy

7.2 Private Perimeter Protection

Many properties lack appropriate protection from tidal-driven flooding (primarily marsh-front properties) which will only become exacerbated by the impacts of sea level rise. The town should encourage and allow property owners to fill or protect their property against an appropriate tidal mitigation target. For example, the neighboring community of the City of Isle of Palms is considering a sea level rise mitigation target of 7 feet NAVD88, which should statistically provide protection for 99.5% of all tidal events experienced in the year 2050 excluding hurricanes and/or tropical storm events (City of Isle of Palms Sea Level Rise Adaptation Plan, 2025). Strategies that should be encouraged to provide this protection include living shorelines (to provide erosional control along the marsh), constructing vegetated berms (outside of the critical area), and filling low-lying lots (with careful consideration to the stormwater impacts to adjacent properties). It is not recommended that bulkheads or revetments be considered as perimeter protection along marsh-front properties as they have been observed to cause long-term erosion and degradation of the marsh ecosystem.

Isle of Palms

General Provisions - Additional Regulations (Sec -4-12) IOP CODE

(p) Adding fill or importation of materials of any type, or re-contouring of a lot's existing contours, that increases a lot's existing ground elevation more than one (1) foot above existing road and results or may result in elevating an existing or proposed structure is strictly prohibited. Provided however, that this requirement would not limit the elevation of a lot to an elevation lower than seven and four tenths (7.4) foot (using the 1988 NAVD datum).

(q) No lot shall be improved, altered, graded, or filled in a way that results in (1) additional stormwater running off the site; or (2) stormwater running off the site in an accelerated manner.

(r) Prior to any improvements, alterations, grading, or filling, a stormwater management plan shall be submitted and approved by the Zoning Administrator.

Kiawah Island

Sec. 14-167. - Fill.

If fill is used to raise the lowest floor to the base flood elevation:

(1)Fill shall consist of compacted soil (95 percent) or small rock materials only. Sanitary landfills shall not be permitted.

(2)Fill slopes shall be no steeper than one vertical on two horizontal, unless substantiating data justifying steeper slopes are submitted to and approved by the floodplain manager of the building services department.

(3)Fill shall be used only to the extent to which it does not adversely affect adjacent properties.

Mt Pleasant

SUBPART 2.6: HEIGHT § 156.1625 GENERALLY

(B) Unless necessary to meet drainage or other applicable requirements of this Code, lots shall not be filled in order to artificially increase building height

§ 152.22 RESIDENTIAL AND NONRESIDENTIAL CONSTRUCTION.

(D) *Buildings constructed on fill material.* A residential or nonresidential building may be constructed on fill material in accordance with the following:

(1) Fill must consist of soil and rock materials only. A registered professional geotechnical engineer may authorize the use of dredged material as fill only upon certification of suitability;

(2) Fill may not be placed in tidal or non-tidal wetlands without the required state and federal permits;

(3) The fill shall be designed, installed, and tested in accordance with the requirements of the town adopted and state mandated building codes, and the extension and slope of the fill beyond the foundation of the building shall be designed to minimize the potential for erosion and scour; and

(4) The fill shall not adversely affect the flow of surface drainage from or onto neighboring properties.

§ 156.1548 EXCEPTION FOR INCREASED ELEVATION.

(A) An increase in the elevation of a building above the maximum allowed height to comply with minimum floodplain regulations in Chapter 152 is allowed.

(B) The building may only be raised to meet the minimum design flood elevation required by Chapter 152.

(C) Any increase in height above the minimum design flood elevation requires a variance from the Board of Zoning Appeals.

Folly Beach

§ 162.03-09 Grading Permit.

(A) *Purpose.* The purpose of this section is to provide a mechanism for reviewing applications for grading permits to ensure all grading within the city complies with the standards of this section, § 166.04-05, Stormwater Management, all relevant standards in this ZDO, all other applicable city ordinances, and all other state and federal laws.

(B) *Applicability.* No grading or other land-disturbing activity, including the addition or installation of any impervious surface, except that exempted by § 162.03-09(C), Exemptions, shall ensue without first having obtained a grading permit pursuant to this section.

(C) *Exemptions.* The following activities are not required to obtain a grading permit, but shall comply with all requirements in § 166.04-05, Stormwater Management:

(1) Land-disturbing activities exempted from grading permit requirements by the South Carolina Erosion and Sediment Control Act;

(2) Land-disturbing activities undertaken for the purpose of fighting fires; and

(3) Land-disturbing activities taking place on a lot containing a lawfully established single-family dwelling provided such activities are located outside of any sensitive natural areas and provided they are limited to a maximum of 2,500 square feet.

City of Charleston

Sec. 27-117. - Specific standards.

d. There shall be no fill used as structural support. Non-compacted fill may be used around the perimeter of a building for landscaping/aesthetic purposes provided the fill will wash out from storm s urge, thereby rendering the building free of obstruction prior to generating excessive loading forces, ramping effects, or wave deflection. The building official shall approve design plans for landscaping/aesthetic fill only after the applicant has provided an analysis by an engineer, architect, and/or soil scientist licensed in South Carolina which demonstrates that the following factors have been fully considered:

i. Particle composition of fill material does not have a tendency for excessive natural compaction;
ii. Volume and distribution of fill will not cause wave deflection to adjacent properties; and
iii. Slope of fill will not cause wave run-up or ramping.

Pawley's Island

5-4. - Provisions for flood hazard reduction.

(I) Fill. An applicant shall demonstrate that fill is the only alternative to raising the building to meet the residential and nonresidential construction requirements of article 5-4.2(A) and article 5-4.2(B), and that the amount of fill used will not affect the flood storage capacity or adversely affect adjacent properties. The following provisions shall apply to all fill placed in the special flood hazard area:

(1) Fill may not be placed in tidal or nontidal wetlands without the required state and federal permits.

(2) Fill must consist of soil and rock materials only. A registered professional geotechnical engineer may use dredged material as fill only upon certification of suitability. Landfills, rubble fills, dumps, and sanitary fills are not permitted in the floodplain.

(3) Fill used to support structures must comply with ASTM Standard D-698, and its suitability to support structures certified by a registered, professional engineer.

(4) Fill slopes shall be no greater than two horizontal to one vertical. Flatter slopes may be required where velocities may result in erosion.

(5) The use of fill shall not increase flooding or cause drainage problems on neighboring properties.

(6) Fill may not be used for structural support in the coastal high hazard areas.

(7) Shall meet the requirements of FEMA Technical Bulletin 10, Ensuring That Structures Built On Fill In or Near Special Flood Hazard Areas Are Reasonably Safe From Flooding.

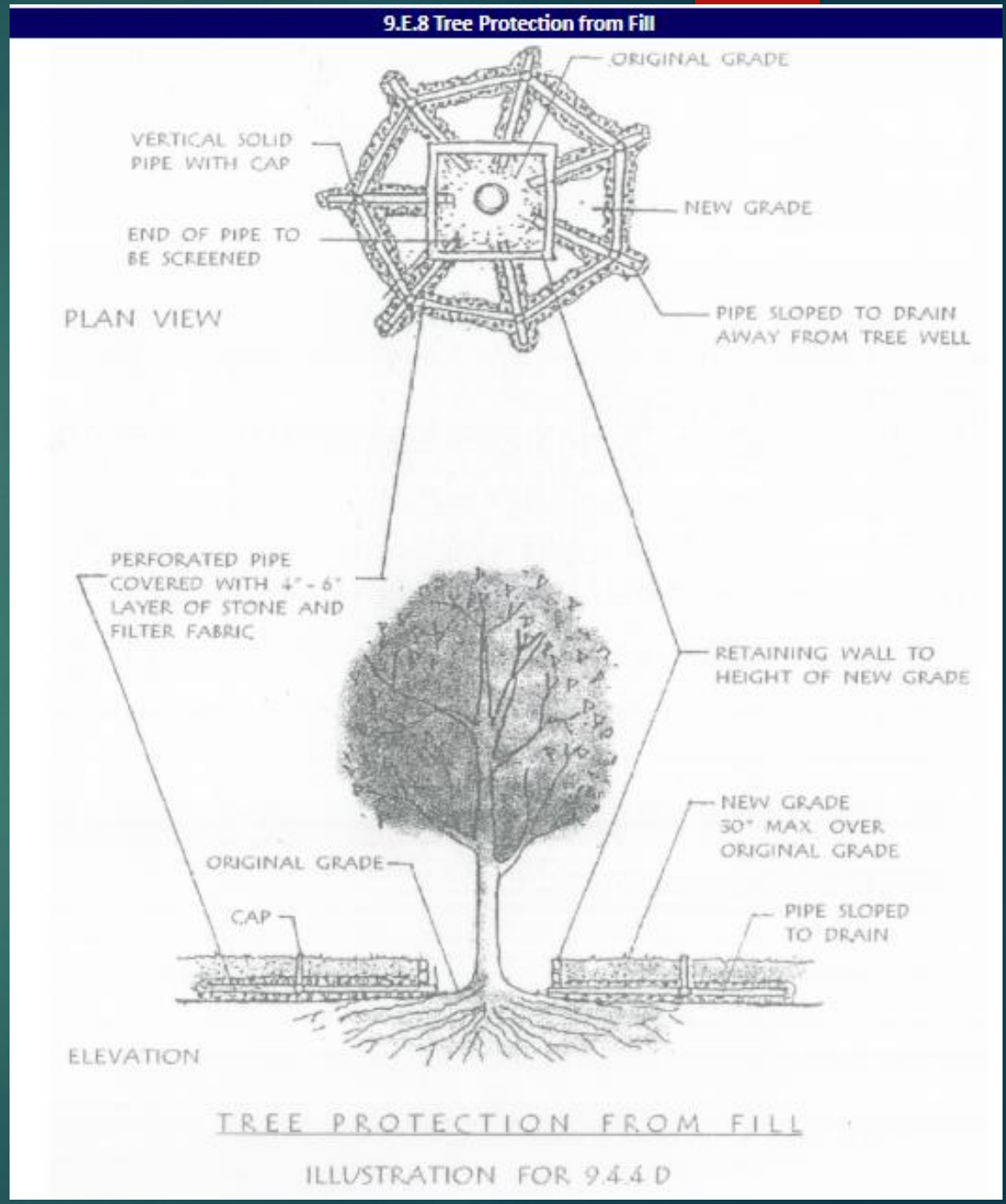
Ordinance Considerations to Mitigate Potential Negative Impacts of Allowing Additional Fill:

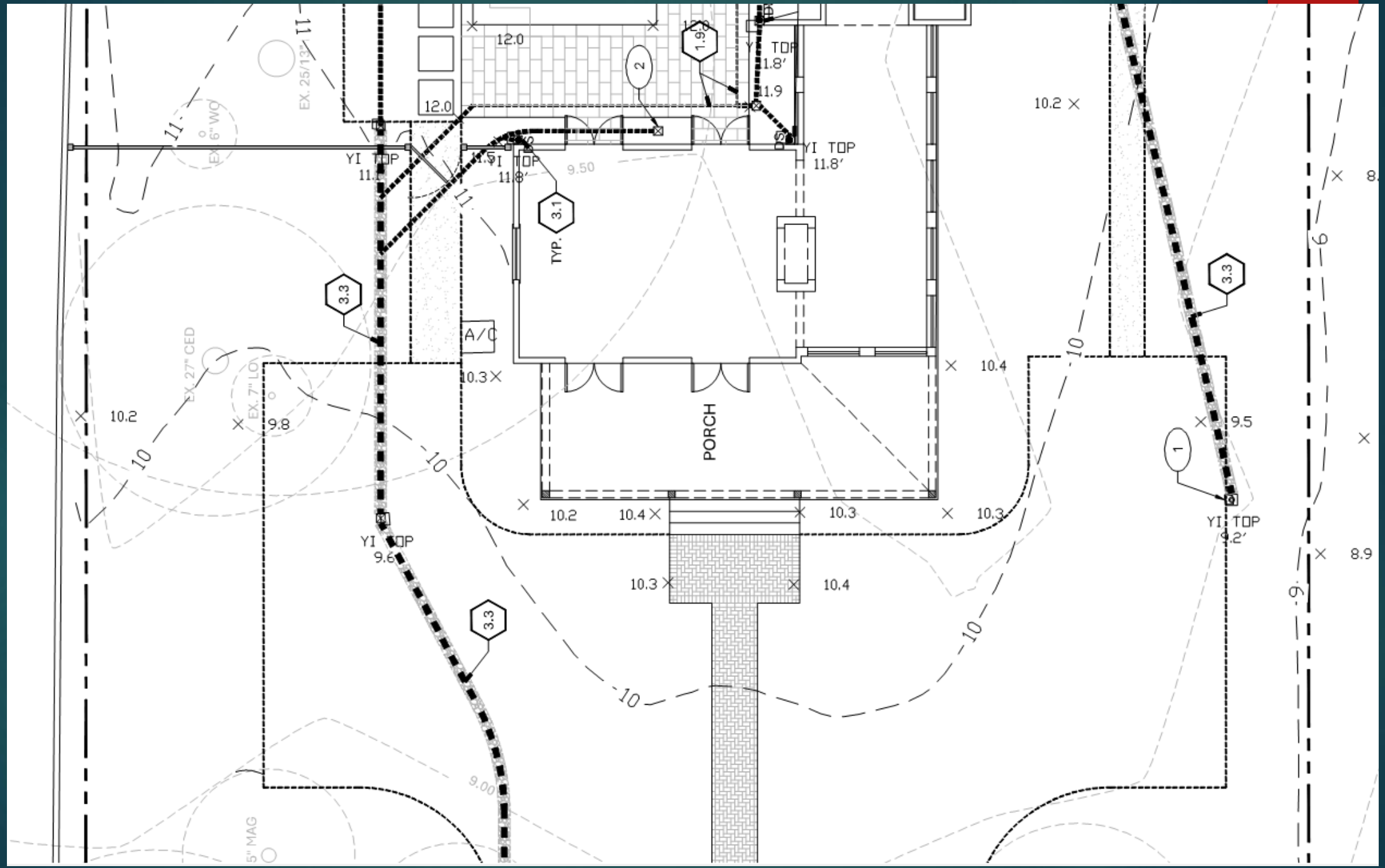
1. **Limiting slopes to reduce velocity of run off –** Charleston County Stormwater Manual **-** Site and Lot Slopes: Flatten lot slopes to approach a maximum of one (1) percent. This will increase infiltration and travel time. Also, soil compaction of surface soils (not structural fill) in the lot should be avoided to maximize infiltration.
   - Outlets will not be allowed to discharge on fill slopes.
   - Note: If retaining walls or fill slopes are to be constructed at the downstream property line, a ten (10) foot buffer is recommended
2. **Protecting CRZs from added fill** – (§ 156.705 TREE PROTECTION ZONES (TPZ). (MtP))- Development Activities. Development activities within the Tree Protection Zone shall be in accordance with the following procedures: (1) Grade Changes. (a) Moderate fill may be allowed, upon prior approval of the PLAN Department and with the prior installation of an aeration system. (b) A decrease in grade is prohibited. (c) The grade outside the Tree Protection Zone shall be decreased only with the use of approved retaining walls or terracing plans. See Figure 156.705-1: Grade Changes. (d) Drainage shall be addressed where grade changes occur around trees.
3. **Strengthening requirements for managing run off**
   Charleston County Stormwater Manual Updates

Charleston County

Sec. 9.2.4 Required Tree Protection

C. In no case shall any paving, filling, grading, Building, or construction footing occur or be placed within three times the DBH in inches from the trunk of the Tree, unless otherwise approved by the Board of Zoning Appeals.




12.0
12.0
2
1.9
TOP
11.8'
11.9
YI TOP
11.8'
YI TOP
11.8'
9.50
3.1
TYP.
3.3
A/C
10.3
10.2
10.4
PORCH
10.2
10.4
10.3
10.3
10.3
10.4
YI TOP
9.6'
3.3
9.8
10.2
EX. 27" CED
EX. 7" LO
EX. 25/13"
EX. 6" WO
11
10
9.00
5" MAG
10.2
3.3
9.5
1
YI TOP
9.2'
8.9
9

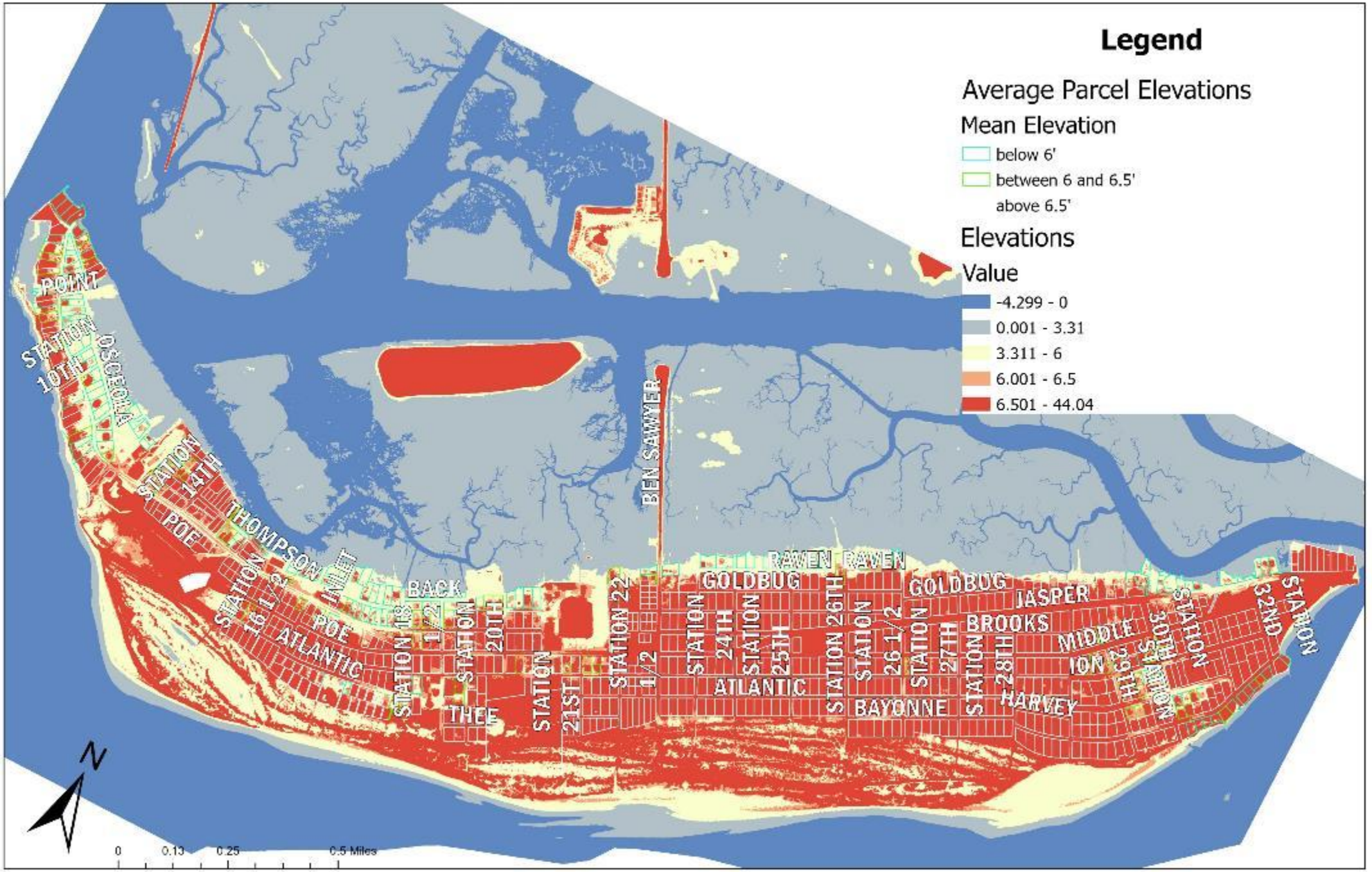
BZA CASES

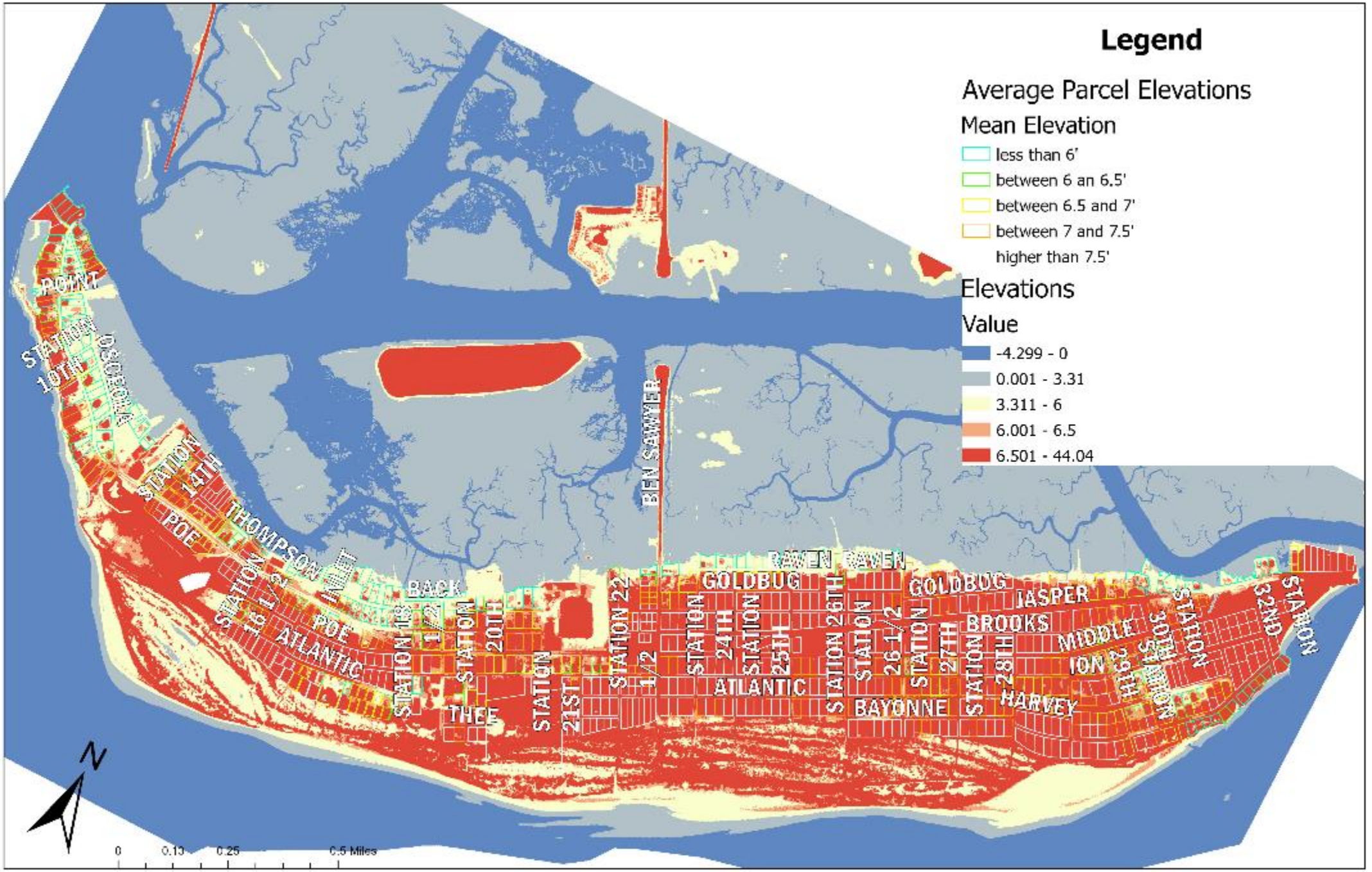


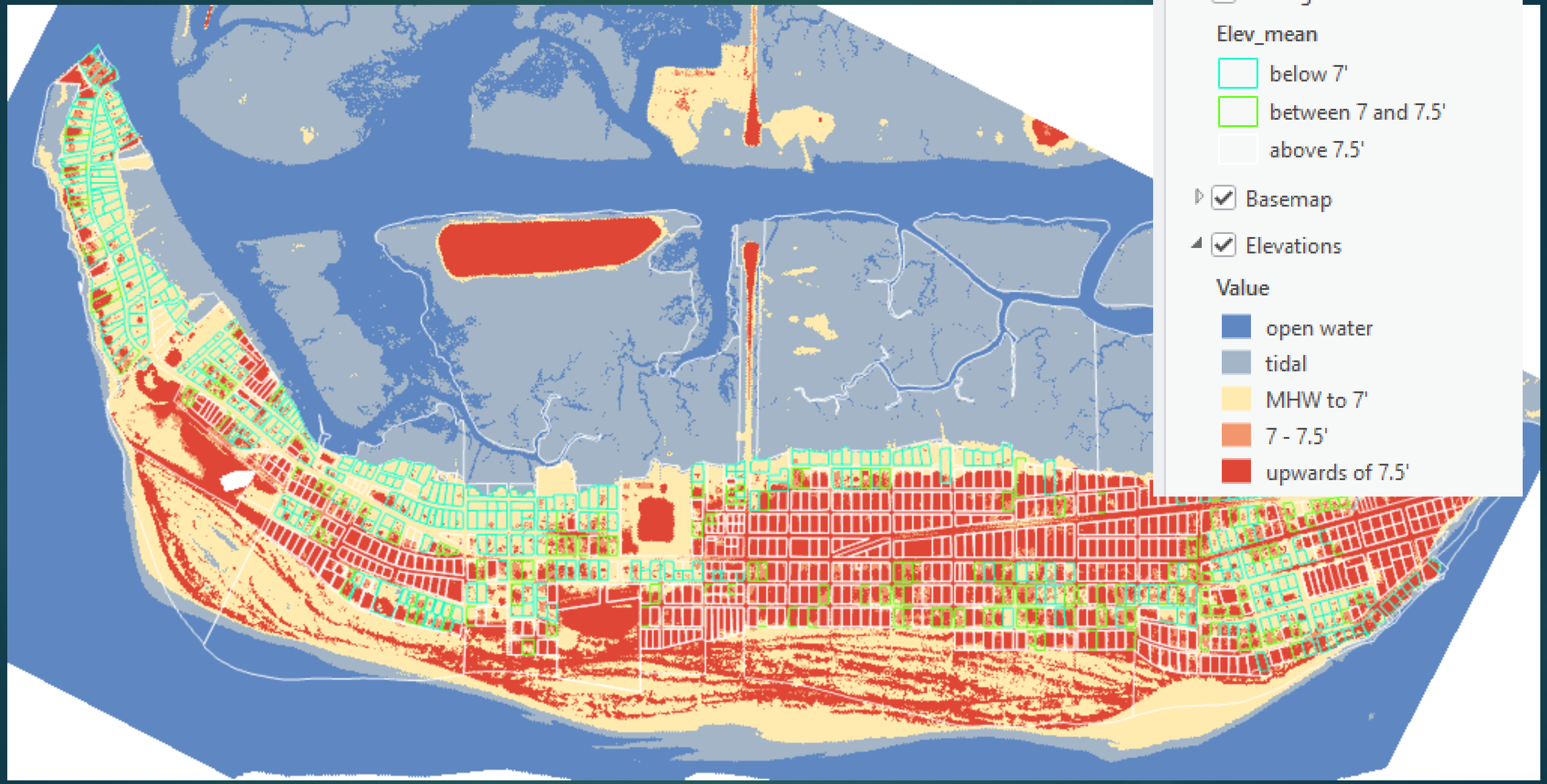
BZA CASES

VARIANCES GRANTED:

- **1010 Osceola Avenue** – Variance granted on August 14, 2025, allowing up to 3 feet of fill on portions of the lot so that the elevations on the lot (which had a mean elevation of 4.27 feet) would have a maximum elevation of 6.5 feet.
- **1018 Osceola Avenue** – Variance granted on August 14, 2025, allowing up to 3 feet of fill on portions of the lot so that the elevations on the lot (which had a mean elevation of 4.35 feet) would have a maximum elevation of 6.5 feet.
- **2663 Bayonne Street** – Variance granted November 13, 2025, allowing up to 15 inches of fill on portions of the wetland at the rear of the residential lot to allow a level backyard in the recently updated boundaries of the parcel.
- **2414 Raven Drive** – Variance granted on July 9, 2026, allowing up to 3 feet of fill on portions of the lot so that the elevations on the lot (which had a mean elevation of 4.68 feet) would have a maximum elevation of 5.5 feet.
- **2420 Raven Drive** – Variance granted on July 9, 2026, allowing up to 3.5 feet of fill on portions of the lot so that the elevations on the lot (which had a mean elevation of 4.75 feet) would have a maximum elevation of 7 feet for the building pad before sloping down to 6 feet and contouring water away from adjacent properties.
- **2424 Raven Drive** – Variance granted on July 9, 2026, allowing up to 3 feet of fill on portions of the lot so that the elevations on the lot (which had a mean elevation of 4.78 feet) would have a maximum elevation of 7 feet for the building pad before sloping down to 6 feet and contouring water away from adjacent properties.


Legend
Average Parcel Elevations
Mean Elevation
below 6'
between 6 and 6.5'
above 6.5'
Elevations
Value
-4.299 - 0
0.001 - 3.31
3.311 - 6
6.001 - 6.5
6.501 - 44.04
POINT
STATION 10TH
OSCEOLA
STATION 14TH
POE
THOMPSON INLET
STATION 16 1/2
POE
ATLANTIC
STATION 18 1/2
BACK
STATION 20TH
THEE
STATION 21ST
STATION 22 1/2
BEN SAWYER
RAVEN
RAVEN
GOLDBUG
STATION 24TH
STATION 25TH
ATLANTIC
STATION 26TH
STATION 26 1/2
BAYONNE
GOLDBUG
STATION 27TH
STATION 28TH
HARVEY
JASPER
BROOKS
MIDDLE
ION 29TH
STATION 30TH
STATION 32ND
STATION
N
0
0.13
0.25
0.5 Miles


Legend
Average Parcel Elevations
Mean Elevation
less than 6'
between 6 an 6.5'
between 6.5 and 7'
between 7 and 7.5'
higher than 7.5'
Elevations
Value
-4.299 - 0
0.001 - 3.31
3.311 - 6
6.001 - 6.5
6.501 - 44.04
POINT
STATION 10TH
OCEANA
STATION 14TH
POE
THOMPSON INLET
STATION 16 1/2
POE
ATLANTIC
STATION 18
BACK 1/2
STATION 20TH
THEE
STATION 21ST
STATION 22
1/2
BEN SAWYER
RAVEN
GOLDBUG
STATION 24TH
STATION 25TH
ATLANTIC
STATION 26TH
26 1/2
BAYONNE
GOLDBUG
STATION 27TH
STATION 28TH
HARVEY
JASPER
BROOKS
MIDDLE
ION
29TH
STATION 30TH
STATION
32ND
STATION
N
0
0.13
0.25
0.5 Miles


Average Parcel Elevations
Elev_mean
below 7'
between 7 and 7.5'
above 7.5'
Basemap
Elevations
Value
open water
tidal
MHW to 7'
7 - 7.5'
upwards of 7.5'