

STATE OF NORTH CAROLINA DEPARTMENT OF JUSTICE

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TO:

The Coastal Resources Commission

FROM:

Christine A. Goebel, Assistant Attorney General

OAR

DATE:

October 8, 2014 (for the October 22-23, 2014 CRC Meeting)

RE:

Variance Request by Topsail Reef Condominiums HOA (14-11)

Petitioner is the Homeowners' Association ("HOA") of a 240-unit condominium complex. The HOA is a non-profit corporation located in Onslow County, North Carolina, and owns the common-area property around the eight buildings ("Property"). The Property is located on the oceanfront at the north end of North Topsail Beach, approximately a half-mile south of New Inlet, and just outside of the Inlet Hazard Area of Environmental Concern ("AEC"). Petitioner installed sandbags in 2012, and received a variance from the Commission to install a lager structure than allowed by rule in front of Buildings 1-5. Petitioner installed sandbags in a 6' by 20' structure in front of Buildings 6-8. Petitioner sought a major modification to Major Permit #39-01 in order to increase the size of the sandbag structure in front of Buildings 6-8. On, 2014, DCM denied Petitioner's request as it did not meet the Commission's sandbag rule size limits. Petitioners now seek a variance to allow the placement of sandbags in the configuration proposed in their modification request.

The following additional information is attached to this memorandum:

Attachment A:

Relevant Rules

Attachment B:

Stipulated Facts

Attachment C:

Petitioner's Position and Staff's Responses to Criteria

Attachment D:

Petitioner's Variance Request Materials

Attachment E:

Stipulated Exhibits including powerpoint

cc:

I. Clark Wright, Jr., Counsel for Petitioner, electronically

Mary Lucasse, CRC Counsel, electronically

RELEVANT STATUTES OR RULES

ATTACHMENT A

15A NCAC 07H .0301 OCEAN HAZARD CATEGORIES

The next broad grouping is composed of those AECs that are considered natural hazard areas along the Atlantic Ocean shoreline where, because of their special vulnerability to erosion or other adverse effects of sand, wind, and water, uncontrolled or incompatible development could unreasonably endanger life or property. Ocean hazard areas include beaches, frontal dunes, inlet lands, and other areas in which geologic, vegetative and soil conditions indicate a substantial possibility of excessive erosion or flood damage.

15A NCAC 07H .0302 SIGNIFICANCE OF THE OCEAN HAZARD CATEGORY

- (a) The primary causes of the hazards peculiar to the Atlantic shoreline are the constant forces exerted by waves, winds, and currents upon the unstable sands that form the shore. During storms, these forces are intensified and can cause significant changes in the bordering landforms and to structures located on them. Ocean hazard area property is in the ownership of a large number of private individuals as well as several public agencies and is used by a vast number of visitors to the coast. Ocean hazard areas are critical, therefore, because of both the severity of the hazards and the intensity of interest in the areas.
- (b) The location and form of the various hazard area landforms, in particular the beaches, dunes, and inlets, are in a permanent state of flux, responding to meteorologically induced changes in the wave climate. For this reason, the appropriate location of structures on and near these landforms must be reviewed carefully in order to avoid their loss or damage. As a whole, the same flexible nature of these landforms which presents hazards to development situated immediately on them offers protection to the land, water, and structures located landward of them. The value of each landform lies in the particular role it plays in affording protection to life and property. (The role of each landform is described in detail in Technical Appendix 2 in terms of the physical processes most important to each.) Overall, however, the energy dissipation and sand storage capacities of the landforms are most essential for the maintenance of the landforms' protective function.

15A NCAC 07H .0303 MANAGEMENT OBJECTIVE OF OCEAN HAZARD AREAS

- (a) The CRC recognizes that absolute safety from the destructive forces indigenous to the Atlantic shoreline is an impossibility for development located adjacent to the coast. The loss of life and property to these forces, however, can be greatly reduced by the proper location and design of structures and by care taken in prevention of damage to natural protective features particularly primary and frontal dunes. Therefore, it is the CRC's objective to provide management policies and standards for ocean hazard areas that serve to eliminate unreasonable danger to life and property and achieve a balance between the financial, safety, and social factors that are involved in hazard area development.
- (b) The purpose of these Rules shall be to further the goals set out in G.S. 113A-102(b), with particular attention to minimizing losses to life and property resulting from storms and long-term erosion, preventing encroachment of permanent structures on public beach areas, preserving the natural ecological conditions of the barrier dune and beach systems, and reducing the public costs of inappropriately sited development. Furthermore, it is the objective of the Coastal Resources Commission to protect present common-law and statutory public rights of access to and use of the lands and waters of the coastal area.

15A NCAC 7H .0305 GENERAL IDENTIFICATION AND DESCRIPTION OF LANDFORMS

- (a) This section describes natural and man-made features that are found within the ocean hazard area of environmental concern.
- (8) Erosion Escarpment. The normal vertical drop in the beach profile caused from high tide or storm tide erosion.

15A NCAC 07H .0308 SPECIFIC USE STANDARDS FOR OCEAN HAZARD AREAS

- (a) Ocean Shoreline Erosion Control Activities:
- (1) Use Standards Applicable to all Erosion Control Activities:
- (A) All oceanfront erosion response activities shall be consistent with the general policy statements in 15A NCAC 07M .0200.
- (B) Permanent erosion control structures may cause significant adverse impacts on the value and enjoyment of adjacent properties or public access to and use of the ocean beach, and, therefore, are prohibited. Such structures include bulkheads, seawalls, revetments, jetties, groins and breakwaters.
- (C) Rules concerning the use of oceanfront erosion response measures apply to all oceanfront properties without regard to the size of the structure on the property or the date of its construction.
- (D) All permitted oceanfront erosion response projects, other than beach bulldozing and temporary placement of sandbag structures, shall demonstrate sound engineering for their planned purpose.
- (E) Shoreline erosion response projects shall not be constructed in beach or estuarine areas that sustain substantial habitat for fish and wildlife species, as identified by natural resource agencies during project review, unless mitigation measures are incorporated into project design, as set forth in Rule .0306(i) of this Section.
- (F) Project construction shall be timed to minimize adverse effects on biological activity.
- (G) Prior to completing any erosion response project, all exposed remnants of or debris from failed erosion control structures must be removed by the permittee.
- (the remainder of (a)(1) is omitted in this staff recommendation)
- (2) Temporary Erosion Control Structures:
- (A) Permittable temporary erosion control structures shall be limited to sandbags placed landward of mean high water and parallel to the shore.
- (B) Temporary erosion control structures as defined in Part (2)(A) of this Subparagraph shall be used to protect only imminently threatened roads and associated right of ways, and buildings and their associated septic systems. A structure shall be considered imminently threatened if its foundation, septic system, or right-of-way in the case of roads, is less than 20 feet away from the erosion scarp. Buildings and roads located more than 20 feet from the erosion scarp or in areas where there is no obvious erosion scarp may also be found to be imminently threatened when site conditions, such as a flat beach profile or accelerated erosion, increase the risk of imminent damage to the structure.
- (C) Temporary erosion control structures shall be used to protect only the principal structure and its associated septic system, but not appurtenances such as pools, gazebos, decks or any amenity that is allowed as an exception to the erosion setback requirement.
- (D) Temporary erosion control structures may be placed seaward of a septic system when there is no alternative to relocate it on the same or adjoining lot so that it is landward of or in line with the structure being protected.

- (E) Temporary erosion control structures shall not extend more than 20 feet past the sides of the structure to be protected. The landward side of such temporary erosion control structures shall not be located more than 20 feet seaward of the structure to be protected or the right-of-way in the case of roads. If a building or road is found to be imminently threatened and at an increased risk of imminent damage due to site conditions such as a flat beach profile or accelerated erosion, temporary erosion control structures may be located more than 20 feet seaward of the structure being protected. In cases of increased risk of imminent damage, the location of the temporary erosion control structures shall be determined by the Director of the Division of Coastal Management or their designee.
- (F) Temporary erosion control structures may remain in place for up to two years after the date of approval if they are protecting a building with a total floor area of 5000 sq. ft. or less and its associated septic system, or, for up to five years for a building with a total floor area of more than 5000 sq. ft. and its associated septic system. Temporary erosion control structures may remain in place for up to five years if they are protecting a bridge or a road. The property owner shall be responsible for removal of the temporary structure within 30 days of the end of the allowable time period.
- (G) Temporary sandbag erosion control structures may remain in place for up to five years from the date of approval if they are located in a community that is actively pursuing a beach nourishment project, and for up to eight years from the date of approval if they are located in an Inlet Hazard Area adjacent to an inlet for which a community is actively pursuing an inlet relocation project. For purposes of this Rule, a community is considered to be actively pursuing a beach nourishment or inlet relocation project if it has:
- (i) an active CAMA permit, where necessary, approving such project; or
- (ii) been identified by a U.S. Army Corps of Engineers' Beach Nourishment Reconnaissance Study, General Reevaluation Report, Coastal Storm Damage Reduction Study or an ongoing feasibility study by the U.S. Army Corps of Engineers and a commitment of local or federal money, when necessary; or
- (iii) received a favorable economic evaluation report on a federal project or,
- (iv) is in the planning stages of a project that has been designed by the U.S. Army Corps of Engineers or persons meeting applicable State occupational licensing requirements and has been initiated by a local government or community with a commitment of local or state funds to construct the project and the identification of the financial resources or funding bases necessary to fund the beach nourishment or inlet relocation project.

If beach nourishment or inlet relocation is rejected by the sponsoring agency or community, or ceases to be actively planned for a section of shoreline, the time extension is void for that section of beach or community and existing sandbags are subject to all applicable time limits set forth in Part (F) of this Subparagraph.

(H) Once the temporary erosion control structure is determined to be unnecessary due to

relocation or removal of the threatened structure, a storm protection project constructed by the U.S. Army Corps of Engineers, a large-scale beach nourishment project or an inlet relocation project, it shall be removed by the property owner within 30 days of official notification from the Division of Coastal Management regardless of the time limit placed on the temporary erosion control structure.

- (I) Removal of temporary erosion control structures shall not be required if they are covered by dunes with stable and natural vegetation.
- (J) The property owner shall be responsible for the removal of remnants of all portions of any damaged temporary erosion control structure.
- (K) Sandbags used to construct temporary erosion control structures shall be tan in color and three to five feet wide and seven to 15 feet long when measured flat. Base width of the structure shall not exceed 20 feet, and the height shall not exceed six feet.
- (L) Soldier pilings and other types of devices to anchor sandbags shall not be allowed.
- (M) An imminently threatened structure may be protected only once, regardless of ownership unless the threatened structure is located in an Inlet Hazard Area and in a community that is actively pursuing an inlet relocation project in accordance with (G) of this Subparagraph. Existing temporary erosion control structures located in Inlet Hazard Areas may be eligible for an additional eight year permit extension provided that the structure being protected is still imminently threatened, the temporary erosion control structure is in compliance with requirements of this Subchapter and the community in which it is located is actively pursuing an inlet relocation project in accordance with Part (G) of this Subparagraph. In the case of a building, a temporary erosion control structure may be extended, or new segments constructed, if additional areas of the building become imminently threatened. Where temporary structures are installed or extended incrementally, the time period for removal under Part (F) or (G) of this Subparagraph shall begin at the time the initial erosion control structure is installed. For the purpose of this Rule:
- (i) a building and septic system shall be considered as separate structures.
- (ii) a road or highway shall be allowed to be incrementally protected as sections become imminently threatened. The time period for removal of each section of sandbags shall begin at the time that section is installed in accordance with Part (F) or (G) of this Subparagraph.
- (N) Existing sandbag structures may be repaired or replaced within their originally permitted dimensions during the time period allowed under Part (F) or (G) of this Subparagraph.

15A NCAC 07M .0201 DECLARATION OF GENERAL POLICY

It is hereby declared that the general welfare and public interest require that development along the ocean and estuarine shorelines be conducted in a manner that avoids loss of life, property and amenities. It is also declared that protection of the recreational use of the shorelines of the state is in the public interest. In order to accomplish these public purposes, the planning of future land uses, reasonable rules and public expenditures should be created or accomplished in a coordinated manner so as to minimize the likelihood of damage to private and public resources resulting from recognized coastal hazards.

15A NCAC 07M .0202 POLICY STATEMENTS

- (a) Pursuant to Section 5, Article 14 of the North Carolina Constitution, proposals for shoreline erosion response projects shall avoid losses to North Carolina's natural heritage. All means should be taken to identify and develop response measures that will not adversely affect estuarine and marine productivity. The public right to use and enjoy the ocean beaches must be protected. The protected uses include traditional recreational uses (such as walking, swimming, surf-fishing, and sunbathing) as well as commercial fishing and emergency access for beach rescue services. Private property rights to oceanfront properties including the right to protect that property in ways that are consistent with public rights should be protected.
- (b) Erosion response measures designed to minimize the loss of private and public resources to erosion should be economically, socially, and environmentally justified. Preferred response measures for shoreline erosion shall include but not be limited to AEC rules, land use planning and land classification, establishment of building setback lines, building relocation, subdivision regulations and management of vegetation.
- (c) The replenishment of sand on ocean beaches can provide storm protection and a viable alternative to allowing the ocean shoreline to migrate landward threatening to degrade public beaches and cause the loss of public facilities and private property. Experience in North Carolina and other states has shown that beach restoration projects can present a feasible alternative to the loss or massive relocation of oceanfront development. In light of this experience, beach restoration and sand renourishment and disposal projects may be allowed when:
- (1) Erosion threatens to degrade public beaches and to damage public and private properties;
- (2) Beach restoration, renourishment or sand disposal projects are determined to be socially and economically feasible and cause no significant adverse environmental impacts;
- (3) The project is determined to be consistent with state policies for shoreline erosion response and state use standards for Ocean hazard and Public Trust Waters Areas of Environmental Concern and the relevant rules and guidelines of state and federal review agencies. When the conditions set forth in this Paragraph can be met, the Coastal Resources Commission supports, within overall budgetary constraints, state financial participation in Beach Erosion Control

and Hurricane Wave Protection projects that are cost-shared with the federal government and affected local governments pursuant to the federal Water Resources Development Act of 1986 and the North Carolina Water Resources Development Program (G.S. 143-215.70-73).

- (d) The following are required with state involvement (funding or sponsorship) in beach restoration and sand renourishment projects:
- (1) The entire restored portion of the beach shall be in permanent public ownership;
- (2) It shall be a local government responsibility to provide adequate parking, public access, and services for public recreational use of the restored beach.
- (e) Temporary measures to counteract erosion, such as the use of sandbags and beach pushing, should be allowed, but only to the extent necessary to protect property for a short period of time until threatened structures may be relocated or until the effects of a short-term erosion event are reversed. In all cases, temporary stabilization measures must be compatible with public use and enjoyment of the beach.
- (f) Efforts to permanently stabilize the location of the ocean shoreline with seawalls, groins, shoreline hardening, sand trapping or similar protection devices shall not be allowed except when the project meets one of the specific exceptions set out in 15A NCAC 7H .0308.
- (g) The State of North Carolina will consider innovative institutional programs and scientific research that will provide for effective management of coastal shorelines. The development of innovative measures that will lessen or slow the effects of erosion while minimizing the adverse impacts on the public beach and on nearby properties is encouraged.
- (h) The planning, development, and implementation of erosion control projects will be coordinated with appropriate planning agencies, affected governments and the interested public. Maximum efforts will be made by the state to accommodate the interest of each interested party consistent with the project's objectives. Local, state, and federal government activity in the coastal area should reflect an awareness of the natural dynamics of the ocean front. Government policies should not only address existing erosion problems but should aim toward minimizing future erosion problems. Actions required to deal with erosion problems are very expensive. In addition to the direct costs of erosion abatement measures, many other costs, such as maintenance of projects, disaster relief, and infrastructure repair will be borne by the public sector. Responses to the erosion should be designed to limit these public costs.
- (i) The state will promote education of the public on the dynamic nature of the coastal zone and on effective measure to cope with our ever changing shorelines.

STIPULATED FACTS

ATTACHMENT B

- 1. The Petitioner in this case is the Topsail Reef Homeowners' Association ("HOA").
- 2. The HOA manages the affairs of the Topsail Reef Condominium property (the "Property") which is located at 2224 New River Inlet Road in North Topsail Beach, Onslow County, North Carolina. Built between 1980 and 1981, the Property includes eight buildings, each having thirty condominium units (240 total). Running from the northeast to the southwest, the buildings are numbered 1 through 8. Each of the buildings is approximately 19,960 square feet in area.
- 3. Located at the northeastern end of North Topsail Beach, the Property is approximately a quarter mile from the New River Inlet. The Property is located within the Ocean Erodible and High Hazard Flood Areas of Environmental Concern ("AECs"). The long term average annual erosion rate for the Property is 2 feet per year according to the DCM erosion rate maps, last updated in 2011 (Long Term Shoreline Change Study & Setback Factors, 2011 Update, Map Sheet North Topsail Beach, Sheet 2 of 2). The Property is immediately south of the current Inlet Hazard AEC boundary. The Property is within the proposed updated Inlet Hazard AEC, which the Coastal Resources Commission ("CRC") reviewed, but then suspended consideration of at its November 2010 meeting, pending completion of all of the ocean shoreline erosion rate updates.
- 4. Pictures of the site are included as Stipulated Exhibits.
- 5. Over the past eight years, the United States Army Corps of Engineers deposited dredge spoil from the New River Inlet Atlantic Intracoastal Waterway crossing and Cedar Bush Cut along an area located generally in front of the Property three times using a pipeline dredge system, including the winters of 2007-08, 2009-10 and 2010-11.
- 6. The First Permit. On February 3, 2012, the Division of Coastal Management ("DCM") issued a CAMA General Permit to the HOA to install a sandbag revetment along 1,500 linear feet of ocean shoreline in front of all eight buildings included in the Property. Consistent with 15A NCAC 07H .0308(a)(2)(E) and (K), the permit limited the bag revetment to a section 6 feet high and 20 feet wide as measured from the profile directly beneath the bags (the "6 x 20 revetment"). The sand bag revetment installation was initiated by Erosion Control Services ("ECS") in March 2012. As of April 13, 2012, approximately 650 linear feet of revetment adjacent to buildings #8, 7, 6 and part of building 5 was completed.
- 7. During the period from April 11 to April 13, 2012, the Property was impacted by a moderate northeaster that occurred during a high lunar tide. Between April 12 and April 18, 2012, a 127-hour period, waves were from the southwest 116 hours, or over 90% of the time. The elevation of the sand on the beach and under the Property eroded approximately 51 inches (4.3 feet). Portions of the sandbag revetment previously erected sloughed off. As a result, the top elevation of the 6 foot tall sandbag revetment permitted under the First permit would be 6 to 8 feet below the elevation of the first floor of buildings 1 through 4.

- 8. Emergency Permit. Subsequently, the HOA applied for an emergency Major CAMA Permit on May 3, 2012 for a sandbag revetment with a bottom width of 45 feet and +12 feet NAVD crest elevation. The permit request was for placement of the larger revetment 45 feet wide with a top elevation of + 12 feet NAVD for buildings 1 through 4, and a bottom width of 40 feet with a crest elevation of + 12 feet NAVD for buildings 5 through 8. CAMA Emergency Major Permit #39-12 was issued on May 4, 2012. In accordance with 15A NCAC 07H .0308(a)(2)(E) and (K), the permit limited the width of the sandbag revetment to 20 feet and its height to 6 feet, and its placement to no further water ward than 20 feet from the water ward pilings. The permit and photos of the alignment conditions at the time of the 2012 application are included in the Stipulated Exhibits.
- 9. The HOA requested an expedited variance from the permit to allow for an expanded sandbag revetment with a bottom width of 45 feet with a maximum crest elevation of +12 feet NAVD, to allow placement of the sandbags a maximum distance of 29 feet seaward of the water ward most pilings of each building, and to allow the sandbags to remain for up to 8 years. On May 24, 2012, the CRC granted a variance allowing placement of the expanded revetment in front of buildings 1, 2, 3, 4 and 5 to extend a maximum distance of twenty-nine feet seaward from the most water-ward piles, but denied for placement in front of buildings 6, 7 and 8. The CRC also denied the request that the sandbags be allowed to remain for 8 years instead of 5. A copy of the CRC's final order issued May 29, 2012 is attached as a Stipulated Exhibit. DCM issued a permit pursuant to the variance that included conditions limiting the sandbag alignment in front of buildings 6, 7 and 8 to a 6-foot x 20-foot revetment as would be allowed by a General Permit. The permit (#39-12 Amended by CRC Variance) is attached as a Stipulated Exhibit.
- 10. On October 10, 2012, the revetment authorized by the 2012 variance was completed, as well as repairs to the existing revetment in front of buildings 6, 7 and 8. Hurricane Sandy impacted the North Carolina coast on October 28th creating strong winds, swells, and storm surge, causing the near shore flood channel to be pushed up against the shoreline directly against the revetment from the northeast corner of building 1 to the northeast comer of building 6. The flood channel ran south of the Property towards the St. Regis Condominiums. By October 31, 2012, the channel was 3 or 4 feet deep at low tide along the Property. Photos depicting the flood channel in 2012 before the beach nourishment are provided in a Stipulated Exhibit.

- 11. Inlet Dredging and Beach Nourishment. In November 2012, dredging for relocation of the New River Inlet channel began with the dredged sand placed on the beach south of the inlet, including in the beach front area ocean ward of the Property. The information in this paragraph is provided by the Phase 1, New River Inlet Channel Realignment and Beach Restoration, Post Construction Report (CP&E, May 2013). Material removed from the inlet was placed along 7,735 feet of shoreline to widen the beach berm (+6.0 ft. NAVD) approximately 135 feet. The project extended south from New River Inlet to Shipwatch Villas, or from USACE reference station 1163+00, on the north end of Topsail Island, to station 1090+00 (Depicted in Stipulated Exhibit 27 on Bearing Point Drawing 02 for stations adjoining Topsail Reef). Approximately 592,000 CY were removed from the 3,500 ft. long channel and placed on the shoreline of North Topsail Beach. The fill area experienced a waterline extension (+1.4 ft. NAVD) an average distance of 170 feet. The in-place volumetric calculations reflect the beach received approximately 566,244 CY, or an average fill density of 73 cy/lf (See in Stipulated Exhibits - CP&E Presentation of Feb 2013). The seaward extent of the post-nourishment berm, the 6' elevation contour, is shown in the Stipulated Exhibits. Future re-nourishment of the shoreline in front of Topsail Reef is proposed. The Town has indicated in a letter dated August 29, 2014, attached as a Stipulated Exhibit, that "[i]n 2016 we have scheduled a large-scale maintenance of the entire phase 1 area," which includes the area in front of the Property.
- 12. Minor Modification. On August 22, 2014, the HOA submitted a request for a minor modification to CAMA Major Permit No. 39-12, the permit issued pursuant to the 2012 variance. The HOA requested to enlarge the existing sandbag structure in front of buildings 6 through 8 to achieve a sand bag revetment section as permitted and installed on front of buildings 1 through 5 in 2012. This is included in the first paragraph of the Project Description Modification, attached in the Stipulated Exhibits. This request was denied August 29, 2014 due to inconsistency with 15A NCAC 07H .0308(a)(2)(K).
- 13. Conditions at the Property. According to the HOA's coastal engineer, who has analyzed beach profiles from surveys performed in May 2013 and April 2014 at beach monitoring stations 11+40, 11+45, 11+50 and 11+55, the stations along the beach at the Property the face of the berm (approximate 6' elevation contour) has receded from 105 feet at station 11+40 to 167 feet at station 11+55. (Survey data is graphically depicted in the Stipulated Exhibits)
- 14. Diagrams in the Stipulated Exhibits show the progressive movement of the face of the berm from May 13, 2013 through August 21, 2014. These measurements were made by Don Street (member of the HOA) and ECS and are based on the horizontal distance from the end of walkways in front of each building to the edge of the escarpment (the 6' elevation contour). The measurements are provided in Tables 1 and 2, below. The measurements show a high rate of erosion of the berm in front of the Property since the beach nourishment project.
- 15. The end of the expanded bag section in front of building 5 is exposed. According to the HOA's engineer, loss of the berm would result in a limited work window of 2 to 4 hours per day only during periods of low tide. Pictures showing this are attached as Stipulated Exhibits.

16. According to an analysis of the August 2014 compared to the April 2014 survey by the HOA's engineer, the rate of loss of the berm along the Property beach front is from 8 to 12 feet per month for the period from May 2013 to August 2014. Over the 58 days, from June 25 to August 28, 2014, the rate of berm recession has been from 0.5 to 1.1 feet per day, i.e., approximately 15 to 33 feet per month. The rate of change at building 5 through 8 is at the low end of that range but the accelerated rates of erosion are continuing.

Table 1 – Measurements to Edge of Berm from Edge of Walkways, May 13, 2013 to August 28, 2014 (from ECS)

hldo	5/13/13	6/25/14	7/3/14	7/5/14	7/12/14	7/14/14	7/15/14	7/16/14	7/20/14	7/29/14	8/7/14	8/21/14
8	195'	106'	102'	99'	92'	92'	85'	83'	82'	82'	77'	61'
7	190'	96'	92'	90'	82'	81'	74'	71'	71'	71'	63'	41'
6	190'	85'	80'	76'	72'	70'	63'	57'	56'	56'	49'	34'
5	190'	74'	67'	63'	60'	58'	53'	48'	47'	46'	30'	27'
4	185'	61'	57'	51'	48'	46'	42'	39'	38'	33'	12'	0'
3	180'	42'	40'	20'	20'	18'	15'	12'	17'	16'	-20'	-20'
2	170'	19'	16'	6'	6'	1'	0'	-11'	-11'	-24'	-24'	-24'
1	170'	3'	-5'	-10'	-14'	-16'	-24'	-24'	-24'	-24'	-24	-24'

Table 2 - Total Berm Retreat Distances, During July and August 2014 and from May 2014 to August 2014 (from ECS)

@ Building	8	7	6	5	4	3	2	1
Loss from 6/25/14 to 8/21/14	45'	33'	51'	47'	61'(1	62'(2)	43'(2)	27'(3)
Loss May 2013 to August 2014, 17	134'	149'	156'	163'	185'	200'	194'	194'

- (1) Total berm retreat in 51 days, shoreline at toe of revetment
- (2) Total berm retreat in 40 days, shoreline at toe of revetment
- (3) Total berm retreat in 20 days, shoreline at toe of revetment

- 17. Petitioner obtained additional beach profile surveys during the week of August 28, 2014. A graphical display of those beach profiles, along with previous survey profiles, is provided that extends from the buildings seaward to approximately -10.0 (NAVD). This graphical display includes profiles from November 2012, January 2013, May 2013, April 2014 and August 2014, extending from baseline stations 11+30 to 11+60, and is attached in the Stipulated Exhibits.
- 18. An aerial photo depicting the North Topsail Beach Shoreline shows the Baseline Stations for the new River Inlet Channel Realignment and Beach Restoration project to assist in evaluation of beach profile information, and is included in the Stipulated Exhibits.
- 19. James W. Forman, Jr., P.E. provided a letter to clarify the relationship between the escarpment and the water ward edge of the existing sandbags in front of buildings 6, 7, and 8, and this is included in the Stipulated Exhibits.
- 20. The resume' of James W. Forman, Jr. is included in the Stipulated Exhibits.
- 21. An evaluation of the erosion along the shoreline fronting Topsail Reef was undertaken by Theodore J. Sampson, Environmental Consultant, and this is included in the Stipulated Exhibits.
- 22. The resume' of Theodore J. Sampson is included in the Stipulated Exhibits.
- 23. An evaluation of the erosion conditions along the shoreline fronting Topsail Reef was undertaken by Yogi Harper of Erosion Control Specialists of North Carolina, Inc., and is included in the Stipulated Exhibits.
- 24. The resume' of Yogi Harper is included in the Stipulated Exhibits.
- 25. The Town of North Topsail Beach has stated in its adjacent landowner notification dated August 18, 2014 that the area of the shoreline to the north of the Property is experiencing inordinate erosion, a copy of which is attached in the Stipulated Exhibits.
- 26. The shoreline upon which to construct a sandbag erosion protection structure is receding at a rate of 8 to 10 feet per month in front of buildings 6, 7 and 8.
- 27. Variance Request. On September 9, 2014, Petitioner submitted a variance request letter to DCM and also requested that the CRC hear the matter at an expedited hearing before the next regularly-scheduled CRC meeting. Petitioner later withdrew the request for the expedited hearing due to the HOA's vote not to undertake a special assessment to fund the sandbags at that time. Petitioner asks the CRC for a variance in order to construct a sandbag structure in the location and in the dimensions proposed in their application and to allow the sandbag structure to remain in place for up to 8 years from the date of the variance.

- 28. The proposed development sought by this variance petition is inconsistent with the Rules of the CRC relative to the width and height of sandbag revetments to be utilized for temporary erosion control structures, and the length of time sandbags erosion control structures may remain in place. The application for a modification to the current Permit to allow an oversized revetment for the protection of buildings 6, 7, and 8 was denied by DCM on August 29, 2014.
- 29. The drawings submitted with the permit modification application on August 22, 2014 govern this variance request. While updated revisions to these drawings were provided as part of the variance application package in order to illustrate current conditions, among other things, the August 22, 2014 drawings, attached in the Stipulated Exhibits.
- 30. The drawing labeled 03 in the lower right corner and dated 8/22/14, submitted with the modification application is intended to depict the layout of existing sandbags in front of buildings 6 8 relative to an alignment that was approved to be installed in compliance with a 20-foot width, and 6-foot height limitation, as per the existing Permit. This is included as part of the Stipulated Exhibits.
- 31. The drawing submitted with the modification application with 04 in the lower right corner is intended to depict the proposed layout of sandbags in front of buildings 6 8 relative to the alignment sought by the variance request; i.e., an alignment with a base width no greater than 45 ft, with a height extending up to +12 ft NAVD, and with a water ward extension of the alignment no more than 29 ft beyond the seaward piles of the buildings. This original drawing did not reflect the existing grade, after beach nourishment and the subsequent erosion. Current Grade at the seaward extent of the proposed alignment is approximately +6 NAVD. Excavation for placement of the bottom row of new sandbags proposed for the oversized alignment would extend to approximately -3 ft NAVD. By agreement with discussions with DCM staff on 9/15/2014, this drawing has been revised and is included in the Stipulated Exhibits to reflect the existing grade, and to show the area that would need to be excavated to allow for bag placement. The area to be excavated to allow for bag placement has not been indicated on this drawing as conditions at the time of the installation determine what will be needed. However this drawing does reflect, by indication of the elevation of the bottom of the alignment that excavation may be necessary to approximately -3 ft NAVD.
- 32. The erosion rate depicted in the table submitted with the permit modification application reflects erosion based on data available at the time the application was made, and forms the basis of documenting accelerated erosion, with the recognition that additional erosion has occurred since the time that data was provided. Tables from Permit Modification application are included in Stipulated Fact 16 above.
- 33. Finally, the HOA also seeks a variance from the permit condition allowing the sandbags to remain for 5 years per 15A NCAC 07H.0308(a)(2)(G). Petitioners now seeks to allow any sandbags installed (under either the prior permits or this proposed variance) to be allowed to remain for up to 8 years from the date of the variance.

Petitioner and Staff Positions

ATTACHMENT C

I. Will strict application of the applicable development rules, standards, or orders issued by the Commission cause the petitioner unnecessary hardships? If so, the petitioner must identify the hardships.

Petitioner's Position: Yes.

Yes. The CAMA rules, especially 15A N.C.A.C. 07H .0308 (a)(2)(E) and (K), were written for the "normal" cases of threatened structures where beach bulldozing, or "typical" sandbag protection can be effective in securing the temporary protection of structures. In this case, however, these rules will not provide the protection needed to allow the structures, especially Buildings #6, 7, and 8, to survive without significant damage or total collapse until the inlet Realignment project results in its projected benefit of shifting the tidal delta such that natural shoreline accretion occurs, and until the beach nourishment project is maintained in 2016, as required by the CAMA Permit issued to the Town of North Topsail Beach.

In that the Town of North Topsail Beach has documented its position that the Inlet Realignment Project has not had positive results for this shoreline to date, and may not be expected to have such results for a period of 5 to 15 years, and in that the Town of North Topsail Beach has indicated that maintenance of its beach nourishment project is not likely to result in the placement of additional sand along this shoreline for a period of $2\frac{1}{2}$ years, and in that Town of North Topsail Beach is restricted by its Permit to the placement of re-nourishment sand on this shoreline no more often than once every 4 years, this has left, and in the future is likely to leave a wider and deeper inlet flood channel adjacent to these buildings than has ever before been experienced. This wider and deeper flood channel can, and likely will, undercut, displace and eradicate the protection of the height of "typical" sandbags in a single storm. Additionally, imminent danger of loss or damage of the existing "typical" sandbag protection in front of these buildings also poses imminent danger to buildings # 1 - 5 in that loss or damage to the "typical" sandbag protection for building # 6 - 8 would immediately negate the protection currently afforded by the enlarged sandbag alignment in front of buildings 1 - 5 by allowing the flood channel to begin flowing landward of this expanded sandbag footprint that protects these northern buildings.

The ordinary six-foot limit on revetment height and twenty-foot water ward limit on revetment location mean that the revetment in place in front of buildings # 6 - 8 is completely ineffective to protect all of Topsail Reef's structures in this situation from the encroaching flood channel, which continues to widen, deepen and shift landward to the base of this "typical" revetment. Finally, without a variance, the HOA would suffer an unnecessary hardship because while the HOA has been awaiting the supposed benefits of inlet Realignment and beach nourishment project, the conditions have instead

worsened, now to the point where emergency, immediate action is necessary in order to complete the essential protection that was sought through the Variance request in 2012.

This hardship derives from the existing Rules having been developed with a single dimension description for erosion protection structures being applied to all situations that develop along the coast. The single dimension description does not take into account the greatly accelerated erosion that can take place near inlets, and it certainly does not take into account a situation such as is now experienced where a flood channel for the entire inlet having shifted adjacent to the threatened buildings. Further, the Rules do not address situations where the rate of erosion is so dramatic as in this case. While they indicate that "accelerated" erosion may form the basis for the placement of erosion protection structures, they stop short of addressing how the limited structure envisioned by the Rules could reasonably meet the conditions now encountered.

Staff's Position: Yes

Staff acknowledges that a strict application of the rules issued by the Commission will cause the Petitioner unnecessary hardships, based on Petitioner's assertion based on information from its engineer that there is accelerated erosion at the site. Additionally, Petitioner asserts that while the recent nourishment project resulted in benefits immediately after the sand was placed in 2012, there has since been an increase in the inlet flood channel near Buildings 6-8. Staff does not challenge this information, and acknowledges that based on that information, Petitioner faces unnecessary hardship due to threatened erosion. While Staff notes that to-date, the 6' by 20' bags authorized and placed in 2012 appear to be protective of Buildings 6-8 and are partially covered by sand and dune vegetation in this area, this existing sandbag revetment may not be sufficient to protect these buildings if the flood channel continues to move toward this area, and any such rapid change may hinder or prevent the proposed expansion of the existing sandbag structure.

II. Do such hardships result from conditions peculiar to the petitioner's property, such as location, size, or topography of the property? Explain.

Petitioner's Position: Yes.

Yes. The hardship results from the fact that the Inlet Realignment Project has not resulted in the projected benefit of natural accretion of this shoreline; it results from the fact that the Beach Nourishment Project failed to allow sand placed on the shoreline to remain until such time as natural accretion could occur, and because the nourishment has not been maintained, and is not projected to be maintained for a period of years; and it results from the aggressive shifting of the inlet flood channel landward along this shoreline, in response to the changed inlet dynamics.

One of the most significant peculiarities facing Topsail Reef is the rapid rate of erosion resulting from the adjacent flood channel. This makes this situation far different from the normal assessment of what type of protection is necessary to protect the threatened structures, and how soon must it be in place. This flood channel location makes the placement of a sandbag structure very different than in most locations, causing it to be much more difficult. It also brings with it the potential for the impossibility of placing sandbag protection if the flood channel further erodes the remaining sand in front of buildings 6, 7, and 8.

The above peculiarity relating to the flood channel also heightens the need for immediate action to allow the protection efforts to proceed. The logistics involved in placing an alignment such as is requested involve significant lead time in allowing the sandbags to be manufactured, the mobilization of equipment to the location and the securing of a point of access to the shoreline adjoining the threatened buildings. At this point, a single moderate storm, at a lunar Spring tide, or even a moderate storm driving a storm surge in front at regular lunar tides, could eliminate all possibility of being able to effect the requested erosion protection structure. A minimum of a three week lead time is needed before placement of the protective structure can begin.

Staff's Position: No.

Staff disagrees that Petitioner's hardship is caused by conditions peculiar to the subject property. While not located within the currently applicable Inlet Hazard AEC for the New River Inlet, Staff notes that conditions on the Property are influenced by inlet processes, as evidenced by its inclusion in the CRC Science Panel's previously proposed update to the New River Inlet Hazard AEC "box." The Commission's rules note that inlets are especially volatile and are known to regularly move causing both erosion and accretion. Although this inlet generally moves southwest, it has periodically reversed directions. The erosion present at this site is typical of inlets and the adjacent oceanfront shorelines. It is therefore difficult for Staff to agree that merely being located near the New River Inlet and the flood channel fulfill the peculiarity criterion regarding "location, size, or topography of the property" and therefore Staff cannot agree that this constitutes a "condition peculiar to the petitioner's property" as required. On the contrary, the migration of the channel appears to be typical of inlets causing both increases and decreases in erosion to the adjacent shorelines over time. Therefore, it is Staff's position that the hardships do not result from conditions that are peculiar to the Property.

III. Do the hardships result from the actions taken by the Petitioner? Explain.

Petitioner's Position: No.

No. The Petitioners have done nothing to accelerate or otherwise aggravate the erosion problem facing the Property. Again, the hardship is result of the Property's proximity to the New River Inlet the failure of the Inlet to Realignment Project to materialize projected beneficial accretion, the failure of the Beach Nourishment Project to stabilize the shoreline, the inability of the Town to maintain the Beach Nourishment of the shoreline in a time-effective manner, and the severe threat of rapid additional shoreline loss during a combination of storm and lunar Spring tides due to the dramatic landward shift of a wider and deeper flood channel.

Staff's Position: No.

Staff agrees that the Petitioner has done nothing to accelerate the erosion affecting the Property and has taken steps to address the problem, and therefore meets this statutory criterion . e.g. "When building the structures, Petitioners complied with the erosion setbacks established by the Coastal Resources Commission."

IV. Will the variance requested by the petitioner (1) be consistent with the spirit, purpose, and intent of the rules, standards or orders issued by the Commission; (2) secure the public safety and welfare; and (3) preserve substantial justice? Explain.

Petitioner's Position: Yes.

Yes. G.S. § 113-118(f) specifically contemplates the issuance of emergency permits for extraordinary situations in which structural property is in "imminent danger as a result of storms. . . or similar occurrence." The variance sought is the minimum necessary to preserve the Buildings in the face of imminent danger. It would not grant the right to use hardened structures, which would be counter to the core philosophy of the Coastal Area Management Act. Finally, the larger sandbag structure should allow the protection of all 8 of Topsail Reef buildings until such time the Town of North Topsail Beach can either realize the projected beneficial results of their Inlet Realignment and Beach Nourishment Projects, or alternatively provide the required maintenance of these Projects, or alternatively address the erosion that has resulted from these Projects.

Allowing these sandbag structures to remain in place for a period of 8 years is consistent with the provisions provided to structures subject to the recognized heightened vulnerability of inlet dynamics. There are no structures within this adjoining Inlet Hazard Area that have been subjected to vulnerability as great as the buildings of the Topsail Reef. These other, less vulnerable structures already receive the benefit of such erosion protection structures being allowed for 8 years. Further, DCM has proposed that this section of shoreline be included within the designation of an Inlet Hazard Area AEC due to its shoreline movement in response to the dynamic inlet conditions posed by New River Inlet.

The variance would secure the public safety and welfare because, without a variance, at least one, and probably more, of the Buildings located on the Property could soon be damaged. The variance will preserve substantial justice because it will protect the Buildings long enough for the Inlet Realignment Project to result in projected benefits for this shoreline, and for the Beach Nourishment Project to place needed sand on this shoreline as required by the maintenance plan, and alternatively, long enough for the actions required by the Permit issued to the Town of North Topsail Beach to reverse the effects of erosion ensuing from their permitted Project.

Staff's Position: Yes.

Staff agrees that the proposed expansion of the sandbag revetment in front of Buildings #6-8 is consistent with the spirit, purpose, and intent of the rules. The sandbag rules are, in effect, an exception to the General Assembly's and the Commission's ban on permanent erosion control structures, available to all "imminently threatened structures." While the Commission's rules set limitations for use of sandbags which are sufficient in most cases, in some situations they may not be of a sufficient size to offer the temporary protection they are intended to offer. While Buildings #6-8 have been less affected by erosion to-date, if the accelerated erosion described by Petitioner's engineer continues to move landward, it may preclude or hinder later expansion of the existing sandbag structure. Accordingly, Staff does not disagree with Petitioner's engineer's conclusion that such measures are needed as temporary protection while the Town of North Topsail Beach's inlet relocation project continues to be implemented.

Staff disagrees with Petitioner's variance request to keep any enlarged sandbag structure obtained pursuant to this variance request for 8 years from the time of this variance, per Stipulated Fact 33. At the time of Petitioner's permit pursuant to the 2012 variance, the Commission's rules allowed sandbags for 5 years. Since that permit issuance, the Commission changed its rules, and so now a new standbag structure at this location would be allowed for 8 years. Staff's interpretation of this rule change is that while Petitioner may now keep their sandbag structure for 8 years, that period is measured from the 2012 authorization to initially install the sandbags and should not be measured from the time any variance is granted pursuant to this request.

Staff agrees that the variance would preserve substantial justice since it appears that despite Petitioner's and the Town's best efforts to address the erosion issue though its nourishment and inlet relocation plan, the existing sandbags may not be sufficient to protect Buildings 6-8 until the plan can be completed.

Attachment D:

Petitioner's Variance Request Materials (With the exception of (1) Petitioner's first draft of proposed facts and (2) any exhibits which were stipulated to and are now stipulated exhibits in Attachment E.)

DCM FORM 11

CAMA VARIANCE REQUEST FORM

	DCM FILE No.:
PETITIONER'S NAME	EROSION CONTROL SPECIALISTS OF NC, INC. and TOPSAIL REEF HOMEOWNERS ASSOCIATION, INC.
COUNTY WHERE THE	DEVELOPMENT IS PROPOSED Onslow

Pursuant to N.C.G.S. § 113A-120.1 and 15A N.C.A.C. 07J .0700 *et seq.*, the above named Petitioner hereby applies to the Coastal Resources Commission (CRC) for a variance.

VARIANCE HEARING PROCEDURES

A variance petition will be considered by the CRC at a regularly scheduled meeting, heard in chronological order based upon the date of receipt of a complete petition. 15A N.C.A.C. 07J .0701(e). A complete variance petition, as described below, must be *received* by the Division of Coastal Management (DCM) a minimum of six (6) weeks in advance of the first day of a regularly scheduled CRC meeting to be eligible for consideration by the CRC at that meeting. 15A N.C.A.C. 07J .0701(e). The final set of stipulated facts must be agreed to at least four (4) weeks prior to the first day of a regularly scheduled meeting. 15A N.C.A.C. 07J .0701(e). The dates of CRC meetings can be found at DCM's website: www.nccoastalmanagement.net

If there are controverted facts that are significant in determining the propriety of a variance, or if the Commission determines that more facts are necessary, the facts will be determined in an administrative hearing. 15A N.C.A.C. 07J .0701(b).

VARIANCE CRITERIA

The petitioner has the burden of convincing the CRC that it meets the following criteria:

- (a) Will strict application of the applicable development rules, standards, or orders issued by the Commission cause the petitioner unnecessary hardships? Explain the hardships.
- (b) Do such hardships result from conditions peculiar to the petitioner's property such as the location, size, or topography of the property? Explain.
- (c) Do the hardships result from actions taken by the petitioner? Explain.
- (d) Will the variance requested by the petitioner (1) be consistent with the spirit, purpose, and intent of the rules, standards or orders issued by the Commission; (2) secure the public safety and welfare; and (3) preserve substantial justice? Explain.

Please make your written arguments that Petitioner meets these criteria on a separate piece of paper. The Commission notes that there are some opinions of the State Bar which indicate that non-attorneys may not represent others at quasi-judicial proceedings such as a variance hearing before the

Commission. These opinions note that the practice of professionals, such as engineers, surveyors or contractors, representing others in quasi-judicial proceedings through written or oral argument, may be considered the practice of law. Before you proceed with this variance request, you may wish to seek the advice of counsel before having a non-lawyer represent your interests through preparation of this Petition.

For this variance request to be complete, the petitioner must provide the information listed below. The undersigned petitioner verifies that this variance request is complete and includes:

- Yes The name and location of the development as identified on the permit application;
- Yes A copy of the permit decision for the development in question;
- Yes A copy of the deed to the property on which the proposed development would be located;
- Yes A complete description of the proposed development including a site plan;
- Yes A stipulation that the proposed development is inconsistent with the rule at issue;
- Yes Proof that notice was sent to adjacent owners and objectors, as required by 15A N.C.A.C. 07J .0701(c)(7);
- N/A Proof that a variance was sought from the local government per 15A N.C.A.C. 07J .0701(a), if applicable;
- Yes Petitioner's written reasons and arguments about why the Petitioner meets the four variance criteria, listed above;
- Yes A draft set of proposed stipulated facts and stipulated exhibits. Please make these verifiable facts free from argument. Arguments or characterizations about the facts should be included in the written responses to the four variance criteria instead of being included in the facts.
- Yes This form completed, dated, and signed by the Petitioner or Petitioner's Attorney.

Due to the above information and pursuant to statute, the undersigned hereby requests a variance.

September 9, 2014 Signature of Petitioner or Attorney Date I. Clark Wright, Jr. icw@dhwlegal.com Printed Name of Petitioner or Attorney Email address of Petitioner or Attorney 209 Pollock Street (252) 514-2828, Ext. 1 Mailing Address Telephone Number of Petitioner or Attorney New Bern, NC 28560 (252) 514-9878 City State Zip Fax Number of Petitioner or Attorney

DELIVERY OF THIS HEARING REQUEST

This variance petition must be received by the Division of Coastal Management at least six (6) weeks before the first day of the regularly scheduled Commission meeting at which it is heard. A copy of this request must also be sent to the Attorney General's Office, Environmental Division. 15A N.C.A.C. 07J .0701(e).

Contact Information for DCM:

Contact Information for Attorney General's Office:

By mail, express mail or hand delivery:

Director

Division of Coastal Management

400 Commerce Avenue

Morehead City, NC 28557

By Fax:

(252) 247-3330

By Email:

Check DCM website for the email address of the current DCM Director

www.nccoastalmanagement.net

By mail:

Environmental Division 9001 Mail Service Center Raleigh, NC 27699-9001

By express mail:

Environmental Division 114 W. Edenton Street Raleigh, NC 27603

By Fax:

(919) 716-6767

Revised: February 2011

TOPSAIL REEF VARIANCE APPLICATION

Background: Modification of CAMA Major Permit 39-12: Expansion of Sandbag Revetment Fronting Buildings 6, 7, and 8, Topsail Reef Condominiums

Topsail Reef (the "Property"), located at 2224 New River Inlet Road in North Topsail Beach, is an oceanfront condominium development built in the early 1980's. The Property consists of 240 condominiums owed by individuals spread over eight buildings (Attachment E-5, aerial photograph). Each building has a total floor area of approximately 19,960 square feet. About eighty people live in the Buildings year round, and anecdotal evidence suggests that the condominiums are owned primarily by retirees and military personnel. Running from the northeast to the southwest, the buildings are numbered 1 through 8.

Prior to the Town of North Topsail Beach (TNTB) undertaking its Inlet Realignment Project, the United States Army Corps of Engineers had been putting dredge spoil from the New River Inlet Atlantic Intracoastal Waterway crossing and from the Cedar Bush Cut along a 2,000 to 5,000 linear foot area generally in front of the Property. The last Corps disposal operation occurred in 2011. The dredged material disposal operation had been reasonably effective in slowing the rate of erosion of the property and masking the severe nature of the problem. When this placement of beach material was curtailed, the Topsail Reef Homeowner's Association, Inc. (the "HOA") sought a Variance to provide protection to its buildings with an enlarged sandbag alignment. This Variance request was granted by the Coastal Resources Commission (CRC) on May 24, 2012 and the NC Division of Coastal Management (DCM) issued Permit 39-12 on May 29, 2012, with a condition that limited the expanded sandbag alignment to the protection of Buildings #1 – 5.

This Permit authorized the construction of a sandbag revetment 45 feet wide with a maximum height of 12' NAVD for buildings 1 through 5, to extend a maximum distance of twenty-nine feet seaward from the most water-ward piles. For the sandbag alignment in front of buildings 6, 7 and 8, the sandbag revetment was restricted to a 6-ft high x 20-ft wide structure as is allowed by a General Permit. The sandbag alignments were completed on October 10, 2012

Hurricane and super-storm Sandy impacted the North Carolina coast on October 28 creating strong winds, swells and storm surge causing the near shore flood channel to be pushed up against the shoreline directly against the revetment from the northeast corner of building 1to the northeast corner of building 6. The flood channel ran south of the Reef towards the St. Regis Condominiums. By October 31, 2012, the channel was 3 or 4 feet deep at low tide along the Reef property. The revetment in front of buildings 1 through 5 performed well even with the flood channel pressed up against the toe allowing severe wave action to impact the sandbag structure. The flood channel did not reach the sandbags along buildings 6 and 7 and part of 8, but was eventually pushed up against the bags on buildings north of building 8. The channel then filled naturally as the offshore bar moved onshore.

Had the flood channel reached the toe of the bags fronting buildings 6, 7 and 8, there was not a sufficient number of bags to provide protection of the toe should it collapse. The mechanism of the progressive collapse of the revetment to provide protection of the toe would have removed

bags from the face of the structure exposing the remainder of the revetment to wave action and over wash. There is not a sufficient number of bags in the structure to prevent a massive failure of the revetment in that section.

Background: Expedited Permit Modification Sought By This Variance

Since the sandbag alignments were completed, and after Hurricane Sandy, TNTB realigned the channel in New River Inlet under its CAMA Permit for Inlet Realignment, and completed Phase 1 of their CAMA Permit for Beach Nourishment. TNTB's Inlet Realignment project was supposed to have beneficial effects to the shoreline adjacent to the Property after the passage of 5 - 15 years. To date, no such beneficial effects have materialized, and conversely, only adverse effects to the Property shoreline have resulted. TNTB's Phase 1 Nourishment effort was then subsequently completed, but had only temporary beneficial effects. Phase 1 was completed in February 2014, having placed a total of 566,244 cubic yards of sand on 7,735 feet of shoreline from the northeast end of the shoreline at New River Inlet, extending down past the Property to Shipwatch Villas. This resulted in the placement of approximately 73 cubic yards of sand per linear foot along the shore adjacent to the Property. The seaward extent of the berm, the 6-ft elevation contour, is shown in Table 2.

Table 1 shows the progressive movement of the face of the berm from May 13, 2013 through August 21, 2014. These measurements were made by **Don** Street and ECS and are based on the horizontal distance from the end of walkways in front of each building to the edge of the escarpment, or the approximate 6 foot elevation contour. The measurements are provided in Tables 1 and 2. The measurements show an extraordinary rate of erosion of the berm in front of the Reef since the beach nourishment project. There is no reason to believe that it will abate in the weeks and months to come.

Over the course of the ensuing months since the completion of Phase 1 of the Beach Nourishment Project, most of the sand placed in Phase 1 has disappeared, as is the case today. The rate of erosion of the beach fill has been extraordinary as illustrated by plots of beach profiles surveyed in May 2013 and April 2014 at beach monitoring stations 11+40, 11+45, 11+50 and 11+55, the stations along the beach at the Reef Condominiums (Figures 2, 3, 4, 5 and 6 of Attachment H). The face of the berm (approximate 6-ft elevation contour) has receded from 105 feet at station 11+40 to 167 feet at station 11+55 from a post nourishment distance of approximately 190 feet..

As of August 21, 2014, the flood channel is encroaching upon the revetment toe in front of buildings 1, 2, 3 and 4. It is imperative that work to shore up the revetment in front of buildings 6, 7 and 8 be implemented before the flood channel is encroaching on the revetment toe as it is in front of buildings 1 through 4. Loss of the berm would result in a limited work window of 2 to 4 hours per day, only during periods of low tide. Operation of equipment for filling and placing bags would have to be behind a temporary sand bag berm placed seaward of the operations to protect workers and equipment from waves and soft sand. It will be safer, less expensive, require less time and be less disruptive for beach users if there is some berm remaining when the bag installation takes place.

The Petitioner is in the process of obtaining beach profiles from the buildings, seaward to approximately -10.0 (NAVD). That profile data should be available from Gahagan and Bryant after September 12, 2014. Those profiles will show the location and extent of the flood channel from south of the Reef to the inlet and the extent of the berm along the shoreline at the Reef.

The rate of loss of the berm along the Reef beach front is from 8 to 12 feet per month for the period from May 2013 to August 2014. Over the last 58 days, from June 25 to August 28, 2014, the rate of berm recession has been from 0.5 to 1.1 feet per day. The rate of change at building 5 through 8 is at the low end of that range but, the changes are continuous.

Table 1 – Measurements to Edge of Berm, May 13, 2013 to August 28, 2014 (from ECS)

	5/13/13	6/25/14	7/3/14	7/5/14	7/12/14	7/14/14	7/15/14	7/16/14	7/20/14	7/29/14	8/7/14	8/21/14	8/28/14
bldg.													
8	195'	106'	102'	99'	92'	92'	85'	83'	82'	82'	77'	61'	61'
7	190'	96'	92'	90'	82'	81'	74'	71'	71'	71'	63'	41'	41'
6	190'	85'	80'	76'	72'	70'	63'	57'	56'	56'	49'	34'	33'
5	190'	74'	67'	63'	60'	58'	53'	48'	47'	46'	30'	27'	5'
4	185'	61'	57'	51'	48'	46'	42'	39'	38'	33'	12'	0'	(-20')
3	180'	42'	40'	20'	20'	18'	15'	12'	17'	16'	(-20')	(-20')	(-20')
2	170'	19'	16'	6'	6'	1'	0'	(-11')	(-11')	(-24')	(-24')	(-24')	(-24')
1	170'	3'	(-5')	(-10')	(-14')	(-16')	(-24')	(-24')	(-24')	(-24')	(-24')	(-24')	(-24')

Table 2 - Total Berm Retreat Distances, During July and August 2014 and from May 2014 to August 2014 (from ECS)

@ Building	8	7	6	5	4	3	2	1
Loss from 6/25/14 to 8/28/14, 63 Days	45'	55'	52'	47'	81'	62'/40days	43'/34days	27'/20days
Loss May 2013 to August 2014, 15.5								
months	134'	149'	157'	185'	205'	200'	194'	194'

Bldg. 1-Total berm retreat in 428 days/194', shoreline at toe of revetment

Bldg. 2-Total berm retreat in 442 days/194', shoreline at toe of revetment

Bldg. 3-Total berm retreat in 451 days/200', shoreline at toe of revetment

Bldg. 4-Total berm retreat in 472 days/205', shoreline at toe of revetment

NOTE: Updated survey information will shortly become available, and this data will be revised to reflect the most current information prior to the CRC Variance proceedings.



Photo 1 - Building 1 looking north, August 21, 2014

Photo 1 shows the beach just north of building 1 on August 21, 2014. Ocean waves are impacting the beach at high tide allowed by the deep water in the flood channel seaward of the beach. The flood channel has migrated toward the beach to where it is against the toe of the revetment.



Photo 2 - Building 1 toe of revetment, August 21, 2014 Photo 2 shows the toe of the revetment at high tide.



Photo 3 – At building 3 looking south at buildings 4 and 5, August 21, 2014



Photo 4 -At building 4 looking south at buildings 5 and 6, August 21, 2014

Photo 3 is taken standing on the walkway in front of building 3 looking south. Note that the toe of the revetment is exposed on front of buildings 4 and 5. The remaining berm is visible in the distance. Photos 3 and 4 show the condition of the berm in front of building 4, 5 and 6. Note that the berm is essentially gone in front of building 4. The shoreline is at the toe of the revetment at building 5. Some berm remains in front of buildings 6, 7 and 8.

It is essential that the sandbag structure in front of buildings 6, 7 and 8 be enlarged on an emergency basis to provide adequate toe protection in the event of scour, and to prevent failure of the 6-ft high x 20-ft wide revetment and provide adequate protection to the foundations of buildings 6, 7 and 8 as was previously found by the CRC to be appropriate for structures along this shoreline threatened by the extreme erosion ongoing in this area. It is proposed to add sand bags to the revetment in front of buildings 5, 6, 7 and 8 to achieve a 45-foot wide revetment, extending up to 29 feet seaward of the buildings, with a top elevation of +12 NAVD (Figure 8, Attachment H), similar to the section in front of buildings 1 through 5 (Figure 9, Attachment H). The existing revetment footprint fronting all 8 buildings is shown on Figure 1, Attachment H. A section of the existing 6-ft high x 20-ft wide revetment fronting buildings 6, 7 and 8 is shown on Figure 7, Attachment H.

The footprint of the revetment will be expanded starting in front of building 5, and will extend south to the property line south of building 8. A *return* structure will be installed south of building 8 similar the structure north of building 1.

Variance Request

The Petitioners hereby request that a variance be granted for an expedited modification to existing Permit 39-12, AMENDED (By CRC Variance), issued on May 29, 2012, and from all other applicable statutes, rules and existing permits for the following:

- 1. Authorization to extend the sandbag revetment, with a bottom width of forty-five feet and a crest elevation 12.0 feet NGVD from Building #5 to the southern property line at Building #8, extending up to 29 feet seaward of the buildings.
- 2. Authorization to construct a sandbag landward return alignment at the southern property line as constructed under the current Permit at the northern property line.
- Authorization to place the sandbag revetment as much as twenty-nine feet water ward of the Buildings.
- 4. Authorization to obtain approximately 40% of the material needed to fill the sandbags from excavation necessary to prepare the site for the sandbags. The Petitioners further requests that they be allowed fill sandbags where the fill is located and that there be no requirement that sand be pushed into the dredging pit prior to use.
- 5. Authorization to truck in sand as needed to fill sandbags, to the extent that sufficient sand is unavailable either from the excavation required for the placement of the bags or from the existing beach below the normal high water line.
- 6. Authorization to run the hydraulic sand pump continuously between the laying out of sandbags. The Petitioners expect that any sand lost during these times would be minimal and incidental to the total volume of sand used in the project.

- 7. Authorization to move sand for sandbag fill using a hydraulic sand pump and/or bulldozers.
- 8. Authorization to work around the clock, during both day and night time hours, as necessary to avoid working during periods of high tide.
- 9. Authorization for the temporary erosion control structures (i.e. sandbags) to be allowed to remain for up to eight years from the date of the issuance of the variance. Pursuant to 15A N.C.A.C. 07 .1705(a)(8), temporary erosion control structures located in an inlet hazard area are permitted to remain for up to eight years. The current maps show the Property as being just south of the New River Inlet Hazard Area within an area labeled "Inlet Hazard Area-Proposed." Given that the Property is within a proposed inlet hazard area and that the proximity to the New River inlet has contributed to the erosion of the beach in front of the Property, the Petitioners believe an eight-year time limit is appropriate.

Variance Criteria

Pursuant to G.S. § 113-120.1, to qualify for a variance, the Petitioners must demonstrate the following:

1. That strict application of the applicable development rules, standards, or orders issued by the Commission will cause the Petitioners unnecessary hardships.

Yes. The CAMA rules, especially 15A N.C.A.C. 07H .0308 (a)(2)(E) and (K), were written for the "normal" cases of threatened structures where beach bulldozing, or "typical" sandbag protection can be effective in securing the temporary protection of structures. In this case, however, these rules will not provide the protection needed to allow the structures, especially Buildings #6, 7, and 8, to survive without significant damage or total collapse until the inlet Realignment project results in its projected benefit of shifting the the tidal delta such that natural shoreline accretion occurs, and until the beach nourishment project is maintained in 2016, as required by the CAMA Permit issued to the Town of North Topsail Beach.

In that the Town of North Topsail Beach has documented its position that the Inlet Realignment Project has not had positive results for this shoreline to date, and may not be expected to have such results for a period of 5 to 15 years, and in that the Town of North Topsail Beach has indicated that maintenance of its beach nourishment project is not likely to result in the placement of additional sand along this shoreline for a period of 2 $\frac{1}{2}$ years, and in that Town of North Topsail Beach is restricted by its Permit to the placement of re-nourishment sand on this shoreline no more often than once every 4 years, this has left, and in the future is likely to leave a wider and deeper inlet flood channel adjacent to these buildings than has ever before been experienced. This wider and deeper flood channel can, and likely will, undercut, displace and eradicate the protection of the height of "typical" sandbags in a single storm. Additionally, imminent danger of loss or damage of the existing "typical" sandbag protection in front of these buildings also poses imminent danger to buildings # 1 - 5 in that loss or damage to the "typical" sandbag protection for building # 6 - 8 would immediately negate the protection currently afforded by the enlarged sandbag alignment in front of buildings 1 - 5 by allowing the flood

channel to begin flowing landward of this expanded sandbag footprint that protects these northern buildings.

The ordinary six-foot limit on revetment height and twenty-foot water ward limit on revetment location mean that the revetment in place in front of buildings # 6 - 8 is completely ineffective to protect all of Topsail Reef's structures in this situation from the encroaching flood channel, which continues to widen, deepen and shift landward to the base of this "typical" revetment. Finally, without a variance, the HOA would suffer an unnecessary hardship because while the HOA has been awaiting the supposed benefits of inlet Realignment and beach nourishment project, the conditions have instead worsened, now to the point where emergency, immediate action is necessary in order to complete the essential protection that was sought through the Variance request in 2012.

This hardship derives from the existing Rules having been developed with a single dimension description for erosion protection structures being applied to all situations that develop along the coast. The single dimension description does not take into account the greatly accelerated erosion that can take place near inlets, and it certainly does not take into account a situation such as is now experienced where a flood channel for the entire inlet having shifted adjacent to the threatened buildings. Further, the Rules do not address situations where the rate of erosion is so dramatic as in this case. While they indicate that "accelerated" erosion may form the basis for the placement of erosion protection structures, they stop short of addressing how the limited structure envisioned by the Rules could reasonably meet the conditions now encountered.

2. That such hardships result from conditions peculiar to Topsail Reef such as the location, size, or topography of the property.

Yes. The hardship results from the fact that the Inlet Realignment Project has not resulted in the projected benefit of natural accretion of this shoreline; it results from the fact that the Beach Nourishment Project failed to allow sand placed on the shoreline to remain until such time as natural accretion could occur, and because the nourishment has not been maintained, and is not projected to be maintained for a period of years; and it results from the aggressive shifting of the inlet flood channel landward along this shoreline, in response to the changed inlet dynamics.

One of the most significant peculiarities facing Topsail Reef is the rapid rate of erosion resulting from the adjacent flood channel. This makes this situation far different from the normal assessment of what type of protection is necessary to protect the threatened structures, and how soon must it be in place. This flood channel location makes the placement of a sandbag structure very different than in most locations, causing it to be much more difficult. It also brings with it the potential for the impossibility of placing sandbag protection if the flood channel further erodes the remaining sand in front of buildings 6, 7, and 8.

The above peculiarity relating to the flood channel also heightens the need for immediate action to allow the protection efforts to proceed. The logistics involved in placing an alignment such as is requested involve significant lead time in allowing the sandbags to be manufactured, the mobilization of equipment to the location and the securing of a point of access to the shoreline

adjoining the threatened buildings. At this point, a single moderate storm, at a lunar Spring tide, or even a moderate storm driving a storm surge in front at regular lunar tides, could eliminate all possibility of being able to effect the requested erosion protection structure. A minimum of a three week lead time is needed before placement of the protective structure can begin.

3. That the hardship does not result from actions taken by the Petitioners.

No. The Petitioners have done nothing to accelerate or otherwise aggravate the erosion problem facing the Property. Again, the hardship is result of the Property's proximity to the New River Inlet the failure of the Inlet to Realignment Project to materialize projected beneficial accretion, the failure of the Beach Nourishment Project to stabilize the shoreline, the inability of the Town to maintain the Beach Nourishment of the shoreline in a time-effective manner, and the severe threat of rapid additional shoreline loss during a combination of storm and lunar Spring tides due to the dramatic landward shift of a wider and deeper flood channel.

4. That the variance requested by the Petitioners (1) is consistent with the spirit, purpose, and intent of the rules, standards or orders issued by the Commission; (2) will secure the public safety and welfare; and (3) will preserve substantial justice.

Yes. G.S. § 113-118(f) specifically contemplates the issuance of emergency permits for extraordinary situations in which structural property is in "imminent danger as a result of storms. . . or similar occurrence." The variance sought is the minimum necessary to preserve the Buildings in the face of imminent danger. It would not grant the right to use hardened structures, which would be counter to the core philosophy of the Coastal Area Management Act. Finally, the larger sandbag structure should allow the protection of all 8 of Topsail Reef buildings until such time the Town of North Topsail Beach can either realize the projected beneficial results of their Inlet Realignment and Beach Nourishment Projects, or alternatively provide the required maintenance of these Projects, or alternatively address the erosion that has resulted from these Projects.

Allowing these sandbag structures to remain in place for a period of 8 years is consistent with the provisions provided to structures subject to the recognized heightened vulnerability of inlet dynamics. There are no structures within this adjoining Inlet Hazard Area that have been subjected to vulnerability as great as the buildings of the Topsail Reef. These other, less vulnerable structures already receive the benefit of such erosion protection structures being allowed for 8 years. Further, DCM has proposed that this section of shoreline be included within the designation of an Inlet Hazard Area AEC due to its shoreline movement in response to the dynamic inlet conditions posed by New River Inlet.

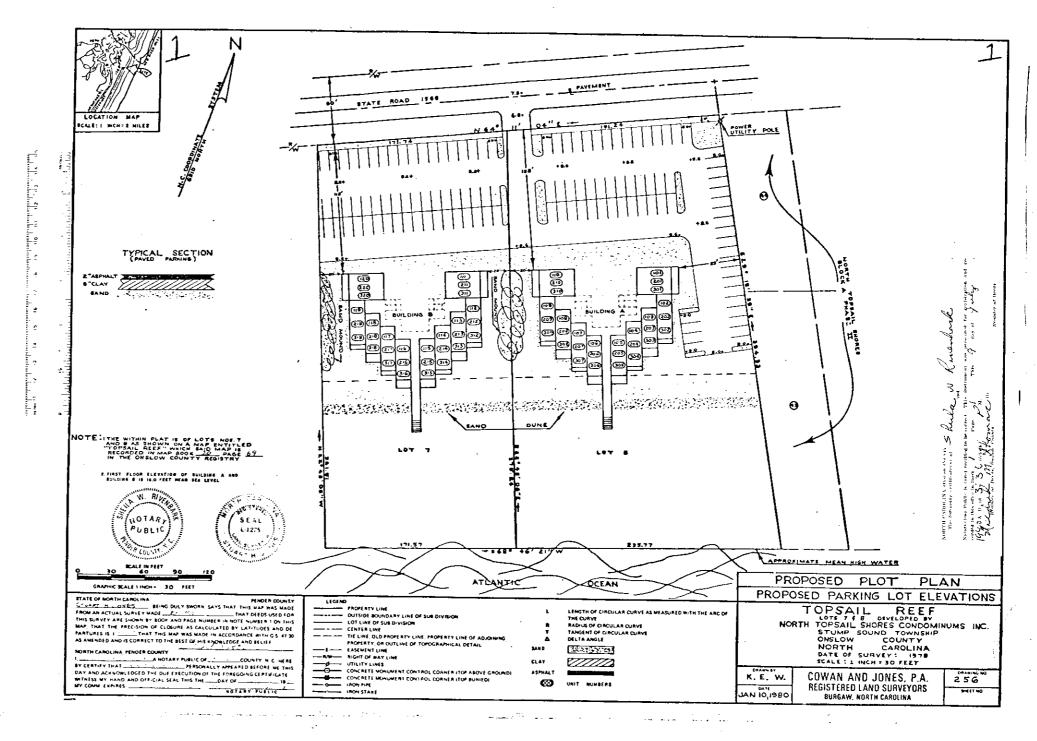
The variance would secure the public safety and welfare because, without a variance, at least one, and probably more, of the Buildings located on the Property could soon be damaged. The variance will preserve substantial justice because it will protect the Buildings long enough for the Inlet Realignment Project to result in projected benefits for this shoreline, and for the Beach Nourishment Project to place needed sand on this shoreline as required by the maintenance plan, and alternatively, long enough for the actions required by the Permit issued to

the Town of North Topsail Beach to reverse the effects of erosion ensuing from their permitted Project.

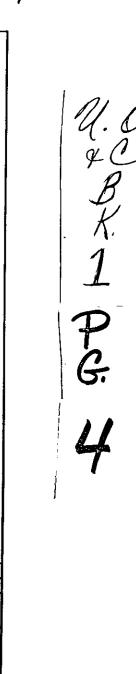
Request for Expedited Hearing

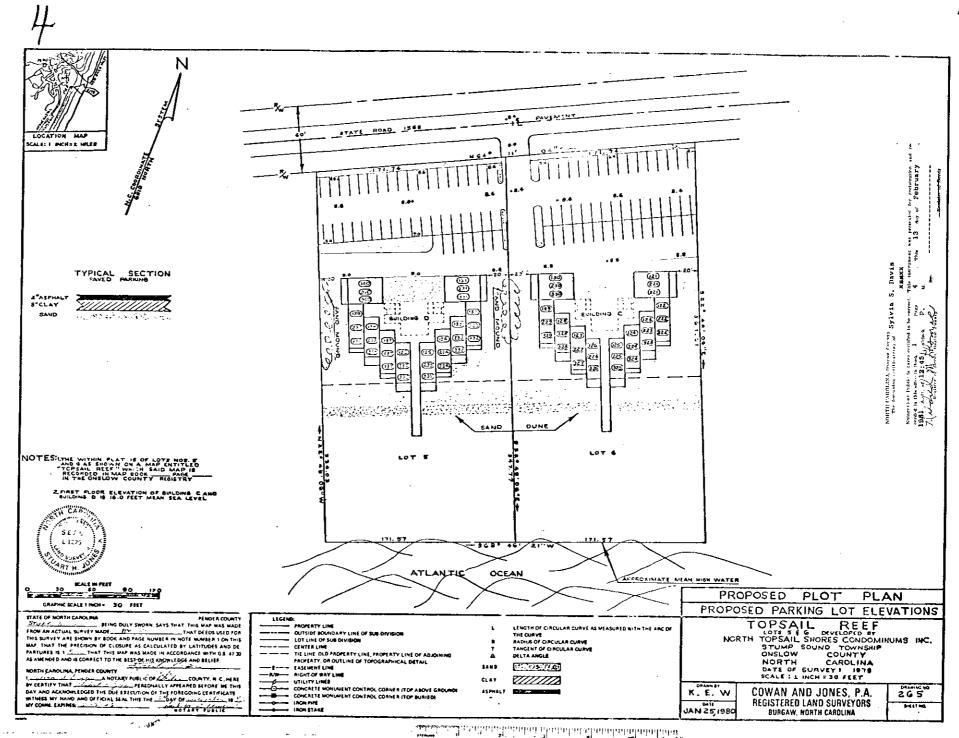
Pursuant to G.S. § 143-318.12(f), the Petitioners respectfully requests that the Coastal Resources Commission call an expedited meeting, to be held either in person or by telephone, as quickly as possible. The Petitioners believe that the unexpected and uncontrollable conditions described herein have left the Buildings dangerously exposed, and this dangerous condition cannot be left unattended awaiting the next Commission meeting. These circumstances are generally unexpected and require the immediate attention of the Commission.

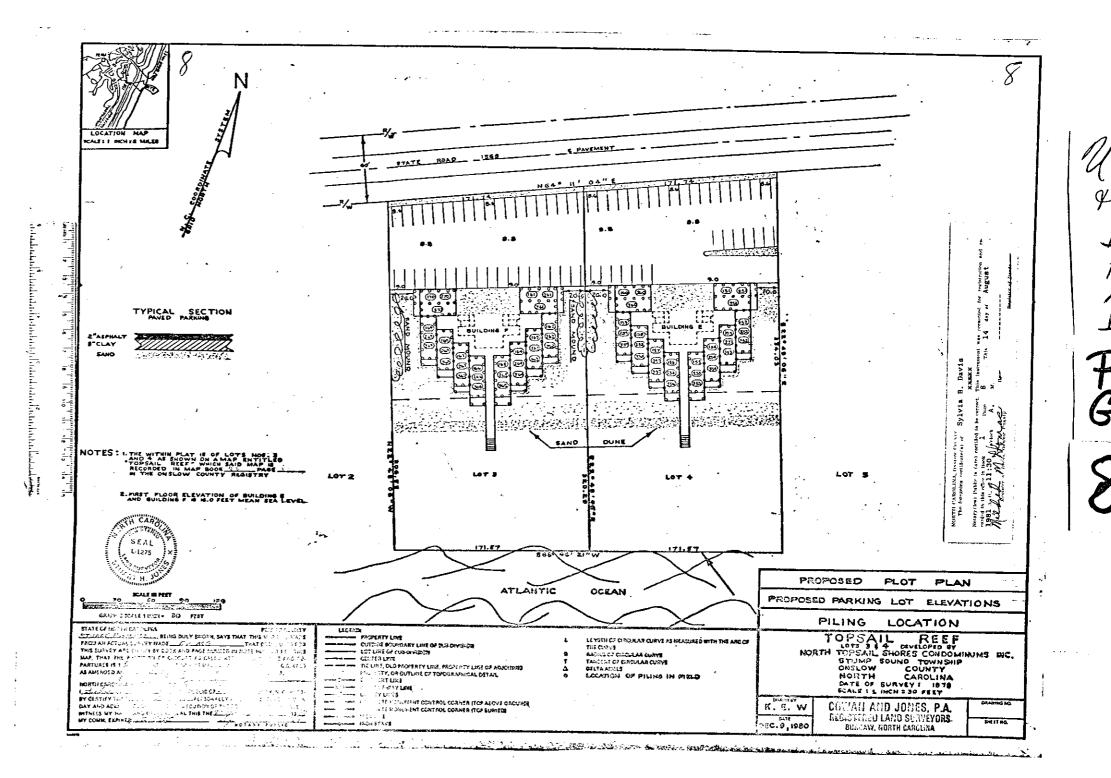
Attachment J



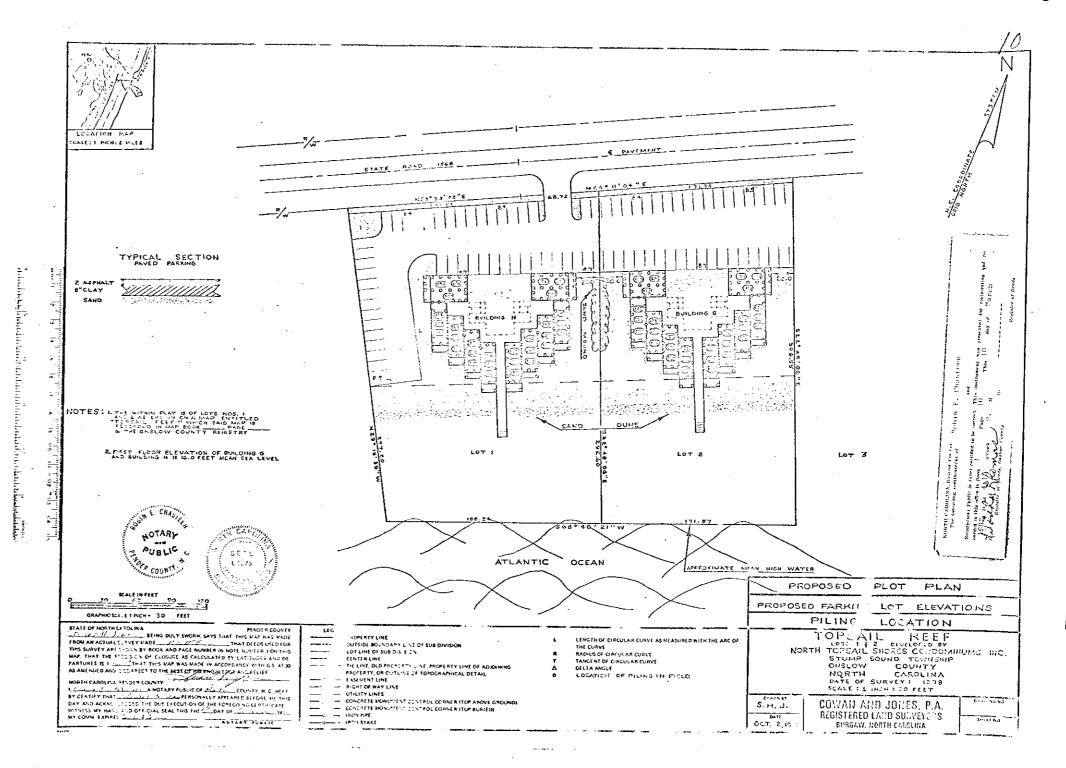
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TOPSAIL REEF

DECLARATION OF CONDOMINIUM

Establishing a plan for condominium ownership of property located in Onslow County, North Carolina, pursuant to the Unit Ownership Act of the State of North Carolina, to be known as:

TOPSAIL REEF CONDOMINIUMS

THIS DECLARATION, made this 27th day of June 1980, by NORTH TOPSAIL SHORES CONDOMINIUMS, INC., a North Carolina Corporation, hereinafter called the "Declarant" or "Developer", pursuant to the provisions of Chapter 47A of the North Carolina General Statutes, entitled and hereinafter referred to as the "Unit Ownership Act" or the "Act";

WITNESSETH:

WHEREAS, the Developer is the owner in fee simple of said real property located on West Onslow Beach, Stump Sound Township, Onslow County, North Carolina, and more particularly described as follows:

Being all of Lots 7 & 8 as shown and designated on that map or plot of TOPSAIL REEF, of record in Map Book 20, at page 69, in the Office of the Register of Deeds of Onslow County, and

WHEREAS, CHARLES S. LANIER, Trustee and ROGER PAGE and M. F. BOSTIC, wish to join in the execution of this declaration for the purposes of subordinating the liens of those certain two deeds of trust recorded in Book 567, Page 766, and Book 567; Page 768, Onslow County Registry, and

WHEREAS, GEORGE COLEMAN, Trustee and NATIONWIDE HOMES, INCORPORATED, wish to join in the execution of this declaration for the purpose of subordinating the liens of those certain two deeds of Trust recorded in Book 570, Page 394, and Book 578, Page 32, Onslow County Registry, to this Declaration, and

WHEREAS, the Developer is the owner of those certain condominium type multi-unit puildings and all other improvements peretofore constructed or hereafter constructed upon the above FM A. New Done of regulo 1841651 Pg. 465-5-3192 MMT

described property and desires and intends by the filing of this Declaration to submit said property, buildings and improvements, whether heretofore or hereafter constructed, together with all appurtenances thereto, to a plan of condominium unit ownership;

NOW, THEREFORE, the Developer does hereby declare that all property described herein is held and shall be held, conveyed, hypothecated, encumbered, used, occupied, and improved subject to the covenants, conditions, restrictions, uses, limitations and obligations set forth hereinafter, all of which are declared and agreed to be in furtherance of a plan for the improvement of said property and shall be a burden and a benefit to the Developer, its successors and assigns, and any person acquiring or owning any interest in the real property herein described and any improvements thereto, their grantees, successors, heirs, assigns, executors, administrators and devises:

- (1) <u>Description of Land</u>. The description of land is as set forth on page 1 hereof.
- (2) <u>Description of Buildings</u>. The multi-unit buildings constituting Phase I of the TOPSAIL REEF condominium units are, or are to be, two (2) in number, each being three stories in height, with no basements. The total number of units in said first phase will be sixty (60) in number.

The principal materials of which said buildings in Phase I are constructed, or are to be constructed, are frame and wood siding.

In general, each building will have when completed a total of approximately 17,376 square feet of unit space area. There are, or will be, thirty (30) individual dwelling units in each building consisting of both one and two bedroom units. The one bedroom units will have a total of approximately 6.6 square feet. The two bedroom units will have a total of approximately 912 square feet. Said multi-unit buildings are more particularly described in the plans and specifications of said buildings, a copy of which plans are attached hereto and made a part hereof as "Exhibit A" showing all particulars of the buildings, including the layout, location, ceiling and floor elevations, unit numbers and dimensions of the units and location of the Common Areas and facilities

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affording access to each unit. As required by the Unit Ownership

Act, such plans bear the verified statement of a registered

architect or licensed professional engineer, certifying that said

plans are an accurate copy of the plans of said multi-unit

buildings built or to be built.

For a further description of the principal materials of which said multi-unit buildings are or will be constructed, reference is hereby made to the plans filed herewith.

It is the plan of the Developer, and the Developer reserves the right at its option, as hereinafter set forth, to construct additional buildings of condominium units on Lots 1, 2, 3, 4, 5 and 6 as shown on the aforesaid map or plat, so that the units will total up to, but not exceed, 240 units. Said additional buildings or condominium units, if constructed, will be constructed of such materials and in such design and manner as to complement the appearance of the entire condominium development.

- (3) Unit Designations. The unit designation of each unit, and its location are as shown on the map or plat of the condominium development attached hereto as Exhibits "A" and "B". The approximate area and number of rooms in each unit is as shown on Exhibit "A", also attached hereto and made a part hereof.
- (4) <u>Description of General Common Areas and Individual</u>
 <u>Unit Interests Therein</u>. The general Common Areas of TOPSAIL REEF
 condominium units shall be as follows:
 - a. All land included in Lots 7 and 8, as hereinabove described, including that land on which the units are located.
 - b. All parts of the multi-unit buildings situated on the property described hereinabove, other than the individual dwelling units therein, including all foundations, columns, girders, beams, supports, main walls and roofs.
 - c. All driveway and parking areas, bulkheads and all recreational or community facilities.
 - d. All central or appurtenant installations for services such as power, light, telephone, gas, water, incinerating and all other mechanical equipment spaces (including all pipes, ducts, wires, cables, tanks, pumps, motors, fans, conduits and compressors in connection therewith).
 - e. Al. apparatus and installations existing in the building or upon the property for common use or necessary or convenient to the existence, maintenance or safety of the Common Areas.

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- (5) <u>Limited Common Areas</u>. Each unit shall have reserved for its exclusive use as a Limited Common Area those stairways and porches appurtenant to and designed for the exclusive use of each specific individual unit.
- (6) Percentage of Unit Ownership in Common Areas. The percentages of interest of the respective units in the Common Areas have been determined upon the basis of the proportion which the fair market value of each unit bears to the total fair market value of all the property included herein, and is set forth as part of Exhibit 'C" heretofore noted as attached hereto and made a part hereo.

As noted hereinabove, however, it is the plan of Developer to construct additional multi-unit buildings on Lots 1, 2, 3, 4, 5 and 6, as shown on the map or plat hereinabove referred to, as part of the overall TOPSAIL REEF condominium project. The total number of condominium units to be constructed, including those in Phase I, will not exceed a total of two hundred forty (240) units. Developer, therefore, hereby reserves the irrevocable right, power and authority for a period of seven (7) years from the recording of this Declaration to amend this Declaration to reflect the addition of said future phases and the changes necessitated thereby in the percentage of ownership interest and expense responsibilities of each unit owner in and for said common elements and facilities. The Common Areas of each additional phase, the use, enjoyment and expense thereof, to be joined to and merged with the Common Areas located within Lots 7 and 8 and herein declared as Phase I of the said condominium project.

Each unit owner, whether purchasing the unit from

Developer or thereafter through mesne conveyances, in accepting
the deed to his respective unit, thereby signifies his consent to
the exercise of said right, power and authority by Developer and
designates Developer his agent to effect such amendment without
his further consent, and also thereby agrees to execute any such
writing as may be required by Developer to effectuate this purpose

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as may be requested by Developer, whether a written consent, power of attorney, or any other document with the limited purpose of allowing such amendment.

(7) <u>Use</u>. The buildings and each of the units therein shall be used for residential purposes only, with the sole exception that Developer shall have the right to maintain a sales office in one of the said units of his choice for the purpose of selling the remaining condominium units and further developing the overall condominium project. Use of the buildings and units, as well as of the Common Areas and facilities, is further restricted as follows:

- a. No advertising signs, billboards, unsightly objects, or nuisances shall be erected, placed or permitted to remain on the property, nor shall the property be used in any way or for any purpose which may endanger the health of or unreasonably disturb the owner of any residence or any resident thereof. No business activities of any kind whatever shall be conducted in any building or on any portion of the property provided, however, the foregoing covenants shall not apply to the business activities, signs and bilboards of the Developer, its agents or assigns, during the construction and sale period.
- b. No animals, livestock or poultry of any kind shall be raised, bred or kept on any part of the property, except that dogs, cats or other usual household pets may be kept by the respective owners in their respective units, provided that they are not kept, bred or maintained for any commercial purpose and do not endanger the health of or, in the sole discretion of the Board of Directors of the TOPSAIL REEF HOMEOWNERS ASSOCIATION,INC,unreasonably disturb the owner of any residence or any resident thereof, and provided, further, that such pets shall not be allowed in the general Common Areas of the condominium development unless on a least or carried by the owner thereof.
- c. The exterior of the units shall not be decorated by the individual unit owners in any manner without the prior written consent of the Board of Directors of TOPSALL REEF HOMEOWNERS ASSOCIATION, INC., and no awnings (other than those provided by Developer or Association), radio or television aerials or other projections may be installed or attached to the exterior of any unit without such prior written consent. No clothes line for any purpose shall be permitted outside of an owner's unit.
- d. No trailer of any sort, tent, barn, storage camper, shed, garage or other similar out building or structure shall be placed on the property at any time, either temporarily or permanently, with the exception that boat trailers may be kept on the property, provided they are kept in such manner as not to block or cause obstruction of the roadway.

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- e. No structure of a temporary character shall be placed upon the property at any time, provided, however, that this provision shall not apply to shelters and sheds used by the contractor during the construction of the multi-unit buildings or Common Area improvements, it being clearly understood that these latter temporary structures may not, at any time, be used as residences or permitted to remain on the building site after completion of construction.
- f. All garbage and refuse from the individual units shall be deposited with care in garbage containers or receptacles intended for such purpose, said containers or receptacles to be kept at all times in the space provided therefore appurtenant to each individual unit.
- g. No noxious or offensive activities shall be carried on, in or upon any unit, nor shall anything be done therein tending to cause embarrassment, discomfort, annoyance or nuisance to other unit owners. No charcoal grills or outside fires are permitted.
- h. No refuse, rubbish, trash or waste of any sort shall be thrown into the waters surrounding the condominiums project nor shall any objects or material be placed therein which would constitute a hazard to the health or safety of those using said waters for boating, swimming, or other water related sports and activities.
- It shall be the responsibility of each unit owner, and the Board of Directors of TOPSAIL REEF HOMEOWNERS ASSOCIATION, INC. to prevent the development of any unclean, unsightly or unkempt conditions of the limited and general Common Areas.

All restrictions and affirmative obligations set forth in this Declaration shall run with the land and shall be binding on all parties and persons claiming under them for a period of twenty (20) years from the date of recordation of this Declaration, after which time said restrictions and obligations will be automatically extended for successive periods of ten (10) years, unless an instrument signed by a majority of the then owners of units affected by such restrictions and obligations has been recorded agreeing to change such restrictions and obligations in whole or in part.

In the event of a violation or breach of any of these restrictions, or of any other covenants of this Declaration, by any property owner, or agent thereof, the owners of other units or any of them, jointly or severally, shall have the right to proceed at law or in equity to compel the compliance to the terms hereof or to prevent the violation or breach in any event. In addition to the foregoing, the Board of Directors of TOPSAIL REEF HOMEOWNERS ASSOCIATION. INC. shall have the right whenever there shall have been any violation of these restrictions, to enter upon the property where such violation exists and summarily abate or remove the same at the expense of the owner, if after thirty (30) days written

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notice of such violation it shall not have been corrected or removed by the owner. Any such entry and abatement or removal shall not be deemed a trespass. The failure to enforce any right, reservation or conditions contained in this Declaration, however long continued, shall not be deemed a waiver of the right to do so hereafter, as to the same breach or as to a breach occurring prior or subsequent thereto and shall not bar or affect its enforcement. The invalidation by any court of any restrictions or obligations in this Declaration contained shall in no way affect any of the other restrictions, which shall remain in full force and effect.

All present and future owners, tenants and occupants of units now in existence or to be constructed shall be subject to, and shall comply with the provisions of this Declaration, the By-Laws and any rules and regulations as may be adopted in accordance with the By-Laws as said Declaration, By-Laws, rules and regulations may be amended from time to time. The acceptance of a deed of conveyance, or the entering into of a lease, or the entering into occupancy of any unit shall constitute an agreement that the provisions of this Declaration, By-Laws, and any rules and regulations which may be adopted are accepted and ratified by such owner, tenant or occupant and all of such provisions shall be deemed and taken to be covenants running with the land and shall bind any person having at any time any interest or estate in such unit as though such provisions were made a part of each and every deed of conveyance or lease.

- (8) Person to Receive Service of Process. Charles S.

 Lanier is hereby designated to receive Service of Process in any action which may be brought against, or in relation to, this condominium development, the address of his place of business being 114 Old Bridge Street, Jacksonville, North Carolina 28540.
- (9) Management. Management of the affairs of TOPSAIL
 REEF condominium project shall be the right and responsibility of
 the Association of units owners known as "TOPSAIL REEF HOMEOWNERS
 ASSOCIATION, INC." hereinafter referred to as the "Association"; and
 said management duties shall be carried out in accordance with the
 terms and conditions of this Declaration and the terms and conditions
 set forth in the By-Laws of TOPSAIL REEF HOMEOWNERS ASSOCIATION, INC. a

copy of which is attached hereto and made a part hereof; provided, however, that the Association shall not be organized to take over the management rights and responsibilities until such time as the development of future phases of the overall project shall have beer undertaken and a total of one hundred twenty (120) units, including those in Phase I, have been sold by Developer and the deeds thereto delivered to the purchasers thereof or until December 31, 1982, whichever occurs first. Until such time, the Developer shall have the entire rights and responsibilities of managing the condominium project.

of the deed thereto, whether or not it shall be so expressed in such deed, is deemed to, and does thereby, covenant and agree to pay assessments in the pro rata share equivalent to such unit's ownership interest in the Common Areas for the common expenses of the upkeep, maintenance and improvement of the Common Areas and for expressly designated services provided to all unit owners in the condominium project.

Until such time as the Association takes over the management of the condominium project, at the time above specified, the owner of each respective unit shall pay to the Developer, as such assessment, the sum of Fifty (\$50.00) Dollars per month, beginning the first day of the month after the transfer of the deed to the respective unit by the Developer to the unit owner, Developer to use said sum for the upkeep and maintenance of the Common Areas and for the provision of common services ordinarily to be provided by the Owners' Association as set forth here nafter in paragraph (11). Developer shall be responsible for obtaining comprehensive hazard, flood and liability insurance covering all units and Common Areas prior to the time of taking over of management by the Owners' Association at the stipulated time; and the purchaser of an individual unit shall pay to the Developer, at the time of the payment of the purchase price for such unit, his pro rata share of the total insurance premium for the first twelve-month period

at the time of the purchase of the unit, said sum not to exceed FIVE HUNDRED (\$500.00) DOLLARS. Ownership by the Developer of units held for sale shall not obligate the Developer to the payment of any other than pro rata share of insurance premiums.

The Developer reserves the right to increase the said assessment in the event there is an increase in the expenses outlined in paragraph (11).

After the management rights and responsibilities have been turned over to the Association by the Developer, at the time specified, the Developer shall turn over all remaining unexpended funds so collected by him to the Association and shall make a full accounting of all sums spent from the amounts collected and shall transfer to the ownership of the Association all insurance policies then in effect on the condominium units and Common Areas. The owner of each unit shall thereafter make all future payments directly to the Association for all common expenses in the proper pro rata percentage of the total common expenses as set forth hereinafter in keeping with the General Statutes of North Carolina relating to unit ownership.

11. Purposes of Assessments. The assessments paid to the Association shall be used exclusively to promote the recreation, health, safety and welfare of the residents of TOPSAIL REEF and, in particular, for the acquisition, improvement and maintenance of properties, services and facilities devoted to this purpose and relating to the exterior maintenance of the buildings and units, excluding glass services, all for the use and enjoyment of the Common Areas and facilities, including, but not limited to, the cost of water and sewer service; garbage collection; electricity for the Common Areas; repairs, replacements and additions to the Common Areas and facilities; the cost of labor, equipment and materials expended on the Common Areas and facilities; management and supervision; the procurement and maintenance of liability, flood and hazard insurance coverage on the units and Common Areas; the employment of attorneys, accountants, and professional management personnel when deemed necessary or advisable by the Association; and such other needs as may arise.

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(12) Change in Assessments. At any time after the actual assumption of management duties by the Association, it shall have the right, by a vote of its Board of Directors, to change the method of payment of any assessments from a monthly to a semi-annual or annual basis and shall have the right to increase said assessments without the approval of the membership by an amount not to exceed ten (10%) per cent of the assessment of the previous year.

The assessment may be increased without limit by a vote of two thirds of the members of the Association voting in person or by proxy at a meeting duly called for this purpose.

- (13) Special Assessments for Capital Improvements. In addition to the assessments specified above, the Association may levy, in any calendar year, a special assessment for the purpose of defraying in whole or in part, the cost of any construction, reconstruction, repair or replacement of capital improvements upon the Common Area, including fixtures and personal property related thereto; provided that any such assessment shall have the assent therefor voted by two thirds (2/3) of the member of the Association who are voting in person or by proxy in a meeting duly called for this purpose.
- (14) <u>Date of Commencement of Association Assessments</u>.

 Assessments levied by the Association of the owners of individual units shall commence as soon as practicable after the formation of the Association and the taking over of the management of the condominium development from the Developer and the preparation of the first annual projected budget.
- Assessments. The assessments called for hereinabove, together with interest, costs of collection, including court costs and reasonable attorneys fees, shall be a charge on the land and shall be a continuing lien upon the property against which each such assessment is made. Each such assessment, together with interest, costs and reasonable attorneys fees, shall also be the personal obligation of the person who was the owner of such property at the time when the assessment fell due. Personal obligation for delinquent assessments shall not pass to his successors in title unless

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expressly assumed by them.

Any assessment not paid within thirty (30) days after the due date shall bear interest from the due date at the rate of six (6%) per cent per annum. The Association may bring an action at law against the owner or owners personally obligated to pay the same or foreclose the lien against the property; and interest, costs and reasonable attorneys fees of action or foreclosure shall be added to the amount of such assessment. No unit owner or owners may waive or otherwise escape liability for the assessments provided for herein by non-use of the Common Areas and facilities.

- (16) Subordination of the Lien to Mortgages. The liens provided for herein shall be subordinate to the lien of any mortgage, mortgages, deed of trust or deeds of trust. Sale or transfer of any unit shall not affect the assessment lien provided for in the preceding section. However, the sale or transfer of any unit which is subject to any mortgage or deed of trust, pursuant to a foreclosure thereof or any proceeding in lieu of foreclosure thereof, shall extinguish the lien of such assessment as to the payment thereof which became due prior to such sale or transfer. No such sale or transfer shall relieve such unit from liability for any assessments thereafter becoming due or from the lien thereof, but the liens provided for shall continue to be subordinate to the lien of any mortgage, mortgages, deed of trust or deeds of trust.
- upon the Common Areas and facilities, the Association shall provide exterior maintenance upon each unit which is subject to assessment hereunder, as follows: paint, repair, replacement and care of roofs, gutters, down spouts, exterior building surfaces, trees, shrubs, walks, and other exterior improvements. Such exterior maintenance shall not include glass surfaces. In order to enable the Association to accomplish the foregoing, there is hereby reserved to the Association, as well as the Developer until such time as the Association takes over such duties and responsibilities, the right to unobstructed access over and upon each unit at all reasonable times to perform maintenance and repair as provided herein.

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In the event that the need for maintenance, repair or replacement is caused through the wilful or negligent act of the owner or owners of a unit or units, or the family, guests or invitees thereof, or results from causes excluded from coverage in North Carolina Standard Fire and Extended Coverage insurance policies, the cost of such maintenance, replacement or repairs shall be added to and become a part of the assessment to which the unit or units of such owner or owners is subject.

- (18) <u>Insurance</u>. Insurance coverage on the property shall be governed by the following provisions:
 - a. Ownership of Policies. All insurance policies upon the condominium development shall be purchased by the Board of Directors of the Association for the benefit of the Association and the unit owners and their mortgagees as their interests may appear, and provisions shall be made for the issuance of certificates of mortgagee endorsements to the mortgagees of unit owners. Unit owners may, at their option, obtain insurance coverage at their own expense upon their own personal property and for their personal liability and living expense and such other coverage as they may desire.
 - b. Coverage. All buildings and improvements upon the land and all personal property included in the Common Areas and facilities shall be insured in an amount equal to the maximum insurable replacement value as determined annually by the Board of Directors of the Association with the assistance of the insurance company or companies providing such coverage. Such coverage shall provice protection against loss or damage by fire and other hazards covered by a standard extended coverage encorsement, and such other risks as from time to time shall be customarily covered with respect to buildings similar in construction, location and use as the building on the land.

Public liability insurance shall be secured by the Board of Directors of the Association in such amount and with such coverage as shall be deemed necessary by the Board of Directors, including, but not limited to, and endorsement to cover liability of the unit owners as a group to a single unit owner. There shall also be obtained such other insurance coverage as the Board of Directors shall determine from time to time to be desirable and necessary.

- c. Premiums. Premiums upon insurance policies purchased by the Board of Directors shall be paid by the Board of Directors as a common expense.
- d. Proceeds. All insurance policies purchased by the Board of Directors shall be for the benefit of the Board of Directors and the unit owners and their mortgagees as their interests may appear and shall provide that all proceeds thereof shall be payable to the Board of Directors as insurance trustee under this Declaration. The sole cuty of the Board of Directors as insurance trustees shall be to receive such proceeds as are paid and to hold the same in trust for the purposes elsewhere stated herein or stated in the

-1830K 579 AGE 306

By-Laws and for the benefit of the unit owners and their mortgagees in the following shares:

- (i) For damage to Common Areas and facilities, an undivided share shall be allocated for each unit owner, with such share being the same as each unit owner's undivided interest in the Common Areas and facilities.
- (ii) Proceeds on account of damage to units shall be held in the following undivided shares:
 - (A) When the building is to be restored for the owners of damaged units in proportion to the cost of repairing the damage suffered by each unit owner, which cost shall be determined by the Board of Directors.
 - (B) When the building is not to be restored an individual share for each unit owner based on the percentage of insurance premium paid by each unit owner.
 - (C) In the event a mortgagee endorsement has been issued as to a unit, the share of the unit owner shall be held in trust for the mortgagee and the unit owner as their interests may appear.
- (19) <u>Distribution of Insurance Proceeds</u>. Proceeds of insurance policies received by the Board of Directors as insurance trustees shall be distributed to or for the benefit of the beneficial owners in the following manner:
 - a. Expense of the Trust. All expenses of the insurance trustees shall be first paid or provision made therefor.
 - 5. Reconstruction or Repair. If the damage for which the proceeds are paid is to be repaired or reconstructed, the remaining proceeds shall be paid to defray the cost thereo: as provided by Paragraph 18 hereof. Any proceeds remaining after defraying such costs shall be distributed to beneficial owners.
 - c. Failure to Reconstruct or Repair. If it is determined, as provided in Paragraph 18 hereof, that the damage for which the proceeds are paid shall not be reconstructed or repaired, the remaining proceeds shall be distributed to the beneficial owners thereof.
- (20) <u>Damage and Destruction</u>. Damage or destruction of buildings or units shall be promptly repaired and restored by the Board of Directors using the proceeds of insurance for that purpose, and unit owners shall be liable for assessment for any deficiency.

Any reconstruction or repair should be in accordance with the plans and specifications of the original building, unless otherwise agreed upon and approved by the Board of Directors and the Developer.

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- (21) Party Walls. Each wall which is built as a part of the original construction of the units and placed on the dividing line between the units shall constitute a party wall, and the general rules of law regarding party walls and liability for property damage due to negligence or willful acts or omissions shall apply thereto.
- of trust or mortgage on his unit without prior notice to or authorization by the Developer or the Board of Directors of the Association; provided, however, that should foreclosure proceedings be instituted under the terms of said mortgage or deed of trust, the unit owner shall notify the Developer and the Board of Directors of the Association simultaneously by registered mail, return receipt requested, of the pending foreclosure sale, said notice to be given not less than fifteen (15) days prior to the date of such foreclosure sale. Said notice shall contain the date, time and place of such sale and shall specify the amount of the outstanding indebtedness remaining on the unit.
- (23) <u>Partitioning</u>. The Common Areas and facilities shall not be divided nor shall any right to partition any thereof exist. Nothing herein contained, however, shall be deemed to prevent ownership of a condominium unit by the entireties, jointly or in common, or in any other form by law permitted.
- (24) Easements. Each unit and all Common Areas and facilities and limited Common Areas and facilities are hereby subjected to an easement for the repair, maintenance, expansion, reduction, inspection, removal, relocation or other service of or to all gas, electricity, television, telephone, water, plumbing, sewer, utility, drainage or other lines or other Common Areas and facilities, whether or not the cause of any or all of those activities originates in the unit in which the work must be performed.

Each unit owner shall have an easement in common with the other owners of all other units to use all pipes, wires, ducts,

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cables, conduits, public utility lines and any other Common Areas and facilities located in any of the other units and serving his unit. Each unit shall be subject to an easement in favor of the owners of all other units to use pipes, ducts, cables, wires, conduits, public utility lines and any other Common Areas and facilities serving such other units and located in such unit.

The initial and subsequent Boards may grant or assume easements, leases or licenses for utility purposes for the benefit of the property, including the right to install, lay, maintain, repair and replace water lines, pipes, sewer lines, gas mains, telephone and television wires and equipment and electrical conduits, and wires over, under, along and on any portion of the units and/or Common Areas and facilities and limited Common Areas and facilities; and each unit owner hereby grants to the Board of Directors, or its designee, the irrevocable power of attorney to execute, acknowledge and record for or in the name of the Association or each unit owner such instruments as may be necessary to effectuate the foregoing.

In the event any portion of the Common Areas and facilities encroaches upon any unit, or any unit encroaches upon any other unit, or any unit encroaches upon the Common Areas and facilities, (whether the same now exists or may be caused or created by existing construction, settlement or movement of the buildings, or by permissible repairs, construction or alteration), a valid cross easement for any such encroachment, or encroachments, and maintenance of same is hereby created.

(25) Amendment of Declaration. This Declaration may be amended by the vote of at least 66 2/3% in common interest of all unit owners, cast in person or by proxy, at a meeting duly held in accordance with the provision of the By-Laws; provided, however, that the Developer shall have the right to amend this Declaration in accordance with the provisions set forth hereinabove pertaining to the construction of future phases of the condominium project. No such amendment shall be effective until duly and properly recorded in the Office of the Register of Deeds wherein this initial Declaration is recorded.

- (26) The provisions hereof shall be deemed independent and severable, and the invalidity or partial invalidity or unenforceability of any one provision or portion thereof as may be determined by a court of competent jurisdiction shall not affect the validity or enforceability of any provisions hereof.
- (27) No provisions contained in this Declaration shall be deemed to have been abrogated or waived by reason of any failure to endorce the same, irrespective of the number of violations or breaches which may occur.
- (28) The captions herein are inserted only as a matter of convenience and for reference, and in no way to define, limit or describe the scope of this Declaration nor the intent of any provision hereof.
- (29) This Declaration and the By-Laws attached hereto shall be construed and controlled by and under the laws of the State of North Carolina.

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IN WITNESS WHEREOF, the Declarant has caused this Declaration to be executed by its duly authorized officers and its corporate seal to be hereunto affixed and CHARLES S. LANIER, as Trustee, ROGER PAGE and M. F. BOSTIC; GEORGE COLEMAN, as Trustee and NATIONWIDE HOMES, INCORPORATED have hereunto set their hands and seals, this 30 day of June, 1980.

OPATHOLE STATE OF STA	NORTH TOPSAIL SHORES CONDOMINIUMS, INC.
CHARLES S. LANIER Trustee	ROGER PAGE
OSTIC PATTEST AND A 1 1 A	GEORGE COLEMAN, Trustee NATIONWIDE HOMES, INCORPORATE
Secretary	PHILIPT. LESTER, Vice President

STATE OF NORTH CAROLINA

COUNTY OF

do hereby certify that CHARLES S. LANIER, Trustee, personally appeared before me this day and acknowledged the due execution of the Region instrument for the purposes therein expressed.

Witness my hand and seal, this the 30% day of June,

My commission expires: 5/19/85

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STATE OF NORTH CAROLINA :
COUNTY OF Ouslaw:
I, Charles S. Lami.
, do hereby certify that personally came befor
me, Rolly Alkon, who, being by me duly sworn,
says that he is the President of NORTH TOPSAIL SHORES
CONDOMINIUMS, INC. and that the seal affixed to the foregoing
instrument in writing is the corporate seal of the said NORTH
TOPSAIL SHORES CONDOMINIUMS, INC., and that said writing was
signed and sealed by him or her, in behalf of said corporation,
by its authority duly given; and the said John Starling
acknowledge the said writing to be the act and
deed of said corporation.
WITNESS my hand and seal, this the
day of
My commission expires: 4/11/75
STATE OF NORTH CAROLINA :
COUNTY OF I. Charles Lame.
, do hereby certify that ROGER PAGE personally
appeared before me this day and acknowledged the due execution of
the foregoing instrument for the purposes therein expressed
witness my hand and seal, this the day of, 1980.
My commission expires:

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STATE OF NORTH CAROLINA :
COUNTY OF :
I. Barbara H. Roberts a Notary Public
do hereby certify that M. F. BOSTIC, personally appeared before me
this day and acknowledged the due execution of the foregoing
instrument for the purposes therein expressed.
Witness my hand and natural seal, this the 2007 is
of
My commission expires: 5/19/18 Bailous Million
STATE OF WORTH CAROLINA:
COUNTY OF HENRY
I, John W. Adams, Notary Poblic.
do hereby certify that GEORGE COLEMAN, Trustee, personally appeare
before me this day and acknowledged the due execution of the fore-
going instrument for the purposes therein expressed.
Witness my hand and seal, this the day
of June, 1980. My commission expires: 8-23-8/
STATE OF VIRGINIA : COUNTY OF HENRY :
do hereby certify that personally came before me; PHILIP T. LESTER , who, being by me dily sworn, says that he is the Vice President of NATIONWIDE HOMES, INCORPORATED, and that the seal affixed to the foregoing instrument in writing is the corporate seal of the said NATIONWIDE HOMES, INCORPORATED, and that said writing was signed and sealed by him or her, in behalf of said corporation, by its authority duly given; and the said PHILIP T. LEATER acknowledges the said writing to be the act and deed of said corporation.
day of June 1980.
My commission expires: 8-23-81
NORTH CAROLINA, Orshow County The foregoing certificate(p) of Barbara H. Roberts, Charles S. Lanier and John W. Adams
Notary (ico) Public EX (are) certified to be correct. This instrument was presented for registration and re- corded in this office in Book579 Page294 This9 day ofJuly
1880 A. D. at 3:36 A Scioch P. M. Transce Br. M. Republic of Deeds One

BOOK 579-AGE 313

EXHIBIT "A"

The Plans and Specifications for each unit of TOPSAIL REEF CONDOMINIUMS, prepared by Design Project, dated January 23, 1980, have been recorded in Unit Ownership and Condominium Book 1, Page 2 thru 2(f), Onslow County Registry, to which reference is made for a more full and complete description.

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EXHIBIT "B"

The proposed Plot Plan for TOPSAIL REEF CONDOMINIUMS, prepared by Cowan and Jones, P.A., dated January 10, 1980, has been recorded in Unit Ownership and Condominium Book 1, Page 1, Onslow County Registry, to which reference is had for a more full and complete description.

воок 579°ASE 315

EXHIBIT "C"

BUILDING A

		• .
UNIT NUMBER	FAIR MARKET VALUE	PERCENTAGE OF UNDIVIDED INTEREST
101	\$39,900	9
102	32,900	1.567
103	32,900	567
104	32,900	567
<u>-</u> 05	32,900	567
<u>-</u> 06	32,900	567
_07	a 32,900.	1.567
108	32,900	1.567
_09	32,900	567
110	39,900	9
÷		
201	39,900	9
202	32,900	567
203	32,900	567
204	32,900	567
205	32,900	567
206	32,900	567
207	32,900	1.567
208	32,900	1.567
209	32,900	567
210	39,900	9
301 -	39,900	9
302	32,900	1.567
303	32,900	1.567
304	32,900	567
305	32,900	567
306	32,900	567
307	32,900	567
308	32,900	567
309	32,900	1.567
310	39,900	9

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Exhibit "C" continued:

BUILDING B

	•	•
UNIT NUMBER	FAIR MARKET VALUE	PERCENTAGE OF UNDIVIDED INTEREST
	•	
111	\$42,900	2.043
2	33,900	6-4
113	33,900	1.614
, 114	33,900	6-4
115	33,900	1.614
116	33,900	1.6_4
117	33,900	1.6_4
8	33,900 ,	6-4
119	53,900	6_4
120	42,900	2.043
211	42,900	2.043
2_2	33,900	1.6.4
213	53,900	1.614
2_4	33,900	6_4
2_5	33,900	6_4
2_6	33,900	2.624
2'_7	33,900	1.614
2_8	33,900	6_4
2_9	33,900	1.614
220	42,900	2.043
311	42,900	2.043
312	33,900	1.6_4
313	33,900	614
314	33,900	1.614
315	33,900	1.614
3_6	33,900	1.614
317	33,900	2.624
318	33,900	1.614
319	33,900	1.614
320	42,900	2.043

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EXHIBIT D

BY-LAWS

0.7

TOPSAIL REEF HOMEOWNERS ASSOCIATION, INC.

ARTICLE I

NAME AND LOCATION

The name of the association is TOPSAIL REEF HOMEOWNERS
ASSOCIATION, INC., hereinafter referred to as the "Association". The
principal office of the Association shall be located at 114 Old
Bridge Street, Jacksonville, North Carolina, but meetings of
members and directors may be held at such places within the State
of North Carolina, County of Onslow, as may be designated by the
Board of Directors of the Association.

ARTICLE II

DEFINITIONS

- 1. "Association" shall mean and refer to TOPSAIL REEF HOME-OWNERS ASSOCIATION, INC., its successors and assigns.
- 2. "Common Areas" shall mean all real property owned as tenants in common by all the lot and unit owners and managed by the Association for the common use and enjoyment of said owners
- 3. "Owner" shall mean and refer to the record owner, whether one or more persons or entities, of the fee simple title to any unit which is a part of TOPSAIL REEF CONDOMINIUMS, including the Developer so long as any unit or units are still in its name, but excluding those having such interest merely as security for the performance of an obligation.
- 4. "Developer" shall mean and refer to those persons named in the initial Declaration of TOPSAIL REEF condominium projects as the declarants thereof and their neirs, successors and assigns for the purpose of further development of that property shown as the property of TOPSAIL REEF, in Map Book 20, at page 69, Onslow County Registry.
- 5. "Declaration" shall mean and refer to the Declaration and Covenants, Conditions and Restrictions of TOPSAIL REEF CONDOMINIUMS of record in the Office of the Register of Deeds of Onslow County, North Carolina.

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- 6. "Member" shall mean and refer to those persons entitled to membership in the Association by virtue of ownership of one or more units in TOPSAIL REEF CONDOMINIUMS.
- 7. "Unit" shall mean and refer to individual enclosed living spaces and accessory spaces and areas as defined in N.C.G.S. 47A-3(12), and the improvements situate thereon, excluding any land or improvements designated as Common Area.
- 8. "Assessment" shall mean and refer to a Member's share of the common expenses assessed against each unit by the Association in the manner provided for in the Declaration and these By-Laws.
- 9. "Development" means the entire undertaking pursuant to the Declaration and these By-Laws which shall commence with the filing of the Declaration and continue thereafter until terminated as provided for therein.

ARTICLE III

MEMBERSHIP AND PROPERTY RIGHTS

- 1. Every owner of a unit which is subject to assessment shall be a Member of the Association. Membership shall be appurtenant to and may not be separated from such ownership, with the ownership of each unit, whether owned jointly or singly, entitling the owner or owners thereof to one vote only in the Association per unit owned.
- 2. Each Member shall be entitled to the use and enjoyment of the Common Areas and facilities as provided in the Declaration; and any member may delegate his rights of enjoyment of the Common Area and facilities to the members of his family, his tenants, or contract purchasers who reside on the property. Such Member shall notify the Secretary of the Association in writing of the name of such delegates. The rights and privileges of such delegates are subject to suspens on to the same extent as those of the Member.

ARTICLE IV

MEETING OF MEMBERS

1. Annual Meetings. The first annual meeting of the Members of the Association shall be held within sixty (60) days

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from the day on which the management of the Common Areas of TOPSALL REEF CONDOMINIUMS is turned over from the Developer to the Association as provided in the Declaration. Each subsequent regular annual meeting of the Members shall be held on the same day of the same month of each year thereafter at such hour as is set by the Members. If the day for the annual meeting of the Members is a legal holiday, the meeting will be held at the same hour on the first day following which is not a legal holiday.

- 2. Special Meetings. Special meetings of the Members may be called at any time by the President of the Association or by the Board of Directors or upon written request of the Members entitled to vote one-fourth (1/4) of all the votes of the Association.
- 3. Notice of Meetings. Written notice of each meeting of the Members shall be given by, or at the direction of, the Secretary or person authorized to call the meeting, by mailing a copy of such notice, postage prepaid, at least fifteen (15) days before each meeting to each Member entitled to vote thereat, addressed to the Member's address last appearing on the books of the Association, or supplied by such Member to the Association for the purpose of notice. Such notice shall specify the place, day and hour of the meeting, and in the case of a special meeting, the purpose of the meeting. Waiver by a Member in writing of the notice required herein, signed by him before or after such meeting, shall be equivalent to the giving of such notice.
- 4. Quorum. The presence at the meeting of Members entitled to cast, or of proxies entitled to cast, fifty per cent (50%) of the votes of the Association shall constitute a quorum for any action except as otherwise provided in the Declaration or these By-Laws. If, however, such quorum shall not be present or represented at any meeting, the Members entitled to vote thereat shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum as aforesaid shall be present or be represented.
 - 5. Proxies. At all meetings of the Members, each vote

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may be cast in person or by proxy. All proxies shall be in writing and filed with the Secretary. Every proxy shall be revocable and shall automatically cease upon conveyance of his lot by the Member giving his proxy.

ARTICLE V

BOARD OF DIRECTORS

- Number. The affairs of the Association shall be managed by a Board of Five (5) Directors, who need not be Members of the Association.
- 2. Term of Office. At the first annual meeting the Members shall elect one (1) Director for a term of one year, two (2) Directors for a term of two years and two (2) Directors for a term of three years; and at each annual meeting thereafter the Members shall elect Directors for a term of three years to replace those whose terms have expired.
- 3. Removal. Any Director may be removed from the Board, with or without cause, by a majority vote of the Members of the Association. In the event of death, resignation or removal of a Director, his successor shall be elected by the remaining Members of the Board, and shall serve for the unexpired term of his predecessor.
- 4. <u>Compensation</u>. No Director shall receive compensation for any service he may render to the Association. However, any Director shall be reimbursed for his actual expenses incurred in the performance of his duties; provided, however, the Board may employ a Director to manage the business affairs of the Association, and pay the Director for his services as Manager.
- 5. Action Taken Without a Meeting. The Directors shall have the right to take any action in the absence of a meeting which they could take at a meeting by obtaining the written approval of all the Directors. Any action so approved shall have the same effect as though taken at a meeting of the Directors.

ARTICLE VI

NOMINATION AND ELECTION OF DIRECTORS

1. Nomination. Nomination for election to the Board

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of Directors shall be made by a Nominating Committee. Nominations may also be made from the floor at the annual meeting. The Nominating Committee shall consist of a Chairman, who shall be a Member of the Board of Directors, and two or more Members of the Association. The Nominating Committee shall be appointed by the Board of Directors prior to each annual meeting of the Members, to serve from the close of such annual meeting until the close of the next annual meeting and such appointment shall be announced at each annual meeting. The Nominating Committee shall make as many nominations for election to the Board of Directors as it shall in its discretion determine, but not less than the number of vacancies that are to be filled. Such nominations may be made from among Members or non-Members.

2. <u>Election</u>. Election to the Board of Directors shall be by secret written ballot. At such election, the voting Members, or their proxies may cast one (1) vote for each vacancy. The persons receiving the largest number of votes shall be elected. Cumulative voting is not permitted.

ARTICLE VII

MEETING OF DIRECTORS

- 1. Regular Meetings. Regular meetings of the Board of Directors shall be held monthly without notice, at such place and hour as may be fixed from time to time by resolution of the Board. Should said meeting fall upon a legal holidy, then that meeting shall be held at the same time on the next day which is not a legal holiday; provided, however, that if the Board shall agree to meet on such legal holiday any action taken by it shall be valid and binding.
- 2. Special Meetings. Special meetings of the Board of Directors shall be held when called by the President of the Association, or by any two (2) Directors, after not less than three (3) days notice to each Director.
- 3. Quorum. A majority of the number of the Directors shall constitute a quorum for the transaction of business. Every act done or decision made by a majority of the Directors present at a duly held meeting at which a quorum is present shall be regarded as the act of the Board.

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ARTICLE VIII

POWERS AND DUTIES OF THE BOARD OF DIRECTORS

- Powers. The Board of Directors shall have the power to:
- (a) adopt and publish rules and regulations governing the use of the Common Areas and facilities, and the personal conduct of the Members and their guests thereon, and to establish penalties for the infraction thereof;
- (b) suspend the voting rights and right to use of the recreational facilities of a Member during any period in which such Member shall be in default in the payment of any assessment levied by the Association. Such rights may also be suspended, after notice of hearing, for a period not to exceed sixty (60) days for infraction of published rules and regulations;
- (c) exercise for the Association all powers, duties and authority vested in or delegated to this Association and not reserved to the membership by other provisions of these By-Laws, the Articles of Incorporation, or the Declaration;
- (d) declare the office of a Member of the Board of Directors to be vacant in the event such member shall be absent from three (3) consecutive regular meetings of the Board of Directors;
- (e) employ a manager, an independent contractor, or such other employees as they deem necessary, and to prescribe their duties; and
- (f) employ attorneys, accountants or other professional personnel to represent and assist the Association when deemed necessary.
- <u>Duties</u>. It shall be the duty of the Board of Directors .
- (a) cause to be kept a complete record of all its acts and corporate affairs and to present a statement thereof to the Members at the annual meeting of the Members, or at any special meeting when such statement is requested in writing by one-fourth (1/4) of the Members entitled to vote;

- (b) supervise all officers, agents and employees of the Association, and to see that their duties are properly performed;
- (c) to fix the amount of assessment and the manner of payment thereof against each lot and unit in accordance with the terms of the Declaration and to send written notice of any change in assessment or manner of payment of same to every Owner subject thereto at least thirty (30) days in advance of such assessment payment period;
- (d) foreclose the lien against any property for which assessments are not paid within thirty (30) days after due date or to bring an action at law against the owner personally obligated to pay the same;
- (e) issue, or to cause an appropriate officer to issue, upon demand by any person, a certificate setting forth whether or not any assessment has been paid. A reasonable charge may be made by the Board for the issuance of these certificates. If a certificate states an assessment has been paid, such certificate shall be conclusive evidence of such payment;
- (f) procure and maintain adequate liability insurance covering Members' liability for the Common Areas and facilities and to procure and maintain adequate hazard insurance on all the real property with the TOPSAIL REEF condominium development, including individual units as well as that property owned jointly by the members;
- (g) act as insurance trustees in the collection and disbursement of hazard insurance proceeds, as provided for in the Declaration:
- (h) cause all officers or employees having fiscal responsibilities to be bonded, as it may deem appropriate;
- (_) maintain or cause to be maintained the Common Areas and facilities and the exterior of the units, in accordance with the terms of the Declaration.

ARTICLE IX

OFFICERS AND THEIR DUTIES

1. Enumeration of Officers. The officers of this
Association shall be a President and Vice President, who shall at

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all times be Members of the Board of Directors, a Secretary, and a Treasurer, and such other officers as the Board may from time to time by resolution create.

- 2. Election of Officers. The election of officers shall take place at the first meeting of the Board of Directors following each annual meeting of the Members.
- 3. Term. The officers of this Association shall be elected annually by the Board and each shall hold office for one (1) year unless he shall sooner resign, or shall be removed, or otherwise disqualified to serve.
- 4. <u>Special Appointments</u>. The Board may elect such other officers as the affairs of the Association may require, each of whom shall hold office for such period, have such authority, and perform such duties as the Board may, from time to time, determine.
- 5. Resignation and Removal. Any officer may be removed from office with or without cause by the Board. Any officer may resign at any time giving written notice to the Board, the President or the Secretary. Such resignation shall take effect on the date of the receipt of such notice or at any later time specified therein, and unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.
- 6. <u>Vacancies</u>. A vacancy in any office may be filled by appointment by the Board. The officer appointed to such vacancy shall serve for the remainder of the term of the officer he replaces.
- 7. <u>Multiple Offices</u>. The offices of Secretary and Treasurer may be held by the same person. No person shall simultaneously hold more than one of any of the other offices except in the case of special offices created pursuant to Section 4 of this Article.
 - Duties. The duties of the officers are as follows:
 President
- (a) The President shall preside at all meetings of the Board of Directors; shall see that orders and resolutions of the Board are carried out; shall sign all leases, mortgages, deeds and other written instruments and shall co-sign all checks and promissory notes.

Vice-President

(b) The Vice-President shall act in the place and stead of the President in the event of his absence, inability or refusal to act, and shall exercise and discharge such other duties as may be required of him by the Board.

Secretary

(c) The Secretary shall record the votes and keep the minutes of all meetings and proceedings of the Board and of the Members; keep the corporate seal of the Association and affix it on all papers requiring said seal; serve notice of meetings of the Board and of the Members; keep appropriate current records showing the Members of the Association together with their addresses, and shall perform such other duties as required by the Board.

Treasurer

(d) The Treasurer shall receive and deposit in appropriate bank accounts all monies of the Association and shall disburse such funds as directed by resolution of the Board of Directors; shall sign all checks and promissory notes of the Association; keep proper books of account; cause an annual audit of the Association books to be made by a public accountant at the completion of each fiscal year; and shall prepare an annual budget and a statement of income and expenditures to be represented to the membership at its regular annual meeting, and deliver a copy of each to the Members.

ARTICLE X

COMMITTEES

The Board of Directors shall appoint a Nominating

Committee and such other committees as may be deemed appropriate
in carrying out its purpose.

ARTICLE XI

BOOKS AND RECORDS

The books, records and papers of the Association shall at all times, during reasonable business hours, be subject to inspection by any Member. The Declaration, the Articles of Incorporation and the By-Laws of the Association shall be available

BOOK 579 PAGE 326

for inspection by any Member at the principal office of the Association, where copies may be purchased at a reasonable cost.

ARTICLE XII

ASSESSMENTS

As more fully provided in the Declaration, each Member is obligated to pay to the Association such sums as are assessed against the Members under the terms of said Declaration, which assessments are secured by a continuing lien upon the property against which the assessment is made. Any assessments which are not paid when due shall be deemed delinquent. If the assessment is not paid within thirty (30) days after the due date, the assessment shall bear interest from the date of delinquency at the rate of six per cent (6%) per annum, and the Association may bring an action at law against the Owner personally obligated to pay the same or foreclose the lien against the property, with costs of such action, including reasonable attorney's fees, to be added to the amount of such assessment. No Owner may waive or otherwise escape licbility for the assessments provided for herein by non-use of the Common Area or abandonment of his lot or unit.

ARTICLE XIII

AMENDMENTS

- 1. These By-Laws may be amended at a regular or special meeting of the Members by a vote of a majority of a quorum of Members present in person or by proxy.
- In the case of any conflict between the Declaration and these By-Laws, the Declaration shall control.

ARTICLE XV

FISCAL YEAR

The fiscal year of the Association shall begin on the first day of January and end on the 31st day of December of every year, except that the first fiscal year shall begin on the date on which the Declaration and these By-Laws are filed for record in the Office of the Register of Deeds of Onslow County.

IN WITNESS WHEREOF, NORTH TOPSAIL SHORES CONDOMINIUMS, INC., being, as of the date hereof, the owner of all the property constituting a condominium project known as TOPSAIL RE3F

CONDOMINIUMS, does hereby adopt the foregoing as the initial

BOOK \$79°AGE 327

By-Laws of TOPSAIL REEF HOMEOWNERS ASSOCIATION, INC. and has affixed its hand and seal this $\underline{23\text{rd}}$ day of June, 1980.

NORT TOPSAIL SHORES CONDOMINIUMS, INC.

ATTEST: TALEST Sedretary

By Bobby & Via

STATE OF NORTH CAROLINA

COUNTY OF

COUNTY OF
I, Charles S Louis
, do hereby certify that personally came before
me, boshy Accomp, who, being by me duly sworn
says that he is the President of NORTH TOPSAIL SHORES
CONDOMINIUMS, INC. and that the seal affixed to the foregoing
instrument in writing is the corporate seal of the said NORT i
TOPSAIL SHORES CONDOMINIUMS, INC., and that said writing was
signed and sealed by him or her, in behalf of said corporation,
by its authority duly given; and the said John Starling
acknowledge the said writing to be the act and deed
of said corporation.
WITNESS my hand and seal, this them ?
day of July , 1980.
Clark J. Ko
My commission expires:
4/14/85

37

ATTACHMENT K VR 14-11 Page 73

B129 102

600x 567pm 764

THIS PRESENTED
TO TAK OFFICE
DATE DAY 2 1879

NORTH CAROLINA

ONSLOW COUNTY

WARRANTY DEED

THIS DEED made and entered into this 20 day of December, 1979, by M.F. Bostic and wife, Frances Rostic of Duplin County, North Carolina and Roger Page, Jr., and wife, Doris B. Page, of Forsyth County, North Carolina, parties of the first part; and North Topsail Shores Condominiums, Inc., a North Carolina Corporation with its principal office in Pitt County, North Carolina, party of the second part;

WITNESSETH

That said parties of the first part for and in consideration of Ten (\$10.00) Dollars and other valuable considerations to them paid by the said party of the second part, the receipt of which is hereby acknowledged, have bargained and sold and by these presents do pargain, sell and convey to said party of the second part, its heirs and assigns a certain tract or parcel of land in Township, Onslow County, State of North Carolina, bounded as follows, viz:

Being all of Lots 7 and 8 as shown on plat entitled Topsail Reef, North Topsail Shores, dated December 10, 1979, prepared by Cowan and Jones, P.A., Registered Land Surveyors, and recorded in Map Book 20, Page 69, Onslow County Registry.

This being all of Lots 32 - 42, and a portion of Lots 29 and 30, as shown on plat entitled North Topsail Shores, Block A, Phase II, recorded in Map Book 20, Page 15, Onslow County Registry.

STAMPS \$50.00

Subject to easements appearing of record and on record-



ed maps, also subject to Restrictive Covenants appearing of record. TO HAVE AND TO HOLD the aforesaid tract or parcel of

land and all appurtenances thereto belonging to the said party of the second part, its heirs and assigns in fee simple, forever.

And the said parties of the first part for themselves and their heirs, assigns, executors and administrators, covenant with said party of the second part, its heirs and assigns, that they are neized of said premises in fee and have the right to convey the same in fee simple; that the same are free and clear from all encumbrances, and they will warrant and defend the said title to the same against the lawful claims of all persons whom-soever.

IN TESTIMONY WHEREOF, the said parties of the first part have hereunto set their hands and seals the day and year first above written

oger page, Jr

Sores hilage Grances Bostic

Doris B. Page

800X 567 PAGE 765

STATE OF NORTH CAROLINA: COUNTY OF ONSLOW:

I, PANI ONIES Joves , Notary Public in and for said County and State do hereby certify that M.F. Bostic and wife, Frances Bostic, personally appeared before me this day and duly acknowledged the execution of the foregoing Deed of Conveyance.

Witness my hand and Notarial seal this the of liday of December, 1979.

Notary Public

My commission expires:

STATE OF NORTH CAROLINA COUNTY OF FORSYTH

I, Paul Onlies Jones , Notary Public in and for said County and State do hereby certify that Roger Page, Jr., and wife, Doris B. Page, personally appeared before me this day and acknowledge the due execution of the foregoing Deed of Conveyance.

Witness my hand and NOtarial sea, this the 20 day of December, 1979.

Notary Public

My commission expires: //-/6-80

NORTH CAROLINA, ONSLOW COUNTY Par The foregoing certificate(s) of

Paul Dallas Jones

Notary(ies) Public is (are) certified to be correct. This instrument was presented for registration and corded a this office in Book 567. Page 764. This 21 day of December

ook 567 Page 764

Register of Dees

VR 14-11 Page 75

Prepared by: CHARLES S. LANIER, ESO. BOOK 585 573

10-12 to Eq.

B1203

35 OI NA US 130 OD"

a North Carolina Corporation with its

principal office located in Onslow

County, North Carolina

Excise	TAX DONL	Recording Time, Book and Page
Verified by	County on	Parcel Identifier No. the day of
Mail after recording to N	ORTH TOPSAIL SHORES C	CONDOMINIUMS, INC., 1131 Gum Branch
This instrument was prepared	by CHARLES S. LANIER	R, ESQ.
This instrument was prepared Brief description for the Index	Lot 6, Topsail	R, ESQ. Reef, North Topsail Shores
This instrument was prepared Brief description for the Index	Lot 6, Topsa:1 CAROLINA GENI	R, ESQ

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.q. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain but or parcel of land situated in the City of . Stump Sound Township,

Onslow

of Duplin County, North Carolina, and

ROGER PAGE, JR. and wife, DORIS B. PAGE of Forsyth County, North Carolina

County, North Carolina and more particularly described as follows:

Being all of Lot 6 as shown on plat entitled "Topsail Reef, North Topsail Shores", prepared by Cowan and Jones, P.A. Registered Land Surveyors, said plat being recorded in Map Book 20, Page 69, Onslow County Registry.

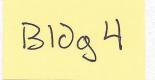
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A map showing the above described property is recorded in Plut Book page
TO HAVE AND TO HOLD the efforms let or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.
And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title ic marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated. Title to the property hereinabove described is subject to the following exceptions:
IN WITNESS WHEREOF, the Grantor has bereunte set his hand and seal or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunte officed by sutherized of Directors, the day and year first above written.
H/ / / Solta
(Corporato Namo) M. F. BOSTIC (GEAL)
871
FRANCES W. BOSTIC (BEAL)
ATTERET. Fresident FRANCES W. BOSTIC
ATTEST: O TIME (SEAL)
Geretary (Corporate Seal) & Loric B. Fage (SEAL)
BEAC STAMP NOITH CAROLINA, On County,
I a Notary Public of the County and State aforesaid, certify that
10: 0 * * . 10 . A M. F. BOSTIC and wife FRANCES W ROSTIC
g personally appeared before me this day and acknowledged the execution of the foregoing instrument, Witness my
and and official stamp or seal, this 7th day of Careet
8/25/85 Cd. C. C. I.
My commission expires: 0/23/33 Connect Cf Charactery Public
BEALSTAMP NOOTH CAROLINA, FASYTA County.
I, a Notary Public of the County and State aforesaid, certify that ROGER PAGE, JR. and wife,
DORIS B. PAGE periodily time before me this day and acknowledged MMX. NXX.
Line execution of warkenmankenmankenmankenmankenmankenmankenmankenmankenmankenmankenmankenmankenmankenmankenma
B Productions and are also as a second and a
Wilcos my hand and official stemp or seal, thisday of
My commission expires: Attitories lb, 1881 tares Matthe Miller Notary Public
The foregoing Certificate(s) of Carol A. Camburn and Paul Dallas Jones
000000000000000000000000000000000000000
is/age certified to be correct. This instrument and this cortificate are duly registered at the date and time and in the Book and Page shown on the
1.00.00
ANALY M ATTIMACE OF DEEDS FOR ONS LOW
By
N.C. Bar Assoc. Form No. 3 © 1970, Berlind 1977.

Prepared by: CHARLES S. LANIER, ESQ

VR 14-11 Page 77

JUNK 586 PAGE 577

CAMMIOND COLLINS



280 OCT 20 AH 10 26

Excise Tax / Inc	Recording Time, Book and Page
	Parcel Ident fler No.
Verified by County on	the day of
by	
	CONDOMINIUMS, INC., 1131 Gum Branch
This instrument was prepared by CHARLES S. LANIE	R, ESQ
Brief description for the Index Lot 5. Copsai	l Reef. North Topsail Shores
	ERAL WARRANTY DEED
THIS DEED made this 7 day of August	, 1980 , by and between
GRANTOR	CRANTEE

M. F. BOSTIC and wife, FRANCES W. BOSTIC of Duplin County, North Carolina, and ROGER PAGE, JR. and wife, DORIS B. PAGE of Forsyth County, North Carolina

NORTH TOPSAIL SHORES CONDOMINIUMS, INC. a North Carolina Corporation with its principal office located in Onslow County, North Carolina

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.q. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, musculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of Stump Sound Township,

Onslow

County, North Carolina and more particularly described as follows:

Being all of Lot 5 as shown on plat entitled "Topsail Reef, North Topsail Shores", prepared by Cowan and Jones, P.A. Registered Land Surveyors, said plat being recorded in Map Book 20, Page 69, Onslow County Registry.

N.U. Bar Assor Form: No. 3 C 1976, Revised 1977.

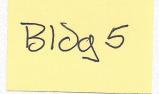
BOOK 586 PAGE 578

man shoules the star to	
	ocribed property is recorded in Plat Book
e Grantee in fee simple.	the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to
e same in fee simple, that fend the title against the la	with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey title is marketable and free and clear of all encumbrances, and that Grantor will warrant and wful claims of all persons whomsoever except for the exceptions hereinafter stated. bove described is subject to the following exceptions:
Pronic Doerot Doerot gral-orange	PROMERS W. BOSTIC FRANCES W. BOSTIC FRANCES W. BOSTIC ROGER PAGE, GR. LOTY (Corporate Scal) DORIS B. PAGE County A. Notary Public of the County and State aforesaid, certify that M. F. BOSTIC and wife FRANCES W. BOSTIC Granter,
	personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this 2 this day of the foregoing instrument. Witness my hand and official stamp or seal, this 2 this day of the foregoing instrument. Witness my hand and official stamp or seal, this 2 this day of the foregoing instrument. Witness my hand and official stamp or seal, this 2 this day of the foregoing instrument. Witness my hand and official stamp or seal, this 2 this day of this day of the foregoing instrument. Witness my hand and official stamp or seal, this 2 this day of the foregoing instrument. Witness my hand and official stamp or seal, this 2 this day of the foregoing instrument. Witness my hand and official stamp or seal, this 2 this day of the foregoing instrument.
SEAL-STAMP	NOITH CAROLINA, FORSE County and State aforcasid, certify that ROGER PAGE, IR. and wiff DORI'S B. PAGE PERCOLLY COUNTY. I. a Notary Public of the County and State aforcasid, certify that ROGER PAGE, IR. and wiff DORI'S B. PAGE PERCOLLY Care before me this day and arknowledged NAX. RKN EXPLICIT THE COUNTY OF
(r. 11° _{ce})	
(r. 11° _{ce})	Arol A. Camburn and Paul Dallas Jones
(r. 11° _{ce})	

BOOK 596 PAGE 514

THIS PRESTORED TO TAX OFFICE

DATE Mul 24 10 81 CRAWFORD COLLINS VM



Prepared by: LANIER & FOUNTAIN, ESQS.

'81 HAR 24 PH 4 43

Excise Tax	Recording Time, Book and Page
Verified by County	on the day of, 19
Mail after recording to	
Driet description for the Index	ESQS., 114 Old Bridge St., Jacksonville, N.C. 285
NORTH CAROLINA GEN	NERAL WARRANTY DEED
THIS DEED made this .23' day ofMarch	
GRANTOR	GRANTEE '
M. F. BOSTIC and wife, FRANCES W. BOSTIC of Duplin County, North Carolina and ROGER PAGE, JR. and wife, DORIS B. PAGE of Forsyth County, North Carolina	NORTH TOPSAIL SHORES CONDOMINIUMS, INC., a North Carolina corporation with its principal office located at 1131 Gum Branch Road, Jacksonville, North Carolina 28540

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.q. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of Stump Sound Township,

.. County, North Carolina and more particularly described as follows:

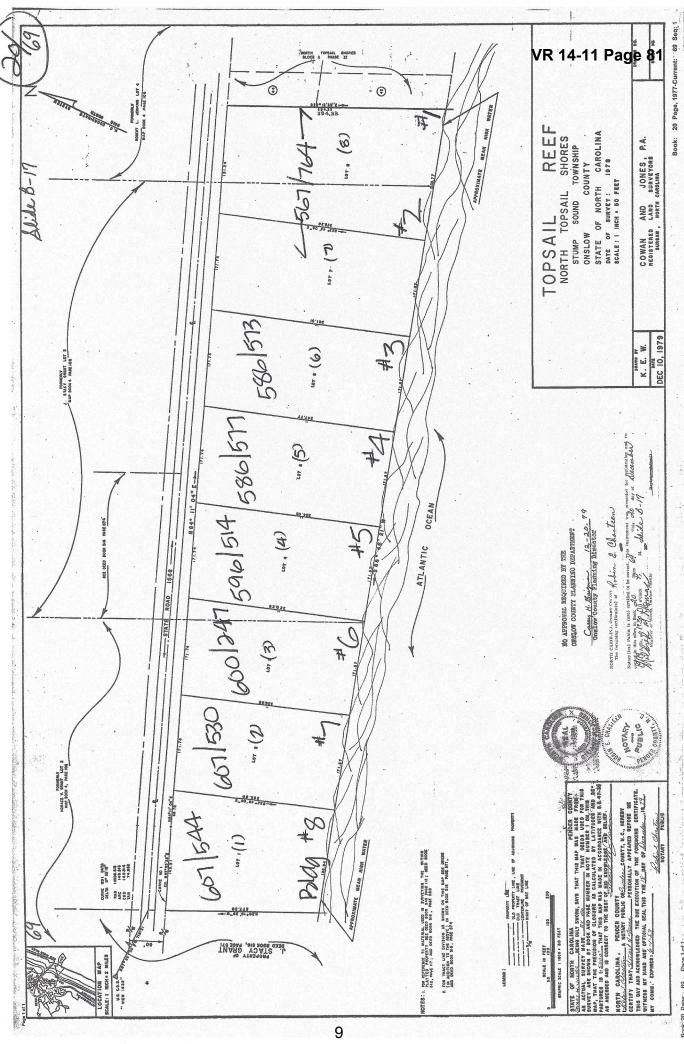
Being all of Lot 4 as shown on plat entitled "Topsail Reef, North Topsail Shores", prepared by Cowan and Jones, P.A., Registered Land Surveyors, said plat being recorded in Map Book 20, Page 69, Onslow County Registry.

N.C. Bar Assoc. Form No. 3 O 1976, Revised 1977.

800K 596 PAGE 515

The property hereinabove	described was acquired by Grantor by instrument recorded in
	lescribed property is recorded in Plat Book
TO HAVE AND TO HOLE the Grantee in fee simple.	to the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to
the same in fee simple, the defend the title against the	s with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey at title is marketable and free and clear of all encumbrances, and that Grantor will warrant and lawful claims of all persons whomsoever except for the exceptions hereinafter stated. nabove described is subject to the following exceptions:
•	
	he Grantor has hereunto set his hand and seal, or if corporate has caused this instrument to be signed in its orised officers and its seal to be hereunto affixed by authority of its Egard of Directors, the day and year first
(Corp	orate Name) M. J. BOSTIC
ну:	TRANCES W. BOSTIC Bastic (BEAL)
ATTEST:	the little was a second of the little was a seco
ALTEST:	ROGER PAGE, JR
	retary (Corporate Seal)
SEAL-STAMP.	NORTH CAHOLINA, Callesse County.
	I, a Notary Public of the County and State aforesaid, certify that M. F. BOSTIC and Wife, FRANCES W. BOSTIC Dersonally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this 23 day of March My commission expires: 5/25/55 Carol Q. Caraltstand Notary Public
SEAL-STAMP	NORTH CAROLINA, FOTSYth County.
P. e. Hillion	1, a Notary Public of the County and State aforesaid, certify that ROGER PAGE, JR. & DORIS B. PAGE personally came before me this day and acknowledged the COUNTY C
The foregoing Certificate(s) of	Carol A. Camburn and Paul Dallas Jones

1 . 0 0 . 0	Is Instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the Onslow County
N.C. Har Assoc. Form No. 3 @ 197	i, Revised 1977.



3ook: 20 Page: -- 69 -- Page 1-of-1 --

	fd-7	BOOK GCO PAGE 247 DATE 5 - 20 199 CRAWFORD COLLINS
	Blog G)
Exels	e Tax Average	'81 MAY 20 PM 4 00
Tax Lot No	,	Parcel Identifier No.
	by LANIER & FOUNTAIN, E	SQS., 114 Old Bridge St., Jacksonville, N.C. 28540
NORTH	CAROLINA GEN	JERAL WARRANTY DEED
		, 1981 , by and between
	NTOR	GRANTEE
M. F. BOSTIC and wife, of Duplin County, Nort ROGER PAGE, JR. and wi of Forsyth County, Nor	h Carolina and fe, DORIS B. PAGE	NORTH TOPSAIL SHORES CONDOMINIUMS, INC., a North Carolina corporation with its principal office located at 1131 Gum Branch Road, Jacksonville, North Carolina 28540

Dronaved hus LANTED's PCINTAIN PCOC

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.q. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

Onslow

County, North Carolina and more particularly described as follows:

Being all of Lot 3 as shown on plat entitled "Topsail Reef, North Topsail Shores", prepared by Cowan and Jones, P.A., Registered Land Surveyors, said plat being recorded in Map Book 20, Page 69, Onslow County Registry.

N.C. Bar Amer. Form No. 3 v 1976, Revised 1977.

BOOK GOO PAGE 248

www.ness.wierness.com.com.com.com.com.com.com.com.com.com	HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to Grantee in fee simple. the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and and the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated.
THREES WHERROY, the Ornster has bereinted as the hind and real, or it corporate, has advanced the intermentation of the stage of the property hereinabove described is subject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as abject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as abject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as abject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as abject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as abject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as abject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as abject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as abject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as abject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as abject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as abject to the following exceptions: IN WITNESS WHERROY, the Ornster has bereinted as a breath of the following exceptions: IN WITNESS WHERROY, the Ornster has abject to the following exceptions: IN WITNESS WHERROY, the Ornster has abject to the following exceptions: IN WITNESS WHERROY, the Ornster has abject to the following exceptions: IN WITNESS WHERROY, the Ornster has abject to the following exceptions: IN WITNESS WHERROY, the Ornster has abject to the following exceptions: IN WITNESS WHERROY, the Ornster has abject to the following except the following exce	the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and end the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated.
(Corporate Name) REAL STAINS DORIGHAM NORTH CAROLINA. OUR DORIGHAM A. R. POSTIC And Wife, FRANCES W. BOSTIC La Notary Public of the County and State aforesaid, certify that NORTH CAROLINA. Personalty appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this ATA day of Nay NORTH CAROLINA. PERSTER AND NORTH CAROLINA. PERSONAL AND NORTH CAROLINA. PERSONAL STAMP I, a Notary Public of the County and State aforesaid, certify that NORTH CAROLINA. POSTIC And Wife, FRANCES W. BOSTIC North CAROLINA, FORESTAL And Acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this ATA day of Nay PERSONAL CAROLINA. POSTIC AND WITNESS W. BOSTIC Notary Public PUBLIC SEAL-STAINS Notary Public Notary Fublic Notary Fublic PROCEDURO COCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCO	
(Corporate Name) REAL STAINS DORIGHAM NORTH CAROLINA. OUR DORIGHAM A. R. POSTIC And Wife, FRANCES W. BOSTIC La Notary Public of the County and State aforesaid, certify that NORTH CAROLINA. Personalty appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this ATA day of Nay NORTH CAROLINA. PERSTER AND NORTH CAROLINA. PERSONAL AND NORTH CAROLINA. PERSONAL STAMP I, a Notary Public of the County and State aforesaid, certify that NORTH CAROLINA. POSTIC And Wife, FRANCES W. BOSTIC North CAROLINA, FORESTAL And Acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this ATA day of Nay PERSONAL CAROLINA. POSTIC AND WITNESS W. BOSTIC Notary Public PUBLIC SEAL-STAINS Notary Public Notary Fublic Notary Fublic PROCEDURO COCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCOCCO	
President President ROER FAGE, JR. BEAL STRING. NORTH CAROLINA. ODSIGN E. PAGE North CAROLINA. North Caro	IN WITNESS WHEREOF, the Granter has hereunte set his hind and real, or if corporate, has paused this instrument to be signed in its porate name by its duly authorized efficers and its seal to be hereunte affixed by authority of its moard of directors, the day and year first was written.
I, a Notary Public of the County and State aforesaid, certify that Me. F., BOSTIC and wife FRANCES W. BOSTIC Grantor, Me. F., BOSTIC and wife FRANCES W. BOSTIC Grantor, Me. F., BOSTIC and wife FRANCES W. BOSTIC Grantor, May 1981 Notary Public of the County and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this And and official stamp or seal, this And and official stamp or seal, this And and acknowledged accorded a	President FRANCES W. BOSTIL Bactice (SEAL) ROSER PAGE, JR. (SEAL) Becretary (Corporate Seal) DORUS B. PAGE
I, a Notary Public of the County and State aforesaid, certify that ROGER PAGE, JR. & DORIS B. PAGE personally came before me this day and acknowledged \$000000000000000000000000000000000000	I, a Notary Public of the County and State aforesaid, certify that M. F., BOSTIC and Wife, FRANCES W. BOSTIC personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this Aday of May 1881
Wildred M Romace REGISTER OF DEEDS FOR ODS LOW	I, a Notary Public of the County and State aforesaid, certify that ROGER PAGE, JR. & DORIS B. PAG personally came before me this day and acknowledged \$2200000000000000000000000000000000000
Wildred M Romace REGISTER OF DEEDS FOR ODS LOW	foregoing Certificate(s) of .Carol. ACarburn and Paul. Dallas Jones
Deputy/Assistant - Register of Deeds	
	Deputy/Assistant - Register of Deeds

c. Larier

BOOK 607 PAGE 530

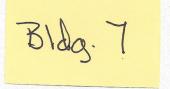
VR 14-11 Page 84

THIS PRESENTED

TO TAX OFFICE

DATE Sept 3 1981

CRAWFORD COLLINS VM



'81 SEP 3 AH 11 31

	•
Excise Tax Mari	Recording Time, Book and Page
Cour	Parcel Identifier No
Mail after recording to	
This instrument was prepared by LANIER & FOUNTAIN	N, ESQS., 114 Old Bridge St., Jacksonville, N.C. 2854 mi. Reef, N. Topsail Shores
NORTH CAROLINA G	ENERAL WARRANTY DEED
THIS DEED made thin 31 ST. day of August	
GRANTOR	GRANTEE
M. F. BOSTIC and wife, FRANCES W. BOSTIC of Duplin County, North Carolina and ROGER PAGE, JR. and wife, DORIS B. PAGE of Forsyth County, North Carolina	NORTH TOPSAIL SHORES CONDOMINIUMS, INC., a North Carolina corporation with its principal office located at 1131 Gum Branch Road, Jacksonville. North Carolina 28540

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.q. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

.....Onslow County, North Carolina and more particularly described as follows:

Being all of Lot 2 as shown on plat entitled "Topsail Reef, North Topsail Shores", prepared by Cowan and Jones, P.A., Registered Land Surveyors, said plat being recorded in Map Book 20, Page 69, Onslow County Registry.

N.C. Bar Assoc. Form No. 3 3 1916, Revised 197

11(1G.200 BOOK 607 PAGE 531

The property hereinabove described was acq	Stand has Garage	No. do. d			

	*************************		***********	********	***************************************
A map showing the above described property	is recorded in Pl	at Book	p	age	
TO HAVE AND TO HOLD the aforesaid lot the Grantee in fee simple.	or parcel of land	and all privile	eges and appur	tenances thereto	belonging to
And the Grantor covenants with the Grante the same in fee simple, that title is marketal defend the title against the lawful claims of a Title to the property hereinabove described i	ble and free and a	clear of all encu	imbrances, and	shad Manusam will	has become
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IN WITNESS WHEREOF, the Grantor has here experience name by its duly authorized officers and its bove written.	unto set his hand a	affixed by author	purate, has caused	this instrument to i	be signed in its
Bove written.		-hill	1	- Directors, the day	and year strat
(Corporate Name)		- LII	12001	1	(8RAL)
· (Corporate Name)		M. F. BOST	1C ·		
y:	Z.	France.	0 St. 18	actie	
President	5	FRANCES W.	BOSTICI	***************************************	(BKAL) ·
TTEST:	5	jrl .	Will		1 11
	SEBLAC	ROGER PAGE	100		(SEAL) .
		72	1 1)	
Secretary (Corporate Scal)	- ES	Darie	UMZ	900	/890.23
SEAL STAMP NORTH CAROLINA.	Onslow	DORIS B. P.	AGE unty,	/	enganas (DARIs).
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he foregoing Certificate(s) ofCarol_A_Ca	waura_ana_P	auluallas	Jones		**********
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are certified to be correct. This instrument and this	certificate are duly	registered at the A	tle and time and t	n the Snot and F	seatarrarara
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my war !! howard	RE	GISTER OF DEED	s FOROn	slow	COUNTY .
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N.C. Bar Asioe. Form No. 3 @ 1978, Revised 1977. - Printed by Edwards Brothers, Inc. Carolina.

c. Hairier



- 800K 607 PAGE 544

VR 14-11 Page 86
TO TAX OFFICE
DATE 14-13 18 //
CRAWFORD COLLINS VM

'81 SEP 3 AM 11 31

	Of an
Excise Tax ALTH	Recording Time, Book and Page
Tax Lot No.	
Verified by County	on the day of
by	
This instrument was prepared by IANIER & FOUNTAIN,	ESQS., 114 Old Bridge St., Jacksonville, N.C. 285
Brief description for the Index Lot 1, Topsail	1 Reef, N. Topsail Shores
	NERAL WARRANTY DEED
THIS DEED made this 3, 5 day of August	19 81 , by and between
GRANTOR	GRANTEE
of Duplin County, North Carolina and ROGER PAGE, JR. and wife, DORIS B. PAGE of Forsyth County, North Carolina	a North Carolina corporation with its principal office located at 1.31 Gum Branch Road, Jacksonville, North Carolina 28540
	•
Enter in appropriate block for each party: name, address, and, if	appropriate, character of entity, e.g. corporation or partnership.
shall include singular, plural, masculine, feminine or neu	
acknowledged, has and by these presents does grant, bas	leration paid by the Grantee, the receipt of which is hereby rgain, sell and convey unto the Grantee in fee simple, all that
certain lot or parcel of land situated in the City of	Stump Sound Township, nore particularly described as follows:
Being all of Lot 1 as shown on plat entitled Cowan and Jones, P.A., Registered Land Survey Page 69, Onslow County Registry.	"Topsail Reef, North Topsail Shores", prepared by yors, said plat being recorded in Map Book 20,

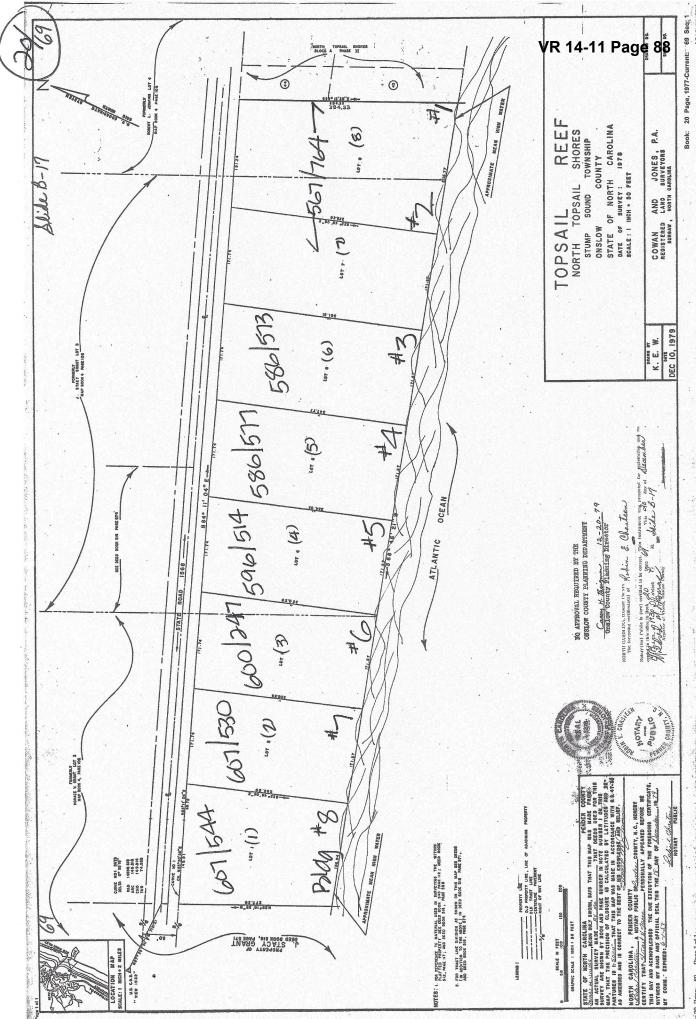
N.C. Bar Amee. Form No. 1 D 1976, Revised 1977

BOOK 607 PAGE 545

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A map showing the above described property is recorded in Plat Book	long ng to
And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will we defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated. Title to the property hereinabove described is subject to the following exceptions:	
	:
IN WITNESS WHENCE the Contract	•
IN WITNESS WHEREOF, the Granter has becounte set his band and seal, or it corporate, has racased this instrument to be a corporate name by its duly authorized officers and its seal to be hereunte affixed by authorized of its mark of Directors, the day an	igned in its d year first.
(Corporate Name) M. F. BOSTIC	(SEAL)
President FRANCES W. BOSTIC A	(SRAL)
President	•
100 to 162 fr	(SRAL)
ROGER PAGE, JR, (//)	
Secretary (Corporate Seal)	(CDAL)
SEAL-STAMP NORTH CAROLINA, Onslow County,	·(acut)
g f, a Notaty Public of the County and State aforesaid, certify that	
M. F. BOSTIC and wife, FRANCES W. BOSTIC	
personally appeared before me this day and acknowledged the execution of the foregoing instrument.	Granter,
hand and official stamp or seal, this 3/ day of August	andress my
	18
My commission expires: 175/85 Carel A Cookstand No	lary Public
BEAL-STAMP NORTH CAROLINA, FORSYth County.	
I, a Notary Public of the County and State aforesaid, certify that ROGER PAGE, JR. & DOR	IS B. PAGE
personally came before me this day and acknowledged 9000000000000000000000000000000000000	screturacelor
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My commission expires: 11.16.95 Jack Charles Not	ary Public
the toregoing Certificate(s) of Carol. A. Camburn and Paul Dallas Jones	<u> </u>

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is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and is the Book and Page she	wn on the
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ByDeputy/Assistant - Register of Deeds	
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N.C. Bas Assoc. Form No. 3 & 1976, Revised 1917. - Printed by Edwards Brothers, Inc. Carolina.





North Carolina Department of Environment and Natural Resources

Pat McCrory Governor

John E. Skavarla, III Secretary

DIVISION OF COASTAL MANAGEMENT MEMORANDUM

TO:

Jonathan Howell

Assistant Major Permit Coordinator

THROUGH:

Debra Wilson, District Manager, WiRO

FROM:

Jason Dail, Field Representative, WiRO

DATE:

August 25, 2014

SUBJECT:

Minor Modification Request

CAMA Major Permit No. 39-12 (Issued by CRC Variance)

Topsail Reef HOA North Topsail Beach Onslow County

The Topsail Reef Home Owners Association (HOA) has submitted a request to modify CAMA Major Permit No. 39-12, which was issued by way of a variance from the Coastal Resources Commission (CRC) on May 29, 2012. Permit No. 39-12 authorized the installation of temporary erosion control structures (i.e. oversized sandbags) along the ocean side of the Topsail Reef Condominium complex. Specifically, this permit authorized the installation of temporary erosion control structures with a base width of 45 feet, and a crest elevation height of 12 feet (NAVD), seaward of buildings 1 through 5. Buildings 6 through 8 received approval for temporary erosion control structures; however, the height of these bags were requested and approved (per 15A NCAC 07H .1700) at a base with of 20 feet, and a crest elevation height of 6 feet. The permit remains active and is scheduled to expire on December 31, 2015.

The Topsail Reef HOA's proposal includes enlarging the temporary erosion control structure(s) from a point just south of building 5 (where the oversized bags terminate) to a point just south of building 8. As proposed, the expansion of these temporary erosion control structures would include a height expansion of approximately 4-6 feet (vertical), with a horizontal expansion of approximately 25 feet, in a seaward direction.

Topsail Reef HOA, Minor Modification Request Page Two August 25, 2014 Permit No. 39-12 (by way of CRC Variance)

VR 14-11 Page 90

Currently, the existing temporary erosion control structures between buildings 5 through 8 are partially covered with sand that was placed on the beach in the winter of 2012/2013 during the channel re-alignment and/or shoreline protection project, undertaken by the Town of North Topsail Beach (CAMA Major Permit No. 191-05). As of August 19, 2014, DCM staff confirmed that there was approximately 49 feet from the erosion escarpment to the outer seaward edge of the first visible sand bags in front of building 6, approximately 52 feet from the erosion escarpment to the outer seaward edge of the first visible sand bags in front of building 7, and approximately 73 feet from the erosion escarpment to the outer seaward edge of the first visible sand bags in front of building 8.

Currently, the applicant states there is accelerated erosion in the subject area and Topsail Reef HOA is attempting to mitigate the accelerated erosion by expanding the size of the temporary erosion control structures seaward of buildings 5 through 8. The erosion escarpment in the area of the proposed sand bag expansion ranges from 0'-4'. Money Order No. 21814097771 in the amount of \$100.00 has been submitted to cover the request.

At this time, this office has OBJECTIONS to this modification request, as the applicant's proposal is INCONSISTENT with 15A NCAC 07H .0308 (a)(2)(E), Specific Use Standards For Ocean Hazard Areas. Based on these factors, it is recommended that any modification request for this permit be DENIED.

By copy of this memo, DCM is requesting that all pertinent resource agencies provide any comments immediately to Jonathan Howell of DCM's Morehead City office, since the applicant has indicated their desire for an expedited denial and variance request.

Enclosures

cc:

Wilmington Files,
MHC File, DCM,
Ronnie Smith (COE),
Maria Dunn (WRC)
James (Bill) Forman, Jr., Bearing Point, 910 Arendell Street, Morehead City, NC 28557

Attachment E: Stipulated Exhibits

- a. DCM General Permit No. 57562-D, issued on 4-1-2012
- b. DCM General Permit No. 59165-D, issued on 3-2-2012
- c. DCM General Permit No. 57533-D, issued on 2-3-2012
- d. DCM Exemption Number NTB11-03, issued on 11-17-2011
- e. DCM Emergency Major Permit Number 39-12, issued on 5-4-2012
- f. CRC-VR-12-04 FINAL ORDER, Petition for Variance by Topsail Reef HOA
- g. DCM Amended (by CRC Variance) Major Permit Number 39-12
- h. DCM Denial Letter dated 8-29-2014 to Topsail Reef HOA
- i. Notices to Adjacent Property Owners of the Variance Petition sent certified mail, return receipt
- j. Pictures of: Vicinity (3), New River Inlet Aerial (1); Area Surrounding Topsail Reef Aerial (1); Area Near Topsail Reef Aerial with Nourishment Survey Stations (1); Topsail Reef Condominiums Aerial with Building Numbers (2); View North from TR Bldg #1 of Flood Tide Channel (1); Sandbag Transition from Enlarged to 6'x20' Alignment (2); 09/09/2014 Photos (2) of Bldgs #6-#8, View North from Northeast Corner Bldg 1, 09/19/2014 Low Tide Photos (6) of Access Steps Bldg #1, North End Alignment View North, Water Ward Pile Bldg #1, Two of Alignment View South from Bldg #2, Northeast Corner of Alignment Return at Bldg #1
- k. Topsail Reef Condominiums Emergency Modification Application, dated 8-22-2014
- 1. Ocean Hazard AEC Notice, dated 5-1-2012
- m. Dune & Sandbag Revetment Drawings: Site Plan; Five Graphical Beach Profiles; Alignment Drawings 03, 04, 05
- n. Aerial Photo-Graphic of Town of NTB Proposed Channel Realignment
- o. Alignment Drawing 04, Rev 1, dated 09-14-2014
- p. Graphical Display of Beach Profiles from Data in 11/2012, 01/2013, 05/2013, 04/2014, 08/2014 for Baseline Stations 11+35 to 11+55
- q. CP&E Figure 1: Aerial Graphic of Shoreline Baseline Stations dated 04/03/13
- r. Bearing Point (Forman) Letter dated 09-10-2014 to CRC Chairman Gorham and Resume' of James W. Forman, Jr., PE
- s. Theodore J. Sampson, Environmental Consultant, Letter dated 09-13-2014 to Topsail Reef Homeowners Association Evaluation of Erosion and Resume of Theodore J. Sampson
- t. Yogi Harper Letter dated 09-10-2014 to Topsail Reef Homeowners Association Evaluation of Erosion and Resume' of Yogi Harper
- u. Pictures (7) dated 05-08-2012 of Sandbag Alignment Repair Areas
- v. Pictures (13) dated 10-31-2012 of Flood Channel along Sandbag Alignment

CRC-VR-14-11

- w. Bearing Point Site Plan Drawing 02, Rev 1 dated 08-29-2014 with Baseline Stations and Berm Lines
- x. Forman's Graphics of Survey Data from 06/2012, 05/2013, and 04/2014 for Baseline Stations 1140+00, 1145+00, 1150+00, and 1155+00
- y. CP&E Presentation of 02-07-2013 of New River Inlet Channel Realignment & Beach Restoration Completion
- z. Town of NTB CAMA Major Permit Application Riparian Notification Letter dated 08-15-2014
- aa. Town of NTB Letter dated 08-29-2014 to Topsail Reef HOA documenting Beach Nourishment Project Maintenance Plan
- bb. Powerpoint Presentation

Permit Officer's Signature

Signature *** Please read compliance statement on back of permit **

Application Fee(s)

Check # Local Planning Jurisdiction Rover File Name

CAMA DREDGE & FILL	VR 14-11 Page 94		
GENERAL PERMIT	Previous permit #		
□ New □ Modification □ Complete Reissue □ Partial Reiss			
authorized by the State of North Carolina, Department of Environment and Natid the Coastal Resources Commission in an area of environmental concern pure	suant to 15A NCAC 7H 1700.		
DALE DAVIS	Rules attached.		
Applicant Name TOPSAIL REST HOA SUSAN PRATITIO			
Address 2224 NEW FIVER INET KOITO	Street Address/ State Road/ Lot #(s) SAME AS App.		
City NOCTH TOPSAIL State NC ZIP = 8460	TOPSAIL PEEF		
Phone #100 328-(250 Fax # ()	Subdivision		
Authorized Agent N/A	City NEXTO TOPS AIL BOX ZIP 28460		
	Phone # () SAME River Basin white Cake		
Affected AEC(s): APTA DES DES AFFECTED DES DES DES DES DES DES DES DES DES D	Adj. Wtr. Body ATL. OLEAN (nat/man /unkn)		
DFC:	Closest Maj. Wtr. Body ATL OCEAN		
ORW: yes PNA yes Crit.Hab. yes no	Closest Maj. Wir. body		
Type of Project/ Activity INSTAU ATRADE IM ATEM	1.500 LINEAR FEET OF SAND BAGS		
AT TOSAIL PECK, M			
Pier (dock) length	(Scale: N75)		
Platform(s)			
Finger pier(s)			
Groin length	all be attached to the original 57553).		
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max distance offshore All Conditions	a notes and for constant		
Jasin, channel	5, notes and/or requiements 57553 expelly and shall		
cubic yards	57553 expely and shall		
Boat ramp b. C hathered			
Boathouse/ Boatlift			
* A COMO OF	This permit i permit #		
Beach Buildozing Other SAND BASS- 51853 5half	be readily available		
4-1500 linear 12 the event	of an inspection		
feet			
Shoreline Length 1/1,500 * All work Sh	all be done locatained in		
SAV: not sure yes (no)	11 60 H 57552 and		
Sandbags: not sure (Ves) no 4/1/1/2			
Moratorium: n/a Ge no 411112 S/TC Plan Photos: (yes) no	5 au ca 1/21/12		
Waiver Attached: yes			
A building permit may be required by: NTB / ONS Inw Co	See note on back regarding River Basin rules.		
Notes/ Special Conditions * BAGS SHAW NOT	EXCEED ZO' IN WISTH AND		
6 IN HEIGHT AS MEASURED	PROM BEACH PROFILE		
DIRECTLY PRENEATH AND AD	ACEN 10 /DAOS.		
SUSAN PRATHER	(h		
gent or Applicant Printed Name	Perput Officer's Signature		
N DUKUT PHATHU	3-2-20/2 3-30-20/2		
Signature *** Please read compliance statement on back of permit **	Issuing Date Expiration Date		
400 2794	NTB/ONSLOW CO. NOTFER.		
Application Fee(s) Check #	Local Planning Jurisdiction Rover File Name		

GENERAL PERMIT	Province committee and a second
New □Modification □Complete Reissue □Partial Reiss	Previous permit 4-11 Page 95 Sue Date previous permit issued
As authorized by the State of North Carolina, Department of Environment and N	/ 1 / 2 /
the Coastal Resources Commission in an area of environmental concern pure	
Applicant Name TOPSAIL REST HOA GO SUSAN	Project Location: County Ous Ow
Address 2224 NEW RIVER INLET ROLL	Street Address/ State Road/ Lot #(s)
City NORTH TO SAIL BOOK State NC ZIP Z8460	2224 NEWRIVER INTERPORT
Phone # (7/0328-/250 Fax # ()	Subdivision #13(
Authorized Agent	City NORTH TOPSATE ZIP 25460
Affected CW REW RPTA CES PTS	Phone # (90 378-1250 River Basin CFR/WC
AEC(s): OEA THHF THE UBA NA	Adj. Wtr. Body ATLANTIC OCEAN That s/man /unkn)
ORW: yes no PNA yes no Crit.Hab. yes no	Closest Maj. Wtr. Body ATLANTIC OCEAN
Type of Project/ Activity 105tall approxim	ately 1,500 (mean feet
of sandbays OCEANINARD O	= Topsail REE (Scale:)
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Platform(s) Finger pier(s) Finger pier(s)	cas and ma bus dina
Croin learth	
number this permit authoriz	es approximately
Bulkhead/ Riprap length CO INGAY TE	ET OF SANDEASS [6']
avg distance offshore WITHIN THE PROPERTY OF TOKENILL OF	ERTY BOUNDARIES
n, channel	APPROXIMATIONS 201
	SHALL NOT BYCED LATERAL beach.
Boat ramp	
Boathouse/Boatlift DVNE DISTURBANCE	
If Hoods Buildoning	building number #5. Following
Other Sandbaga 1,500/ Completion of S	and bas installation, The
by Idin #8	Profession of the profession o
- the color of the	2012
Shoreline Length 7-1500 SAV: not sure yes (no)	due to presching Hunt for
Sandbags: not sure (es) no april 12012	ent transport & handlas
Moratorium: n/a yes no	shall be located in the area
Photos: (PS) no Thu Divid Dailes Waiver Attached: yes no Though on The	appoint a work plan convin
A building permit may be required by:	See note on back regarding River Basin rules.
Notes/Special Conditions HAGS SHALL	NOT EXCEED 20 FEET
IN WIDTH AND SIXT	EX FRET IN HIGHT
AS MEASURED FROM BE	EACH PROPILE DIRECTLY
DAVE DAVIS (GASTIED METURIER) F	ENEATH BAGSI
USAN YCATHER (PROPERTY MANAGED)	
Agent or Applicant Printed Name 2 211000 Pyrothol	Permit Officer's Signature 2-3-2012 3-3-2012
Signature ** Please read compliance statement on back of permit **	Issuing Date Expiration Date
· 40° - 2766	NTB not resonation
Application Fee(s) Check # 3	Local Planning Jurisdiction Rover File Name



North Carolina Department of Environment and Natural Resources Division of Coastal Management

Beverly Eaves Perdue Governor

Dee Freeman Secretary

November 17, 2011

Topsail Reef - HOA C/o Susan Prather - Property Manager 2224 New River Inlet Road, Unit 131 North Topsail Beach, NC 28460

Exemption Number - NTB11-03

RE:

EXEMPTED PROJECT (MINOR) - MAINTENANCE AND REPAIR

(15A NCAC 07K ,0103)

PROJECT ADDRESS - 2224 New River Inlet Road, Unit 131 AREA OF ENVIRONMENTAL CONCERN - Ocean Hazard AEC

Dear Ms. Prather:

I have reviewed the information submitted to this office in your inquiry concerning the necessary filing of an application for a minor development permit under the Coastal Area Management Act. After making a site inspection on 11/02/11, I have determined that the activity you propose is exempt from needing a minor development permit as long as it remains consistent with your site drawing and materials list submitted on 11/02/11, and meets the conditions specified below. If your plans should change and your project will no longer meet these conditions, please contact me before proceeding.

MAINTENANCE AND REPAIR - (G.S. 113-103(5)(B)(5) and 7K.0209) - Structures may be repaired in a similar manner, size and location as the original structure. No expansions or additions are permissible. The repairs are limited to 50% of the physical value of the existing structure and the following specific conditions.

- 1. The project consists of the repair/replacement of numerous balconies, decks and stairs, as shown on the attached drawing and materials list.
- 2. The proposed repairs shall be consistent with all other applicable local ordinances and North Carolina Building Code standards.
- 3. This permit does not authorize any beach bulldozing or installation of fill material beneath or adjacent to the existing units.

This exemption to CAMA permit requirements does not alleviate the necessity of your obtaining any other State, Federal or Local authorization and N.C. Building Permits. This exemption expires 90 days from the date of the letter.

Sincerely,

Jason Dail, Wilmington District Field Representative 127 Cardinal Drive Wilmington, NC 28405



VR 14-11 Page 97

STATE OF NORTH CAROLINA

Department of Environment and Natural Resources and

Coastal Resources Commission



X Major Development in an Area of Environmental Concern pursuant to NCGS 113A-118

X Excavation and/or filling pursuant to NCGS 113-229

Issued to Topsail Reef HOA, 2224 New River Inlet Road, North Topsail Beach, NC 28460						
Authorizing development in Onslow County at Atlantic Ocean at Topsail Reef						
Condomimiums , as requested in the permittee's application dated <u>5/3/12</u> , incl. the attached						
workplan drawings (3), 2 of 4 dated 4/24/12, 3-4 of 4, bo	oth undated and AEC Hazard Notice dated 5/1/12					
This permit, issued on <u>May 4, 2012</u> , is swith the permit), all applicable regulations, special conditions be subject to fines, imprisonment or civil action; or may cause	subject to compliance with the application (where consistent and notes set forth below. Any violation of these terms may					
the base width of the authorized temporary eros	of the rules of the Coastal Resources Commission, ion control structure shall not exceed 20 feet, and the es not authorize the placement of additional sandbags of structures already exist.					
2) No portion of the authorized temporary erosion control structure shall be located more than 20 feet waterward of the imminently threatened structure, which in this case is defined by the waterward most pilings.						
Sandbags used to construct the temporary erosic five feet wide and seven to 15 feet long when m	on control structures shall be tan in color and three to neasured flat.					
(See attached sheet for	Additional Conditions)					
This permit action may be appealed by the permittee or other qualified persons within twenty (20) days of the issuing date. An appeal requires resolution prior to work initiation or continuance as the case may be.	Signed by the authority of the Secretary of DENR and the Chairman of the Coastal Resources Commission.					
This permit must be accessible on-site to Department personnel when the project is inspected for compliance.	Dough V Huggett Braxton C. Davis, Director					
Any maintenance work or project modification not covered hereunder requires further Division approval.	Division of Coastal Management					
All work must cease when the permit expires on	This permit and its conditions are hereby accepted.					
December 31, 2015						
In issuing this permit, the State of North Carolina agrees						
that your project is consistent with the North Carolina Coastal	Signature of Permittee					

ADDITIONAL CONDITIONS

NOTE: The configuration of the individual sandbags may vary from that shown on the attached workplan drawings, so long as the dimensions, alignment, and size requirements of Conditions 1, 2, and 3 of this permit are not exceeded.

- 4) Soldier pilings and other types of devices to anchor the sandbags shall not be allowed.
- Sand used to backfill the sandbags shall be of the same general characteristics as the sand in the area in which the material is to be placed. In order to ensure compliance with this requirement, the permittee shall coordinate the location of the backfill borrow source with a representative of the Division of Coastal Management prior to initiation of any backfilling activities.
- 6) The temporary erosion control structures may remain in place for up to five years from May 4, 2012.
- Once the temporary erosion control structure is determined to be unnecessary due to relocation or removal of the threatened structure, a storm protection project constructed by the U.S. Army Corps of Engineers, a large scale beach nourishment project or an inlet relocation project, it shall be removed by the permittee within 30 days of official notification by the Division of Coastal Management regardless of the time limit placed on the temporary erosion control structure. However, removal of the authorized temporary erosion control structures shall not be required if they are covered by dunes with stable and natural vegetation.
- 8) If the temporary erosion control structure becomes damaged, the permittee shall be responsible for the removal of remnants of all portions of the structure(s).
- In order to reduce the possibility of unintended impacts to nesting sea turtles and their nests, the permittee is encouraged to expedite the authorized work as much as possible, to work only during daylight hours, and to coordinate all authorized activities with existing sea turtle monitoring efforts in the area.

NOTE: This permit does not eliminate the need to obtain any additional state, federal or local permits, approvals or authorizations that may be required.

Future development of the permittee's property may require a modification of this permit. Contact a representative of the Division at (910) 796-7215 prior to the commencement of any such activity for this determination.

NOTE: The permittee and/or his contractor is urged to meet with a representative of the Division prior to project initiation.

STATE OF NORTH CAROLINA) BEFORE THE NORTH CAROLINA
) COASTAL RESOURCES COMMISSION
COUNTY OF ONSLOW) CRC-VR-12-04
) ·
)
IN THE MATTER OF:)
PETITION FOR VARIANCE) FINAL ORDER
BY)
TOPSAIL REEF HOMEOWNERS)
ASSOCIATION, INC.	

This matter was heard on oral arguments and stipulated facts at an emergency meeting of the North Carolina Coastal Resources Commission (hereinafter CRC) on 24 May 2012 in Morehead City, North Carolina pursuant to N.C. Gen. Stat. § 113A-120.1 and 15A NCAC 7J .0700, et seq. Assistant Attorney General Christine A. Goebel, Esq. appeared for the Department of Environment and Natural Resources, Division of Coastal Management. Robert Hornik and T.C. Morphis, Jr. appeared on behalf of Petitioner Topsail Reef Homeowners Association, Inc.

Upon consideration of the record documents and the arguments of the parties, the CRC adopts the following:

STIPULATED FACTS

- 1. The Petitioner in this case is the Topsail Reef Homeowners' Association ("HOA").
- 2. The HOA owns the Topsail Reef Condominium property (the "Property") which is located at 2224 New River Inlet Road in North Topsail Beach, Onslow County, North Carolina. Built between 1980 and 1981, the Property includes eight buildings, each having thirty condominium units (240 total). Running from the northeast to the southwest, the buildings are numbered 1 through 8. Each of the buildings is approximately 19,960 square feet in area.
 - 3. Located at the northeastern end of North Topsail Beach, the Property is

approximately a quarter mile from the New River Inlet. The Property is located within the Ocean Erodible and High Hazard Flood Areas of Environmental Concern ("AECs"). The long term average annual erosion rate for the Property is 2 feet per year. The Property is immediately south of the current Inlet Hazard AEC boundary. The Property is within the proposed updated Inlet Hazard AEC, which the Commission reviewed, but then suspended consideration of at its November 2010 meeting, pending completion of all of the ocean shoreline erosion rate updates.

- 4. Pictures of the site were included in a PowerPoint presentation one of the stipulated exhibits presented to the Commission in Attachment E to the May 22, 2012 Memorandum from Christine A. Goebel to the Commission ("Attachment E").
- 5. Over the past six years, the United States Army Corps of Engineers deposited dredge spoil along an area located generally in front of the Property from the New River Inlet Atlantic Intracoastal Waterway crossing and Cedar Bush Cut three times using a pipeline dredge system. Dredge spoil was deposited during the winters of 2007-08, 2009-10 and 2010-11.
- 6. In 2010, DCM issued CAMA Major Permit No. 79-10 which authorized the Town's shoreline protection project. Phase 1 of the project authorizes the placement of beach fill 9,000 feet southwest from the north shoulder of the New River Inlet, including in front of the Property. The plan for Phase 1 includes placing approximately 544,400 cubic yards of compatible dredged material along the northern 1.7 miles of project area, including in front of the Property.
- 7. The Town of North Topsail Beach voted 3 to 1 at its January 4, 2012 meeting to do the following: (1) proceed with Phase 1 of its shoreline protection project and to have the contractor, Coastal Planning and Engineering ("CP&E"), review cost savings with potential

contractors and report back; (2) After review by the town of CP&E's findings, prepare the necessary bid documents in order to begin construction as soon as practicable in 2012; and (3) request that the Board schedule a workshop to review available funding sources and develop a final financial plan. A copy of the meeting minutes was included as a stipulated exhibit presented to the Commission.

- 8. In a March 9, 2012 letter to the Onslow County Manager, North Topsail Beach Mayor Dan Truman indicated that the project was estimated to cost \$7.5 million. In this letter, Mayor Truman proposed the cost be split in 3 equal shares of \$2.5 million between the Town, Onslow County and the State (through a Water Resources grant). A copy of this letter is a stipulated exhibit. The North Topsail Beach Town Manager, Steve Foster, has indicated that the Town has \$2.5 Million Dollars set aside for this project, that a North Carolina Division of Water Resources grant for \$2.5 Million Dollars is included in the Governor's current budget, and that Onslow County is considering whether to provide the final \$2.5 Million in funding. The Town Manager has also indicated that the North Topsail Board of Commissioners plans to finance the last \$2.5 Million with special obligation bonds to be repaid in about 5 years from room occupancy tax revenues if Onslow County does not authorize funding for the project.
- 9. If the Town obtains the necessary funding and secures a dredging company, the Town proposes to construct Phase 1 of the project during the conditioned dredging window of November 16, 2012 through March 31, 2013.
- 10. Hurricane Irene, which made landfall near Cape Lookout on August 27, 2011, impacted North Topsail Beach.
 - 11. In an affidavit, the President of the HOA, Don Street, describes the HOA's

response to erosion following Hurricane Irene. A copy of that affidavit is a stipulated exhibit. Mr. Street and the onsite property manager believed that no further action needed to be taken until after the turtle nesting season had ended, at which time sand could be trucked in from upland sources and placed back under the buildings. Placing sand under the buildings had been the practice of the HOA in years past.

- 12. At an onsite meeting on November 2, 2011, DCM Field Staff Tara Croft and Jason Dail told HOA representatives that they had the option of applying for a sandbag permit and discussed the options of both sandbags and hauling in sand. This meeting followed the first Nor'easter after Irene.
- 13. Mr. Street indicates in his affidavit that on or around November 11 and 12, 2011, the remnants from Hurricane Sean removed more sand from under the buildings, with all eight buildings being affected. Mr. Street further states that although he and the property manager considered other options, they had already begun the process of receiving proposals for a sand push and proceeded with that option.
- 14. Mr. Street's affidavit reports that on December 30, 2011, he met with town officials from the Town of North Topsail Beach in his role as President of the HOA to discuss the use of sandbags to protect the Property. Mr. Street's understanding from town officials was that the Town intended to pursue beach renourishment in the near future. The HOA, through Mr. Street, then decided to switch from trucking in sand to sandbagging.
- 15. On January 24, 2012, FDH Engineering, Inc., acting at the request of the HOA, conducted an inspection of the Property and determined that pile penetration depth of the building piles varied widely, with at least one pile, among others supporting Building 1, having a

pile penetration depth of only seven feet at that time.

- 16. On February 3, 2012, the Division of Coastal Management issued the HOA a CAMA general permit to install approximately 1,500 linear feet of sandbag revetment along the ocean shoreline in front of the eight buildings. Consistent with 15A N.C.A.C. 07H .0308 (a)(2)(E) and (K), the permit limits the sandbag structure to 20 feet in width and 6 feet in height as measured from the profile directly beneath the bags. This permit has been renewed twice. (Collectively the three permits are referred to herein as the "First Permit.")
- 17. Pursuant to the First Permit, the HOA's contractor, Erosion Control Services of NC, Inc. ("ECS"), began installing the sandbag revetment in early March of 2012.
- 18. As of April 13, 2012, ECS had completed approximately 650 linear feet of revetment adjacent to Buildings 8, 7, 6 and part of Building 5. Since April 13, 2012, no further sandbag installation has taken place.
- 19. Tom Jarrett, a consultant for the HOA, indicates in his affidavit that southwesterly storm events create conditions on the north end of North Topsail Beach that are especially conducive to beach erosion due to the configuration of the ocean bar channel of the New River Inlet. Currently the bar channel is aligned toward the northeast or toward Onslow Beach. As a result of this alignment, the ebb tide delta of the New River Inlet has migrated north exposing the north end of North Topsail Beach to direct wave attack. In addition, flood tide channels run parallel and adjacent to the beach which accelerates the rate of sediment transport away from the area immediately fronting Topsail Reef.
- 20. From April 11 to April 13, 2012, the Property was impacted by a moderate Nor'easter during a period of high lunar tides. Mr. Jarrett provided relevant data in his affidavit:

Dates	Duration (hrs)	Average Direction Deg true north ⁽¹⁾	Avg. Wind Spd KTS	Max. Wind Gusts KTS
04/07/2012 - 04/08/2012	18.0	226	9.1	23.1
04/08/2012 - 04/09/2012	7.5	225	12.3	24.1
04/12/2012 - 04/13/2012	11.0	230	7.9	9.2
04/13/2012 - 04/14/2012	20.5	204	14.0	15.4
04/14/2012 - 04/18/2012	85.0	211	21.4	25.3

Average Wind Conditions - Wrightsville Beach, NC (Source: http://tideandcurrents.noaa.gov/)

The wind record covered a total of 127 hours between 20:54 on April 12, 2012 and 04:12 on April 18, 2012. For that period, the waves were from the southwest for 116 hours or over 90 percent of the time. The peak of the storm occurred from the afternoon of April 15 to the early morning hours of April 16. The break in the dates represent a time when winds switched to another direction.

- 21. The storm coupled with high lunar tides on or about April 6 through 8 and April 11 through 13 generally lowered the sand level directly under the Property by approximately fifty-one inches (4.3 feet), with the drop in elevation becoming most noticeable during the April 12 to 18 timeframe. During this time, portions of the sandbag revetment previously erected by ECS sloughed off as shown in photographs included in the stipulated exhibits included as Attachment E. As a result, the top elevation of the 6-foot tall sandbag revetment permitted under the First Permit would be 6 to 8 feet below the elevation of the first floor of most of the Topsail Reef buildings.
- 22. To address the ongoing erosion problems, the HOA, through Tom Jarrett, P.E., applied for an emergency major permit on May 3, 2012. DCM required the applicant to provide written notice of the permit application to adjacent property owners. The HOA's application

 $^{^{(1)}}$ Note: A direction of 150° is approximately shore normal. Wave angles between 150° and approximately 240° would be characterized as coming from the SW.

proposed a sandbag structure that was inconsistent with 15A N.C.A.C. 07H .308(a)(2)(K) which requires, "Sandbags used to construct temporary erosion control structures shall be tan in color and 3 to 5 feet wide and 7 to 15 feet long when measured flat. Base width of the structure shall not exceed 20 feet, and the height shall not exceed 6 feet." The applicants proposed to build a sandbag revetment with a bottom width of 40 feet for Buildings 5 through 8 and a bottom width of 45 feet for Buildings 1 through 4 and that portion in front of Building 5 where no sandbags had yet been placed. Further the applicants sought authorization for a sandbag revetment with a maximum crest elevation on the landward portion of the structure of 12.0 feet NAVD as depicted on the plan submitted with the May 3, 2012 permit application.

- 23. Primarily so Petitioner could seek a variance from the sandbag placement and size restrictions, Petitioner sought an Emergency Permit proposing the larger sandbag structure. On May 4, 2012, CAMA Emergency Major Permit No. 39-12 ("Emergency Permit") was issued.
- 24. The Emergency Permit limits the width of the sandbag revetment to 20 feet and its height to 6 feet, and its placement to no further waterward than 20 feet from the nearest waterward piling.
- 25. Additionally, Condition 2 of the Emergency Permit provides, "No portion of the authorized temporary erosion control structure shall be located more than 20 feet waterward of the imminently threatened structure, which in this case is defined by the waterward most pilings." In the variance request, Topsail Reef requests permission to place the sandbag revetment as much as 29 feet seaward of the imminently threatened structures (i.e. the waterward pilings of each building).
 - 26. Additional erosion beneath the Buildings was observed on May 5 through 7,

- 2012. Exposed wires and sewer pipes were observed underneath some of the buildings.
- 27. On May 8, 2012, Building 3 lost two pilings. The water supply lines to two buildings have been damaged.
- 28. As of May 21, 2012, DCM has not received any objections from adjoining riparian property owners regarding either the Emergency Permit or the requested variance.
- 29. As of May 21, 2012, the Town of North Topsail Beach has not condemned any of the buildings.
- 30. As seen in the recent site photographs presented to the Commission in the Stipulated Exhibits included in Attachment E, Buildings 5 through 8 are slightly seaward of the erosion scarp. Buildings 1 through 4 are further seaward of the erosion scarp. If a variance for the sandbags is granted and the sandbags are installed in compliance with the plans submitted to the Commission as part of the variance request, beach access, which is already adversely impacted by the structures and existing sandbags on the beach should not be worsened substantially.
- 31. On May 9, 2012, Petitioners filed this variance request with DCM seeking relief from the several of the terms set forth in the Emergency Permit and from other applicable statutes, rules and existing permits in order to construct a sandbag structure in the location and in the dimensions proposed in their application. In addition, Petitioners requested that the Commission hold an expedited hearing on the variance request before the regularly scheduled June 20-21, 2012 CRC meeting.
- 32. Finally, Petitioners also seek a variance from the permit condition allowing the sandbags to remain for 5 years pursuant to 15A NCAC 07H .0308(a)(2)(G). Petitioners now seek

a variance allowing any sandbags installed (whether under the First Permit, the Emergency Permit, or this proposed variance) to remain for up to 8 years from the date of the variance.

CONCLUSIONS OF LAW

- 1. The CRC has jurisdiction over the parties and the subject matter.
- 2. Following a May 9, 2012 letter request by Petitioner for an expedited hearing, the Chair scheduled a telephonic meeting of the CRC for May 24, 2012 to hear the variance request pursuant to the provisions of N.C.G.S. § 143-318.12(f). The decision to hold an expedited hearing was based on Petitioner's *prima facie* claim that the Property was experiencing unexpected, increasing and severe erosion which was imminently threatening the structure. The decision to hold the expedited hearing was explicitly found not to be a determination on the merits of Petitioner's variance request. All notices for the proceeding were adequate and proper.
- 3. Petitioner has demonstrated that strict application of CAMA rules, in particular 15A NCAC 7H .0308(a)(2)E and .0308(a)(2)K (the "Sandbag Rules") will result in unnecessary hardship as to Buildings 1, 2, 3, 4, and 5 but not as to Buildings 6, 7, and 8 for the reasons set forth herein.

The sandbag rules apply to "imminently threatened structures" and are an exception to the ban on hardened structures imposed by the General Assembly and the Commission. By setting limitations on the placement, size and duration of sandbags, the Commission ensures that the manner in which sandbags are used is well-defined and their use is limited in application. In this case, Petitioner has asserted that the Commission's "rules will not provide the protection needed to allow the structures, especially Buildings 1, 2, 3, 4 and 5, to survive without significant damage or total collapse until the beach nourishment project is completed." Petitioner

argues that for the first five buildings, the regulation-size sandbags are not sufficient to protect the buildings from damage and these buildings require a larger sandbag structure in order to protect their foundations. The Commission agrees and finds that although 6-foot by 20-foot sandbags are generally appropriate for the intended purpose of temporary protection of structures, 6-foot by 20-foot sandbag structure may not prevent waves from overtopping the bags and eroding the area under Buildings 1, 2, 3, 4, and 5 in this case because the buildings are closer to the effects of the inlet and are the ones most seriously impacted by erosion to-date,. Thus, the Commission affirmatively finds that Petitioner has demonstrated that it meets the first factor required by North Carolina General Statute § 113A-120.1(a)(1) for Buildings 1, 2, 3, 4, and 5.

However, the Commission finds that Petitioner has failed to met its burden to show that strict application of CAMA rules, in particular 15A NCAC 7H .0308(a)(2)E and .0308(a)(2)K will result in unnecessary hardship as to Buildings 6, 7, and 8. Specifically, the Commission finds that Petitioner has already placed sandbags at Buildings 6, 7, and 8 under the Emergency Permit and these sandbags are consistent with the Sandbag Rules ("existing sandbags"). The existing sandbags have been on site for at least a month, yet Petitioner has failed to demonstrate that the existing sandbags are not functioning to protect the foundations of Buildings 6, 7, and 8. Thus, the Commission affirmatively finds that Petitioner has failed to meet the first factor required by North Carolina General Statute § 113A-120.1(a)(1) for Buildings 6, 7, and 8.

4. Petitioner has demonstrated that the hardship caused by strict application of the Sandbag Rules to Buildings 1, 2, 3, 4, and 5 results from conditions peculiar to Petitioner's property such as the location, size, or topography of the property. Specifically, Petitioner's eight buildings are located on the oceanfront on North Topsail Beach. Even though the buildings are

not in the currently designated Inlet Hazard AEC for the New River Inlet, conditions on the property are exacerbated by the presence of flood channels that have developed immediately in front of the Property. Thus, the Commission affirmatively finds that Petitioner has demonstrated that the unnecessary hardships applicable to Buildings 1, 2, 3, 4, and 5 result from conditions peculiar to its property. Therefore, Petitioner has met the second factor required by North Carolina General Statute § 113A-120.1(a)(2) for these buildings.

- 5. Petitioner has demonstrated that this hardship was not caused by the HOA but by conditions peculiar to the property. Specifically, the Commission finds that Petitioner has done nothing to accelerate the erosion affecting the property and has taken steps to address the problem, and therefore meets this statutory criterion. Thus, the Commission affirmatively finds that Petitioner has demonstrated that it did not cause the hardship. Therefore, Petitioner has met the third factor required by North Carolina General Statute § 113A-120.1(a)(3).
- 6. The Petitioner has demonstrated (a) that the requested variance is consistent with the spirit, purpose and intent of the Commission's rules, (b) that it will secure public safety and welfare, and (c) that it will preserve substantial justice.

a. Limited Variance is consistent with spirit, purpose and intent of rules.

The size and placement of the sandbag structure included in the proposed project set forth in the variance request to protect Buildings 1, 2, 3, 4, and 5 is consistent with the spirit, purpose, and intent of the rules for the following reasons as long as the variance is limited to five years and is subject to the condition that the sandbags installed by the HOA, whether pursuant to the First Permit, the Emergency Permit, or the Variance and Permit, be removed once they become unnecessary because of beach nourishment unless

they are covered over with sand and permanent vegetation.

The Sandbag Rules are an exception to the Commission's ban on permanent erosion control structures. By setting limitations on the placement, size and duration of sandbags, the Commission recognized that they are to be used in certain circumstances with well-defined criteria. In this case, the Commission finds that the regulation size sandbag structure may not be sufficient to protect the foundations of Buildings 1, 2, 3, 4, and 5, which are closer to the inlet and have been most damaged by erosion, until the proposed beach nourishment takes place and/or the inlet is realigned as planned.

However, the Commission finds that Petitioner has failed to demonstrate that a variance is required for Buildings 6, 7, and 8. These buildings are presently protected by existing sandbags installed pursuant to an Emergency Permit which have been in place for at least a month. Petitioner has not met its burden of showing that the existing sandbags do not afford protection to the foundations of the Buildings 6, 7, and 8.

Furthermore, Petitioner has requested a variance to keep the requested sandbag structure in place for up to eight years instead of five years on the grounds that the Property is located adjacent to the existing Inlet Hazard AEC and is included within the proposed Inlet Hazard AEC "box". In its Shoreline Erosion Policies, the Commission has determined that "[T]emporary measures to counteract erosion, such as the use of sandbags . . . should be allowed, but only to the extent necessary to protect property for a short period of time until threatened structures may be relocated or until the effects of a short-term erosion event are reversed." (Emphasis added). "In all cases, temporary stabilization measures must be compatible with public use and enjoyment of the beach."

15A NCAC 7M .0202(e). The Commission finds that Petitioner has failed to meet its burden to show that extending the expiration date for the temporary sandbags structure allowed under the term of the permits, including the Emergency Permit, is within the spirit, purpose, and intent of the sandbags rules.

b. A limited variance is consistent with public safety and welfare

Granting Petitioner's request in part is consistent with public safety and welfare. Specifically, due to the proximity of Buildings 1, 2, 3, 4, and 5 to the ocean and the existing erosion, the public's access in front of these buildings is already limited. Thus, increasing the waterward footprint of the sandbags an additional nine feet from what is currently allowed under the Emergency Permit will not have significant additional impacts on the public's beach.

c. Granted limited variance will preserve substantial justice.

The Commission finds that granting Petitioner's variance in part will preserve substantial justice because it will allow the Petitioner to protect its property while it seeks a long-term solution and undertakes efforts to complete a beach nourishment project.

* * * * * * * * * *

Given the reasons set forth above in Paragraphs 6(a), (b) and (c), the Commission affirmatively finds that Petitioner has demonstrated in part that the limited variance granted herein for Buildings 1, 2, 3, 4, and 5 is consistent with the spirit, purpose and intent of the Commission's rules, that it will secure public safety and welfare, and that it will preserve substantial justice. Therefore, Petitioner has met the fourth factor required by North Carolina General Statute § 113A-120.1(a)(4).

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<u>ORDER</u>

THEREFORE, the variance from 15A NCAC 7H. .0308(a)(2)E and .0308(a)(2)K is GRANTED in Part and DENIED in Part subject to the condition that the sandbags authorized pursuant to this variance be removed if they become unnecessary for any reason, including because of beach nourishment, unless they are covered with sand and permanent vegetation.

Specifically, Commission GRANTS Petitioner's request as follows:

- 1. This variance authorizes Petitioner to build a sandbag revetment with a bottom width of forty-five feet for Buildings 1, 2, 3, 4, and 5 where no sandbags currently exist.
- 2. This variance authorizes Petitioner to build a sandbag reverment twelve feet with a crest elevation of 12.0 feet NAVD for Buildings 1, 2, 3, 4, and 5.
- 3. This variance authorizes Petitioner to place the sandbag revetment as much as twenty-nine feet waterward of Buildings 1, 2, 3, 4, and 5.

The Commission DENIES Petitioner's request that the temporary erosion control structures (i.e. sandbags) be allowed to remain for up to eight years from the date of the issuance of the variance. Under the terms of the existing permits, including the Emergency Permit, the temporary erosion control structures may remain for up to five years from the date of the issuance of the First Permit and/or the Emergency Permit. All other requests not specifically permitted under the terms of this variance are denied.

The granting of this variance does not relieve Petitioner of the responsibility for obtaining a CAMA permit from the proper permitting authority. To the extent that the CAMA permit issued pursuant to this variance contain specific terms not addressed herein, the specific terms of the CAMA permit are controlling.

This variance is based upon the Stipulated Facts set forth above. The Commission reserves the right to reconsider the granting of this variance and to take any appropriate action should it be shown that any of the above Stipulated Facts is not true.

This the 29th day of May, 2012.

Robert R. Emory, Jr., Chairman Coastal Resources Commission

CERTIFICATE OF SERVICE

This is to certify that I have this day served the foregoing FINAL ORDER upon the parties by the methods indicated below:

Topsail Reef Homeowners Assoc. Inc. c/o Susan Prather 2224 New River Inlet Road, Unit 131 North Topsail, NC 28460	Certified Mail/ Return Receipt Requested
Robert Hornik T.C. Morphis, Jr. The Brough Law Firm 1829 E. Franklin Street, Suite 800-A Chapel Hill, NC 27514	U.S. Mail and Electronically at hornik@broughlawfirm.com morphis@broughlawfirm.com
Christine A. Goebel, Esq. Assistant Attorney General N.C. Department of Justice P.O. Box 629 Raleigh, NC 27603	Electronically at cgoebel@ncdoj.gov
Braxton A. Davis, Executive Director Angela Willis Division of Coastal Management 400 Commerce Avenue Morehead City, NC 28557	Electronically at Braxton.Davis@ncdenr.gov angela.willis@ncdenr.gov

This the 29th day of May, 2012.

Mary L Lucasse

Special Deputy Attorney General

N.C. Department of Justice

P.O. Box 629

Raleigh, N. C. 27602 Commission Counsel

Permit Class

Management Program.

AMENDED

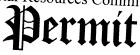
(By CRC Variance)

Signature of Permittee

STATE OF NORTH CAROLINA

Department of Environment and Natural Resources and

Coastal Resources Commission



X Major Development in an Area of Environmental Concern pursuant to NCGS 113A-118

Excavation and/or filling pursuant to NCGS 113-229

	Excavation and/or filling pursuant to NCGS 113-229					
	Issued to Topsail Reef HOA, 2224 New River Inlet Road, North Topsail Basel, NG 2011					
	County at Atlantic Occupant To the County Occupant To the County To the County Occupant To the Cou					
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***************************************	with the permit), all applicable regulations, special conditions and notes set forth below. Any violation of these terms may be subject to fines, imprisonment or civil action; or may cause the permit to be null and void.					
***************************************	In keeping with 15A NCAC 07H.0308(a)(2) of the rules of the Coastal Resources Commission (CRC), as well as the Variance granted by the CRC on May 24, 2012, and the Variance Order signed structures located in front of buildings 6 through 8 shall not exceed 20 feet, and the height shall not No portion of the authorized term.					
***************************************	No portion of the authorized temporary erosion control structures located in front of buildings 6 through 8 shall be located more than 20 feet waterward of the imminently threatened structure, which in this case is defined by the waterward most pilings.					
	(See attached sheets for Additional Conditions)					
	This permit action may be appealed by the permittee or other qualified persons within twenty (20) days of the issuing date. An appeal requires resolution prior to work initiation or continuance as the case may be. Signed by the authority of the Secretary of DENR and the Chairman of the Coastal Resources Commission.					
p	This permit must be accessible on-site to Department ersonnel when the project is inspected for compliance.					
	Any maintenance work or project modification not covered ereunder requires further Division approval. All work must as a selection of Coastal Management					
All work must cease when the permit expires on This permit and its conditions are hereby accepted.						
	December 31, 2015					
tha Ma	December 31, 2015 In issuing this permit, the State of North Carolina agrees at your project is consistent with the North Carolina Coastal					

ADDITIONAL CONDITIONS

- In keeping with the Variance granted by the CRC on May 24, 2012, and the Variance Order signed by the CRC Chairman on May 29, 2012, the base width of the authorized temporary erosion control structures located in front of buildings 1 through 5 shall not exceed a base width of 45 feet, and the height shall not exceed a crest elevation of 12 feet NAVD.
- No portion of the authorized temporary erosion control structures located in front of buildings 1 through 5 shall be located more than 29 feet waterward of the imminently threatened structure, which in this case is defined by the waterward most pilings.
- 5) Sandbags used to construct the temporary erosion control structures shall be tan in color and three to five feet wide and seven to 15 feet long when measured flat.

NOTE: The configuration of the individual sandbags may vary from that shown on the attached workplan drawings, so long as the dimensions, alignment, and size requirements of Conditions 1, 2, 3, 4 and 5 of this permit are not exceeded.

- 6) Soldier pilings and other types of devices to anchor the sandbags shall not be allowed.
- Sand used to backfill the sandbags shall be of the same general characteristics as the sand in the area in which the material is to be placed. In order to ensure compliance with this requirement, the permittee shall coordinate the location of the backfill borrow source with a representative of the Division of Coastal Management prior to initiation of any backfilling activities.
- In keeping with 15A NCAC 07H.0308(a)(2)(G) of the rules of the Coastal Resources Commission (CRC), as well as the Variance granted by the CRC on May 24, 2012, and the Variance Order signed by the CRC Chairman on May 29, 2012, the temporary erosion control structures may remain in place for up to five years from May 4, 2012.
- Once the temporary erosion control structure is determined to be unnecessary due to relocation or removal of the threatened structure, a storm protection project constructed by the U.S. Army Corps of Engineers, a large scale beach nourishment project or an inlet relocation project, it shall be removed by the permittee within 30 days of official notification by the Division of Coastal Management regardless of the time limit placed on the temporary erosion control structure. However, removal of the authorized temporary erosion control structures shall not be required if they are covered by dunes with stable and natural vegetation.
- 10) If the temporary erosion control structure becomes damaged, the permittee shall be responsible for the removal of remnants of all portions of the structure(s).
- In order to reduce the possibility of unintended impacts to nesting sea turtles and their nests, the permittee is encouraged to expedite the authorized work as much as possible, to work only during daylight hours, and to coordinate all authorized activities with existing sea turtle monitoring efforts in the area.

NOTE: This permit does not eliminate the need to obtain any additional state, federal or local permits, approvals or authorizations that may be required.

ADDITIONAL CONDITIONS

NOTE: Future development of the permittee's property may require a modification of this permit.

Contact a representative of the Division at (910) 796-7215 prior to the commencement of any

such activity for this determination.

NOTE: The permittee and/or his contractor is urged to meet with a representative of the Division prior to

project initiation.



North Carolina Department of Environment and Natural Resources Division of Coastal Management

Pat McCrory Governor John E. Skvarla, III Secretary

August 29, 2014

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Topsail Reef HOA 2224 New River Inlet Road North Topsail Beach, NC 28460

Dear Sir or Madam:

This letter is in response to your application for a minor modification to Coastal Area Management Act (CAMA) Major Permit 39-12, in which authorization was requested to enlarge an existing row of sandbags. The current sandbags have a 20 foot base width and are six feet tall. The enlarged structures would have a 45 foot base width and a height of 12 feet. This enlargement would take place along approximately 575 linear feet of existing sand bags, beginning in front of building 5 and extending to the property line south of building 8 at the Topsail Reef Condominium. Processing of the minor modification request is now complete. Based on the state's review, the Division of Coastal Management has made the following findings:

- On May 4th, 2012, the Division of Coastal Management issued an Emergency CAMA Major Permit No. 39-12 to Topsail Reef HOA authorizing sandbags in front of buildings 1 through 8. Due to the fact that the size of the proposed sandbag structure that would be located in front of Buildings 1 through 5 exceeded the dimensions allowable under Coastal Resource Commission (CRC) rules, Emergency Permit No. 39-12 contained a condition that limited the sand bag dimensions to those allowable under the CRC's rules. Additionally, while the size of the proposed sand bag structures that would be placed in front of buildings 6 through 8 would not violate the CRC's rules, the applicant requested the option to place larger sandbags in front of building 6 through 8 if warranted by future conditions.
- 2) On May 24th, 2012, the CRC granted a variance to the Topsail Reef HOA allowing for larger sandbag dimensions in front of buildings 1 through 5. The CRC did not authorize the future enlargement of sandbags in front of building 6 through 8.
- 3) The project proposed under the August 2014 minor modification request seeks to enlarge the existing sandbag structures in front of buildings 6 through 8. The

400 Commerce Avenue, Morehead City, North Carolina 28557
Phone: 252-808-2808 \ FAX: 252-247-3330 \ Internet: www.nccoastalmanagement.net

proposed greater dimensions (45 foot base width with a height of 12 feet) exceed the allowable dimensions found in NCAC 7H.0308(a)(2)(K). This rule states in part that "Base width of the structure shall not exceed 20 feet, and the height shall not exceed six feet."

4) Based upon the above referenced findings, the proposed larger sandbag structures located in front of buildings 5-8 project is inconsistent with 07H.0308(a)(2)(K).

Given the preceding findings, it is necessary that your request for issuance of a minor modification to Major Permit No. 39-12 the Coastal Area Management Act be denied. This denial is made pursuant to N.C.G.S. 113A-120(a)(8) which requires denial for projects inconsistent with the state guidelines for Areas of Environmental Concern or local land use plans.

If you wish to appeal this denial, you are entitled to a hearing. The hearing will involve appearing before an Administrative Law Judge who listens to evidence and arguments of both parties before making a decision on the appeal. Your request for a hearing must be in the form of a written petition, complying with the requirements of §150B of the General Statutes of North Carolina, and must be filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714, within twenty (20) days from the date of this letter. A copy of this petition should be filed with this office.

Members of my staff are available to assist you should you desire to modify your proposal in the future. If you have any questions concerning this matter, please contact Mr. Jonathan Howell at (252) 808-2808, extension 211.

Sincerely,

Braxton C. Davis

Director

cc:

Coastal - Civil - Structural - Environmental Engineering

September 11, 2014

Mr. Stuart Turille, Town Manager Town of North Topsail Beach 2008 Loggerhead Court North Topsail Beach, NC 28460

Subject: Request for Variance to Denial of Modification of CAMA Major Permit 39-12

Expansion of Sand Bag Revetment Fronting Buildings 6, 7 and 8

Topsail Reef Condominiums

North Topsail Beach, Onslow County, North Carolina

Dear Mr. Turille:

The Topsail Reef Homeowners Association (HOA) has requested an expedited variance to the denial of an emergency modification to an existing Major CAMA permit to allow expansion of the sand bag revetment on front of buildings 6, 7, and 8 to a section and footprint similar to that in front of Building 1, 2, 3, 4 and part of building 5. The new sandbag design would have a crest elevation of approximately +12.0 feet NAVD88, about 2.5 feet below the first floor elevation of the buildings. The base width of the modified sand bag revetment would be about 45 feet.

This letter is in response to 15A NCAC 07J .0701 (c)(7) which requires an applicant to notify adjoining property owners of the application for a variance.

Sincerely,

BEARING POINT CONSULTING, INC.

James W. (Bill) Forman, Jr., P.E.

Senior Engineer

CC: Debbie Wilson, N.C. Division of Coastal Management

Braxton Davis, N.C. Division of Coastal Management



September 11, 2014

Robert Vause, P.E., District Engineer North Carolina Department of Transportation Division of Highways, District 1 295 A Wilmington Highway Jacksonville, NC 28540

Subject:

Request for Variance to Denial of Modification of CAMA Major Permit 39-12

Expansion of Sand Bag Revetment Fronting Buildings 6, 7 and 8

Topsail Reef Condominiums

North Topsail Beach, Onslow County, North Carolina

Dear Mr. Vause:

The Topsail Reef Homeowners Association (HOA) has requested an expedited variance to the denial of an emergency modification to an existing Major CAMA permit to allow expansion of the sand bag revetment on front of buildings 6, 7, and 8 to a section and footprint similar to that in front of Building 1, 2, 3, 4 and part of building 5. The new sandbag design would have a crest elevation of approximately +12.0 feet NAVD88, about 2.5 feet below the first floor elevation of the buildings. The base width of the modified sand bag revetment would be about 45 feet.

This letter is in response to 15A NCAC 07J .0701 (c)(7) which requires an applicant to notify adjoining property owners of the application for a variance.

Sincerely,

BEARING POINT CONSULTING, INC.

James W. (Bill) Forman, Jr., P.E.

Senior Engineer

CC: Debbie Wilson, N.C. Division of Coastal Management

Braxton Davis, N.C. Division of Coastal Management

September 11, 2014



Jesse C. & Gaye S. Fisher 600 South Madison St. Whiteville, NC 28472

Request for Variance to Denial of Modification of CAMA Major Permit 39-12 Subject:

Expansion of Sand Bag Revetment Fronting Buildings 6, 7 and 8

Topsail Reef Condominiums

North Topsail Beach, Onslow County, North Carolina

Dear Mr. Fisher:

The Topsail Reef Homeowners Association (HOA) has requested an expedited variance to the denial of an emergency modification to an existing Major CAMA permit to allow expansion of the sand bag revetment on front of buildings 6, 7, and 8 to a section and footprint similar to that in front of Building 1, 2, 3, 4 and part of building 5. The new sandbag design would have a crest elevation of approximately +12.0 feet NAVD88, about 2.5 feet below the first floor elevation of the buildings. The base width of the modified sand bag revetment would be about 45 feet.

This letter is in response to 15A NCAC 07J .0701 (c)(7) which requires an applicant to notify adjoining property owners of the application for a variance.

Sincerely,

BEARING POINT CONSULTING, INC.

ames W. (Bill) Forman, Jr., P. Senior Engineer

CC: Debbie Wilson, N.C. Division of Coastal Management

Braxton Davis, N.C. Division of Coastal Management

September 11, 2014



Fausto A. & Amie E. Polanco 2276-1 New River Inlet Road Sneeds Ferry, NC 28460

Subject: Request for Variance to Denial of Modification of CAMA Major Permit 39-12

Expansion of Sand Bag Revetment Fronting Buildings 6, 7 and 8

Topsail Reef Condominiums

North Topsail Beach, Onslow County, North Carolina

Dear Mr. Polanco:

The Topsail Reef Homeowners Association (HOA) has requested an expedited variance to the denial of an emergency modification to an existing Major CAMA permit to allow expansion of the sand bag revetment on front of buildings 6, 7, and 8 to a section and footprint similar to that in front of Building 1, 2, 3, 4 and part of building 5. The new sandbag design would have a crest elevation of approximately +12.0 feet NAVD88, about 2.5 feet below the first floor elevation of the buildings. The base width of the modified sand bag revetment would be about 45 feet.

This letter is in response to 15A NCAC 07J .0701 (c)(7) which requires an applicant to notify adjoining property owners of the application for a variance.

Sincerely,

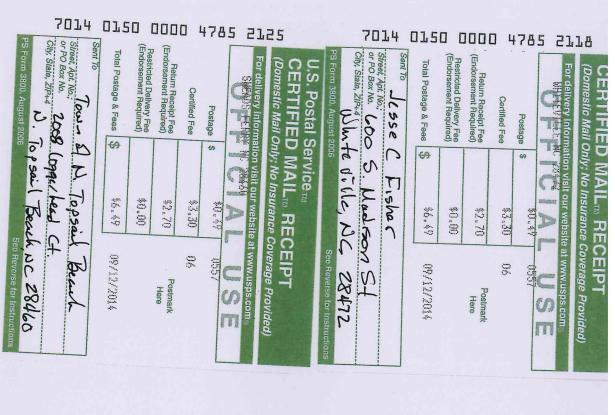
BEARING POINT CONSULTING, INC.

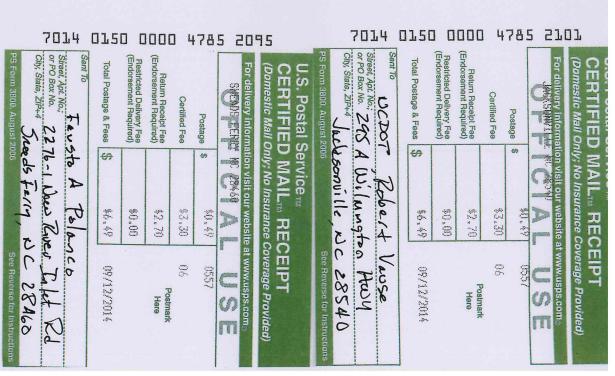
James W. (Bill) Forman, Jr., P.E.

Senior Engineer

CC: Debbie Wilson, N.C. Division of Coastal Management

Braxton Davis, N.C. Division of Coastal Management





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September 13, 2014,

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September am	r 13, 201	4 , 8:44

September 13, 2014, 9:48

September 13, 2014, 8:54

September 13, 2014, 8:20

September 13, 2014, 4:07 September 12, 2014, 10:47

September 12, 2014, 2:01

September 12, 2014, 1:04

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Departed USPS Facility

Arrived at USPS Origin Facility

Departed Post Office

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DATE & TIME STATUS OF ITEM LOCATION September 13, 2014, 8:26 **Business Closed** WHITEVILLE, NC 28472

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September 13, 2014, 8:13

September 13, 2014, 8:03

September 13, 2014, 7:00

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September 12, 2014, 2:01

September 12, 2014, 1:04

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WHITEVILLE, NC 28472

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Features:

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Return Receipt

LOCATION

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SNEADS FERRY, NC 28460

SNEADS FERRY, NC 28460

SNEADS FERRY, NC 28460

FAYETTEVILLE, NC 28302

FAYETTEVILLE, NC 28302

Your item is being held at the Post Office in SNEADS FERRY, NC 28460 on September 13, 2014 at 9:48 am because the business was closed. The item will be delivered the next delivery day. If this item is unclaimed after 15 days then it will be returned to the sender. Information, if available, is updated

periodically throughout the day. Please check again later.

September 13, 2014, 8:54 am

September 13, 2014, 9:48

September 13, 2014 , 8:44

September 13, 2014 , 8:20

September 13, 2014 , 12:10

September 12, 2014 , 7:43

September 12, 2014 , 2:01

September 12, 2014 , 1:02 pm

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Arrived at USPS Origin Facility

Departed Post Office

Departed Post Office

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LOCATION

Return Receipt

DATE & TIME

September 15, 2014,

Delivered

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September 15, 2014, 9:58

Available at PO Box Sorting Complete

Arrived at Unit

JACKSONVILLE, NC 28540 JACKSONVILLE, NC 28540

JACKSONVILLE, NC 28540

FAYETTEVILLE, NC 28302

FAYETTEVILLE, NC 28302

MOREHEAD

MOREHEAD

CITY, NC 28557

September 15, 2014, 9:48

September 13, 2014, 8:54

September 13, 2014, 4:07

September 12, 2014, 10:45

September 12, 2014, 2:01

September 12, 2014, 1:02

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Departed Post Office

Departed USPS Facility

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Daniel Tuman, Mayor Tom Leonard, Mayor Pro Tem Aldermen: Suzanne Gray Don Harte Richard Macartney Richard Peters



Stuart Turille Town Manager

Carin Z. Faulkner, MPA Town Clerk

Winner of 2014 Best Restored Beaches Award

September 15, 2014

Bill Forman
Bearing Point Consulting, Inc.
910 Arendell Street
Morehead City, NC 28557
bill.forman@bearingpt.com

RE: Receipt of Notification Letter RE: Request for Variance to Denial of Modification of CAMA Major Permit 39-12

Mr. Foreman,

This letter is to certify that the Town of North Topsail Beach has received the notification letter explaining that the Topsail Reef Homeowners Association (HOA) has requested an expedited variance to the denial of an emergency modification to an existing Major CAMA permit to allow the expansion of the sand bag revetment in front of buildings 6, 7, and 8.

I expect that this response meets the requirements to 15A NCAC07J.0701.

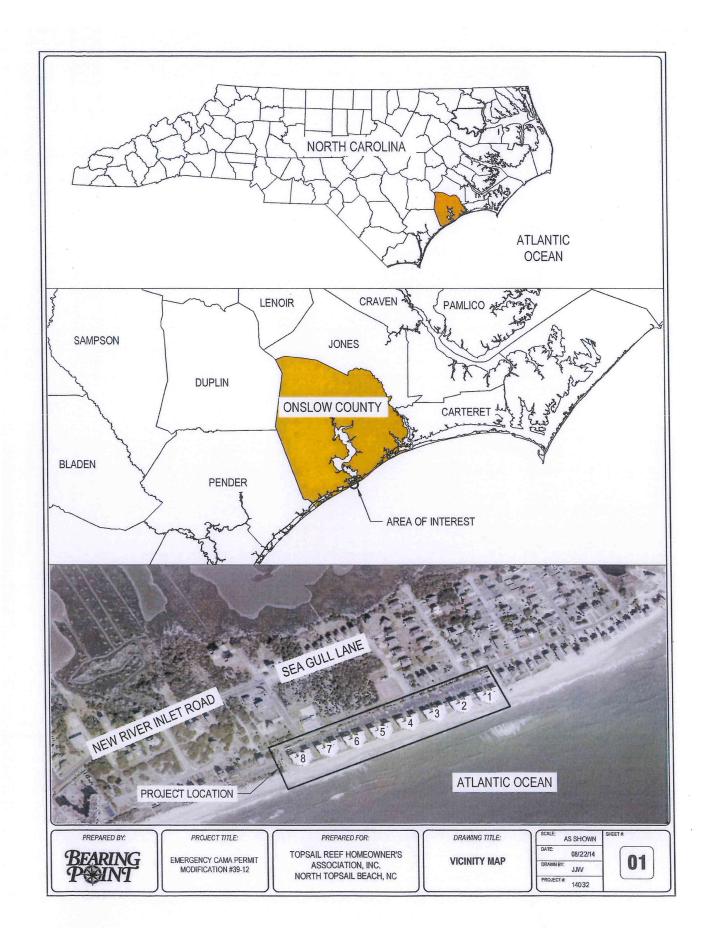
Sincerely,

Carin Z. Faulkher

Town Clerk

North Topsail Beach, NC

11-1: Vicinity Map



11-2: New River Inlet Aerial



11-3: Area Surrounding Topsail Reef



11-4: Area Near Topsail Reef VR 14-11 Page 133 NORTH TOPSAIL BEACH, NORTH CAROLINA NEW RIVER INLET CHANNEL REALIGNMENT AND BEACH RESTORATION USACE BASELINE STATIONS North Carolina State Plane Coordinate System North American Datum of 1983 (NAD 83). 2010 aerial photography was flown for the USDA National Agricultural Imagery Program 1,000 1. Coordinates are in feet based on the 200

COASTAL PLANNING & ENGINEERING OF NORTH CAROLINA, INC. 04/03/13 COMM NO.: 146765

11-5: Topsail Reef-Aerial View



11-6: Topsail Reef-Aerial View VR 14-11 Page 135



11- 7: View from Building # 1, May 7, 2012



11-8: Sandbag Alignment Transition: From Enlarged to 6'x20' VR 14-11 Page 137



11-9: Photos On 09/09/2014 VR 14-11 Page 138



11-10: Low Tide Photos On 09/19/2/61411 Page 139

NOAA Tidal data shows low tides for months of July - September 2014 range from -0.5' to +0.7' relative to MLLW datum. Elevated low tides from +0.4 to +0.7 occur approximately 40 times during these 3 months. Low tide on 9/19/14 was +0.5

Historical weather data from New River Marine Corps Air Station according to wunderground.com was as follows:

09/17/14 - Wind from NNE at 6 mph, max wind 14 mph, gusts to 20 mph

09/18/14 - Wind from NE at 6 mph, max wind 12 mph, gusts to 20 mph

09/19/14 - Wind from NE at10 mph, max wind 16 mph, gust to 20 mph



Reef 3 001 Bottom of steps building 1 at low tide 9/19/2014



Reef 3 002 North end sandbag alignment looking north at low tide 9/19/2014

11-11: Low Tide Photos On 09/19/2014-11 Page 140



Reef 3 003 Water ward most pile building 1 at low tide 9/19/2014



Reef 3 004 Looking south, the yellow is building 2 at low tide 9/19/2014

11-12: Low Tide Photos On 09/19/2014-11 Page 141



Reef 3 005 Looking south, the yellow is building 2 at low tide 9/19/2014



Reef 3 007 Building 1 northeast corner of bag return at low tide 9/19/2014

The following three photos depict site conditions near low tide



Photo taken by DCM staff on September 24, 2014, of Building 6 (yellow), Building 7 (blue) and Building 8 (peach), Topsail Reef (looking south).



Photo taken by DCM staff on September 24, 2014, looking north showing the erosion escarpment and existing sand bag structures at Buildings 8-1, Topsail Reef (from left to right, respectively).



Photo taken by DCM staff on September 24, 2014, showing the erosion escarpment and existing sand bag structure in front of Building 8, Topsail Reef (looking south from Building 7).



Ms. Debbie Wilson, Regional Manager N. C. Division of Coastal Management Wilmington Regional Office 127 Cardinal Drive Extension Wilmington, NC 28405

Re: Emergency Modification to CAMA Permit #39-12
Topsail Reefs Condominiums
North Topsail Beach, Onslow County, North Carolina
CAMA Permit #

Dear Ms. Wilson:

On behalf of the Topsail Reef HOA, an emergency modification to the referenced permit is requested. Work under this modification includes installation of additional sandbags along the ocean shoreline fronting buildings 6, 7 and 8 of the Topsail Reef condominiums. It is proposed to add sand bags to achieve the sand bag revetment structure section permitted and installed on front of Buildings 1 through 5 in 2012. The applicant proposes to install additional sand bags along approximately 575 linear feet of shoreline from just south of the front of building 5 to the property line south of building 8.

The following documents are attached:

- Project Narrative
- Figures 1 through 6
- Sheets 01 through 05
- Copies of letters to adjacent property owners
- Postal mail order in the amount of \$100

The Narrative provides the information to justify the "imminently threatened" status of buildings 6, 7 and 8. Beach profile plots are provided showing erosion of the beach from May 2013 to April 2014. Measurements of the berm location shows progressive berm erosion from May 2013 to August 21, 2014. Photographs of the beach and revetment on August 21, 2014 show exposure of the revetment toe along the northern portion of the project and limited remaining berm protect for the southern buildings. Drawings showing the existing and proposed revetment sections and footprints are also provided.

Work to install additional bags will begin three weeks following approval of the permit modification. This period constitutes the lead time for manufacture and delivery of bags and mobilization of equipment and crews to the site. This is an important factor in evaluating this modification request since the berm is receding at a rate of 0.5 to 1.1 feet per day. A significant storm or other erosional event during the review and approval period could result in loss of the berm and escalation of the cost, time required, and risks to the contractor and to the property.

Ms. Debbie Wilson Emergency Shore Protection Topsail Reefs Condominiums (CAMA Permit #39-12) North Topsail Beach, Onslow County, North Carolina

Time is of the essence. Your attention and approval of this request at the earliest possible date is requested.

If you have any questions or need additional information, please feel free to call me.

Sincerely,

BEARING POINT CONSULTING

James W. (Bill) Forman, Jr., P.E. 3/22/14

Senior Engineer

Attachments

CC: Donald Street, President, Topsail Reef HOA

Yogi Harper, ECS, LLC

Clark Wright

MODIFICATION OF CAMA MAJOR PERMIT 39-12 EXPANSION OF SAND BAG REVETMENT FRONTING BUILDINGS 6, 7 AND 8 TOPSAIL REEF CONDOMINIUMS NORTH TOPSAIL BEACH, ONSLOW COUNTY, NORTH CAROLINA PROJECT NARRATIVE

AUGUST 22, 2014

INTRODUCTION

The Topsail Reef HOA requests an emergency modification to Major CAMA Permit 39-12, issued May 4, 2012. Work under this modification includes installation of additional sandbags along the ocean shoreline fronting buildings 6, 7 and 8 of the Topsail Reef Condominiums (Reef). It is proposed to add additional sand bags along approximately 575 linear feet of shoreline from the front of building 5 to the property line south of building 8 to achieve the sand bag revetment section permitted and installed on front of buildings 1 through 5 in 2012.

PROJECT LOCATION

The Reef property is located at 2224 New River Inlet Road in North Topsail Beach, in Onslow County, North Carolina (Sheet 01). The project was constructed between 1980 and 1981 and includes eight buildings each with thirty condominium units (total of 240 units). Each building has a total floor area of approximately 19,960 square feet. The buildings are numbered 1 through 8 from north to south along the Atlantic Ocean beach front.

The property is located at the northeast end of the Town of North Topsail Beach approximately 0.25 miles from New River Inlet. The property is located in the Ocean Erodible Zone and High Hazard Flood Area of Environmental Concern (AEC).

PROJECT HISTORY

The First Permit - In February 2012, the Division of Coastal Management (DCM) issued a CAMA General Permit to the Topsail Reef Homeowners Association to install a sandbag revetment along 1,500 linear feet of ocean shoreline in front of eight buildings. The bag revetment was limited to a section 6 feet high and 20 feet wide (Sheet 03) at the base (hereinafter referred to as the 6 x 20 revetment). The sand bag revetment installation was initiated by Erosion Control Services (ECS) in March 2012 and completed in October 2012, only days before Hurricane Sandy impacted the site.

As of April 13, 2012, approximately 650 linear feet of revetment adjacent to buildings # 8, 7, 6 and part of building 5 was completed. During the period from April 11 to April 13, 2012, the property was impacted by a moderate northeaster that occurred during a high lunar tide. Between April 12 and April 18, 2012, a 116 hour period, the winds were strong from the southwest. The elevation of the sand on the beach and under the property eroded vertically 51 inches (4.3 feet). As a result, the 6 foot height of the revetment was insufficient to provide adequate protection for the buildings. There was settlement of the 6 x 20 revetment and displacement of bags along the toe of the structure.

Subsequently, the HOA applied for an emergency Major CAMA Permit on May 3, 2012 for a sandbag revetment with a 45 foot base width and 12 foot crest elevation. The permit request was for placement of the larger revetment 45 feet wide with a top elevation of +12 feet for buildings 1 through 8.

On May 24, 2012, the Coastal Resource Commission granted a variance for a sandbag revetment 45 feet wide with a maximum height of 12' NAVD for buildings 1 through 5 to extend a maximum distance of twenty-nine feet seaward from the most water-ward piles. DCM issued a permit pursuant to the Variance that included conditions limiting the sandbag alignment in front of buildings 6, 7 and 8 to a 6 x 20 revetment allowed by the General Permit.

On October 10, 2012, the revetment was completed as well as repairs to the revetment in front of buildings 6, 7 and 8. Hurricane and super-storm Sandy impacted the North Carolina coast on October 28 creating strong winds, swells and storm surge causing the nearshore flood channel to be pushed up against the shoreline directly against the revetment from the northeast corner of building 1 to the northeast corner of building 6.

The flood channel ran south of the Reef towards the St. Regis Condominiums. By October 31, 2012, the channel was 3 or 4 feet deep at low tide along the Reef property. The revetment in front of buildings 1 through 5 performed well even with the flood channel pressed up against the toe allowing severe wave action to impact the structure. The flood channel did not reach the sandbags along buildings 6 and 7 and part of 8 but was eventually pushed up against the bags on buildings north of building 8. The channel then filled naturally as the offshore bar moved onshore. There was not sufficient erosion to cause undermining of the toe of the 6 x 20 revetment fronting buildings 6, 7 and 8. Had the flood channel reached the toe of the bags fronting buildings 6, 7 and 8, there was not a sufficient number of bags to provide protection of the toe should it collapse. The mechanism of the progressive collapse of the revetment to provide

protection of the toe would have removed bags from the face of the structure exposing the remainder of the revetment to wave action and over wash. There was not a sufficient number of bags in the structure to prevent a massive failure of the revetment in that section.

Inlet Dredging and Beach Nourishment- In November 2012, dredging for relocation of the New River Inlet channel began with the dredged sand placed on the beach south of the inlet. Material removed from the inlet was placed along 7,735 feet of shoreline to widen the beach berm (+6.0 ft. NAVD) approximately 135 feet. The project extended south from New River Inlet to Shipwatch Villas, or from USACE reference station 1163+00, on the north end of Topsail Island, to station 1090+00 (Figure 1). Approximately 592,000 CY were removed from the 3,500 ft long channel and placed on the shoreline of North Topsail Beach. The fill area experienced a waterline extension (+1.4 ft. NAVD) an average distance of 170 feet. The in-place volumetric calculations reflect the beach received approximately 566,244 CY, or an average fill density of 73 cy/lf (CP&E, May 2013). The seaward extent of the berm, the 6' elevation contour, is shown on Sheet 02. For reference, the beach stations are shown on the attached CP&E Figure 1.

The rate of erosion of the beach fill has been extraordinary as illustrated by plots of beach profiles surveyed in May 2013 and April 2014 at beach monitoring stations 11+40, 11+45, 11+50 and 11+55, the stations along the beach at the Reef Condominiums (Figures 2, 3, 4, 5 and 6). The face of the berm (approximate 6' elevation contour) has receded from 105 feet at station 11+40 to 167 feet at station 11+55.

Sheet 02 shows the progressive movement of the face of the berm from May 13, 2013 through August 21, 2014. These measurements were made by ECS and are based on the horizontal distance from the end of walkways in front of each building to the edge of the escarpment, or the approximate 6 foot elevation contour. The measurements are provided in Tables 1 and 2. The measurements show an extraordinary rate of erosion of the berm in front of the Reef since the beach nourishment project. There is no reason to believe that it will abate in the weeks and months to come.

As of August 21, 2014, the flood channel is encroaching upon the revetment toe in front of buildings 1, 2, 3 and 4. Installation of measures to shore up the existing revetment in those areas would be difficult and expensive. It is imperative that work to shore up the revetment in front of buildings 6, 7 and 8 be implemented before the flood channel is encroaching on the revetment toe as it is in front of buildings 1

through 4. Loss of the berm would result in a limited work window of 2 to 4 hours per day only during periods of low tide. Operation of equipment for filling and placing bags would have to be behind a temporary sand bag berm placed seaward of the operations to protect workers and equipment from waves and soft sand. It will be safer, less expensive, require less time and be less disruptive for beach users if there is some berm remaining when the bag installation takes place.

The applicant is in the process of obtaining beach profiles from the buildings seaward to approximately -10.0 (NGVD). That profile data will be available from Gahagan and Bryant on August 25 and will be made available to DCM by August 29, 2014. Those profiles will show the location and extent of the flood channel from south of the Reef to the inlet and the extent of the berm along the shoreline at the Reef.

The rate of loss of the berm along the Reef beach front is from 8 to 12 feet per month for the period from May 2013 to August 2014. Over the last 58 days, from June 25 to August 21, 2014, the rate of berm recession has been from 0.5 to 1.1 feet per day. The rate of change at building 5 through 8 is at the low end of that range but, the changes are continuous.

Table 1 – Measurements to Edge of Berm, May 13, 2013 to August 21, 2014 (from ECS)

Bldg.	5/13/13	6/25/14	7/3/14	7/5/14	7/12/14	7/14/14	7/15/14	7/16/14	7/20/14	7/29/14	8/7/14	8/21/14
8	195'	106'	102'	99'	92'	92'	85'	83'	82'	82'	77'	61'
7	190'	96'	92'	90'	82'	81'	74'	71'	71'	71'	63'	41'
6	190'	85'	80'	76'	72'	70'	63'	57'	56'	56'	49'	34'
5	190'	74'	67'	63'	60'	58'	53'	48'	47'	46'	30'	27'
4	185'	61'	57'	51'	48'	46'	42'	39'	38'	33'	12'	0
3	180'	42'	40'	20'	20'	18'	15'	12'	17'	16'	-20'	-20'
2	170'	19'	16'	6'	6'	1'	0'	-11'	-11'	-24'	-24'	-24'
1	170'	3'	-5'	-10'	-14'	-16'	-24'	-24'	-24'	-24'	-24'	-24

Table 2 – Total Berm Retreat Distances, During July and August 2014 and from May 2014 to August 2014 (from ECS)

@ Building	8	7	6	5	4	3	2	1
Loss from to 6/25/14 to 8/21/14	45'	33'	51'	47'	61 ^{′(1)}	62′(2)	43'(2)	27 ⁽³⁾
Loss from May 2013 to August		<u></u>	= = =					
2014, 17 months	134'	149'	156'	163'	185'	200'	194'	194'

- (1) Total berm retreat in 51 days, shoreline at toe of revetment
- (2) Total berm retreat in 40 days, shoreline at toe of revetment
- (3) Total berm retreat in 20 days, shoreline at toe of revetment



Photo 1 – Building 1 looking north, August 21, 2014

Photo 1 shows the beach just north of building 1 on August 21, 2014. Ocean waves are impacting the beach at high tide allowed by the deep water in the flood channel seaward of the beach. The flood channel has migrated toward the beach to where it is against the toe of the revetment.

Photo 2 shows the toe of the revetment at high tide. Photo 3 is taken standing on the walkway in front of building 3 looking south. Note that the toe of the revetment is exposed on front of buildings 4 and 5. The remaining berm is visible in the distance. Photos 3 and 4 show the condition of the berm in front of building 4, 5 and 6. Note that the berm is essentially gone in front of building 4. A small portion of the berm remains in front of building 5. Some berm remains in front of building 6.



Photo 2 - Building 1 toe of revetment, August 21, 2014



Photo 3 – At building 3 looking south at buildings 4 and 5, August 21, 2014



Photo 4 – At building 4 looking south at buildings 5 and 6, August 21, 2014

PROJECT DESCRIPTION - MODIFICATION

It is essential that the sandbag structure in front of buildings 6, 7 and 8 be enlarged on an emergency basis to provide adequate toe protection in the event of scour to prevent failure of the 6 x 20 revetment and provide adequate protection to buildings 8, 7 and 6 as was previously found by the CRC to be appropriate for structures along this shoreline threatened by the extreme erosion ongoing in this area. It is proposed to add sand bags to the revetment in front of buildings 5, 6, 7 and 8 to achieve a 45 foot wide by 12 foot high revetment section similar to the section in front of buildings 1 through 5 (Sheet 04). The existing revetment footprint fronting all 8 buildings is shown on Sheet 02. A section of the existing 6 x 20 revetment fronting buildings 6, 7 and 8 is shown on Sheet 03.

The footprint of the revetment will be expanded starting in front of building 5 and will extend south to the property line south of building 8. A wrap around structure will be installed south of building 8 similar the structure north of building 1. The footprint and sections of the proposed revetment expansion are shown on Sheet 02. The expanded sand bag revetment section is shown on Sheet 04.

CONSTRUCTION METHODS

Installation of additional bags will require that the oceanfront row of bags be removed to expose the geotextile scour apron beneath the existing bags. Additional scour apron material will be added and overlap the existing material. Excavation of sand in front of the 6×20 revetment will be required. The extent of excavation required will depend on how much of the berm remains in front of the revetment at the time of installation. The bags removed will be replaced and new bags placed in accordance with the section shown on Sheet 04 with a footprint 45 feet wide at the base and up to a top elevation of ± 12 (NGVD).

SCHEDULE

Work to install additional bags will begin three weeks following approval of the permit modification. This period constitutes the lead time for manufacture and deliver of bags and mobilization of equipment and crews to the site. This is an important factor in evaluating this modification request since the berm is receding at a rate of 0.5 to 1 feet per day. A significant storm or other erosional event during the review and approval period could result in loss of the berm and escalation of the cost, time required, and risks to the contractor and to the property.

ADJACENT PROPERTY OWNERS

Mr. Stuart Turille, Town Manager Town of North Topsail Beach 2008 Loggerhead Court North Topsail Beach, NC 28460

Jesse Fisher 600 S. Madison St. Whiteville, NC 28472

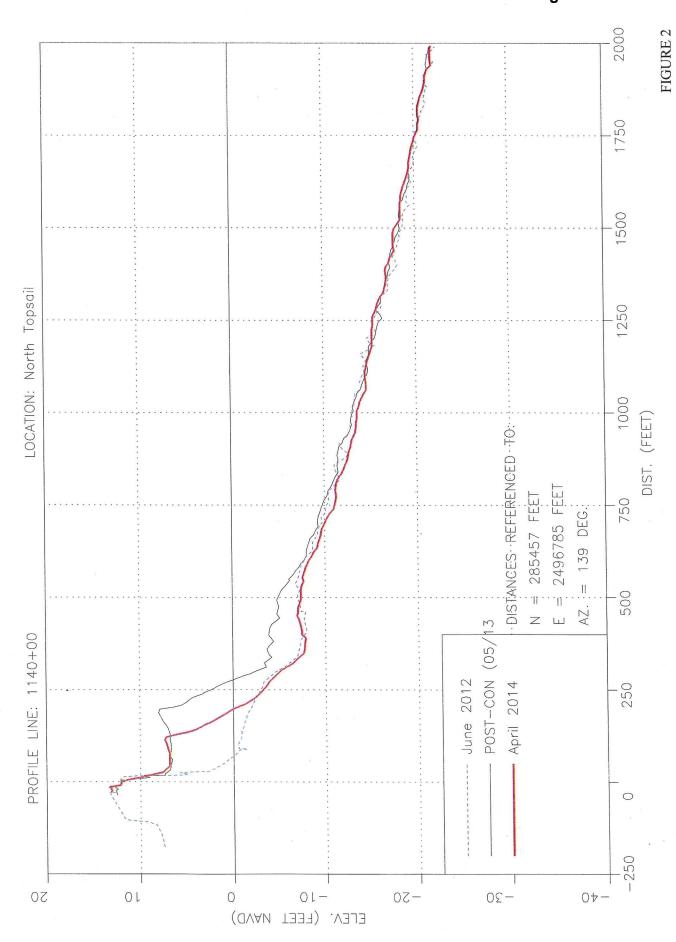
Fausto Polanco 2276 New River Inlet Rd. Sneads Ferry, NC 24860

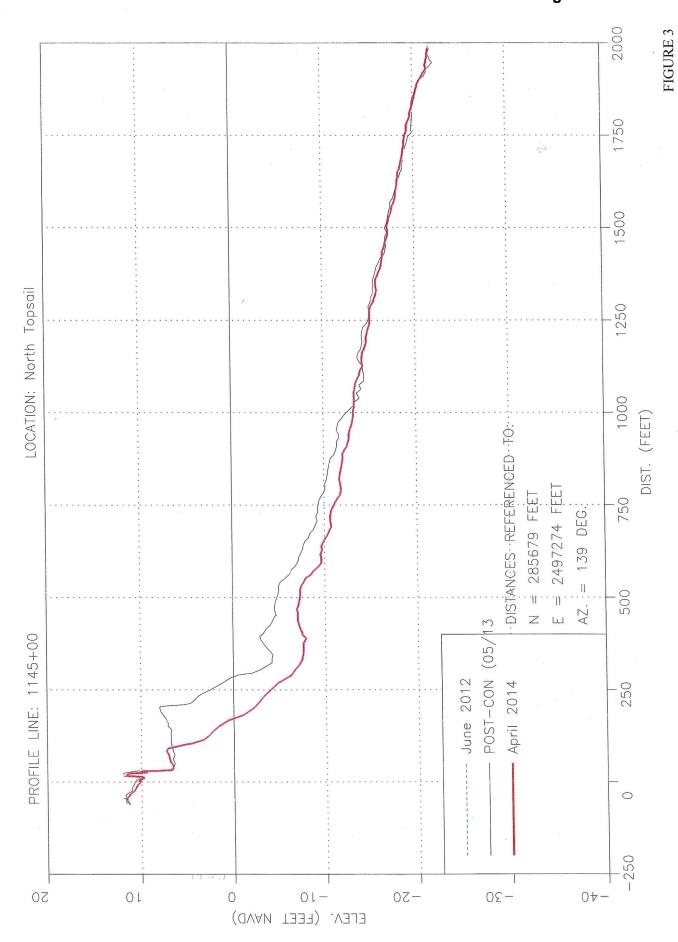
Copies of letters sent to adjacent property owners are attached.

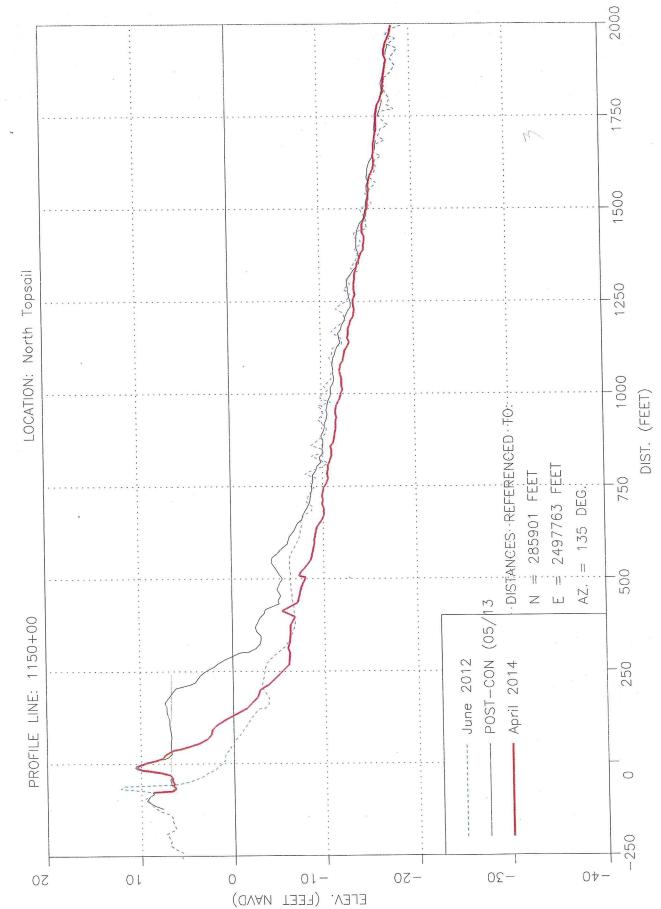
ACKNOWLEDGMENTS

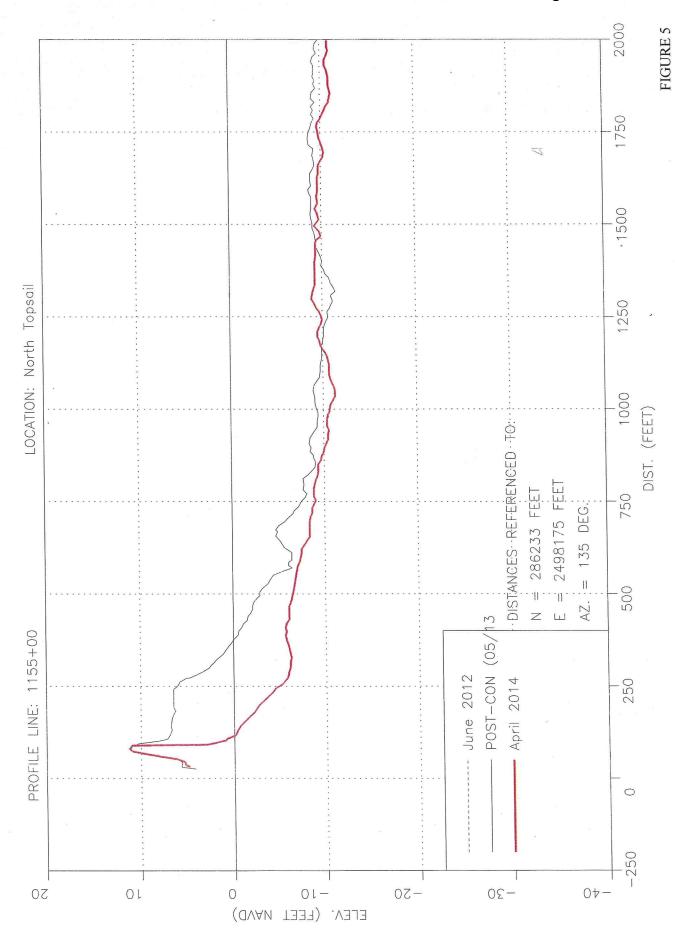
This narrative is based on information, personal communications and data provided by Tom Jarrett of Coastal Planning and Engineering (CP&E) of North Carolina in Wilmington, NC, and Yogi Harper of Erosion Control Specialists of North Carolina, Inc., of Chesapeake, Virginia.

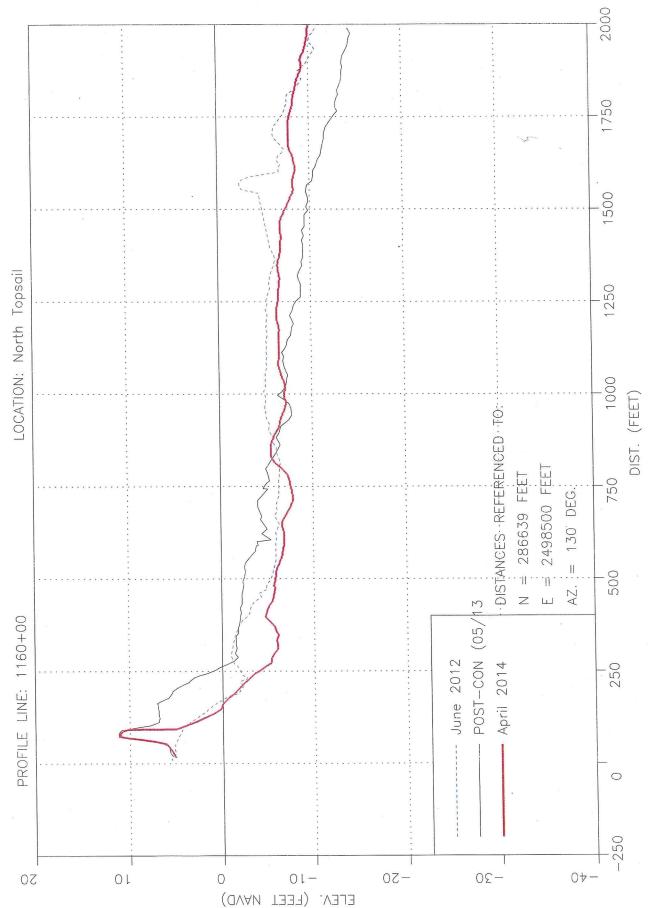


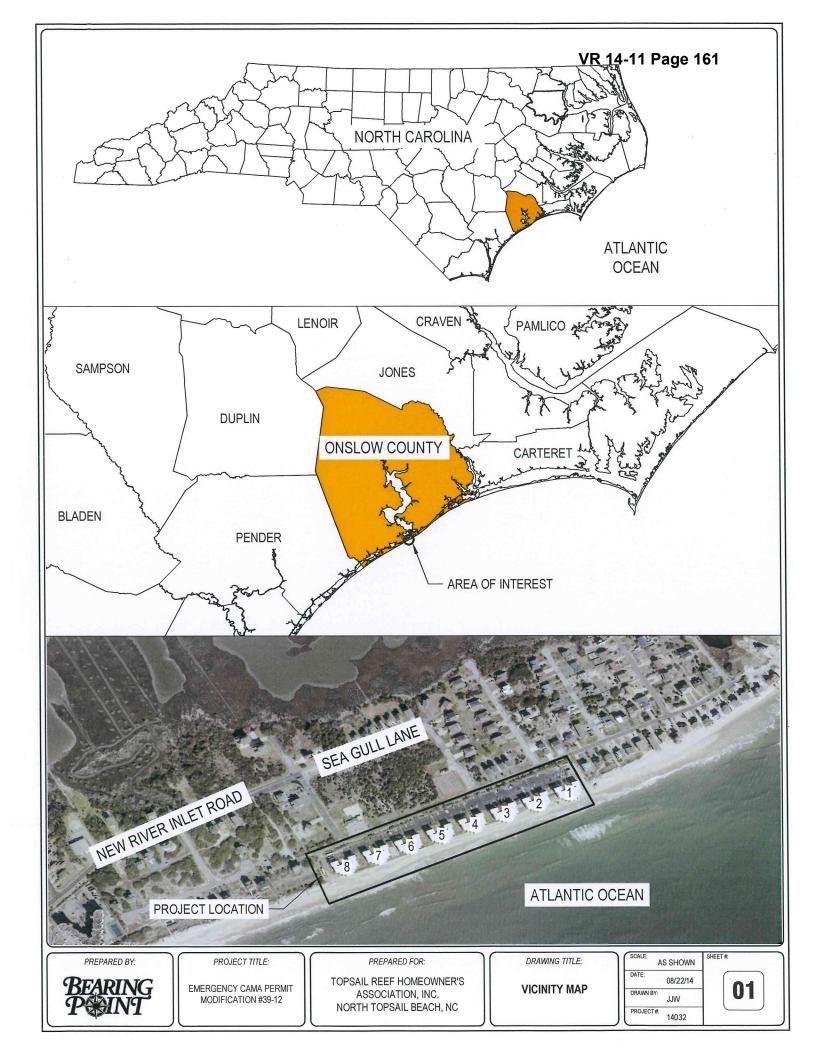


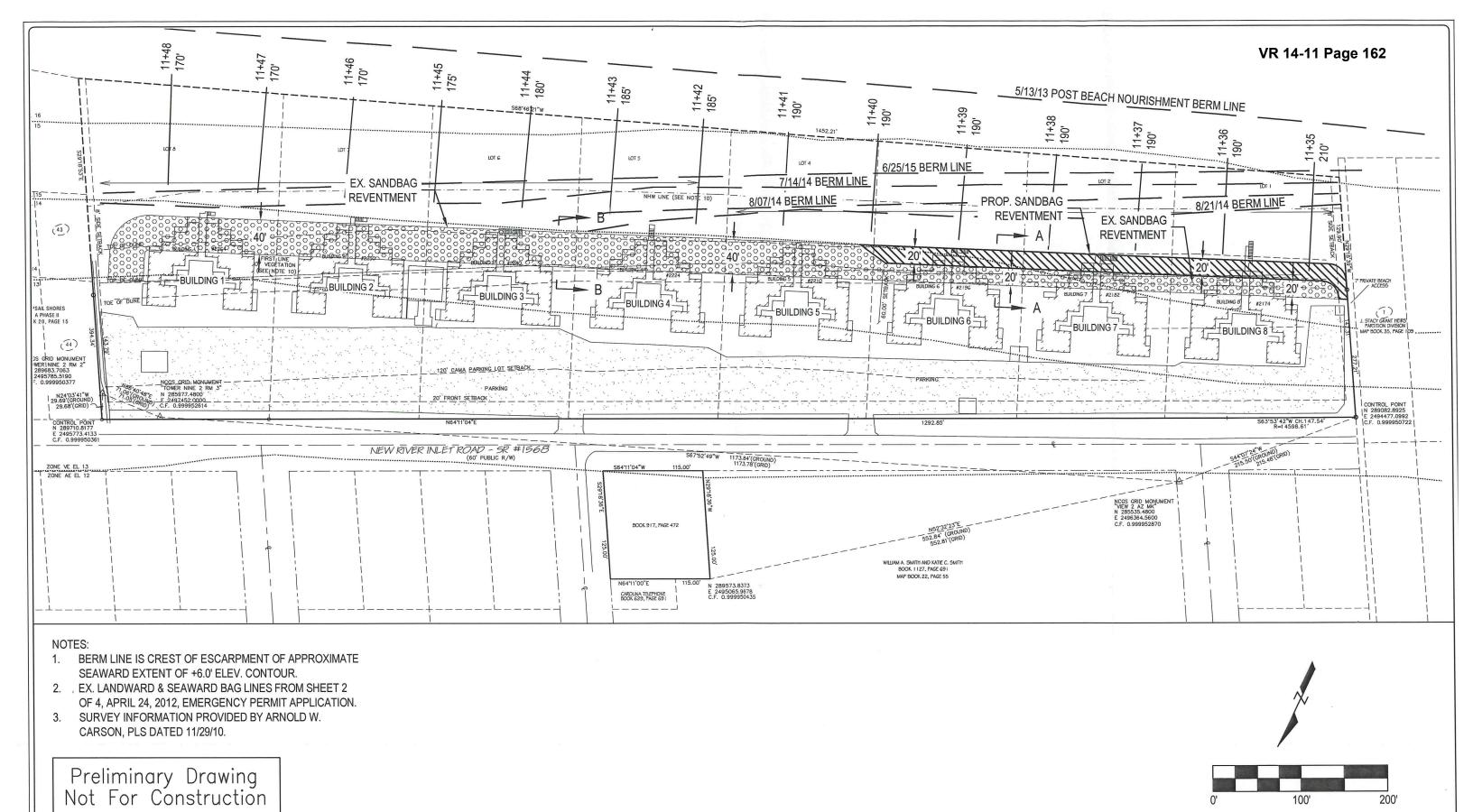


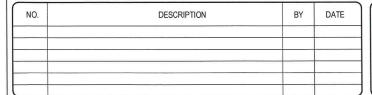












BEARING POINT

910 ARENDELL STREET MOREHEAD CITY, NC 28557 PHONE: (252) 247-4200 FAX: (252) 247-7300 www.bearingpt.com

CLIENT:

TOPSAIL REEF HOMEOWNER'S ASSOCIATION 2224 NEW RIVER INLET ROAD, #131 NORTH TOPSAIL BEACH, NC 28460

PROJECT:

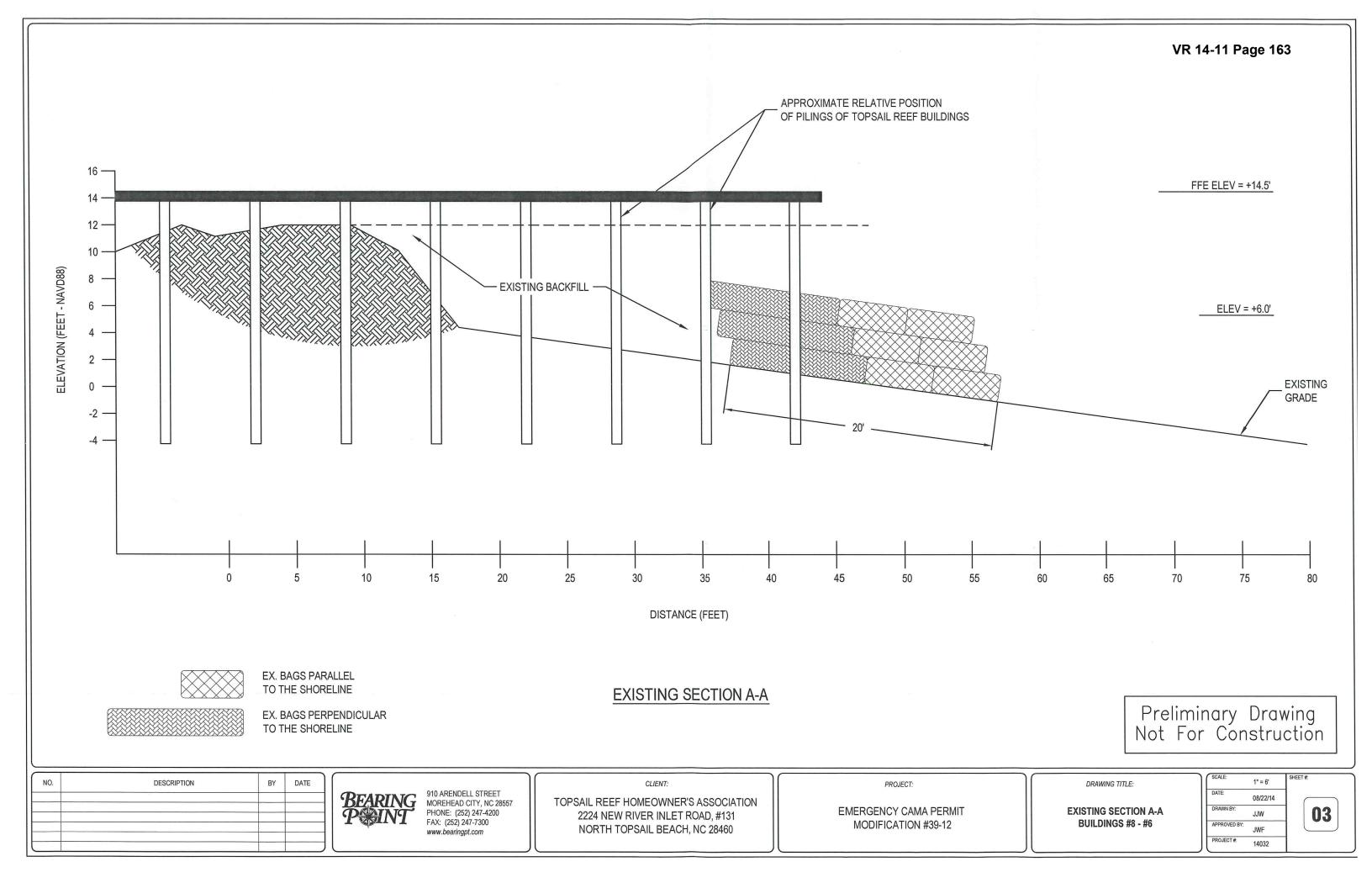
EMERGENCY CAMA PERMIT MODIFICATION #39-12

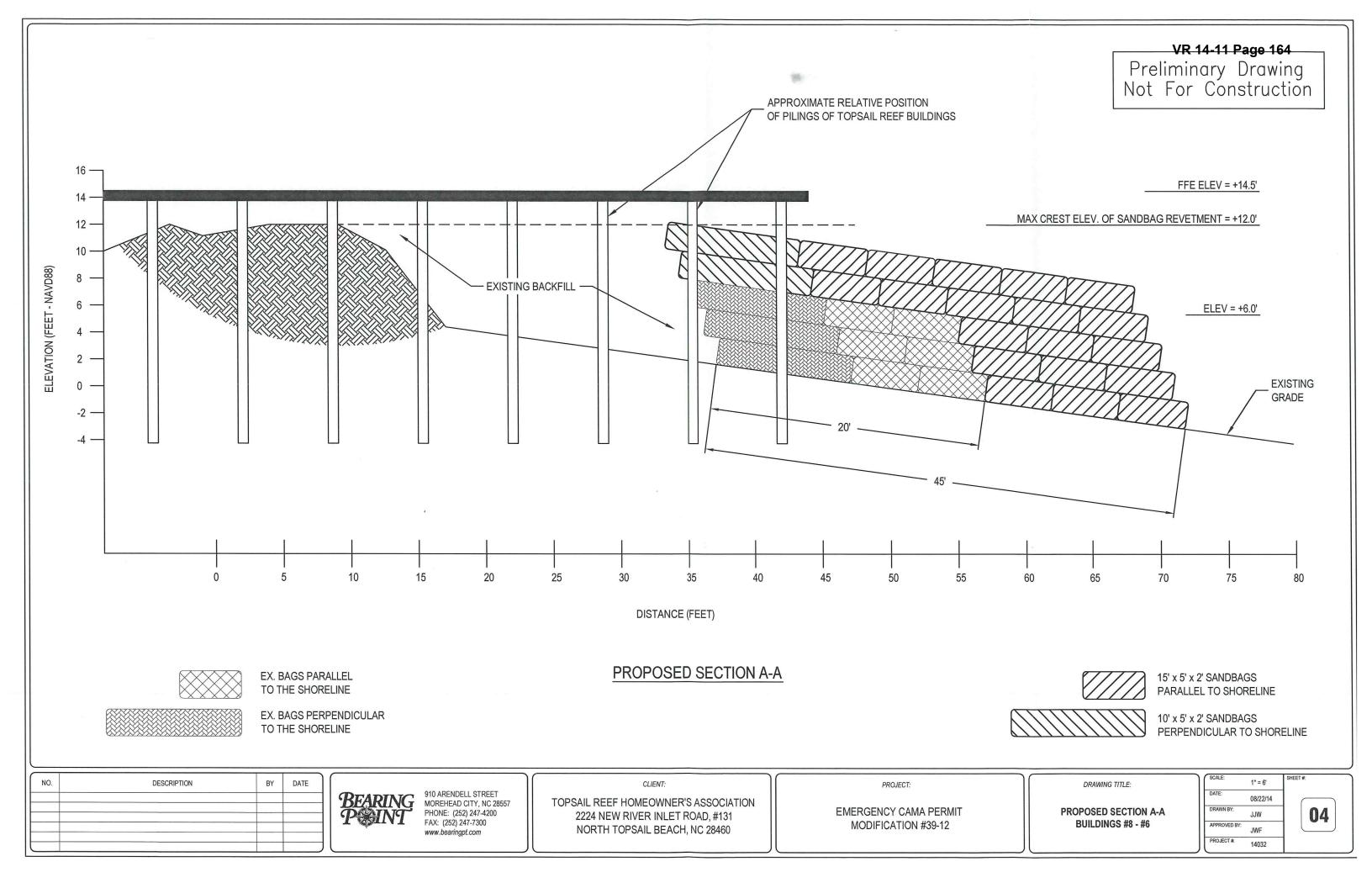
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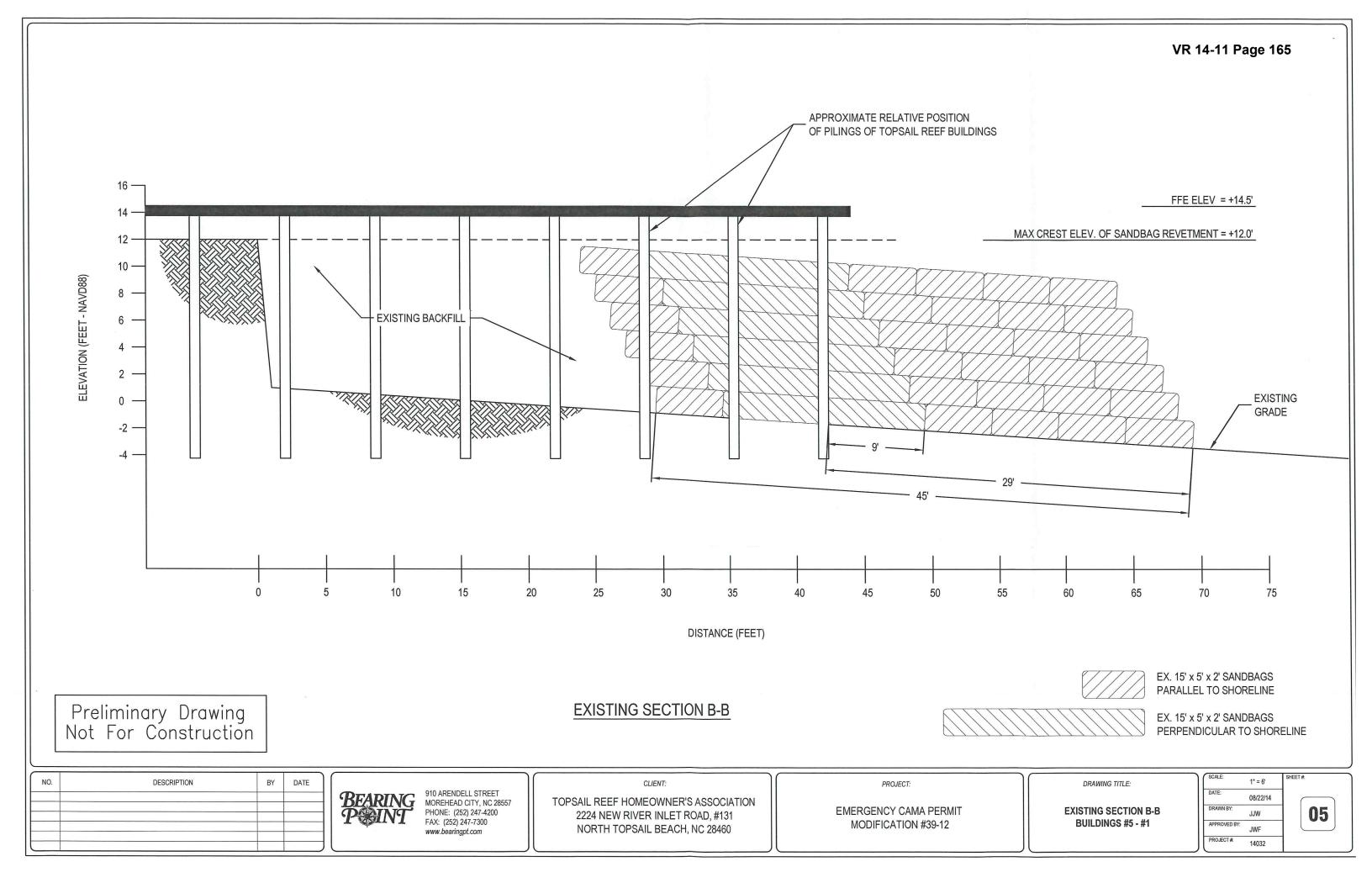
SITE PLAN

DATE: DRAWN BY: APPROVED B PROJECT#.

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	08/22/14	
	JJW	02
3Y:	JWF	
	14032	







Mr. Stuart Turille, Town Manager Town of North Topsail Beach 2008 Loggerhead Court North Topsail Beach, NC 28460



Subject:

Modification of CAMA Major Permit 39-12

Expansion of Sand Bag Revetment Fronting Buildings 6, 7 and 8

Reef Condominiums

North Topsail Beach, Onslow County, North Carolina

Dear Mr. Turille:

The Topsail Reef Homeowners Association (HOA) has is requesting an emergency modification to an existing Major CAMA permit to allow expansion of the sand bar revetment on front of buildings 6, 7, and 8 to a section and footprint similar to that in front of Building 1, 2, 3, 4 and part of building 5. The new sandbag design would have a crest elevation of approximately +12.0 feet NAVD88, about 2.5 feet below the first floor elevation of the buildings. The base width of the modified sand bag revetment would be about 45 feet. A copy of the permit modification request is attached for your information.

This letter is in response to CAMA permit application requirements to notify adjacent property owners of the intended action. Adjacent property owners have the right to protest the application. Topsail Reef would hope you would join the fight to take back the beach.

Since this is an emergency permit request, time is of the essence. Please acknowledge receipt of this letter by signing below and return the signed letter to Bill Forman at Bearing Point Consulting by mail, fax or email. If you have comments, pro or con, concerning the project, please attach those comments to the returned letter.

If you have any questions concerning the project, please feel free to call me.

Thank-you for your cooperation concerning this matter.

Sincerely,

BEARING POINT CONSULTING, INC.	ACKNOWLEDGE:	
1 which	Signature	
- Juns 12		
James W. (Bill) Forman, Jr., P.E.	Date	

Attachments

Senior Engineer

CC: Debbie Wilson, N.C. Division of Coastal Management Donald Street, President, Topsail Reef HOA

Mr. Jesse Fisher 600 South Madison Street Whiteville, NC 28472



Subject:

Modification of CAMA Major Permit 39-12

Expansion of Sand Bag Revetment Fronting Buildings 6, 7 and 8

Reef Condominiums

North Topsail Beach, Onslow County, North Carolina

Dear Mr. Fisher:

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If you have any questions concerning the project, please feel free to call me.

Thank-you for your cooperation concerning this matter.

Sincerely,

BEARING POINT CONSULTING, INC.

ACKNOWLEDGE:

Signature

Date

Attachments

Senior Engineer

CC: Debbie Wilson, N.C. Division of Coastal Management Donald Street, President, Topsail Reef HOA

Mr. Fausto Polanco 2276 New River Inlet Road Sneads Ferry, NC 24860



Subject:

Modification of CAMA Major Permit 39-12

Expansion of Sand Bag Revetment Fronting Buildings 6, 7 and 8

Reef Condominiums

North Topsail Beach, Onslow County, North Carolina

Dear Mr. Polanco:

The Topsail Reef Homeowners Association (HOA) has is requesting an emergency modification to an existing Major CAMA permit to allow expansion of the sand bar revetment on front of buildings 6, 7, and 8 to a section and footprint similar to that in front of Building 1, 2, 3, 4 and part of building 5. The new sandbag design would have a crest elevation of approximately +12.0 feet NAVD88, about 2.5 feet below the first floor elevation of the buildings. The base width of the modified sand bag revetment would be about 45 feet. A copy of the permit modification request is attached for your information.

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If you have any questions concerning the project, please feel free to call me.

8/22/14

Thank-you for your cooperation concerning this matter.

Sincerely,

BEARING POINT CONSULTING, INC.	ACKNOWLEDGE:	
Jam W. Fan J	Signature	
James W (Bill) Forman Ir PF	Date	

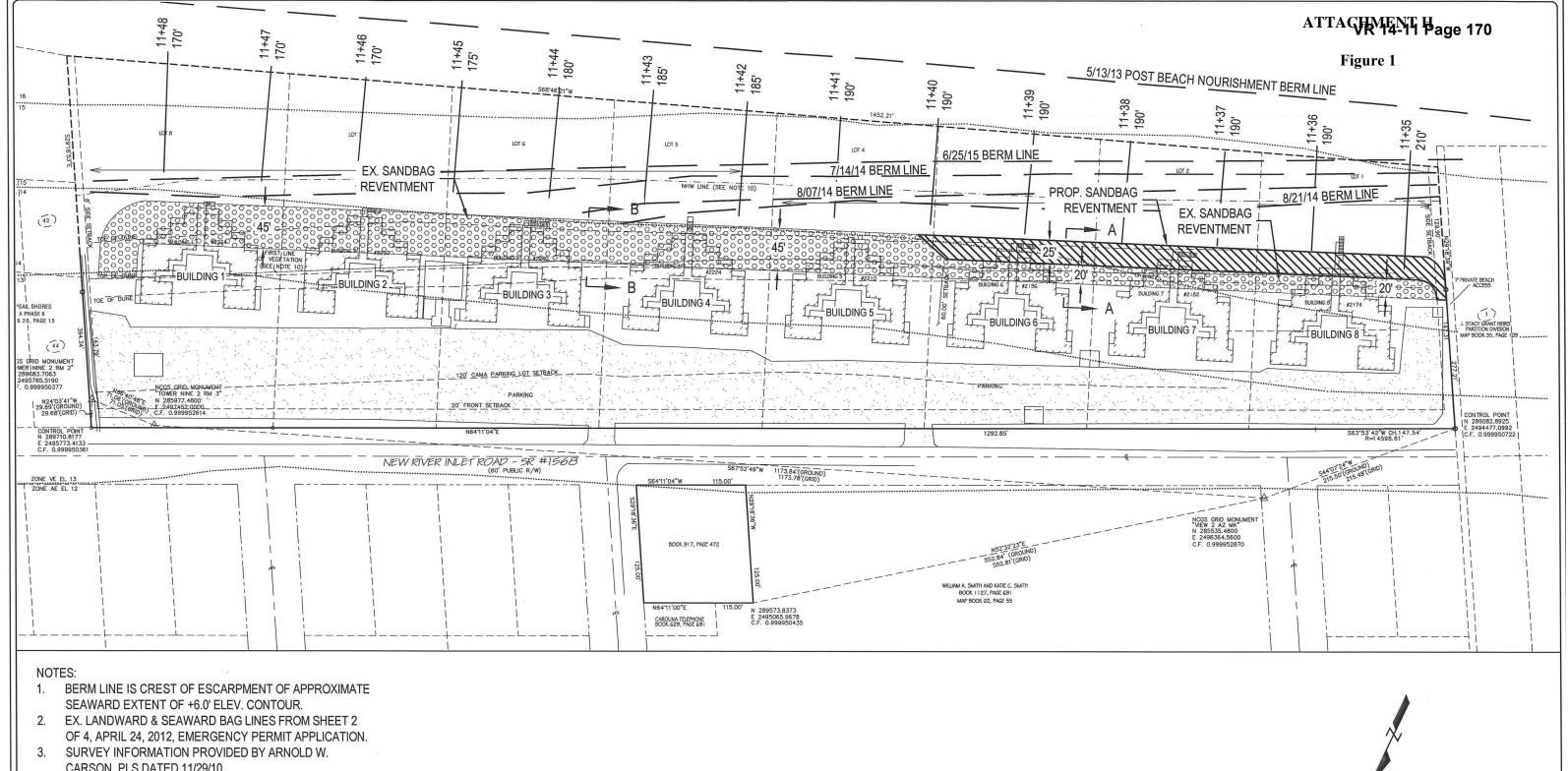
Attachments

Senior Engineer

CC: Debbie Wilson, N.C. Division of Coastal Management Donald Street, President, Topsail Reef HOA

ATTACHMENT G

	VR 14-11 Page 169
OCEAN HAZA	RD AEC NOTICE
Project is in an: A Ocean Erodible Area	/ — High Hazard Flood Area —— Inlet Hazard Area
	sme owner's Assoc. Inc.
	WRIVER Inlet Road
Date Lot Was Platted: 1978 - 79	977B, NC 28460
This notice is intended to make you, the applicant, aware of the special risks and conditions associated with development in this area, which is subject to natural hazards such as storms, erosion and currents. The rules of the Coastal Resources Commission require that you receive an AEC Hazard Notice and acknowledge that notice in writing before a permit for development can be issued.	SPECIAL NOTE: This hazard notice is required for development in areas subject to sudden and massive storms and erosion. Permits issued for development in this area expire of December 31 of the third year following the year in which the permit was issued. Shortly before work begins on the project site, the Local Permit Officer must be contacted to determine the vegetation line and setback distance at your site. If the property has seen little change since the time of permit issuance, and the
The Commission's rules on building standards, oceanfront setbacks and dune alterations are designed to minimize, but not eliminate, property loss from hazards. By granting permits, the Coastal Resources Commission does not guarantee the safety of the development and assumes no liability for future damage to the development. Permits issued in the Ocean Hazard Area of Environmental Concern include the condition that structures be relocated or dismantled if they become imminently threatened by changes in shoreline configuration. The structure(s) must be relocated or dismantled within two (2) years of becoming imminently threatened, and in any case upon its collapse or subsidence.	proposed development can still meet the setback requirement the LPO will inform you that you may begin work. Substantial progress on the project must be made within 60 days of this setback determination, or the setback must be re-measured. Also, the occurrence of a major shoreline change as the result of a storm within the 60-day period will necessitate re-measurement of the setback. It is important that you check with the LPO before the permit expires for official approval to continue the work after the permit has expired. Generally, if foundation pilings have been placed and substantial progress is continuing, permit renewal can be authorized. It is unlawful to continue work after permit expiration.
The best available information, as accepted by the Coastal Resources Commission, indicates that the annual long-term average ocean erosion rate for the area where your property is located is feet per year.	For more information, contact: JASON DAIL-
The rate was established by careful analysis of aerial photographs of the coastline taken over the past 50 years.	Local Permit Officer 127 CARDINAL DR.
Studies also indicate that the shoreline could move as much as 210 feet landward in a major storm.	Address
The flood waters in a major storm are predicted to be about feet deep in this area.	WILMINGTON, NC 2-8405 Locality
Preferred oceanfront protection measures are beach nourishment and relocation of threatened structures. Hard erosion control structures such as bulkheads, seawalls, revetments, groins, jetties and breakwaters are prohibited. Temporary sand bags may be authorized under certain conditions.	910-796-7221 Phone Number
The applicant must acknowledge this information and requirements by signing this notice in the space below. Without the proper signature, the application will not be complete.	
Property Owner Signature 5/1/2012 Date	
Busperty Manager	
' 0	Revised May 2010



CARSON, PLS DATED 11/29/10.

Preliminary Drawing Not For Construction

NO.	DESCRIPTION	BY	DATE
1	REVETMENT FOOTPRINT REVISION	JWF	8/29/14
	*		



910 ARENDELL STREET MOREHEAD CITY, NC 28557 PHONE: (252) 247-4200

CLIENT:

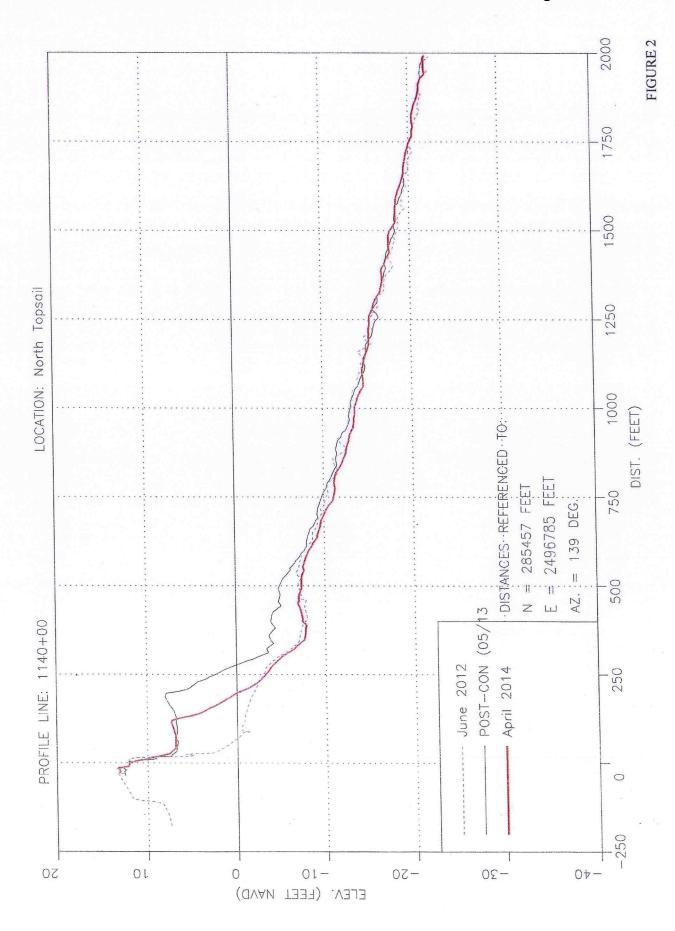
TOPSAIL REEF HOMEOWNER'S ASSOCIATION 2224 NEW RIVER INLET ROAD, #131 NORTH TOPSAIL BEACH, NC 28460

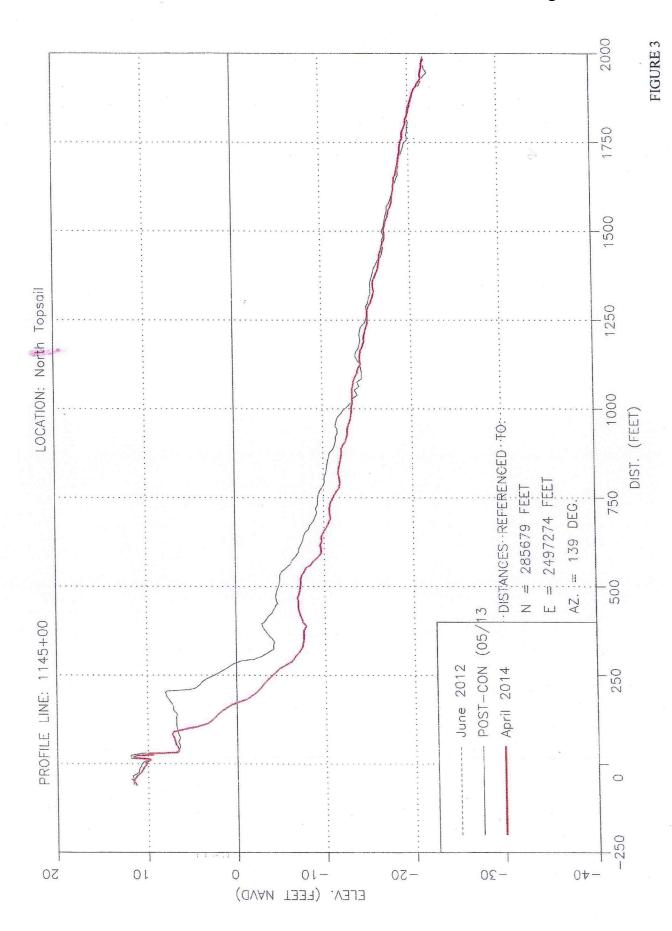
PROJECT:

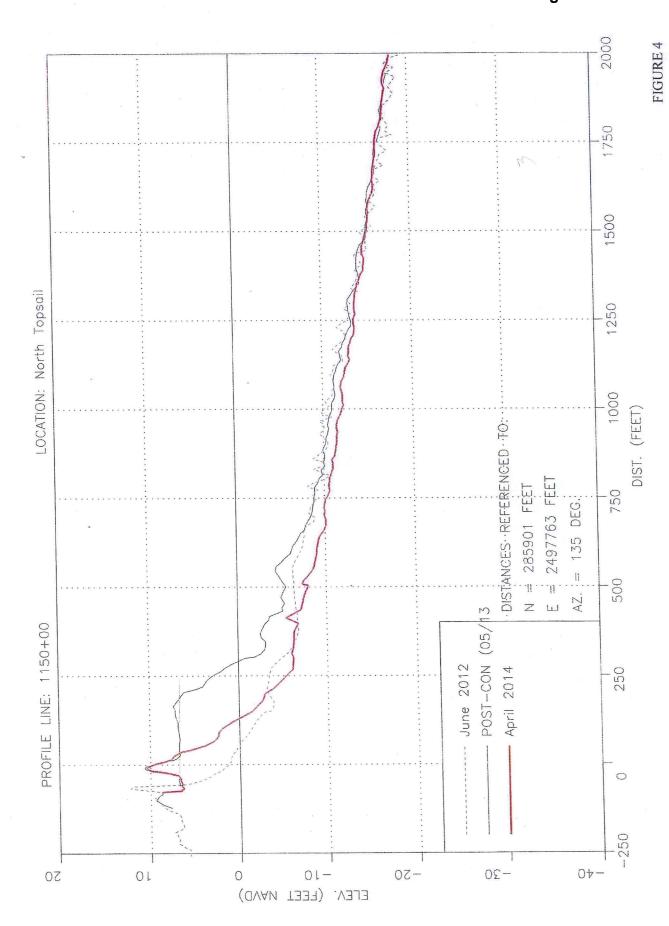
SITE PLAN

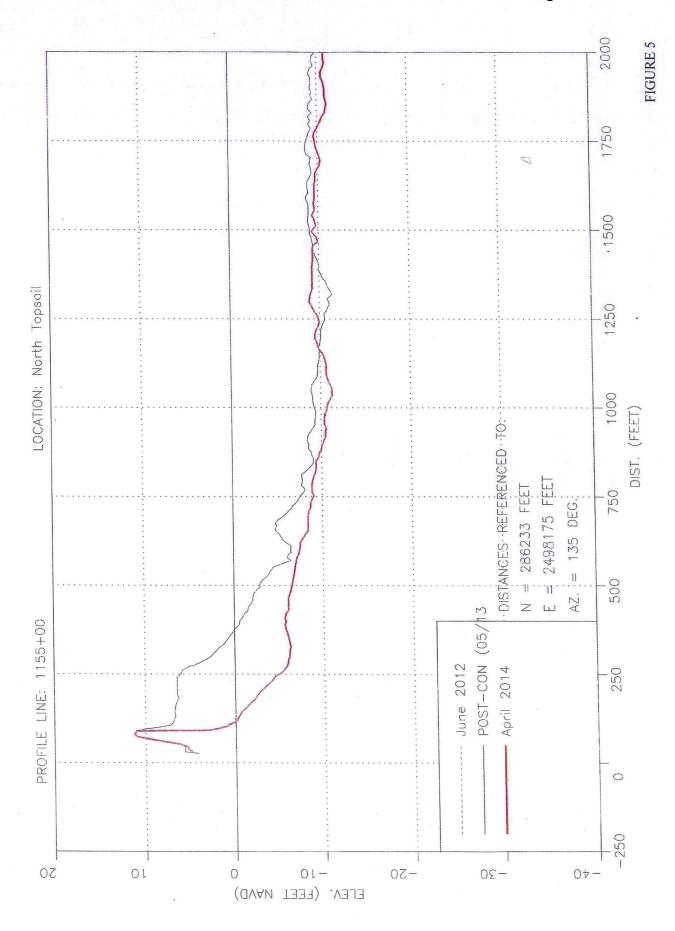
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DATE:	08/22/14	1 ,
DRAWN BY:	JJW	1
APPROVED BY:	JWF	1 (
PROJECT #.	14032	1

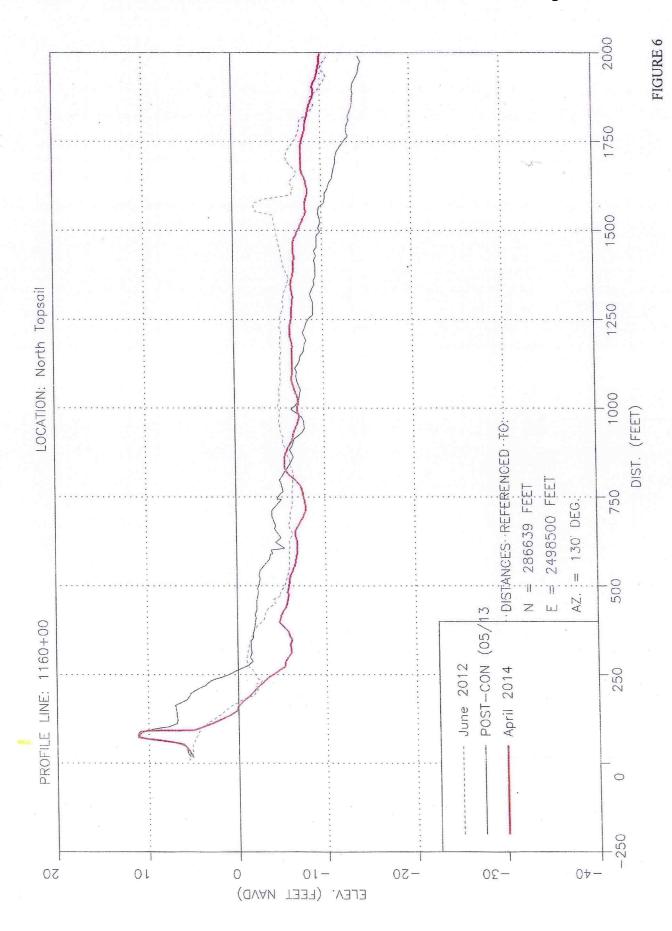
EMERGENCY CAMA PERMIT MODIFICATION #39-12

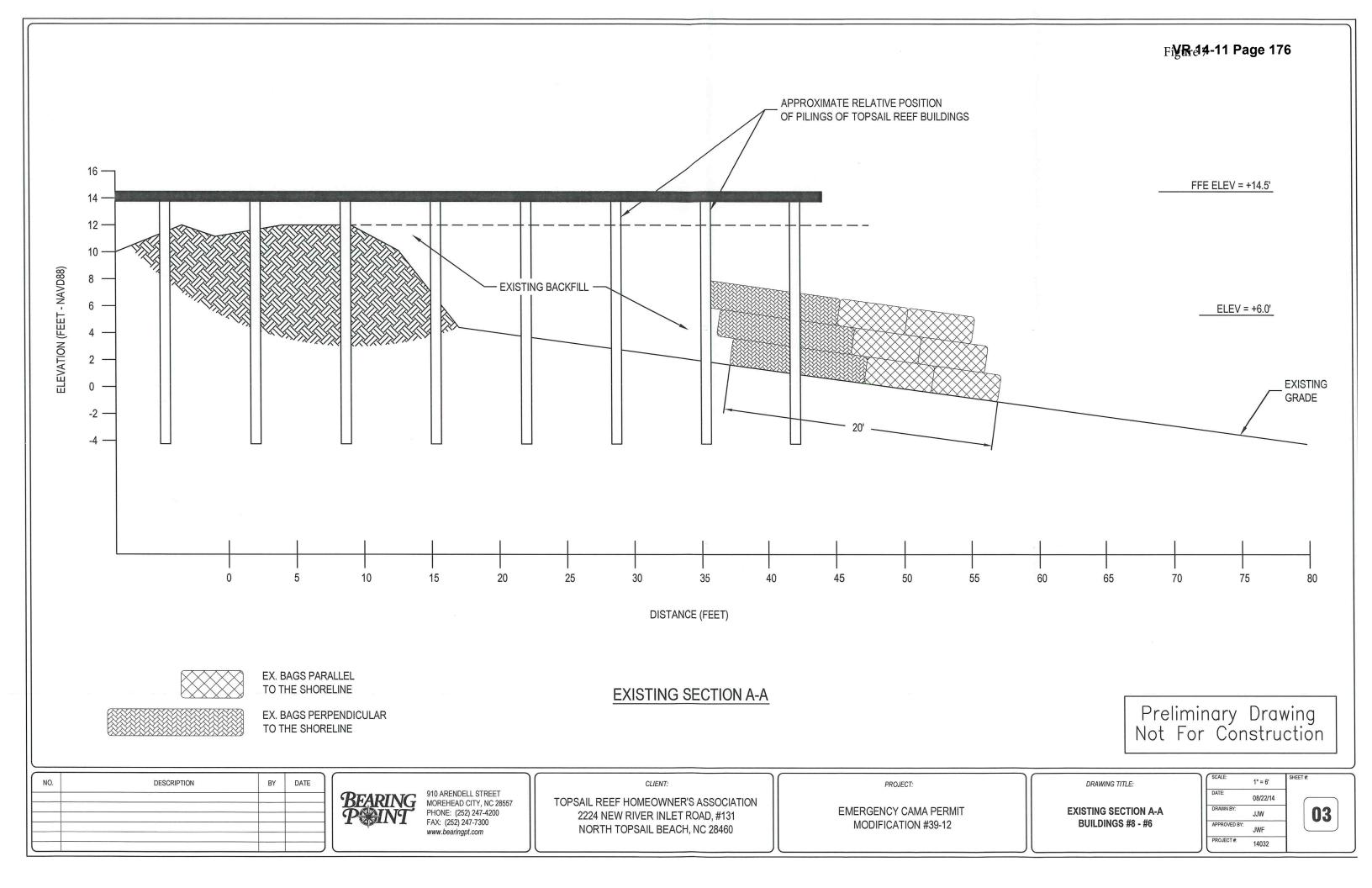


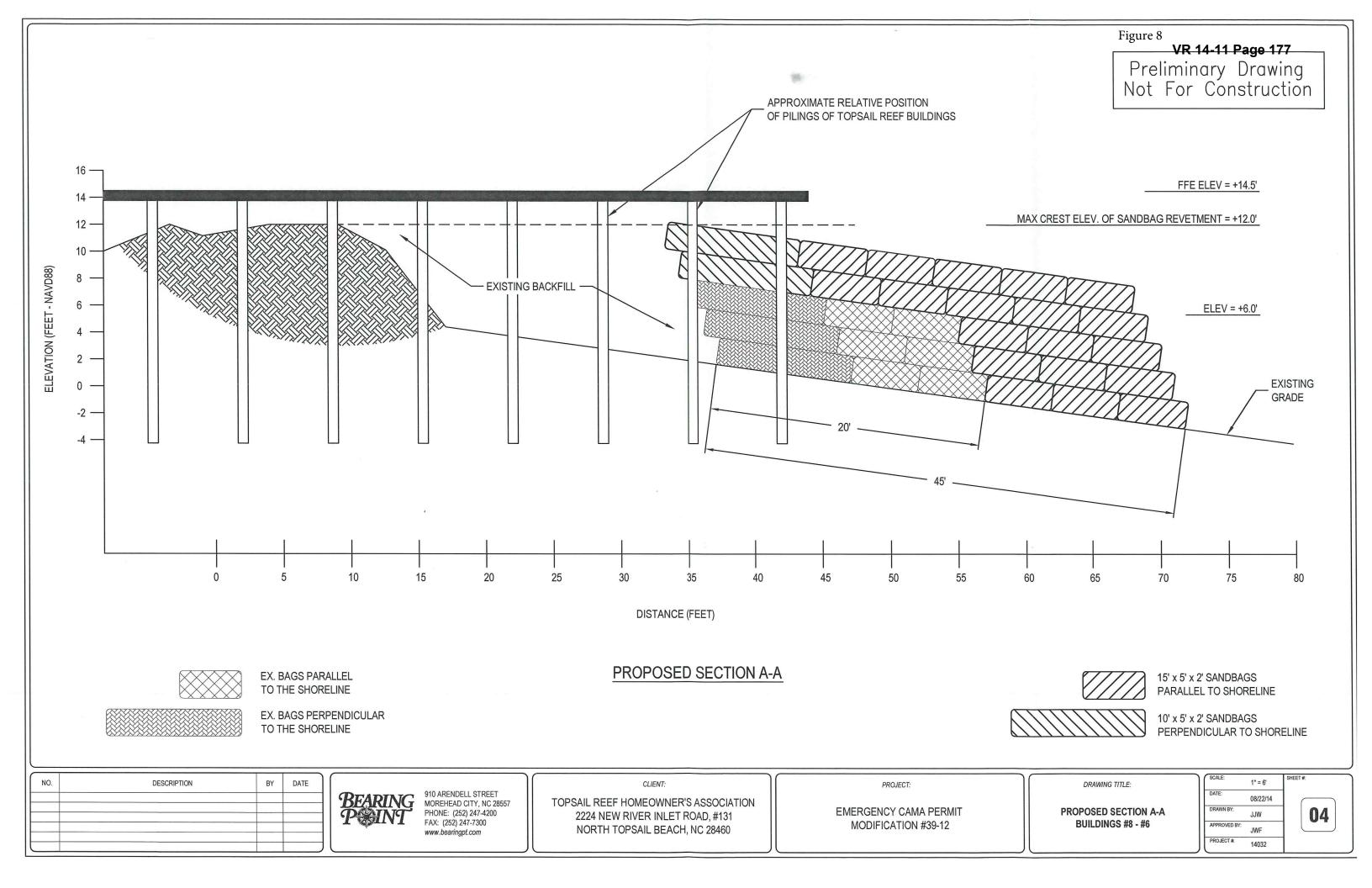


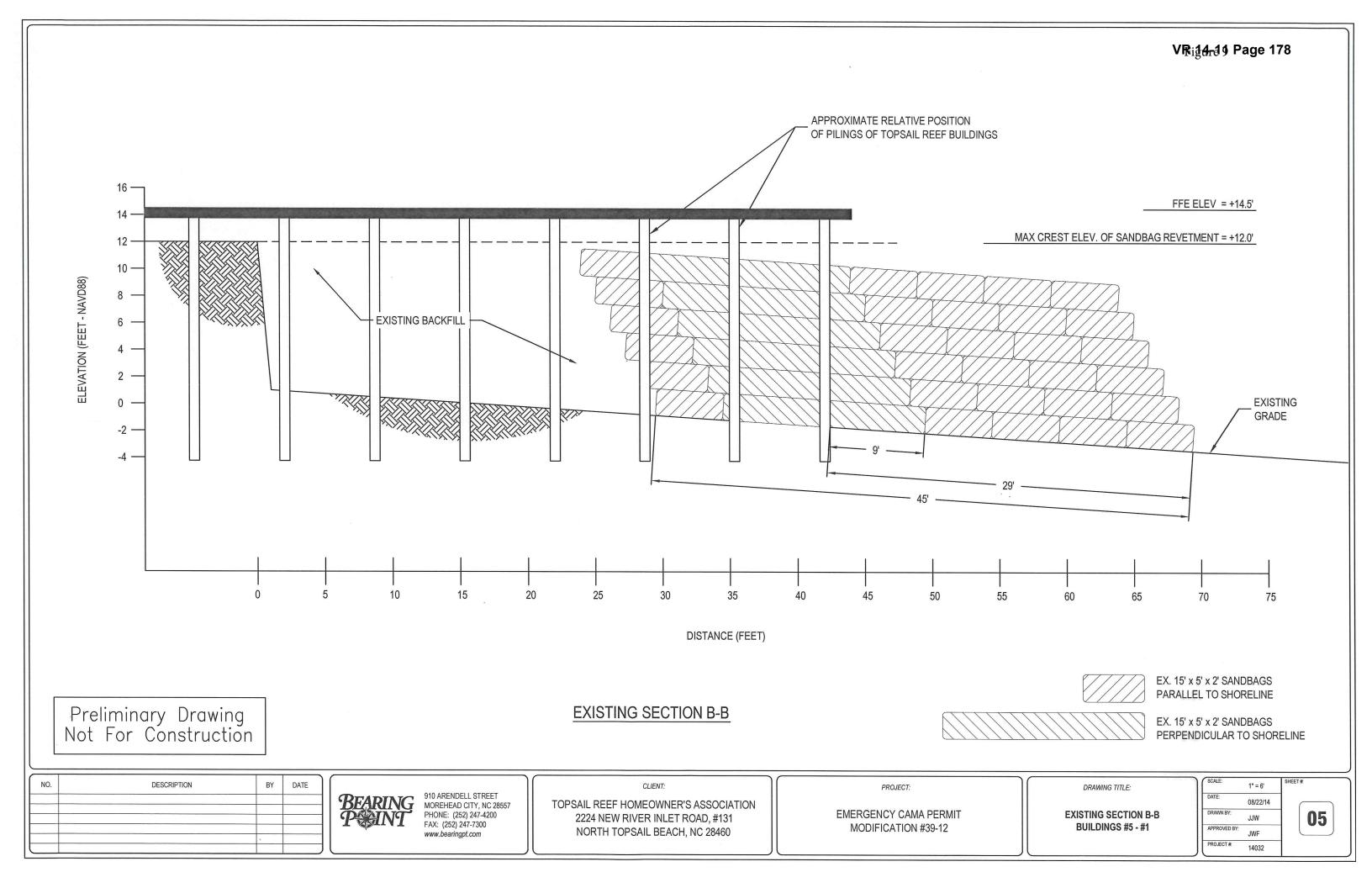






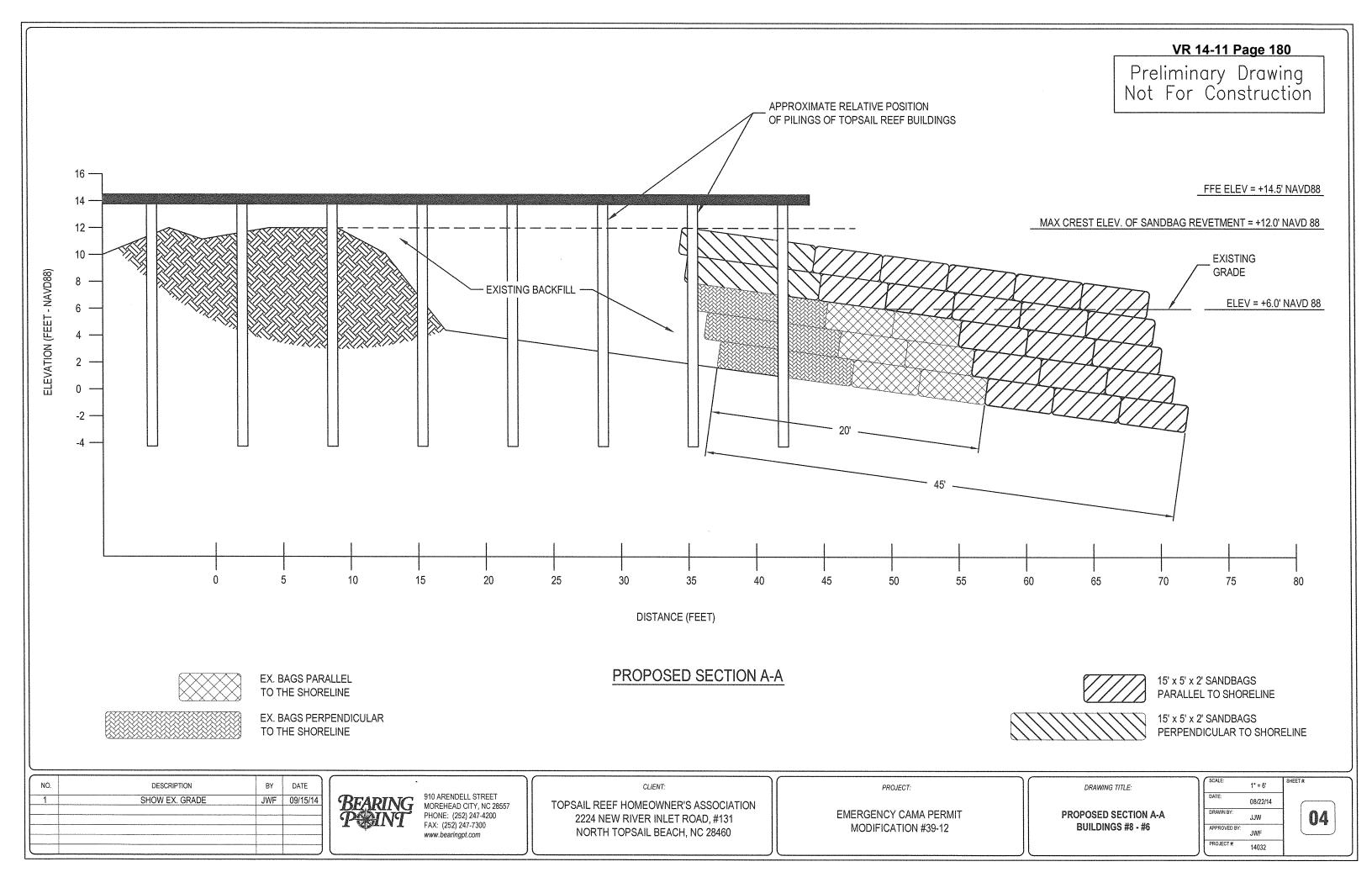


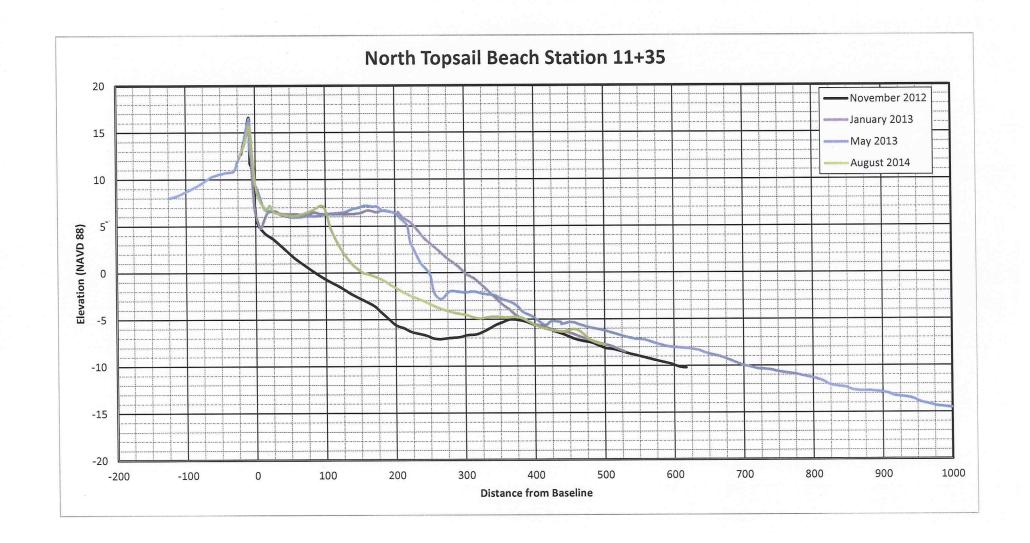


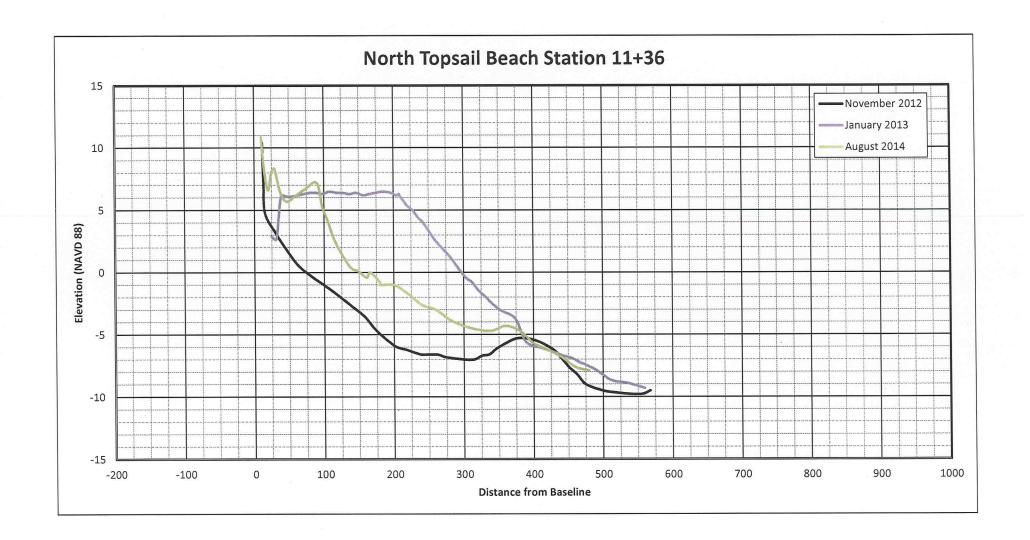


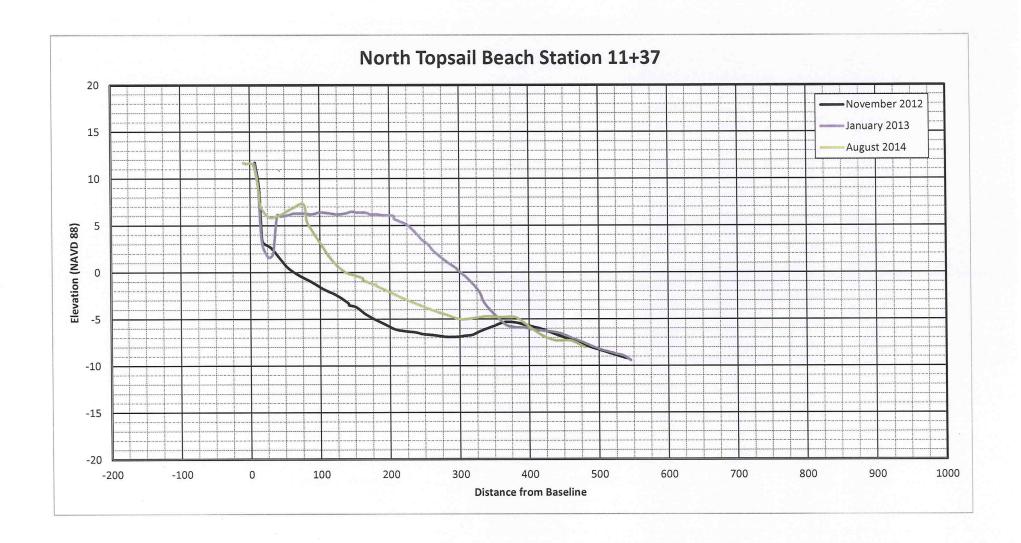
Proposed NTB Channel Realignment

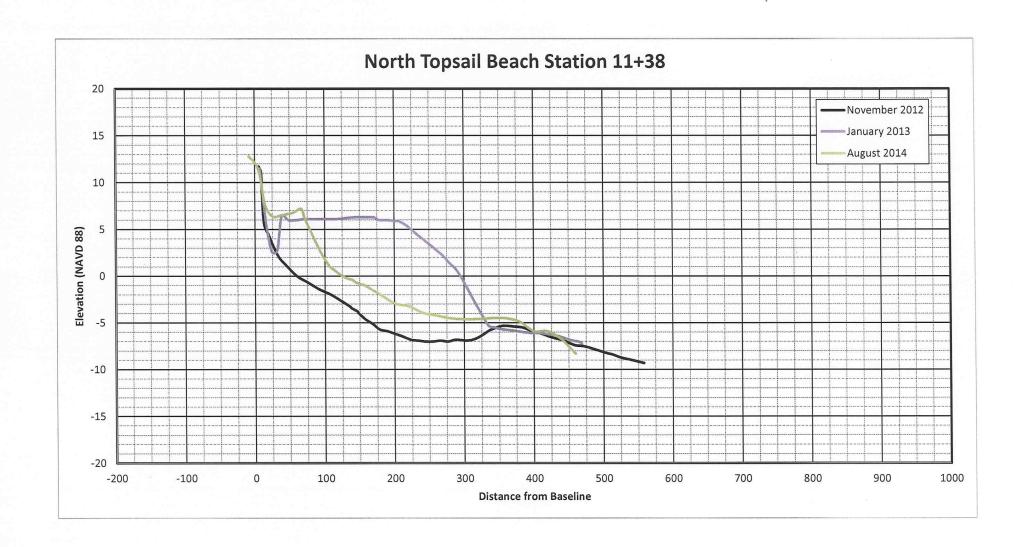


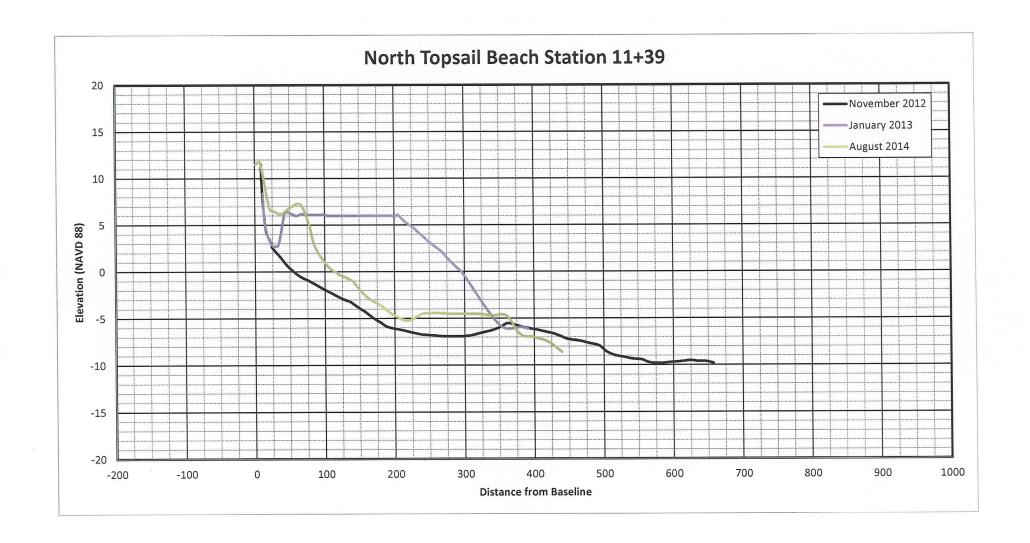


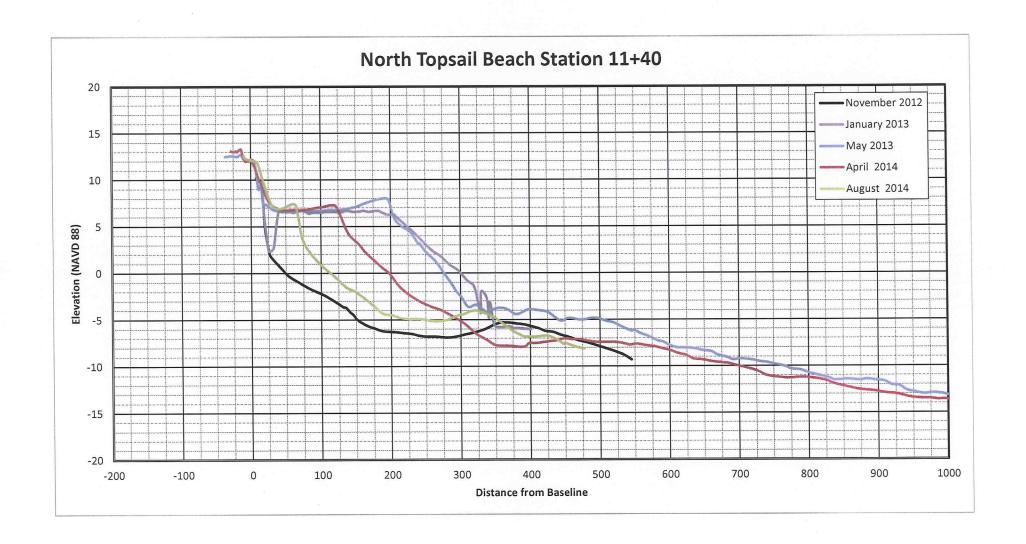


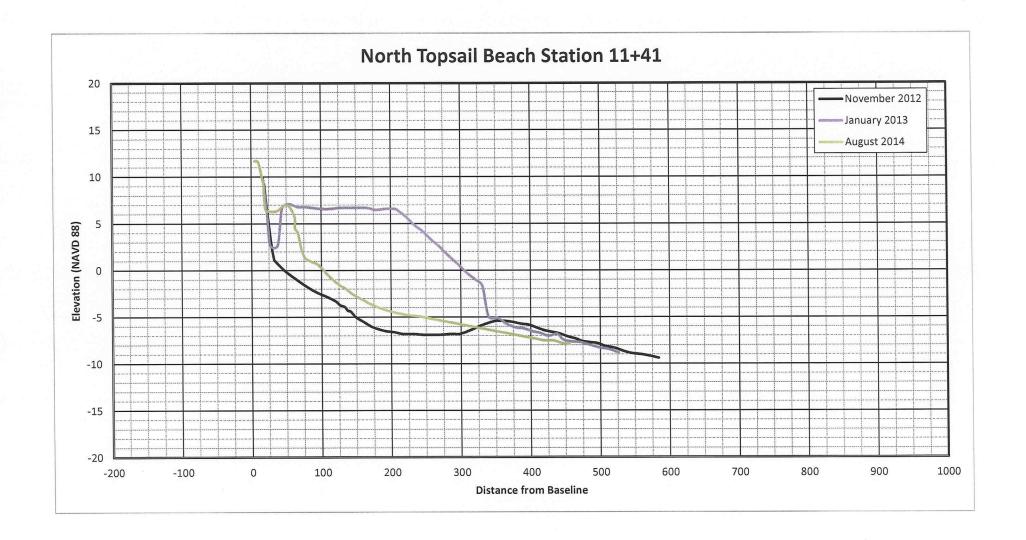


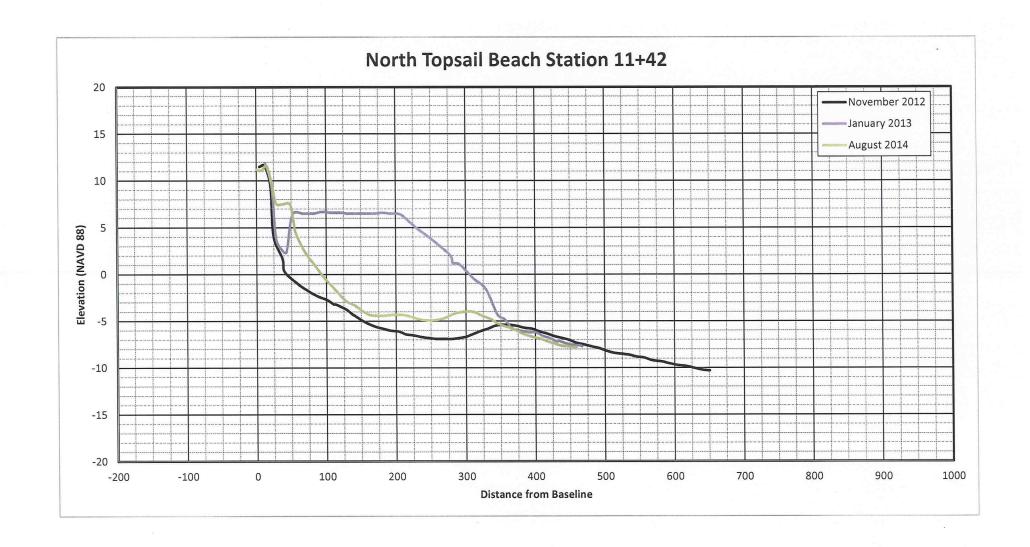


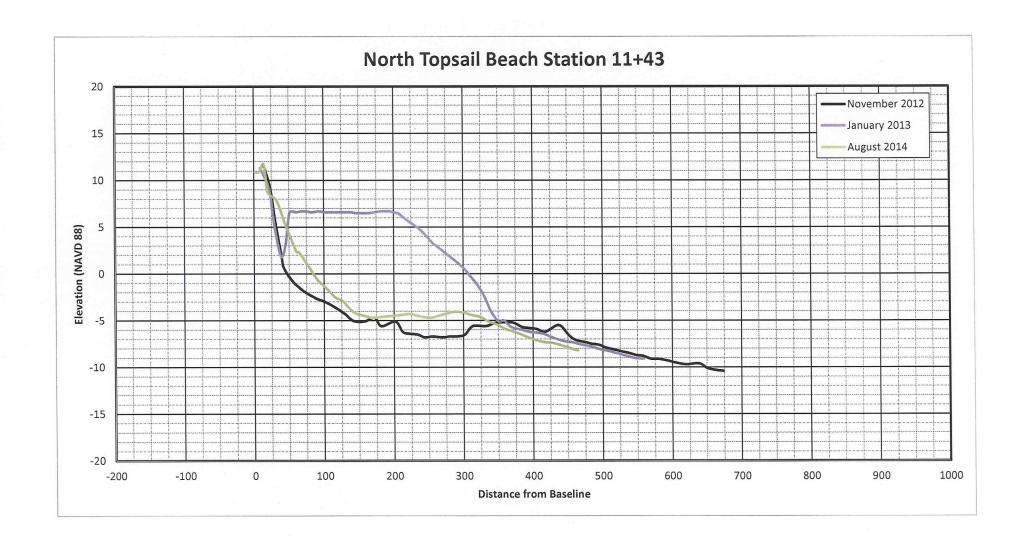


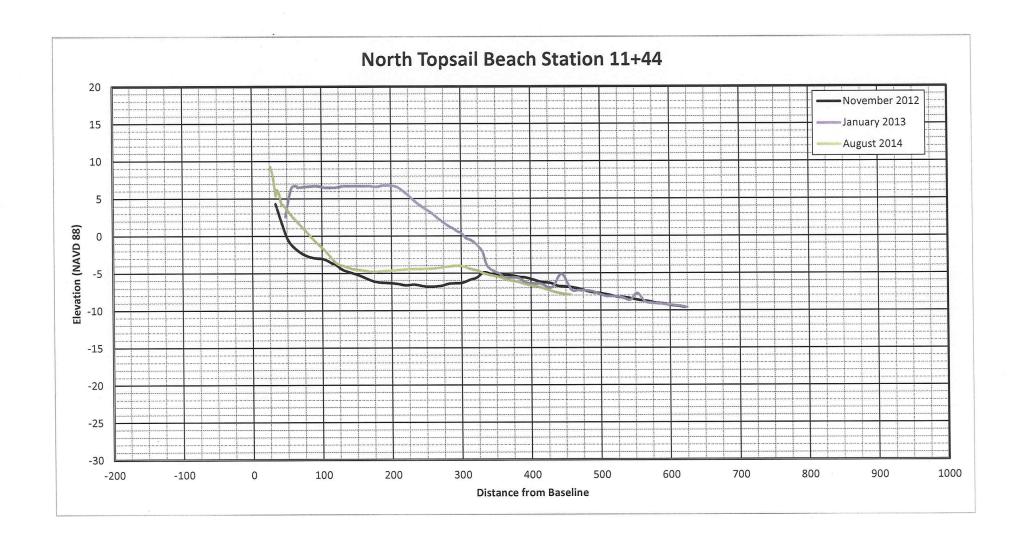


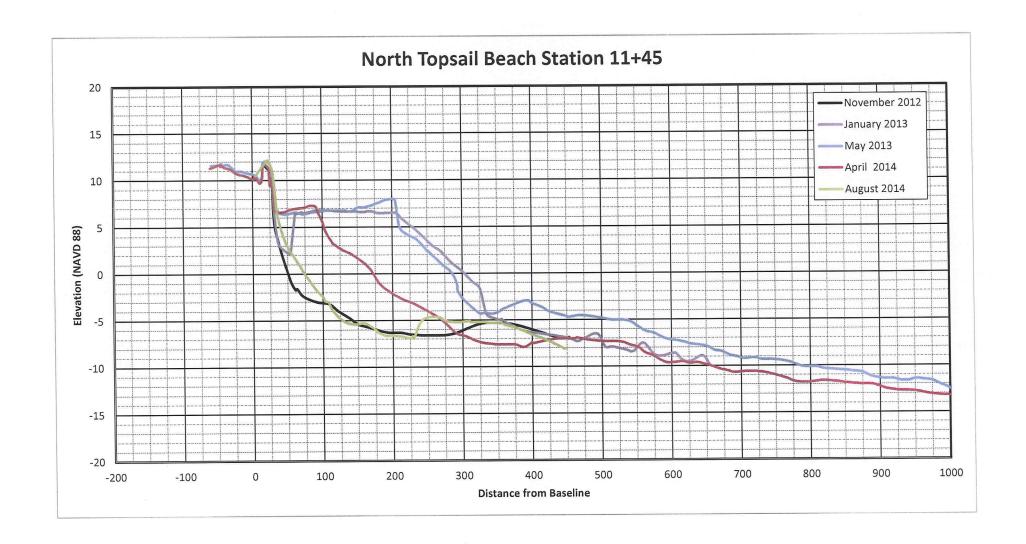


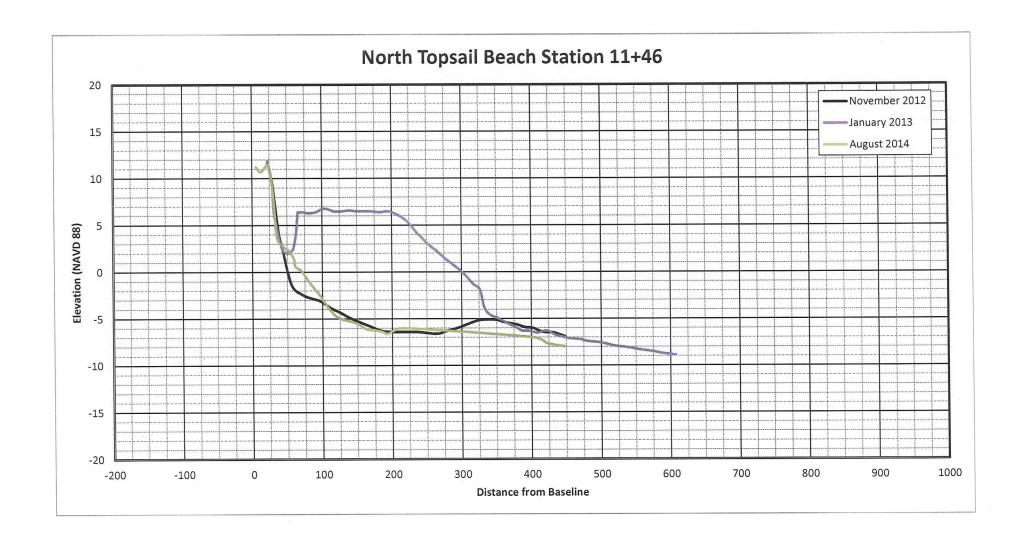


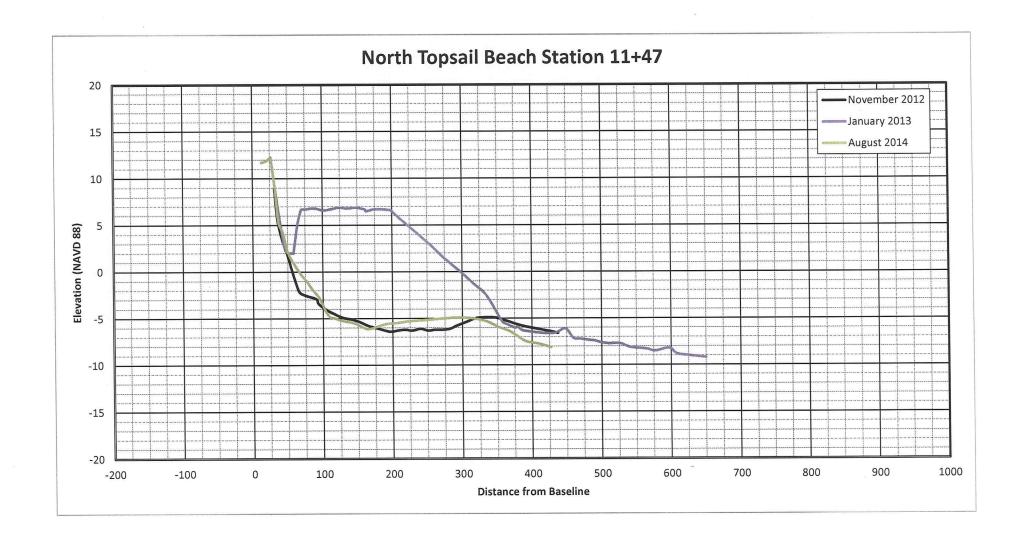


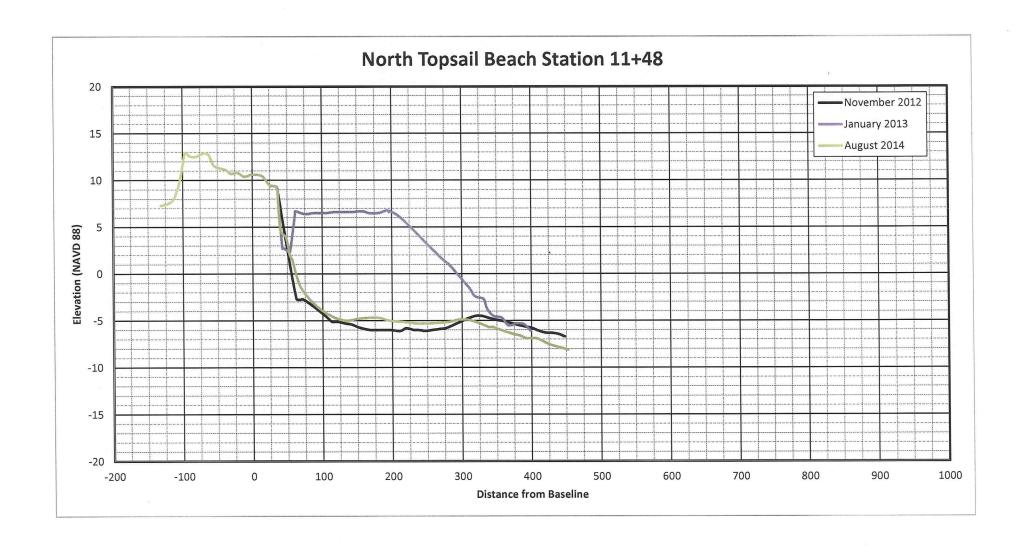


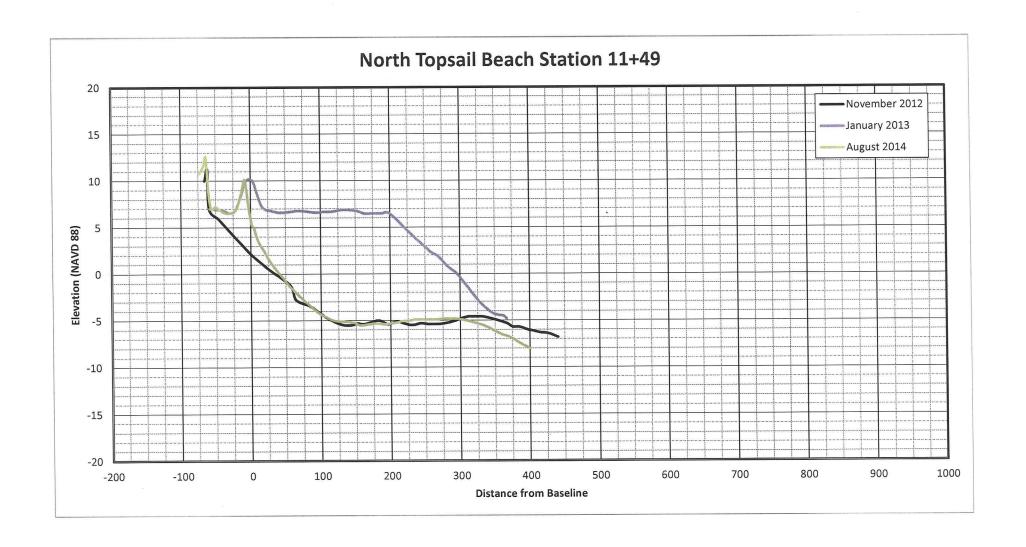


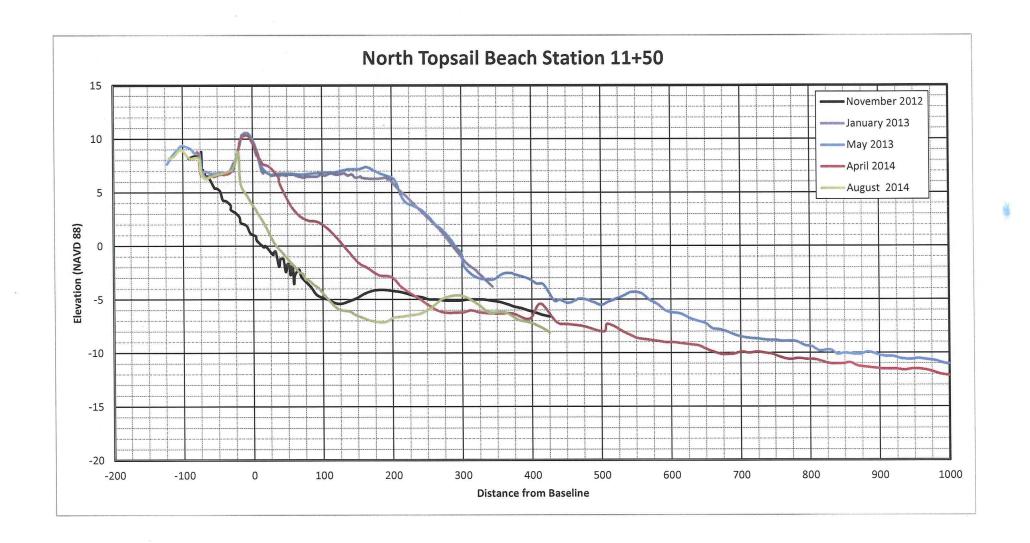


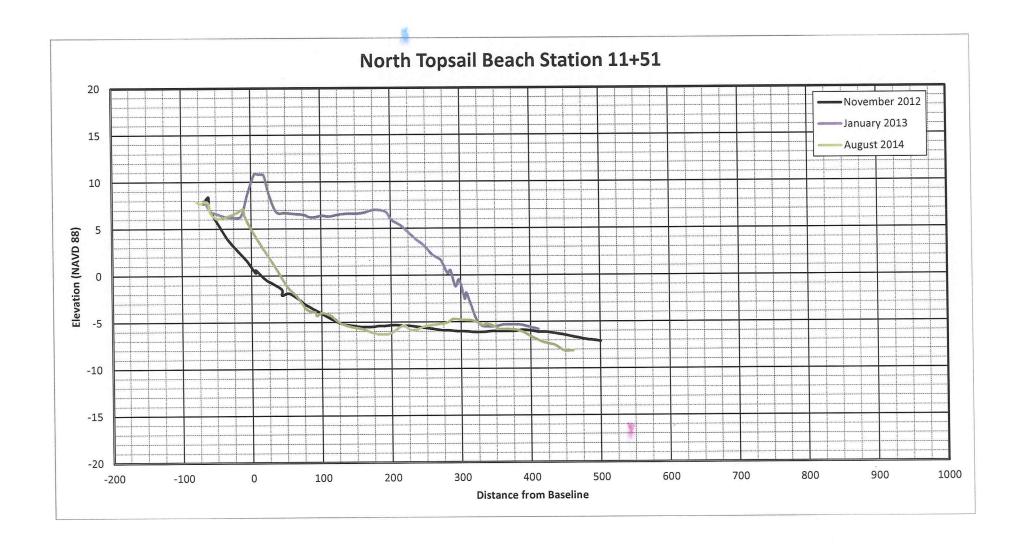


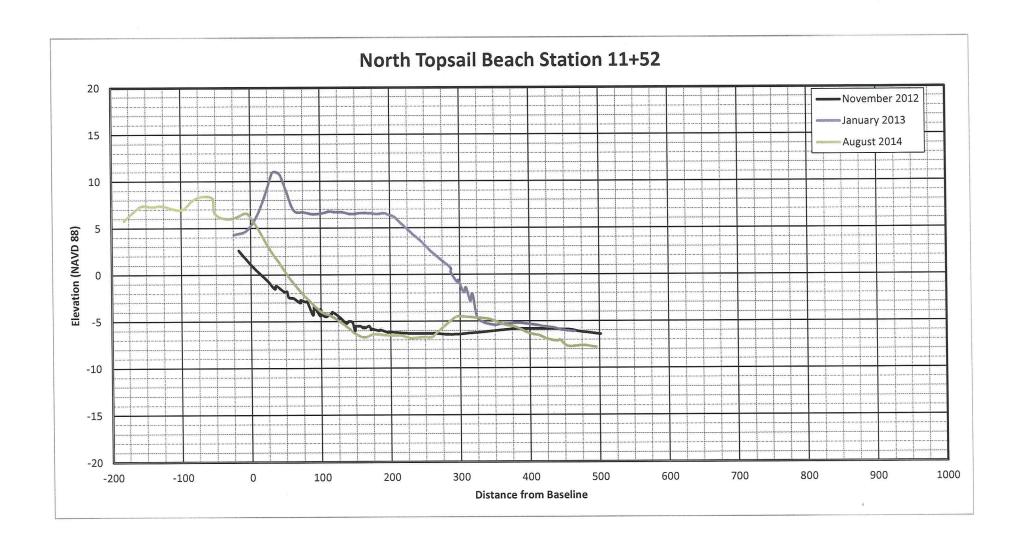


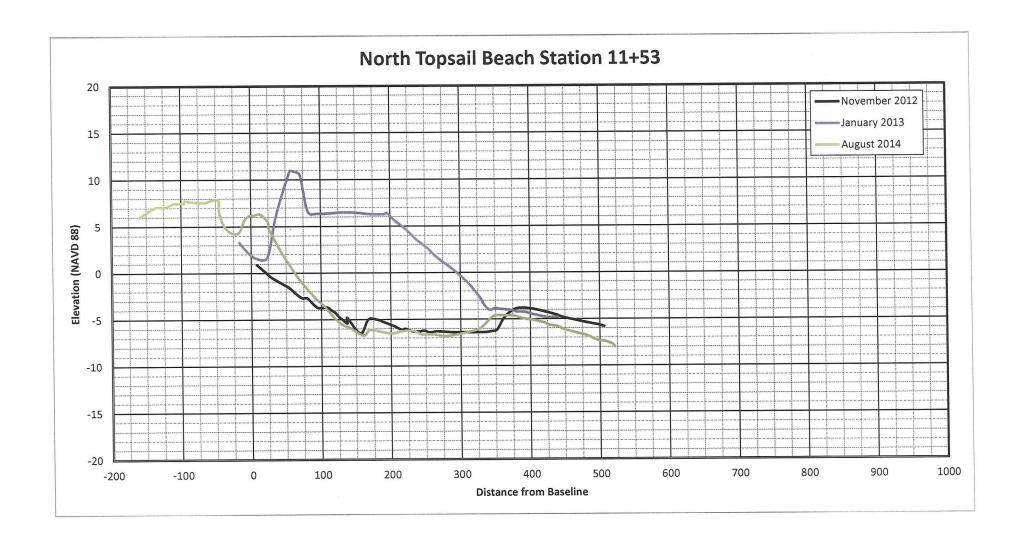


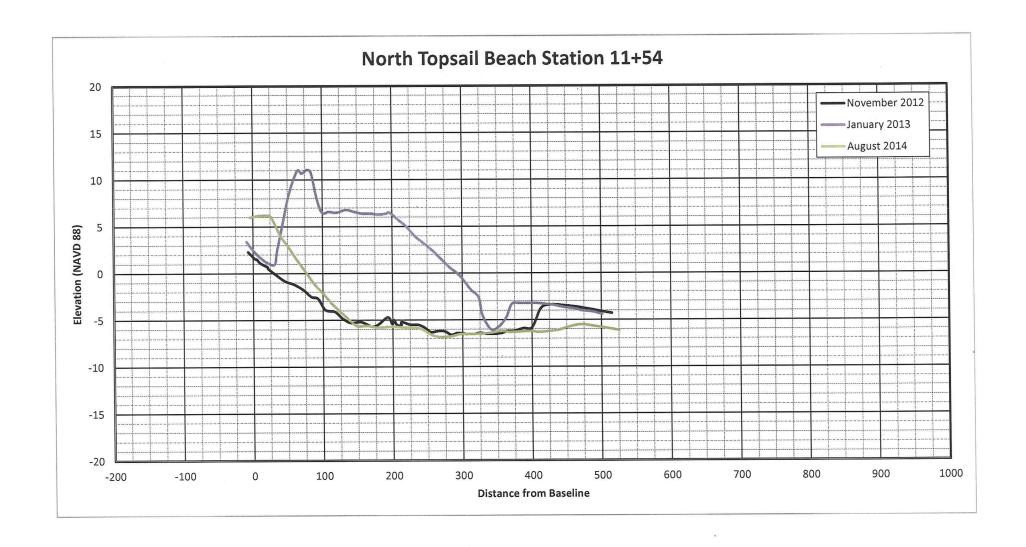


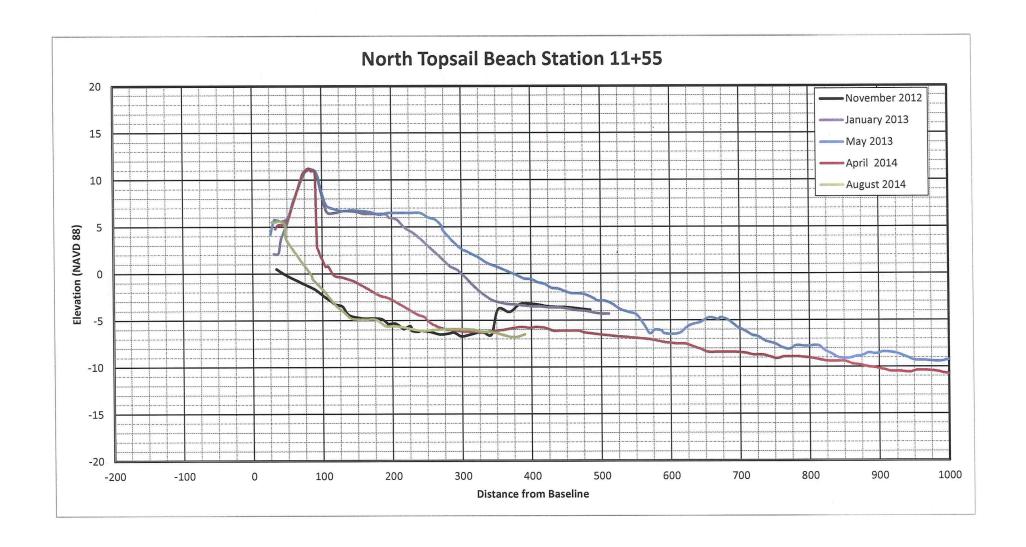
















September 10, 2014

Mr. Frank D. Gorham III, Chairman North Carolina Coastal Resources Commission Division of Coastal Management 400 Commerce Street Morehead City, NC 28557

Re: Topsail Reef Homeowners Association, Inc. [14032]

Topsail Reef Condominiums

Request for Variance to Denial of Modification to Major CAMA Permit 39-12

Dear Chairman Gorham:

This letter is to clarify the relationship between the escarpment (seaward edge of the berm) and the waterward edge of the existing sandbags in front of buildings 6, 7 and 8 at the subject project location. To bring the situation up to date as of September 9, 2014, the width of the berm in front of buildings 6, 7 and 8 was measured on September 8 and 9, 2014. The width remaining is 29, 42 and 50 feet respectively.

The focus in requesting the variance should not be limited to the temporal condition of the amount of sand remaining in front of buildings 6, 7 and 8. The concern must be on the accelerated rate of loss of the protective berm fronting the buildings in question. According to the Division of Coastal Management shoreline erosion maps (2011 Long Term Shoreline Change Study & Setback Factors, 2011 Update, Map Sheet North Topsail Beach, Sheet 2 of 2), the long term rate of erosion along the north end of North Topsail Island is 2 feet per year. Current erosion rates at North Topsail are many times that since completion of the inlet relocation and beach nourishment project in January 2013.

Something very different is going on related to the inlet channel and the shoreline along the north end of North Topsail Beach adjacent to New River Inlet. The erosion rate since completion of the inlet dredging and beach nourishment project (January 2013, surveyed in May 2013) can be measured in feet per day versus feet per year. When the completed beach nourishment project was surveyed in May 2013, there was a berm width at elevation 6.0 in front of buildings 6, 7 and 8 of 192 to 196 feet. As of September 8, 2014, the berm has eroded to a width of 29, 42 and 50 feet respectively. There have been losses of 165, 160 and 123 feet in front of building 6, 7 and 8 since May 2013 (16 months). That equates to an average

Mr. Frank D. Gorham III, Chairman North Carolina Coastal Resources Commission Request for Variance to Denial of Modification to Major CAMA Permit 39-12

erosion rate of 8 to 10 feet per month for the shoreline fronting buildings 6, 7 and 8. The average berm retreat rate for the entire shoreline fronting the Reefs (buildings 1 through 8) since May 2013 has been 136 feet per year. Berm retreat data is summarized in Table 1.

There is no reason to believe that the rate of erosion of the beach at the Reefs is going to change or abate. It is estimated that, at the rate of berm retreat measured in 2014, the remaining berm will disappear in the very near future. Generally, 1 foot of berm width is being lost every 2 to 3 days. The prudent approach is to expect that the rate of change will continue with the toe of the existing bag revetment becoming exposed in 1 to 3 months depending of the level of wave action or occurrence of storms. A single storm with a minimal storm surge could potentially wipe out the remaining berm in less than 24 hours.

Table 1 –Berm Retreat Data, From July through September 2014 (76 days), and from May 2013 to September 2014 (16 months since beach nourishment) (Updated from Narrative).

@ Building #	8	7	6	5	4	3	2	1
Approximate Profile Station	11+37	11+38	11+40	11+41	11+43	11+45	11+46	11+47
Width of berm on 1/2013, post construction survey (ft.)	196	196	192	196	185	180	175	170
Berm remaining on 9/9/14 (ft.)	50	42	29	1	0	0	0	0
Loss during 2014 from 6/25/14 to 9/9/14 (76 days)	45	60	58	79	81	62	43	27
Berm loss per day during 2014 (ft./day)	0.59	0.79	0.76	1.04	1.07	0.82	0.57	0.36
Loss from 5/13/13 to 9/8/14, 16 months	123	160	165	201	204	200	199	194
Monthly rate of berm retreat 16 months (ft./mo.)	707	10	10.3	12.6	12.8	12.5	12.4	12.1
Average daily rate of berm retreat, 483 days (ft./day)	0.25	0.33	0.34	0.42	0.42	0.41	0.41	0.40
Annualized berm retreat rate (ft./yr.)	92	120	124	151	153	150	149	146
Estimated days remaining until total berm loss (2014 rate)	103	45	35	0.0	0.0	0.0	0.0	0.0

These data indicate that time is of the essence for installation of additional protection in front of buildings 6, 7 and 8 similar to that approved by the CRC for buildings 1 through 5. The mobilization time for a bag installation is a minimum of 30 days. The closer the surf zone is to the toe of the existing bag line at high tide during installation, the shorter the working window becomes. With a shortened working window, the unit cost for bag installation increases accordingly. The homeowners are pursuing a prudent course by seeking to install additional protection while construction conditions and costs are more favorable. An extended delay could result in the ocean encroaching on the toe of the bags and endangering the integrity

of the revetment and subsequently, the foundations of buildings 6, 7 and 8. That window of opportunity is closing a little bit each day.

If you have any questions regarding this information, please call or email me.

Sincerely,

Bearing Point Consulting, Inc.

James W. Forman, Jr., P.E.

Senior Engineer

CC: Clark Wright, icw@dhwlegal.com

Mary Lucasse, <u>MLucasse@ncdoj.gov</u> Christine Goebel, <u>cgoebel@ncdoj.gov</u>

Braxton Davis, <u>Braxton.Davis@ncdenr.gov</u> Debbie Wilson, <u>debra.wilson@ncdenr.gov</u>

Ted Sampson, Sr., tedsr@sampsoncontracting.com

JAMES W. (BILL) FORMAN, JR., P.E. VR 14-11 Page 206

SENIOR ENGINEER

BEARING POINT CONSULTING, INC. 901 ARENDELL STREET • MOREHEAD CITY, NORTH CAROLINA 28557

252-247-4200 (office) - 252-259-7224 (mobile)

bill.forman@bearingpt.com

SENIOR CIVIL & COASTAL ENGINEER

- Areas of Expertise -

Urban waterfront redevelopment engineering

Construction management
End to end project management
Construction conflict resolution
Dredging & dredged material disposal

Beach nourishment Coastal structures Sediment transport

Shoreline erosion assessments

Small boat harbor planning & engineering Small boat harbor vessel traffic assessments

Fixed & floating breakwaters
Bulkheads & waterfront structures

Waterfront development

Environmental & water resource permitting
Environmental assessments & impact statements

Erosion control

Industrial site redevelopment

Horizontal directional drilling, marine outfalls, beach

crossinas

Site planning & design

Wastewater treatment & reuse On-site effluent disposal systems

Water distribution systems

Sewage collection, gravity & pressure systems

Storm-water management & reuse

PROFESSIONAL ACCOMPLISHMENTS -

- Developed individual specialty for execution of projects in the environmentally sensitive areas.
- Successfully executed urban waterfront redevelopment projects in Baltimore, Chicago, New Bern and Washington, Wilmington, and Beaufort, North Carolina.
- Experience with waterfront projects in Central American (Belize) and Caribbean Islands (St. Lucia and Antiqua).
- Completed environmental permitting, design and construction administration for coastal works including bulkheads, revetments, groins, fixed and floating breakwaters, beach nourishment, marinas, waterfront development, and urban waterfront redevelopment.
- Completed design and physical modeling of large coastal works for protection of valuable oceanfront historic sites.
- Design of over two miles of marine bulkhead of steel, concrete, vinyl and composite sheet piles.
- Introduced MBR wastewater treatment and water reuse/reclaim technology into the State of North Carolina.
- Successfully managed and resolved construction disputes, claims and delays.
- Designed and executed dredging and disposal projects, including beach nourishment totaling over eight million cubic vards.
- Permitted, designed and administered construction of small boat harbor and marina projects totaling over 6,000 boat slips in eastern United States.
- Designed and administered construction of steel, concrete and plastic bulkheads for over 2 miles of shoreline.
- Developed expertise in engineering of large and small diameter horizontal directional drilling including ocean beach crossings for marine outfalls and drops from offshore submarine communication cables.
- Engineer for redevelopment of waterfront industrial sites including lumber mills, coal transfer facilities and fish meal factories.

Degree Colonial Expedience
Professional Experience ———————————————————————————————————
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Senior Civil Engineer, Bay Design Group, P.C. and Bearing Point Consulting, Inc., Morehead City, North Carolina, 2010 to Present. Project engineer for Front Street Village, the redevelopment of a waterfront fish meal factory site in Beaufort, N. C. ■ Project engineer for permitting and boat traffic analysis for phase 3 expansion of City of Washington Marina, Washington, N. C. ■ Project engineer for development of Harbor Master plan for Town of Morehead City involving planning and community consensus building.

Senior Engineer/Vice President, Coastal Science & Engineering, Inc. Morehead City, North Carolina, 2000 to 2010. Manager of branch office of coastal engineering firm responsible for marketing, personnel management, engineering and project management. Project engineer for beach nourishment projects at Hunting Island State Park, Edisto Beach, Isle of Palms and Arcadia Shores, S. C., and Ocean Isle Beach and Bogue Banks (3 projects) N. C. totaling over 8 million cubic yards. Project engineer for design of terminal groin at Folly Beach, S. C., rehabilitation of 16 groins at Edisto Beach, S. C. and construction of six steel sheet pile groins at Hunting Island State Park, S. C. Engineer for planning and permitting of redevelopment of waterfront fish meal factory in Beaufort, N. C. Project engineer for permitting design and construction administration for four membrane bio-reactor (MBR) wastewater treatment plants ranging from 10,000 to 180,000 gpd capacities. Project engineer for Neuse River 115 slip floating dock marina project that included 1600 linear feet of floating breakwater for two specific wave directions, fixed access piers, waterfront promenade and marina utilities and fire protection systems in Bridgeton, N. C. Project engineer for waterfront development projects in Belize, Antiqua, and St. Lucia. Engineer for storm water ocean outfall utilizing HDD of three 48 inch diameter pipes or direct burial of two 72 inch pipes for City of Myrtle Beach, S. C.

Project Civil Engineer, Stroud Engineering, P.A., Morehead City, North Carolina, 1997 to 2000. Project engineer for private, commercial and municipal site development projects including development of Jarrett Bay Marine Industrial Park in Beaufort, North Carolina. ■ Project engineer for feasibility study and preliminary design of first large scale non-federally funded beach nourishment project using sand from an offshore borrow area in North Carolina. ■ Introduced membrane bioreactor wastewater treatment and treated effluent reuse technology into State of North Carolina at the N.C. Aquarium at Pine Knoll Shores.

Principal/Owner, Forman Engineers, Raleigh, North Carolina, 1993 to 1997. Owned and operated small engineering consulting business. ■ Principal Engineer in support of American Coastal Engineering, West Palm Beach, Florida, including design and prototype testing of low profile pre-cast submerged breakwater units for beach stabilization. ■ Project engineer for design and construction of steel sheet pile fixed breakwater for Blackbeard Sailing Club on Neuse River tributary in New Bern, North Carolina. ■ Project engineer for urban waterfront redevelopment projects in New Bern and Washington North Carolina. ■ Project engineer for development of downtown redevelopment master plan for City of Washington, N.C. ■ Project Engineer for industrial waterfront redevelopment sites in Washington, North Carolina and Mathews, Virginia. ■ Engineer for marina projects in North Carolina and Florida.

Principal Civil Engineer, Moffatt & Nichol Engineers, Raleigh, North Carolina, 1987 to 1993. Civil engineer for large multi-disciplinary marina projects in Maryland, Virginia, Delaware, Rhode Island, North Carolina, South Carolina, Florida, and Illinois. ■ Engineer for large U.S. corporation developing dry storage marinas for boat and motor marketing advantage. Completed feasibility studies, permitting and design for dry storage marinas in Florida, Maryland, Texas, Illinois, and South Carolina. ■ Provided civil engineering for commercial port, shipyard and NAVFAC projects in Florida, Virginia, Maryland, Pennsylvania, New Hampshire, North Carolina and South Carolina. ■ Project engineer for redevelopment of waterfront ship/rail coal transfer site in Baltimore Harbor, MD.

Project Engineer, The John R. McAdams Company, Inc., Chapel Hill, North Carolina, 1984 to 1987. Project engineer for private and municipal site development projects including design and construction document preparation for site grading, drainage, erosion control, sewer collection and water distribution systems, small wastewater treatment systems, and roadway design. ■ Engineer/advisor to county economic development commissions for infrastructure development to serve potential industrial sites.

Chi Epsilon, National Civil Engineering Honor Society

Coastal Engineer, U. S Army Corps of Engineers, Wilmington District, Wilmington, North Carolina, 1979 to1984. Project coastal engineer for shore protection projects including shoreline revetment at Fort Fisher National Historic Park including scale model testing and preliminary design. ■ Project engineer for Cape Hatteras Lighthouse seawall protection works including scale model testing and preliminary design of recurved wave deflection wall. ■ Project engineer for study of use of dredging as the sole means of maintaining navigation channel at Oregon Inlet, NC. ■ Completed numerous studies of sedimentation and shoreline change at North Carolina tidal inlets.

Coastal Engineer, U. S. Army Corps of Engineers, Coastal Engineering Research Center, Fort Belvoir, Virginia, 1978 to 1979. Principal Investigator for study on geotechnical aspects of beach nourishment.

EDUCATION

B.S.C.E., 1976, Civil Engineering – North Carolina State University, Raleigh, North Carolina

M.S. 1978, Civil Engineering and Marine Sciences - North Carolina State University, Raleigh

PROFESSIONAL ASSOCIATIONS

American Society of Civil Engineers, Member

National Society for Professional Engineers

American Shore and Beach Preservation Association



SAMPSON CONTRACTING, INC

Marine Construction And Environmental Consulting Ser Vices

125 Hunters Trail West, Elizabeth City, North Carolina, 27909 USA

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tedsr@sampsoncontracting.com www.sampsoncontracting.com

September 13, 2014

Topsail Reef Homeowners Association 2224 New River Inlet Road Unit 131 North Topsail Beach, NC 28460

Re: Evaluation of Erosion

Dear Sirs:

I have reviewed the information provided to me by Erosion Control Specialists and Bearing Point Engineering addressing the shoreline erosion situation facing the Topsail Reef condominium buildings. This has included many photographs of the beach from 2005 to present, shoreline aerials depicting the historical changes to this shoreline, shoreline survey data and measurement information dating from 2010 to August 2014, background information and post project data from the North Topsail Beach Inlet Realignment and Beach Nourishment Projects, and design and construction information detailing the existing sandbag erosion protection revetment. This has been supplemented with historical information on the channel alignment and ebb-tide delta associated with New River Inlet, and personal observation of the existing conditions on this shoreline.

It is my opinion that this shoreline was experiencing accelerated erosion during the period leading up to the conditions faced in 2012, when Topsail Reef first sought a Variance for a CAMA Permit for an enlarged sandbag protective structure, and that all of the NC Division of Coastal Management Rules and policies that addressed accelerated shoreline erosion were fully met at that time. It is also my opinion that, while this accelerated erosion process was temporarily masked by the placement of sand under the Town of North Topsail Beach's Phase 1 Nourishment Project, the forces driving the process of accelerated erosion have continued in place, and have been shown to have increased the rate of the shoreline erosion in front of all eight of Topsail Reef's buildings.

The extremely rapid loss of the beach nourishment material, placed during the Town of North Topsail Beach's Phase 1 Nourishment Project, is indicative of ongoing accelerated erosion that has again increased the risk of imminent damage to the buildings of Topsail Reef along this shoreline.

Since the beach nourishment project placed sand along this shoreline, the eroded shoreline first encroached upon the enlarged sandbag revetment at building #1, and has progressively and rapidly proceeded to encroach upon the enlarged sandbag revetments along buildings #1 - #5. When the shoreline arrives at the point where the enlarged sandbag alignment merges into the 6-ft high x 20-ft wide alignment that protects buildings #6 - #8, the point of weakness in the protective structure will be reached. Given the limited protective value of 6-ft x 20-ft sandbag protective structures that have been demonstrated through the years that they have been utilized, it is my opinion that all of the buildings of Topsail Reef along this shoreline will be in imminent danger when the first significant storm brings ocean forces against the merge point of the two designs, and steadily increasing danger as this shoreline encroaches upon the 6-ft x 20-ft alignment now in place in front of buildings #6 - #8.

It is also my opinion that it is not possible to have accelerated erosion in front of buildings #1 - #5, without having accelerated erosion also in front of buildings #6 - #8. Accelerated erosion of the shoreline can also be seen to be in process along the shoreline to the north of Topsail Reef, and along the shoreline to the south of Topsail Reef. As one moves southwest from New River Inlet, the inlet-influenced currents and erosion process will change in their characteristics in a slow transition. But, such natural processes do not behave with sharp points of discontinuity. At present there is no indication that accelerated erosion stops at the end of building #5, nor anywhere within nearby view to the south of Topsail Reef. The virtual loss of all sand placed during the Phase 1 Nourishment project carried out by the Town of North Topsail Beach provides good evidence that the accelerated erosion now being witnessed extended throughout the shoreline covered by Phase 1 of this project.

It is also my opinion that the erosion taking place along the shoreline of Topsail Reef fully meets the definition of the CRC Rule, 15A NCAC 07H .0308(a)(2)(B): "Buildings and roads located more than 20 feet from the erosions scarp or in areas where there is no obvious erosion scarp may also be found to be imminently threatened when site conditions, such as a flat beach profile or accelerated erosion, increase the risk of imminent damage to the structure." What matters in a case of accelerated erosion is simply a matter of whether the rate of accelerated erosion poses an imminent danger to the structures. In this case it is clear that accelerated erosion exists, and that the rate of erosion brings with it imminent danger to Topsail Reef structures as flood currents flow along this shoreline toward the inlet and drop the elevation of the beach supporting the sandbag alignment toe. When the beach is lost in front of buildings #6 - #8, it will no longer be possible to provide an alignment in this location of sufficient size to provide the needed storm protection.

Sincerely,

Theodore J. Sampson Environmental Consultant

Cc: Clark Wright

Theodore J. Sampson

VR 14-11 Page 211

125 Hunters Trail West, Elizabeth City, North Carolina, 27909 -- Telephone: (252) 331 2447 Mobile (252) 548 4292 -- E-mail: permits@sampsonmarine.com

ENVIRONMENTAL CONSULTANT

CAREER HISTORY Thirty years of documented successes in the field of protection of marine and aquatic resources. Federal and State Public Administration experience, which includes implementation of coastal zone management programs, and regulatory development and enforcement of pollution prevention standards for industry; education and training of both government administrators of environment protection programs and members of industry operating within the aquatic and marine environments; conducting environmental impact analyses and audits; the development of oil and hazardous material contingency plans; and leading environmental emergency response operations

EMPLOYMENT

Past employment includes: Private business experience heading marine environmental consulting firm. Seven plus years as District Manager of the Northeast District for North Carolina's Division of Coastal Management. Seven plus years as Professor at World Maritime University in Malmö, Sweden with direct responsibilities to formulate and execute University's Masters Degree level curricula in the fields of marine environment protection, maritime administration and policy, maritime safety administration, and marine affairs; two years as Adjunct Professor at Elizabeth City State University's Department of Geology, Environment and Marine Science; over twenty years in development and implementation of US Coast Guard's marine environment programs; marine environmental advisor to NGO, "HELMEPA" (the Hellenic Marine Environment Protection Association) in Athens, Greece.

UNIVERSITY PROFESSOR EXPERIENCE Directly responsible for academic administration as professor for the General Maritime Administration and Environment Protection course of study at the World Maritime University. From 1991 to 1993 headed the General Maritime Administration Course and designed a new balance to the curriculum to support objectives for award of Master of Science degree intended for government administrators studying maritime environment policy and development issues. Coordinated the program to include the essential elements of maritime law, economics, management, safety administration and marine environmental protection, expanding the University's environmental offerings.

Developed short-term training, professional development courses for the World Maritime University for application of marine environment principles in the government and industrial settings.

As adjunct professor at Elizabeth City State University taught courses in Marine and Coastal Resources, and Island and Ocean Processes.

US COAST GUARD EXPERIENCE

Hands-on experience and senior management in environmental programs with the U.S. Coast Guard, including responsibilities for oil spill contingency planning, training and response to oil pollution incidents: Served as Commanding Officer of U.S. Coast Guard's largest of three emergency environmental response units, the Atlantic Strike Team and National Dive Team. Lead 43 man and woman team of experts in a results-oriented mission to provide the most highly trained and skilled pollution responders to environmental emergencies occurring within the inland waters and coastal regions of the United States in the area bounded by the Great Lakes and the Atlantic seaboard between the states of Maine and South Carolina.

Additional Strike Team responsibilities included providing professional development training workshops, and assessment of after action reports for oil and hazardous material responses of 22 different Coast Guard Commands within the Atlantic Area. Directed the annual review and updating of all contingency plans applicable to the region.

Headed Coast Guard's oil spill response capability in Southeast Alaska (from Canadian border to Sitka). Initiated contingency planning and equipment acquisition to prepare for response within this region.

NATURAL RESOURCE MANAGEMENT Direct experience with government agency activities for the protection of the marine and coastal environment that included: implement Rules of North Carolina's Coastal Resources Commission within the 7 northeast counties of North Carolina; draft regulations and policy for the US Coast Guard; conduct environmental and economic impact assessments of rulemaking actions; evaluate public comments on proposed rulemakings and revise agency proposals with respect to comments; serve on Regional Response Teams for Great Lakes region, Northeast region, Mid-Atlantic region and Ohio and Upper Mississippi River region to foster Federal, State and stake-holder cooperation in addressing aquatic, coastal and marine environmental protection planning.

Provided assistance to EPA, Department of Defense and US Coast Guard to assess natural resource damage and oversee remediation and restoration efforts at Super Fund clean-up sites and in locations of oil and hazardous material spills, or long-term degraded areas. Developed training and education programs for government administrators in coastal zone management and sustainable development of coastal industries; initiated case studies within World Maritime University's curriculum to address environmental issues related to port development and dredging, disposal of dredged spoil, and the problems of filling in of wetlands and alternative or compensatory approaches. Developed environmental training program for Greek seafarers under auspices of HELMEPA.

Arranged for field studies for international Master of Science students to observe and discuss initiatives for stake-holder cooperation in management of natural resources with authorities for NOAA; State of Florida; Southampton, England; Malmö, Sweden; Copenhagen, Denmark; Oslo, Norway; and The Netherlands. Field studies included walking and diving tours to emphasize importance of wetlands ecology, coastal development and beach erosion, and familiarize administrators with the identification of coastal management issues.

PRIVATE CONSULTING EXPERIENCE

Founded F.P.I Associates, Inc., a marine environmental consulting company, in 1990. (Name of Company subsequently changed to S.A.M.P.S.O.N. and Company, Inc., and is now doing business as Sampson Marine Construction) Original business focused on providing advice and recommendations on marine environmental issues identified by both government and private entities, including the U. S. Coast Guard and the international oil companies' consortium for oil spill emergencies, the Marine Spill Response Corporation. Represented this company at the "think tank" Center for Strategic and International Studies as a member of their working group on the conversion of military technology to environmental protection applications.

Developed proposal for eight nations of the Persian Gulf to address Natural Resource Damage Assessment arising from vessel and facility emergencies, including issues of needed primary and secondary legislation, establishment of appropriate penalty and compensation schemes, provision of sensitivity indexing and mapping, and use of economic models.

Developed proposed amendment to the Kuwait Convention to institute regional contingency planning and response for oil spill emergencies arising from vessels, facilities and offshore drilling and production platforms.

Developed a remote sensing strategy to assist in managing response to massive oil spill incidents; assessed R&D needs to improve USCG's oil spill containment capability; evaluate state of the art of oil spill mechanical recovery vessels and skimmers; developed testing standards for temporary storage facilities for oil recovered during spill response.

Now serve as environmental specialist directing the environmental consulting for Sampson Contracting, Inc., which also provides marine construction and coastal development services from concept to completion. Personally provide consulting and design advice to clients seeking Permits from North Carolina's environmental agencies, including the preparation of Permit applications, wetlands evaluations, shoreline protection strategies, and the coordination with representatives of the State and federal agencies who provide review and render decisions on the Permit applications.

RESEARCH

- A Computerized Mathematical Solution to the Coupled Torsional, Longitudinal Marine Propulsion Vibration Problem, 1980
- Assessment of USCG Research & Development Needs for Improvement of Oil Spill Containment; MAR, Inc., (USCG Contract), 1990
- Oil Spill Mechanical Recovery Vessels Overview; MAR, Inc. (USCG Contract), 1990
- Oil Spill Mechanical Recovery Equipment Assessment; MAR, Inc. (USCG Contract), 1990
- Oil Spill Temporary Storage Devices, Assessment & Testing Standards; MAR, Inc. (USCG Contract), 1991
- Member of joint Lund University and World Maritime University research team engaged in "Sundrisk" project to analyze maritime risk at entrance to Baltic Sea: 1998-1999

PUBLICATIONS

- On Scene Coordinator's Lessons Learned Report for Exxon Valdez Oil Spill; U.S. Coast Guard, 1989
- Implications of Development on Chemical Pollution Training for Developing Country Ports; Second International Conference on Safety in the Port Environment, Bremen, Germany, 1992
- Waste Reception Facilities: A Global Perspective; Norshipping Conference, Oslo, Norway, 1993
- Introduction to Environment and Development Conflict in the Maritime Setting; Malmö; WMU, 1994
- Decision Analysis for Sustainable Development; Malmö; WMU, 1995
- Planning for Marine Environmental Emergencies; Malmö; WMU, 1995
- Strategic Planning for Sustainable Development; Malmö; WMU, 1995
- Maritime Transport and Sustainable Development-A Look to the Future.

 Malmö: WMU Essential Maritime Transport Seminar; 1995
- Chapters on: Intermodal Transport & Sustainable Development, <u>Maritime</u>
 <u>Transport</u>, P. Alderton, 1995
- Maximizing Benefits of Oil Spill Response Capability & Training; 2nd. International Oil Spill Research & Development Forum, London, UK, 1995
- Designing Sustainable Development into Maritime Transport in the 21st Century--The Role and Challenge for Naval Architects and Marine Engineers, International Conference on Technologies for Marine Environment Preservation, MARIENV '95, Tokyo, Japan, 1995
- The Shipping Industry & Port State Control -- A Bright but Troubled Future, HELMEPA Annual Conference on Marine Safety and Environmental Training, Pireaus, Greece, November 1996
- Guidelines for Marine Environmental Damage Assessment and Compensation; by World Maritime University for Marine Emergency Mutual Aid Center (MEMAC), Bahrain; 1998

- Framework Guidelines to Facilitate and Co-ordinate Marine Emergency Pollution Response Activities within the ROPME Region through MEMAC; by World Maritime University for Marine Emergency Mutual Aid Center (MEMAC), Bahrain; 1998
- Guidelines to Contracting States to Facilitate the Collection of Compensation for Environmental Damages Arising from Marine Emergencies Involving Crude Oil, Refined Products or Petrochemicals; by World Maritime University for Marine Emergency Mutual Aid Center (MEMAC), Bahrain; 1998
- A Report of measures Needed to be Undertaken by Contracting States to Facilitate Development of Modification of National Contingency Plans in Support of Regional Co-operative Objectives; by World Maritime University for Marine Emergency Mutual Aid Center (MEMAC), Bahrain; 1998
- International Safety Management In Shipping And Environmental Quality; Hellenic Association for Quality Assurance; Athens, Greece 1998
- A Vessel Oil Pollution Case Study; part of HELMEPA's 1998 1999 Training Program publication: "<u>The ISM Code Implementation</u> <u>Onboard and Port State Control</u>"; Athens, 1998
- Introduction to the US Oil Pollution Act of 1990; part of HELMEPA's 1998 1999 Training Program publication: "<u>The ISM Code</u> Implementation Onboard and Port State Control"; Athens, 1998
- US Coast Guard Port State Control Examination for Compliance with the ISM Code; part of HELMEPA's 1998 1999 Training
- Program publication: "The ISM Code Implementation Onboard and Port State Control"; Athens, 1998
- Resolving Problems during US Coast Guard Port State Control of the ISM Code; part of HELMEPA's 1998 1999 Training Program publication: "The ISM Code Implementation Onboard and Port State Control"; Athens, 1998
- Integrating Maritime Transportation and Marine Resource Management; Conference on African Maritime Sector Faced with Economic Globalization; Cotonou, Benin 1998
- Appendix I: Oil Spill Response, of Indonesia Master Plan, by Det Norske Veritas, Environmental Advisory Services, for Indonesia Directorate General for Sea Communication; Oslo, 1999

EDUCATION

- Bachelors Degree, Engineering; 1968, U.S. Coast Guard Academy New London, Connecticut, USA
- Master of Science Degree, Naval Architecture & Marine Engineering; 1981, Rackham School of Engineering, University of Michigan Ann Arbor, Michigan, USA
- Master of Science Degree, Mechanical Engineering; 1981, Rackham School of Engineering, University of Michigan, Ann Arbor, Michigan, USA

MEMBERSHIPS AND QUALIFICATIONS

Member of ASTM Committee F20 (1977-1979) for Pollution Response Equipment for Chemical Hazards

Environmental Representative on Global Monitoring Study for the Center for Strategic & International Studies (1989-90)

Society of Naval Architects & Marine Engineers (SNAME)--Full Member

Rotary International, Malmö Club, Sweden

Expert Witness qualified in Courts of North Carolina on Coastal Wetlands and Maritime Weather conditions.

PERSONAL DATA

Captain Theodore J. Sampson, U.S. Coast Guard (Retired) Place of Permanent Residence: North Carolina, USA

Date of Birth: 5 September 1946

Place of Birth: Wilkes-Barre, Pennsylvania, USA

EROSION CONTROL SPECIALISTS OF NORTH CAROLINA INC. 7

P. O. Box 16333, Chesapeake, VA 23328

Tel: 252 423 0549

September 10, 2014

Topsail Reef Homeowners Association 2224 New River Inlet Road Unit 131 North Topsail Beach, NC 28460

To Whom It May Concern:

I have been observing the shoreline conditions in North Topsail Beach, and the behavior of the New River Inlet since 2007. For many years this shoreline appeared relatively stable due to the masking by deposited dredge spoil from the New River Inlet Intercostal Waterway crossing and Cedar Bush Cut maintenance dredging by the United States Army Corp of Engineers. The last dredging cycle accrued in 2010-11. While the erosion rate at that time was in excess of the 2-ft per year established by the NC Division of Coastal Management, it did not constitute accelerated erosion, and the structures of Topsail Reef were not imminently threatened. In 2011 the property was affected by hurricane Irene (August 27, 2011), and the remnants of hurricane Sean (Nov. 11 and 12, 2011).

No maintenance dredging was to take place in 2012. By late December 2011 conditions began to change and the shoreline began eroding more rapidly. In early January 2012, Topsail Reef HOA asked that I evaluate what could be done to provide protection for buildings 1-8 as the sand was progressively being removed from beneath the structures, and piling support for the buildings was in question. The erosion escarpment had reached the point where the buildings were deemed imminently threatened under the Rules of the Coastal Resources Commission. Following the direction of the Topsail Reef HOA, I obtained the needed emergency Permits for protection of the shoreline with the 6-ft high, by 20-ft wide sandbag revetments that are allowed by the Rules in these conditions.

Construction of the sandbag protection structure began in front of buildings 6 – 8, with sufficient shoreline available in front of these buildings on which to locate necessary equipment for construction. While this portion of the sandbag alignment was under construction, the shoreline experienced a highly accelerated erosion event during a period between April 6 and April 18 along the entire TR shoreline, to the point where the lowered elevation of the beach would not allow a 6-ft high by 20-ft wide alignment to offer protection for the remaining buildings. At this point, the shoreline was experiencing accelerated erosion, having documented the loss of 51 inches (4.3 feet) of sand elevation along the entire shoreline and under the buildings in 10 days. A Variance was pursued for an enlarged sandbag alignment to replace the Permits that had been written for protection of the buildings with a 6-ft by 20-ft structure. The CRC granted this Variance, and DCM wrote a Permit that allowed alignments for the protection of buildings 1 – 5, which had a 45-ft base dimension, and a height extending up to +12 feet NAVD, extending up to 29 feet beyond the buildings' seaward pilings.

In that the Permit did not allow the reworking of the protective sandbags for buildings 6-8 beyond the 6-ft by 20-ft dimensions, this meant that two dissimilar alignments had to be integrated between buildings 5 and 6. This integration of dissimilar alignments necessitated the building-in of a weak point at this area of the protective alignment. Worse, this meant that buildings 1-5, which had a sandbag revetment with protection against scour by ocean forces down to an elevation of -4-ft NAVD, would lose its protective value if the alignment in front of buildings 6-8 failed. In that the sandbags allowed to be placed in front of buildings 6-8 could only protect against ocean scour down to an elevation between +1 and +2-ft NAVD, and in that this part of the alignment could not extend out seaward to where the sandbags were placed for buildings 1-5, a weak point was left whereby undercutting of the higher elevation of sandbags in front of buildings 6-8 would cause a flanking of the protective end of the alignment in front of buildings 1-5.

It is my opinion that the accelerated erosion that is being experienced now, and accounts for the very rapid loss of the sand placed in the Town's beach nourishment project, has brought a deeper and wider tidal flood channel in the close proximity of, or up against the alignment that was placed in front of buildings 1 -5, and that the rapid and steady movement of this tidal flood channel landward will shortly center the ocean forces on this weak point in the existing protective sandbag alignment.

This encroaching flood channel has already made the reconstruction of the point of integration of the two dissimilar alignments very difficult by limiting the time for work to low tide cycles, and by reducing the available beach to a point where safe utilization of the construction equipment is becoming questionable. These conditions are steadily moving south, and landward toward the existing alignment in front of buildings 6 – 8, and will soon have the same limiting effects on working in front of these buildings. It is my opinion, having observed the rate of the landward movement of this flood channel and the loss of near shore sand, that re-construction of the protective alignment may not be possible in the near future to do a project of this magnitude due to the close proximity of the MHW, and due to the almost total loss of available area to safely operate heavy equipment above the MHW. Providing the equipment and the necessary materials to effect this work requires a minimum of a 3-4-week lead time.

It is also my opinion that accelerated erosion of this shoreline has been underway since 2012, and that the rate of erosion that is now being experienced has been accruing consistently at a rate of 10-12 feet per month and for a longer period of time than I have witnessed any other accelerated erosion event to occur in my 12 years of designing and installing sandbag alignments along the coast. The total volume of sand missing now is far worse than the volume of sand plotted in surveys taken before the New River Inlet Realignment Project, this incredible amount of sand is still being calculated and will be provided as soon as available. I'm not sure what's going on with the inlet and the adjacent shoreline, but when you are talking feet per day over an 11 week period of time there's no reason to expect it to stop now, and it may very well rapidly accelerate in the near future. Accelerated erosion events are generally short lived and usually caused by storm events, this is definitely inlet related.

It is also my opinion that accelerated erosion conditions, such as are now being experienced, need to be understood for the very heightened levels of threat that they pose to shoreline structures, and the threats to the feasibility and safety of installing protective alignments. It is also my opinion that when the erosion being experienced exceeds the established DCM Erosion Rates by orders of magnitude, the threat is not properly evaluated by looking at the amount of beach that may remain in front of a structure, and comparing that to the 20-ft dimension that would allow any structure to be deemed imminently threatened under normal, non-accelerated, erosion conditions.

Very truly yours,

Yogi Harper Erosion Control Specialists of NC

Cc: Clark Wright

Wilmer B. Harper, III (Yogi) VR 14-11 Page 220

P.O. Box 485, Nags Head, NC 27959 -- Telephone: (252) 423-0549

SANDBAG REVETMENT SPECIALIST

CAREER HISTORY

Twelve years of documented successes designing, and constructing erosion control measures along the Atlantic Ocean on the US East Coast, and consulting on erosion control design measures throughout the world.

Currently owner of Erosion Control Specialists, LLC, and Erosion Control Specialists of NC, Inc., all of which specialize in the design and construction of coastal erosion control measures, with emphasis on the installation of protective sandbag revetments.

SANDBAG REVETMENTS

Over the course of the past twelve years over 100 protective sandbag revetments have been installed in NC, with the number of individual sandbags installed totaling in excess of 35,000.

During the past 8 years, sandbag revetment design and installation activities have occurred in Ocean Isle, North Carolina, North Topsail Beach and in Nags Head, North Carolina. In Ocean Isle, over the course of January 2007 to November of 2009, numerous sandbag revetment construction jobs were performed for the NC Department of Transportation, the Town of Ocean Isle, for many individual homeowners, and a number of Homeowners Associations.

More recently, sandbag revetment design and installation within the Town of Nags Head, NC, included projects for the protection of the structures of the Yachtsman Homeowners Association, the Diamond Shoals Homeowners Association, for individual properties managed by Cove Realty, along with a number of individual property owners. In North Topsail Beach the eight buildings of the Topsail Reef Condominiums were provided with an innovatively designed protective sandbag alignment to address accelerated near-inlet erosion in 2012. In Ocean Isle Beach, the most recent alignment was on the west end on Nov 2013 for Alison Dowd, Rick Gross and Kay Picha on Tubbs Inlet

REVETMENT DESIGN & INNOVATION

In North Carolina, sandbag revetments were authorized by the Coastal Resources Commission as temporary alternatives to hardened erosion control structures, and when installed with all bags parallel to the ocean (which had become the standard practice), the "temporary" nature of the protective value of the revetments was generally limited in time until the arrival of the first storm of any significance. The forces of the ocean during such storms typically totally destroyed any protective value of the sandbag revetments.

Working within the parameters allowed under the North Carolina Coastal Resources Commission Rules, an intensive research and development program was initiated to improve the protective value of installed sandbag revetments. This research and development effort involved working closely with the manufacturers of the geotextile materials used in the construction of sandbags to obtain sandbag material and seams suitably strong for the intended application.

The research and development effort also involved field testing of various configurations to attain a scour apron that would not move away from the sandbag revetment, but would instead sink to prevent scour while still supporting the associated revetment.

Additional design evaluation and field testing were also conducted to identify an alignment configuration that would resist rolling and settling under the ocean forces of storms. This lead to the first use of sandbag revetments in North Carolina where the majority of sandbags were placed with the length of the bags aligned perpendicular to the shoreline. The culmination of all of these research and development efforts has been the ability to construct sandbag revetments, which in all but the very worst of storms, maintain their alignments and protective value, often until beach nourishment projects are achieved that can reduce the threat to the oceanfront structures.

EXPERIENCE WITH GEOTEXTILE CHARACTERISTICS

Over the course of the past 12 years the geotextile characteristics for sandbags and underlayment mat have varied from project to project and by manufacturer. Past pumping and testing has been carried out on the geotextile materials supplied by the following major geotextile manufacturers: US Fabrics, Bradley Industries, Bulk-Lift International, Flint Industries, and Maccaferri Inc. Sandbag revetments that have been installed have utilized the products of Bulk-Lift International, Flint Industries, and Maccaferri, Inc. from 2005-2006 installed Flint Industries products, and from 2006-2012 installed every sandbag sold by Maccaferri Inc. which was manufactured by Flint industries. In 2012, began installing all the bags produced by Goesynthetics Inc (GSI).

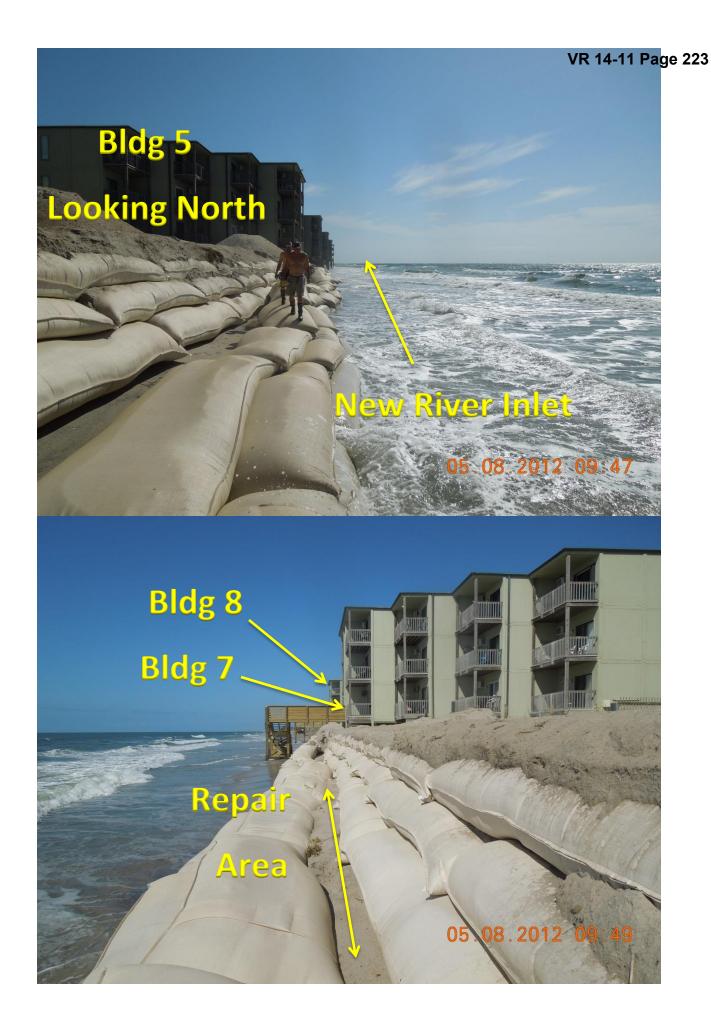
OTHER RELEVANT EXPERIENCE

Member of the Sandbag Stakeholder Group convened by the North Carolina Coastal Resources Commission to identify and evaluate potential future changes to State's sandbag revetment regulations.

PERSONAL DATA

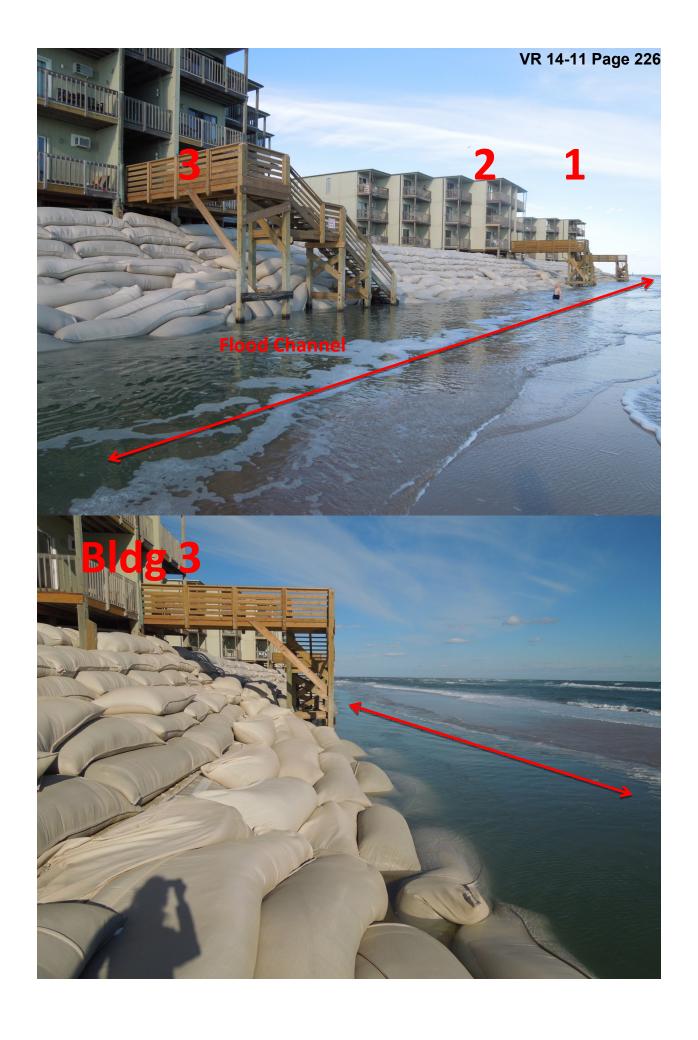
Place of Residence: Chesapeake, Va. Date of Birth: 21 January 1959 Place of Birth: Norfolk, VA, USA





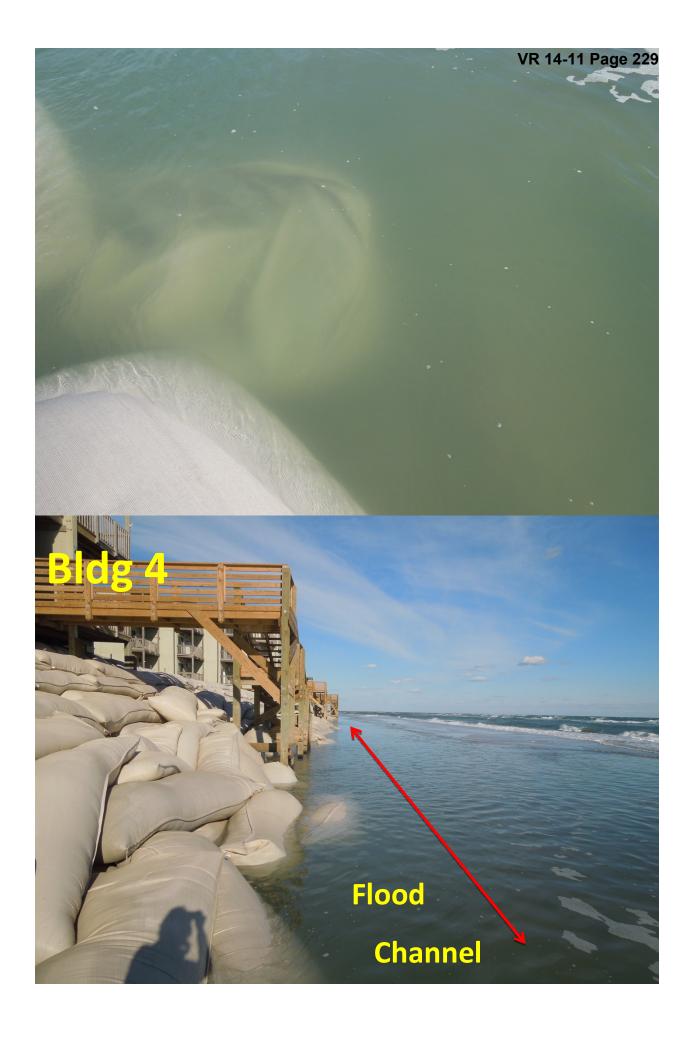


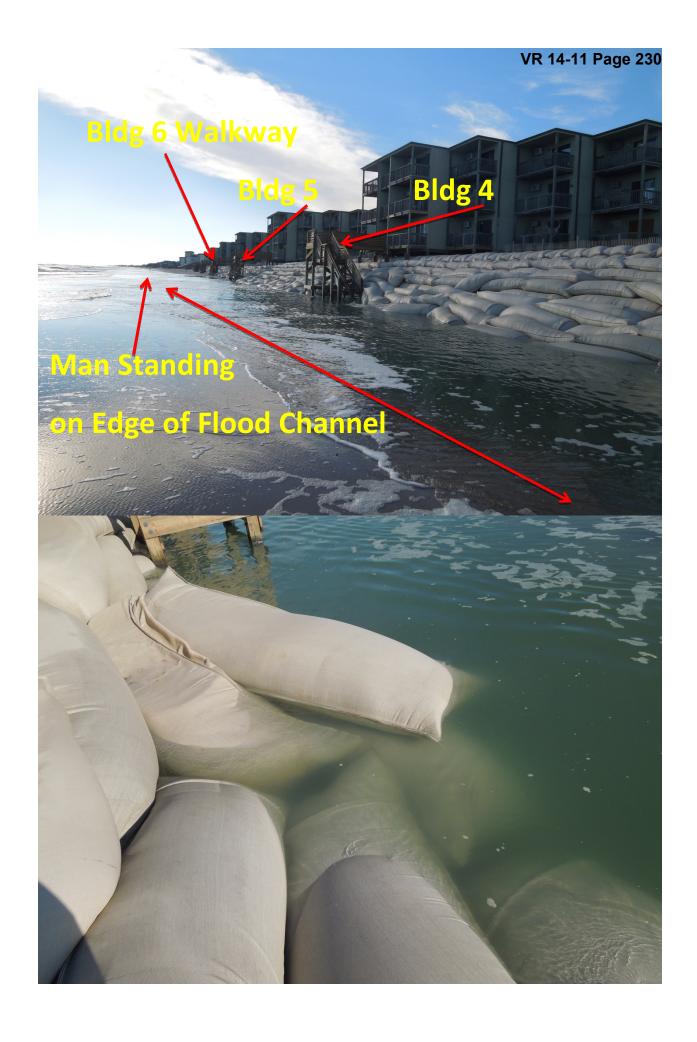




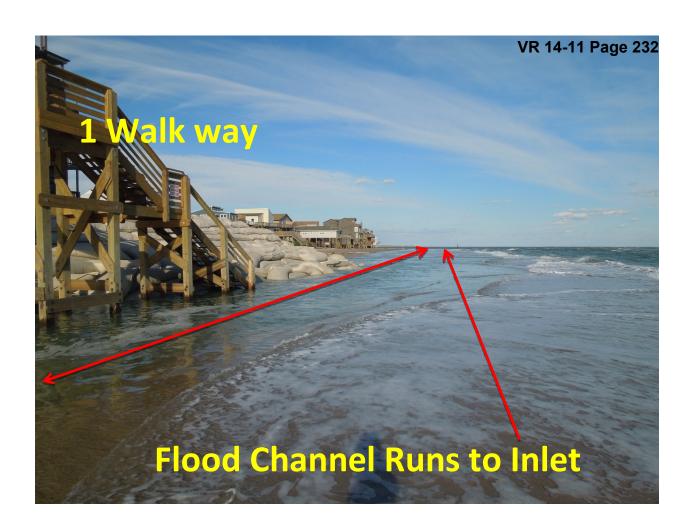


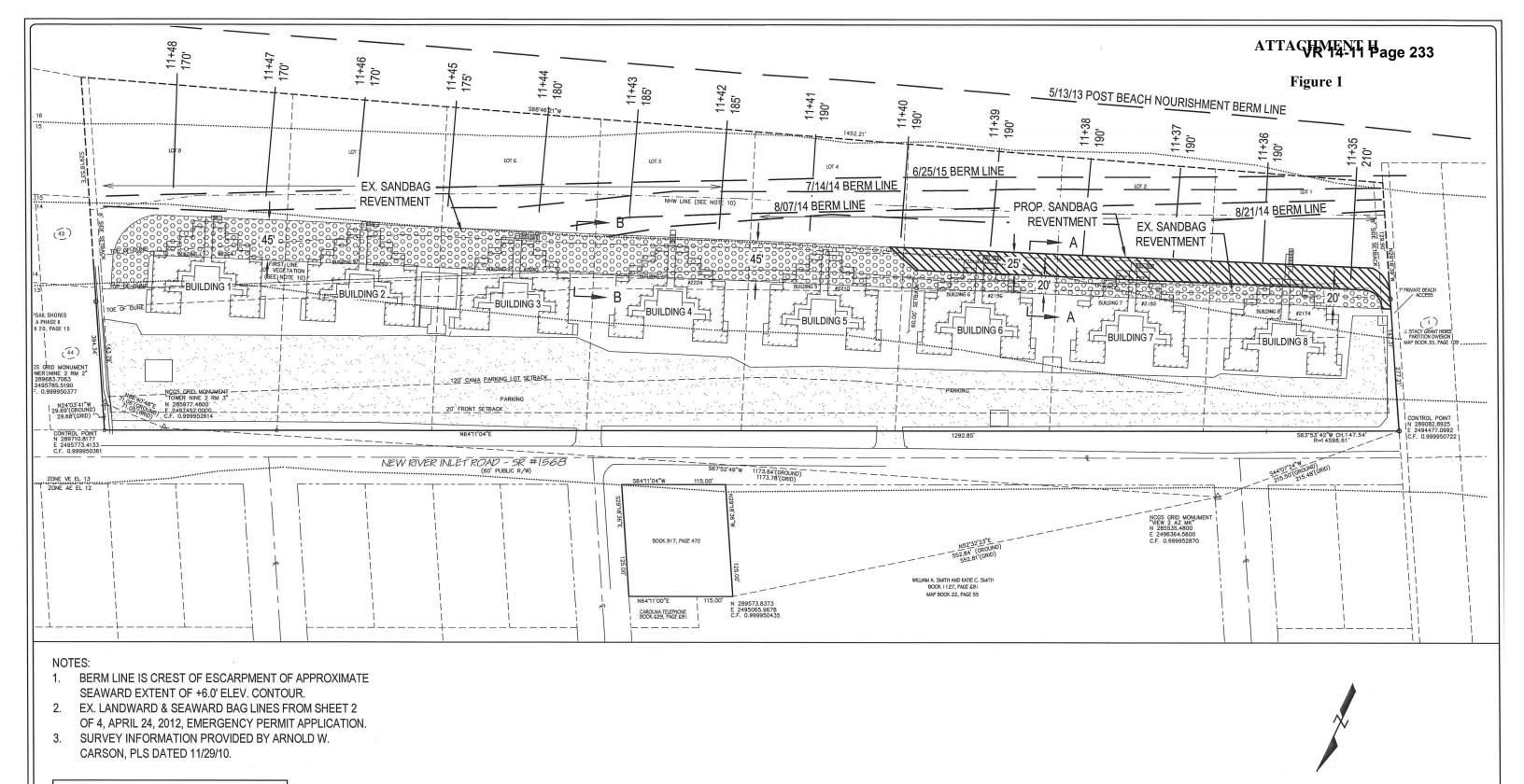














NO.	DESCRIPTION	BY	DATE
1	REVETMENT FOOTPRINT REVISION	JWF	8/29/14
	*		

BEARING PAINT

910 ARENDELL STREET MOREHEAD CITY, NC 28557 PHONE: (252) 247-4200 FAX: (252) 247-7300 www.bearingpt.com CLIENT:

TOPSAIL REEF HOMEOWNER'S ASSOCIATION 2224 NEW RIVER INLET ROAD, #131 NORTH TOPSAIL BEACH, NC 28460 PROJECT:

EMERGENCY CAMA PERMIT MODIFICATION #39-12

SITE PLAN

)	SCALE:	1" = 100'
	DATE:	08/22/14
	DRAWN BY:	JJW
	APPROVED BY:	JWF
1	PROJECT #.	14032

1* = 100' SHEET #

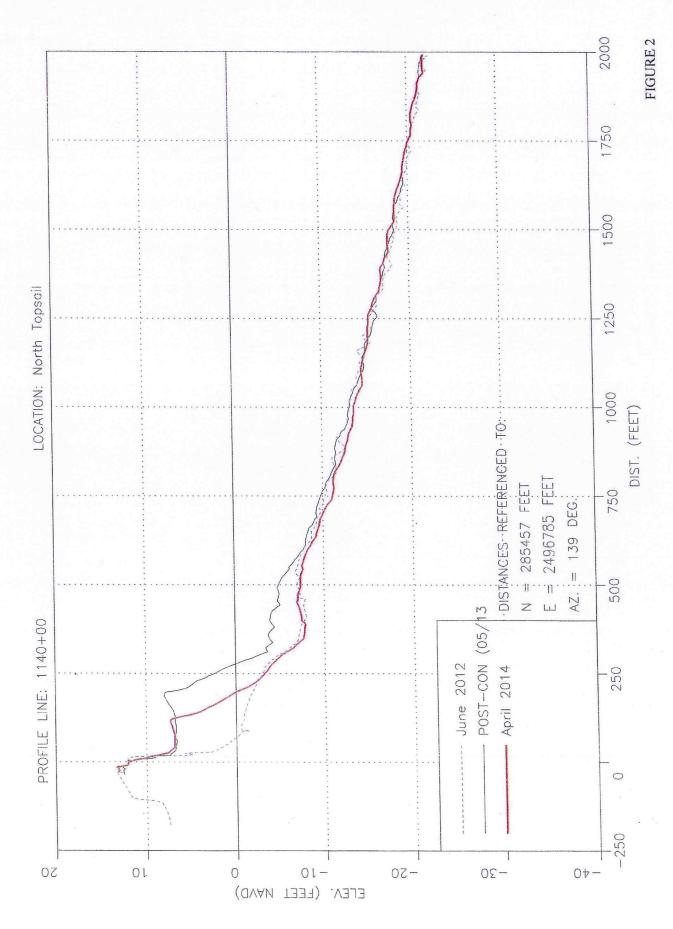
08/22/14

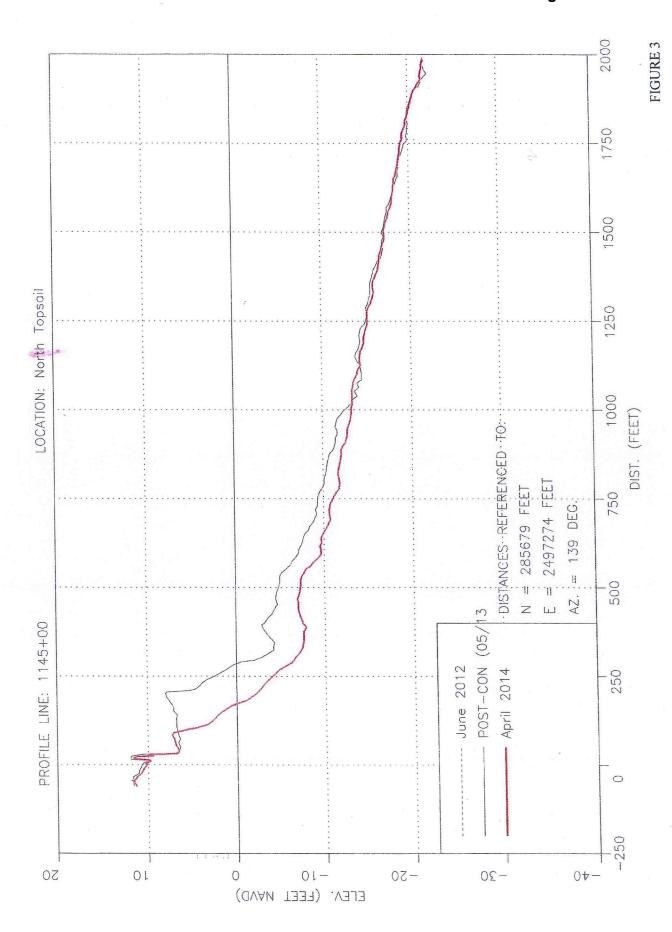
7Y: JJW

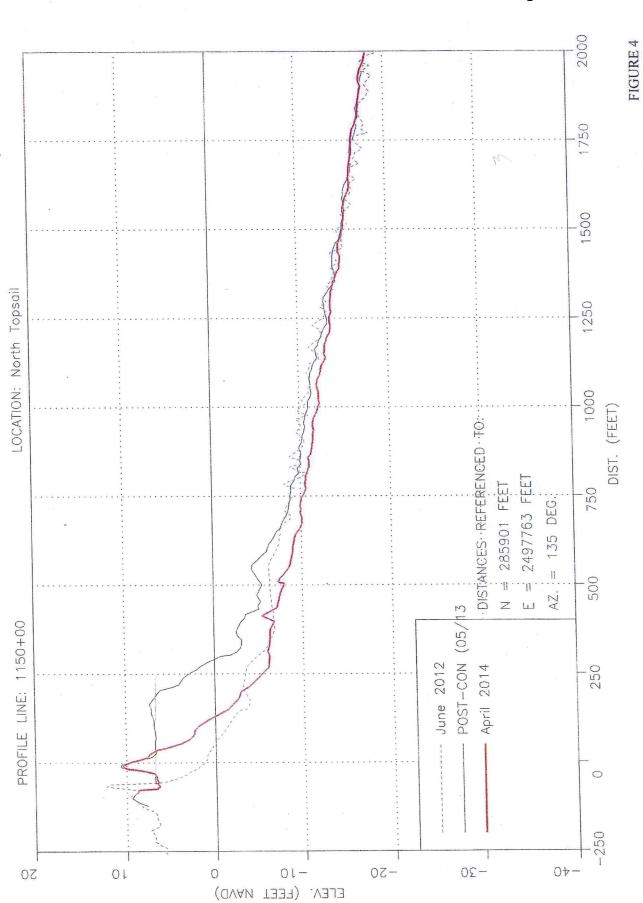
ED BY: JWF

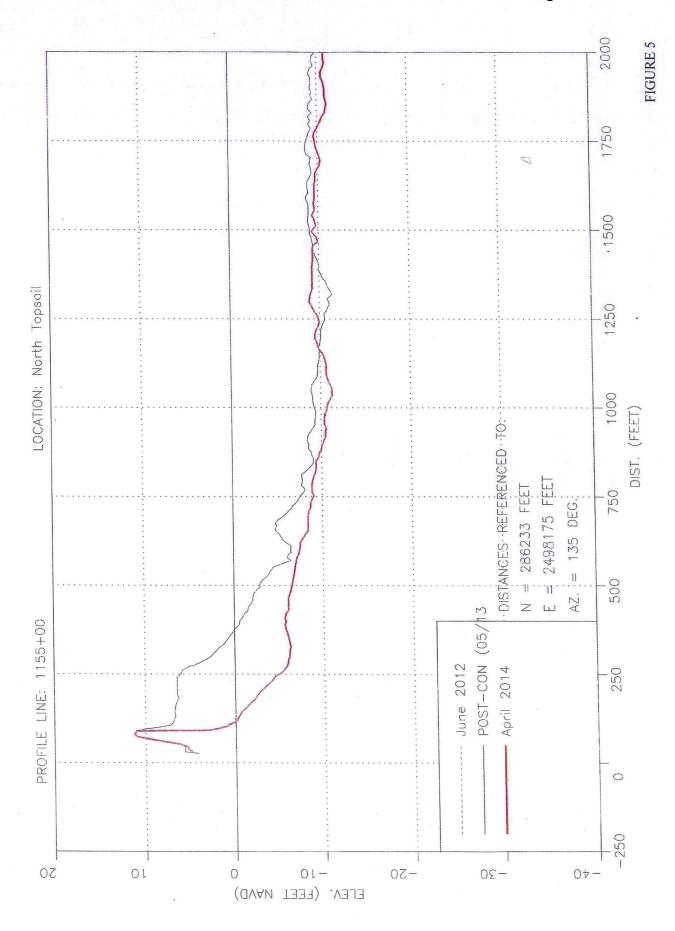
1# 14032

200'









New River Inlet Channel Realignment & Beach Restoration

Project Completion

Town of North Topsail Beach, NC February 7, 2013

Coastal Planning & Engineering of North Carolina, Inc.

Robert Neal

Phone 910.791.9494

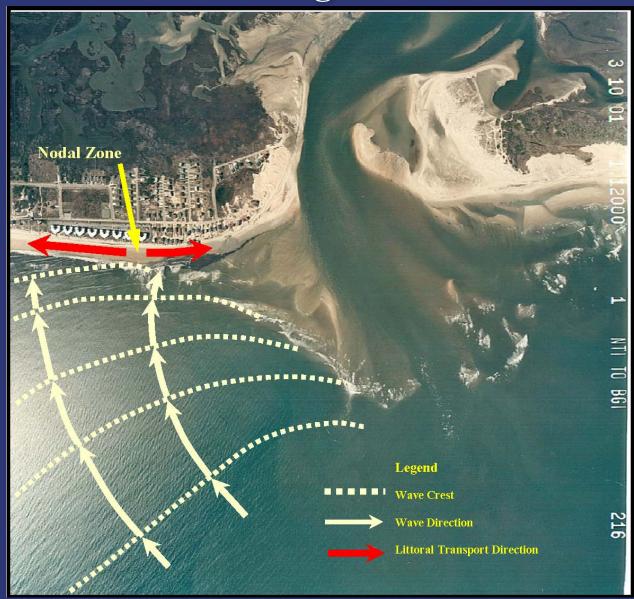
Email: robert.neal@shawgrp.com

Design Goal

Realign New River Inlet Ocean Bar Channel to Provide Stability to North Topsail Island and Beach Fill for Shoreline Restoration.



Design Goal





Design Goal





Project Summary

Construction Accomplishments

- Realignment of New River Inlet ocean bar channel (500 ft wd. x 3,500 ft lg x -18 NAVD88 dp.)
- Removal of 626,480 cys from New River Inlet.
- Placement of 566,244 cys of beach material over 7,735 lf of shoreline.
- Construction of 4 ft. high by 15 ft. wide dune over 1,750 lf.
- Repair of existing dune over 4,620 lf.
- Average shoreline extension of 169 ft.

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Realigned Channel





August 26, 2012



January 29, 2013

November 23, 2012

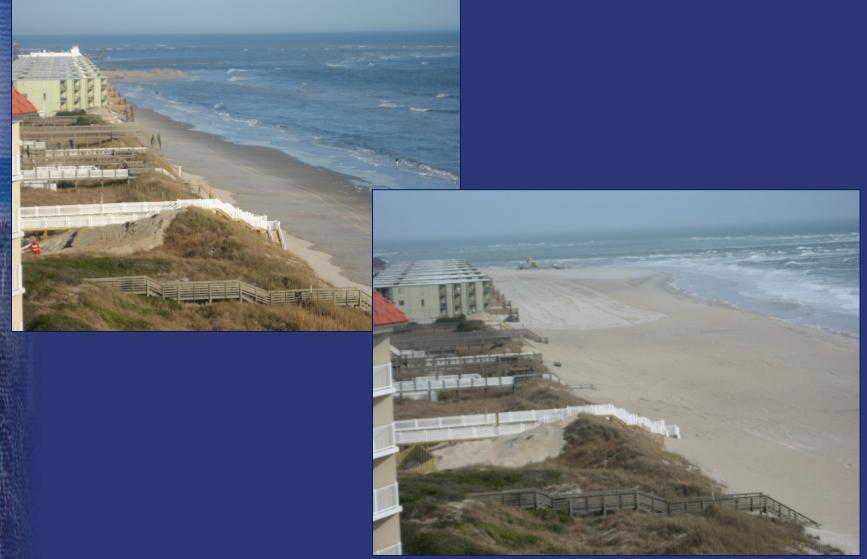


November 23, 2012





December 03, 2012





January 30, 2013



Next Step - Monitoring VR 14-11 Page 249

Project Performance

- Shoreline and volumetric changes on North Topsail Beach
- Shoaling and migration rates in New River Inlet & ebb shoal
- FEMA Plan

Potential Impacts

- Shoreline changes on Onslow Beach
- Hardbottom impacts south of fill area

Timeframe

- Surveys in June 2013 results in September 2013
- Follow-up surveys in June 2014

Questions?



Special Thanks to Marinex Construction, Inc. Charleston SC

Town of North Topsail Beach

Daniel Tuman, Mayor Tom Leonard, Mayor Pro Tem Aldermen: Suzanne Gray Don Harte Richard Macartney Richard Peters



Stuart Turille Town Manager

Carin Z. Faulkner, MPA Town Clerk

August 15, 2014

Certified Mail - Return Receipt Requested

NOTIFICATION FOR CAMA MAJOR PERMIT APPLICATION

Dear Property Owner:

The Town of North Topsail Beach is applying for a CAMA Major permit to install a geotextile sand tube along approximately 1,450 feet of shoreline north of the Topsail Reef Condominiums, located at in the public trust area along 2276 – 2378 New River Inlet Road and adjacent to the Atlantic Ocean, in Onslow County, North Carolina. The top of the sand tube would be between 6.5 and 7.0 feet above the existing ground and would have a base width of between 18 and 24 feet when completely filled with sand. The sand tubes include scour protection aprons on both sides. The scour protection aprons consist of a geotextile flap connected to a -foot diameter sand filled tube that would extend along the entire length on both sides of the sand tube. The specifics of the proposed work are in the enclosed application forms and drawings.

As the adjacent riparian property owner to the aforementioned project, I am required to notify you of the development in order to give you the opportunity to comment on the project. Please review the attached permit application and drawings.

Should you have any objections to this proposal, please send your written comments to Jason Dail, NC Dept of Environment & Natural Resources, NC Division of Coastal Management, 127 Cardinal Drive Ext., Wilmington, NC 28405, within 30 days of your receipt of this notice. Such comments will be considered by the Department in reaching a final decision on the application. No comment within 30 days of your receipt of this notice will be considered as no objection. If you have any questions on this project, please call me at 910-328-1349 ext. 26, or e-mail me at townmanager@north-topsail-beach.org.

Sincerely,

Stuart Turille Town Manager

Stuart Tille

Enclosures

2008 Loggerhead Court North Topsail Beach NC 28460 ntbnc.org

phone (910) 328-1349 fax (910) 328-4508 August 18, 2014

Ms. Debra Wilson
Division of Coastal Management
North Carolina Department of Environment
and Natural Resources
127 Cardinal Drive Extension
Wilmington, North Carolina 28405

Re: Town of North Topsail Beach, Application for CAMA Major Development Permit including Excavation and Fill (Forms DCM-MP-1 and DCM-MP-2)

Dear Ms. Wilson:

On behalf of the Town of North Topsail Beach, I am submitting an application for a Major Permit under the Coastal Area Management Act (see attachments).

The Town of North Topsail Beach completed Phase 1 of its beach and inlet management plan in February 2013. Phase 1 included relocating the main bar channel of New River Inlet to a preferred position and alignment and deposition of the dredged material along approximately 7,730 feet of the town's shoreline south of New River Inlet. The intent of the bar channel relocation was to induce a build-up of material on the south side of New River Inlet which would eventually result in accretion along the northern portion of the town's shoreline.

The response of New River Inlet to the new channel will take some time. Since completion of Phase 1, the area north of the Topsail Reef Condominium has experienced inordinate erosion with most of the fill material placed in this area being eroded. The loss of the fill material has placed the homes north of Topsail Reef in imminent danger requiring interim erosion response measures to protect threatened homes until such time the inlet channel can be maintained and the relocated channel begins to have a positive impact on the condition of the shoreline along the extreme north end of Town.

Beach nourishment in the area within the next 2.5 years is not a viable option due to ongoing beach nourishment efforts by the Town for the southern 3.85 miles of the town's shoreline. Also, the permit issued to the town for its inlet/shoreline management plan only allows maintenance dredging of the new channel every four years which means the earliest the town could undertake to maintain the channel would be the 2016/2017 dredge season. Without the ability to dredge the inlet channel, there is no other economical source of beach nourishment material that could provide the volume of material that has characteristics needed to protect the area for at least the next 2.5 years.

Given the severity of the erosion, the use of conventional sandbag revetments as presently allowed by the CAMA (15A NCAC 7H.1700) would not be able to protect the threatened homes for the required 2.5 to 4 year period. As evidence of this, prior to the placement of the Phase 1 beach fill, most of the affected property owners had attempted

1. Project Narrative.

The Town of North Topsail Beach completed Phase 1 of its multifaceted inlet and shoreline management plan in February 2013 with the repositioning of the New River Inlet ocean bar channel to a more central location between the south end of Onslow Beach and the north end of North Topsail Beach. The material removed during repositioning of the channel was used to construct a beach fill along 7,730 feet of shoreline south of New River Inlet.

The condition of the north end of North Topsail Beach prior to construction of the Phase 1 beach fill project is shown in Photo 1 with the condition immediately after construction provided in Photo 2.



Photo 1. Pre-Nourishment – November 2012. The eight buildings in the upper left of the photo are the Topsail Reef Condominiums.



Photo 2. Post-Nourishment – February 2013.

The ocean bar channel of New River Inlet was moved for the purpose of inducing sand accumulation on the south side of the inlet's ebb tide delta. Based on the documented historic behavior of the inlet, moving the channel to a more central position with an alignment approximately perpendicular to the adjacent shorelines would result in accretion of the shoreline south of the inlet. The time required for the new channel to have a positive impact on the shoreline was estimated to be at least 5 years.

Monitoring of the inlet has demonstrated some of the expected results are taking place with sand accumulating on the south side of the inlet, however, the rate of build-up, as predicted, has been relatively slow. As a result, the north end of North Topsail Beach has continued to experience high rates of erosion. As of August 2014, most of the fill placed north of the Topsail Reef Condominiums has been lost (Photos 3 to 5).

The loss of the beach fill has placed approximately 20 residential structures located north of Topsail Reef in imminent danger of being severely damaged or possibly destroyed. In addition to the threat to the homes, flooding of the area has been exasperated (Photo 6) with flood waters spilling on to New River Inlet Road and side streets.

The overall management plan for New River Inlet and the shoreline of North Topsail Beach allows for the periodic maintenance of the ocean bar channel in order to keep the channel in its preferred position and alignment. Material removed to maintain the channel is to be used to provide periodic nourishment of the North Topsail Beach shoreline including the shoreline nourished during Phase 1.

The conditions of the permits issued for the project only allows maintenance of the channel to be accomplished every four years providing one of two channel maintenance thresholds are met. One channel threshold is associated with shoaling of the channel while the second is based on the position and alignment of the channel. With the initial project being completed in February 2013, the Town of North Topsail Beach is not permitted to maintain the channel until at least the 2016/2017 environmental dredge window. Given the present condition of the shoreline, the Town of North Topsail Beach needs to take immediate emergency measures in order to prevent the loss of the 20 threatened residential structures between now and the time it is permitted to maintain the channel.

The temporary sand bag revetment allowed under CAMA (15A NCAC 7H.1700), which is limited to a height of 6 feet above the existing ground and a maximum bottom width of 20 feet, is not adequate to provide the degree of protection deemed necessary to protect the 20 residential structures for a minimum of 2.5 years. This is evident by the history of failure of previously permitted sandbag revetment in the area as demonstrated in Photo 7. Therefore, the Town of North Topsail Beach has elected to install a sand tube structure known as the MacTube® or a comparable structure. The MacTube® is a geotextile container made from a woven polypropylene (PP) geotextile which is available from Maccaferri, Inc. Comparable tube structures include the ProTecTubeTM supplied by Advanced Coastal Technologies, LLC.

A plan view of the sand tube revetment is provided on Sheet 2 of 3 and a typical cross-section view of the MacTube[®] is shown on Sheet 3 of 3 in the Attachments. The proposed sand tube would begin at the existing "super-sized" sandbag revetment at Building #1 of the Topsail Reef Condominium and extend 1,450 feet parallel to the existing shoreline. A 50-foot return wall would extend landward from the north end of the sand tube structure just north of the home located at 2378 New River Inlet Road.

Town of North Topsail Beach

Daniel Tuman, Mayor Tom Leonard, Mayor Pro Tem Aldermen: Suzanne Gray Don Harte Richard Macartney Richard Peters

Stuart Turille Town Manager

Carin Z. Faulkner, MPA Town Clerk

August 29, 2014

Topsail Reef HOA

From: Town Manager North Topsail Beach

Re: North End Geo Tube Project

Folks:

Please allow me to clarify what is occurring at the north end.

Last Winter's erosion and this Summer's ocean events have eroded about 1,500 linear feet of dune and beach just north of you. This results in flooding even during <u>normal tidal</u> events. Heightened events such as super normal moons, off-shore hurricanes, etc. threaten to flood the entire north end of Town.

The town looked at a number of options to resolve this, including trucked-in sand and sand removed from the north end spit, but we decided ultimately to install a buried sand-bag, due to its advantage of not eroding as swiftly as would a sand re-construction of the area.

The bag will be buried and continuous, not multiple smaller bags, and will tie into your sand bag work at the north end (I have read your permit application and spoken with the Project Engineer).

The benefit to you will be that it will provide a continuous revetment structure, one that will prevent water from flanking, and thus undermining, your bags.

The Town does consider the erosion at the north end as one area of concern, and is working to provide additional sand from the Cedar Bush cut area, **this Winter/Spring dredging season**, to repair as much of the highly eroded areas at the North End as possible with the volume of sand available to us. However, we will need a permit and authorization from State agencies, so <u>I cannot promise that this will occur</u>, although that is our target.

In 2016 we have scheduled a large-scale maintenance of the entire phase 1 area, but that is two years from now. Therefore, I strongly recommend that you do what you can to protect your property until such time as we can bring in more sand for a strengthened beach and dune. This is also what we have advised the residents to the north of you (they have not protection at all until we can bring in the buried sand bag).

The Town Board and I, as Town Manager, consider your area of the highest urgency and are working as swiftly as possible to assist you, but, again, I advise you to do what is necessary to protect yourselves in the near term.

Sincerely,

Stuart Turille Town Manager North Topsail Beach

Topsail Reef Home 257 Owners Association VARIANCE REQUEST

2224 New River Inlet Road
North Topsail Beach, North Carolina
Onslow County

Presentation Prepared by: Jason Dail

Date: September 10, 2014

















Photos of Buildings 7 (forefront) and 6 looking north. Photos taken by DCM staff on

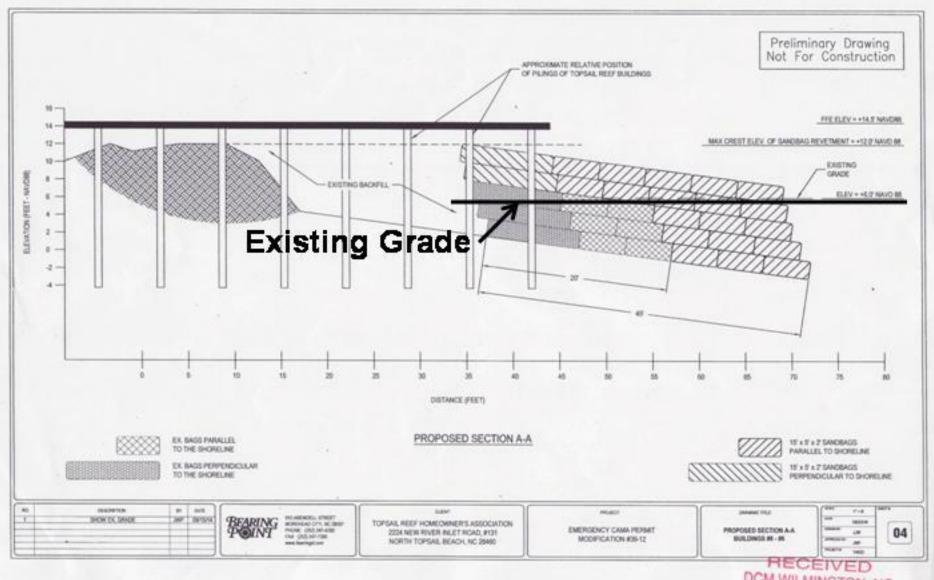
September 2, 2014.



Photo of Building 8 looking south. Photo taken by DCM staff on September 2, 2014.



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DCM WILMINGTON, NC

SEP 1 5 2014