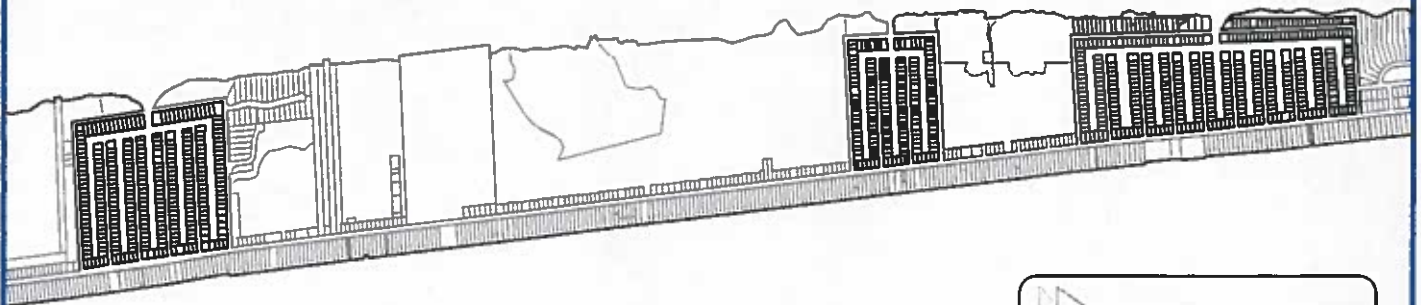


# Canal Maintenance Dredging Master Plan 2016

**Town of Holden Beach**  
**Brunswick County ~ North Carolina**



**RIGHT ANGLE**  
**ENGINEERING, P.C.**  
212 PRINCESS STREET  
WILMINGTON, NC 28401  
(910) 251-8544 FAX (910) 251-2208

**CANAL MAINTENANCE DREDGING MASTER PLAN**  
**TOWN OF HOLDEN BEACH**  
**BRUNSWICK COUNTY, NORTH CAROLINA**

**1. THE STUDY AND THE REPORT**

**1.1. STUDY PURPOSE AND SCOPE**

The purpose of this study and Master Plan is to define the need and methods to maintain safe, reliable and efficient navigation in established canals within the following neighborhoods in Holden Beach, North Carolina: Holden Beach Harbor, Heritage Harbor and Harbor Acres.

**1.2. STUDY AND ADMINISTRATIVE AUTHORITY**

This study and prescribed actions are authorized under Section 107 of the Rivers and Harbors Act of 1960, as amended. Responsibility for administering and executing the plan is assigned to the Town's Shoreline Protection and Recreation Services Director.

**1.3. LOCATION AND DESCRIPTION OF THE AREA**

The project areas are established neighborhoods with canal access within the Town of Holden Beach, North Carolina. For each neighborhood, the canal entrance opens from the Atlantic Intracoastal Waterway. (See Figure 1.) Holden Beach is a residential community with a small commercial presence. The primary use of the canals is by small, privately-owned, non-commercial watercraft. The ability to safely come and go on the water, and to dock private boats at each residence, contributes to the appeal and value of the property in these neighborhoods.

In Holden Beach Harbor there are 10,300 linear feet of canals serving approximately 350 lots. In Heritage Harbor, 4,800 linear feet serves approximately 312 lots; while 7,100 linear feet serves approximately 301 lots in Harbor Acres.

**1.4. PROJECT HISTORY**

In June, 2008, resolutions were adopted to establish fee-supported dredging districts for each of the three subdivisions. The resolutions: No. 08-20 for Holden Beach Harbor, No. 08-21 for Heritage Harbor and No. 08-22 for Harbor Acres are included in the Appendix. These resolutions enable the Town of Holden Beach to act as administrator of the districts, to assess and collect fees as necessary to adequately maintain the subdivision canals.

The most recent dredging project was completed in January 2014. For Harbor Acres all canals were dredged, whereas only the entrance channel was dredged in Holden Beach Harbor and Heritage Harbor because it was the only portion of that system

where access was impaired. Depths of -6 MLW were achieved in entrance and transfer canals. The interior canals were dredged to -5 MLW. (See Figures 2-4.)

Below is a table for each subdivision showing the dredge history.

<b>Holden Beach Harbor</b>			
<b>Year</b>	<b>Cost</b>	<b>Material Removed (cu. yds.)</b>	<b>Notes</b>
2004	\$213,027	10,227	Alderman Brothers
2009	\$250,496	16,500	Row Boat Dock & Dredge
2014	\$23,400	2600	King Dredging

<b>Heritage Harbor</b>			
<b>Year</b>	<b>Cost</b>	<b>Material Removed (cu. yds.)</b>	<b>Notes</b>
~1994			All canals
2003	\$8,200	1,000	Entrance only
2009	\$195,111	12,500	Row Boat Dock & Dredge
2014	\$21,600	2400	King Dredging

<b>Harbor Acres</b>			
<b>Year</b>	<b>Cost</b>	<b>Material Removed (cu. yds.)</b>	<b>Notes</b>
1984	\$91,500	64,400	Roberts & Roberts Dredging
1990	\$15,000	unknown	Entrance only, G&G Dredging (Gene Evans)
1994	\$85,273	15,059	Bald Head Island Transportation
2004	\$213,027	10,227	Alderman Brothers
2009	\$85,348	1,600	Entrance only, Row Boat Dock & Dredge
2014	\$270,000	30,507	King Dredging

As illustrated in the tables above, the canals in Holden Beach Harbor, Heritage Harbor and Harbor Acres have been periodically dredged over the past 25 years to combat the adverse effects shoaling has on navigation. The shoaling, or filling in, of the canals is a natural result of erosion and longshore drift caused by wave and current action and can

be increased due to storm events and bulkhead failures. The Town of Holden Beach has an ordinance requiring all canal lots to have bulkheads and for them to be maintained. Over the course of the last four years the Town has worked with canal property owners to achieve maximum protection for the canals by annually conducting inspections of all canal bulkheads to identify and remedy maintenance needs.

Provisions for the canal dredging capital projects were included in the Town of Holden Beach Budget Ordinance Fiscal Year 20016/2017 as follows:

**Holden Beach Harbor Canal Dredging Special Revenue Fund**

**Revenue**

BALANCE FORWARD	448,704
SRF HBH INTEREST	250
SRF HBH ASSESSMENTS	129436
SRF HBH PRIOR ASSESSMENTS	700
<b>Total</b>	<b>\$579,090</b>

**Expense**

SRF Administration - HBH	5,791
SRF Legal Fees - HBH	5,791
SRF Construction - HBH	434,318
SRF Surveying - HBH	28,955
SRF Permitting CAMA - HBH	14,477
SRF Permitting ACE & Other Agencies	14,477
SRF Designs - HBH	17,373
SRF Contract Docs, Plans, Specs - HBH	28,955
SRF Construction Management, Insp, Closeout - HBH	14,477
SRF Transfer to General Fund- HBH	14,477
<b>Total</b>	<b>\$579,090</b>

In accordance with North Carolina General Assembly Session Laws 2004-104 as amended and 2005-90; as such, a canal dredging fee of \$375 per lot (per the Fiscal Year 2008/2009 assessment district resolution) for Holden Beach Harbor is hereby established for the Fiscal Year beginning 1 July 2016 and ending 30 June 2017.

**Heritage Harbor Canal Dredging Special Revenue Fund**

**Revenue**

BALANCE FORWARD	164,757
SRF HH INTEREST	400
SRF HH ASSESSMENTS	84580
SRFHH PRIOR YEAR ASSESSMENTS	5000
<b>Total</b>	<b>\$254,737</b>

Expense

SRF Administration - HH	2547
SRF Legal Fees - HH	2547
SRF Construction - HH	191053
SRF Surveying - HH	12737
SRF Permitting ACE & Other Agencies HH	6368
SRF Permitting CAMA - HH	6368
SRF Designs - HH	7642
SRF Contract Docs, Plans, Specs - HH	12737
SRF Construction Management, Insp, Closeout - HH	6368
SRF Transfer to General Fund- HH	6368
<b>Total</b>	<b>\$254,737</b>

In accordance with North Carolina General Assembly Session Laws 2004-104 as amended and 2005-90; as such, a canal dredging fee of \$250 per lot (per the Fiscal Year 2008/2009 assessment district resolution) for Heritage Harbor is hereby established for the Fiscal Year beginning 1 July 2016 and ending 30 June 2017.

**Harbor Acres Canal Dredging Special Revenue Fund**

Revenue

BALANCE FORWARD	769,622
SRF HA INTEREST	500
SRF HA ASSESSMENTS	91,991
SRF HA PRIOR ASSESSMENTS	500
<b>Total</b>	<b>\$862,613</b>

Expense

SRF Administration - HA	8626
SRF Legal Fees - HA	8626
SRF Construction - HA	646960
SRF Surveying - HA	43131
SRF Permitting CAMA - HA	21565
SRF Permitting ACE & Other Agencies - HA	21565
SRF Designs - HA	25878
SRF Contract Docs, Plans, Specs - HA	43131
SRF Construction Management, Insp, Closeout - HA	21565

SRF Transfer to General Fund- HA

21565

**Total**

**\$862,613**

In accordance with North Carolina General Assembly Session Laws 2004-104 as amended and 2005-90; as such, a canal dredging fee of \$320 per lot (as established in the Fiscal Year 2008/2009 assessment district resolution) for Harbor Acres is hereby established for the Fiscal Year beginning 1 July 2016 and ending 30 June 2017.

## 2. PLAN FORMULATION

### 2.1. Problem Description

As illustrated in the tables above, the canals in Holden Beach Harbor, Heritage Harbor and Harbor Acres have been periodically dredged over the past 25 years to combat the adverse effects shoaling has on navigation. The shoaling, or filling in, of the canals is a natural result of erosion and longshore drift caused by wave and current action and can be increased due to storm events.

### 2.2. Controlling Depth and Channel

Primary usage of the canals is by residents with recreational watercraft not exceeding 25 feet in length. The depths of six feet in the entrance and transfer channels, and five feet in the interior channels achieved by previous dredge operations has proven to be adequate for safe, reliable navigation. These depths provide adequate allowance for shoaling between dredge operations.

### 2.3. Disposal Sites

Sampling has established that spoil material from dredge operations in these communities is not desirable beach fill due to small particle size. Four Disposal Area (DA) locations are currently maintained by the US Army Corps of Engineers; which has easements on all of the sites. (See Figure 5.) Two of these properties, DA 290 (Greensboro Street), and DA 292 (Heron Landing Wynd) are owned by The Town of Holden Beach.

Consent agreements with the Corps and the owners of the disposal properties are required for each use of these sites. There is a tipping fee per yard assessed by the Corps – at present \$5/yard – for the use of all four of the Corps maintained sites. Additionally; and in the past, other non-town property owners have charged the Town to use their site.

Based on field survey and estimation, Disposal Area (DA) 293 (Sailfish Street) has a remaining 58,616 cubic yards (cy) availability; DA 292 (Heron Landing Wynd) has 147,115 cy; DA 291 (Sand Dollar Street) has 48,632 cy and DA 290 (Greensboro Street) has 34,786 cy. This information is presented in table form along with a location map on Figure 5.

All of the outlet structures in the Disposal Areas are in various states of conditions depending on their use, age, etc. and must be assessed as part of any dredging consideration. Pictures of existing outlet structures are included in the Appendix.

#### 2.4. Environmental Conditions

According to a diagram generated in 2004 by the Planning Branch of the Basinwide Planning Program Unit of NCDENR, the use support rating for the majority of the Atlantic Intracoastal Waterway between Lockwoods Folly Inlet and Shallotte Inlet was "Supporting" while stretches at the mouth of both Holden Beach Harbor and Harbor Acres, as well as the canals of all three subdivisions, were rated "Impaired". (See Figure 6.) The "Impaired" status is assigned in Class SA waters when shellfish harvesting is prohibited or conditionally approved due to bacteria levels that do not reach the area standard. NCDENR's strategies for improving water quality include "reducing runoff, resolving septic system impacts and working more closely with other state and local agencies to address all pollution impacts to SA waters."

#### 2.5. Existing Conditions

All canals had monitoring surveys conducted by East Coast Engineering & Surveying during the winter of 2015/2016 and mapping completed February 2016 to determine if shoaling had occurred that would impede vehicle passage and estimate material removal amounts at projected dredging dates.

The resulting cross-sections show that less than 50% were filled one foot or more above the design depth of -5 and -6 MLW.

### 3. DESIGN CONSIDERATIONS

#### 3.1. Channel Design

Primary usage of the canals is by residents with recreational watercraft not exceeding 25 feet in length. The depths of six feet in the entrance and transfer channels, and five feet in the interior channels achieved by previous dredge operations has proven to be adequate for safe, reliable navigation. These depths provide allowance for shoaling between maintenance dredge operations.

The typical cross-section of the dredged canal features a 40-foot wide bottom at a depth of five or six feet, depending on the location of the canal, with 3:1 side slopes. This applies on all canals except for the Harbor Acres finger canals which were permitted to have a 30-foot bottom width. And in Holden Beach Harbor the Canal H has a 60' bottom width due to a wider platted lot layout for just that canal.

The Town of Holden Beach will maintain the permitted channel width while it is the homeowner's responsibility to maintain individual access to the channel.

#### 3.2. Shoaling Rates

Based on quantities removed from the canals in the past, the average shoaling rate was determined to be approximately 0.2 cubic yards per linear foot of canal per year.

### 3.3. Dredging Quantities

Following the formula above, Holden Beach Harbor with 10,300 linear feet of canals would generate 2,060 cubic yards each year; Heritage Harbor with 4,800 linear feet, 960 cubic yards per year and Harbor Acres with 7,100 linear feet of canals would generate 1,420 cubic yards per year.

Based on the February 2016 monitoring survey, it is estimated that 8,500 cy of material would be needed to be dredged to bring the Harbor Acres canals back to the design depth, Heritage Harbor would need 9400 cy, and Holden Beach Harbor would need 14,500 cy to be dredged to meet design channel depths.

### 3.4. Geotechnical Considerations

Each canal subdivision will need to have the proposed dredge sediments sampled and analyzed for permitting disposal through the Corps of Engineering and CAMA. This data must be collected within a year of the permitting application so timing should be carefully planned.

The sediment sampling should meet the current requirement of the Corps of Engineers and CAMA at the time. The samples typically will be analyzed for grain size using the Unified Soil Classification System to determine compatibility with materials deposited in Disposal Areas. Also, the samples will have to be analyzed for total solids, total organic carbon, petroleum hydrocarbons, pesticides, and pollutant metals. These analyses shall be conducted by a certified North Carolina Laboratory and meet all necessary reporting standards.

### 3.5. Disposal Plan

Several points must be considered in development of a disposal plan: proximity of the disposal site to the dredge project; capacity of the disposal site and costs involved in transport of the spoil material as well as fees paid to the landowner of each disposal site.

Based on quantity calculations in Section 3.3 above, if each community's spoil was deposited at the closest disposal site, Holden Beach Harbor might use DA 290 for up to 40 years; Heritage Harbor may expect 50 years of service from DA 291; while Harbor Acres would have up to 40 years of use from DA 293 – providing that no other dredging operations are vying for those disposal sites. Disposal Area 292 has estimated capacity of 138,131 cubic yards. Although it is more remote from each community, this site is owned by the Town of Holden Beach, so transport costs could be offset by the fact that disposal fees would not be owed. If DA 292 were used for the two closest communities, Heritage Harbor and Harbor Acres, it may be serviceable for nearly 60 years.

### 3.6. Environmental Effects

Although increased turbidity is a likely result of dredging projects, it is a temporary condition confined primarily to the immediate construction area. Measures which will be taken to keep sediment disturbance to a minimum include outlet control structures at disposal areas and turbidity curtains will be used when outside the dredging window.



Adverse environmental impacts at the disposal sites are minimized using dikes to prevent erosion into the waterway and by conducting operations during months when shore birds, turtles and other wildlife are not nesting. The deposit of spoil material may provide improved habitat for nesting colonies of waterbirds.

The following table includes the threatened and endangered species found in Brunswick County which would possibly occur within the dredge or deposit areas. This information is derived from the U.S. Fish and Wildlife website for North Carolina.

Common Name	Scientific name	Federal Status	Record Status
American alligator	<i>Alligator mississippiensis</i>	T (S/A)	Current
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGPA	Current
Green sea turtle	<i>Chelonia mydas</i>	T	Current
Kemp's (=Atl.) ridley sea turtle	<i>Lepidochelys kempii</i>	E	Current
Leatherback sea turtle	<i>Dermochelys coriacea</i>	E	Current
Loggerhead sea turtle	<i>Caretta caretta</i>	T	Current
Piping plover	<i>Charadrius melodus</i>	T	Current
Shortnose sturgeon	<i>Acipenser brevirostrum</i>	E	Current
West Indian manatee	<i>Trichechus manatus</i>	E	Current
Wood stork	<i>Mycteria americana</i>	E	Current
Seabeach amaranth	<i>Amaranthus pumilus</i>	T	Current

E indicates an endangered species.

T indicates a threatened species.

T (S/A) indicates a species listed due to its similarity of appearance to another listed species.

BGPA indicates the Bald and Golden Eagle Protection Act

The American alligator is listed only due to it's similarity to the threatened crocodile which is not expected to appear in Brunswick County.

The bald eagle would be found in the work area only as an occasional migrant and would not be effected by the project.

Green sea turtles may be found in the area but prefer open sloping beaches for nesting. Kemp's ridley sea turtle has not been observed in Brunswick County within the past 20 years. The leatherback sea turtle generally remains in the open water of the ocean and the loggerhead turtle, which is well-known in this vicinity, prefers oceanside beaches for nesting.

The types of dredges used in maintenance operations are not known to take sea turtles, so neither nesting habitat nor the turtles themselves should be threatened by the project. Mechanical dredging using the bucket-to-barge method may be permitted at all times during the year, however hydraulic dredge operations must be completed each year by April 1<sup>st</sup> in order to prevent disruption of sea turtle nesting.

The piping plover breeds in early spring and inhabits its nesting area until early September. Breeding birds in North Carolina generally are found north of Cape Lookout, however North Carolina is the northern boundary of their winter range when they are primarily coastal and prefer areas with expansive sand or mudflats near a sandy beach. Due to these preferences, it is not expected that the project would impair piping plover habitat.

The shortnose sturgeon is found in brackish and salt water in lower sections of larger rivers and coastal waters, though it moves upstream to spawn in fresh water. Though this fish may occur in the project area, it would be able to avoid contact with dredge equipment. Any impacts would be temporary as the fish could return to the area after completion of dredge operations.

The West Indian manatee, also known as the Florida manatee, has been an infrequent visitor along the North Carolina coast, primarily between June and October. The U.S. Fish and Wildlife Service has established Precautionary Measure Guidelines which can be found at <http://www.fws.gov/nc-es/es/countyfr.html> and give detailed information on steps to take if a manatee is sighted.

Although the wood stork might migrate through the project area, it's primary habitat is cypress or mangrove swamps. And since they prefer to feed in freshwater marshes, narrow tidal creeks and flooded tide pools, it is not expected that the project would impact this species.

Seabeach amaranth is a plant which occurs on beaches of barrier islands. Its main habitat is overwash flats at the accreting ends of islands, lower foredunes and upper strands of non-eroding beaches. Because dredge fill will not be placed in these areas, habitat for the seabeach amaranth should not be disturbed.

### 3.7. Permitting Requirements

The following permits are required each time maintenance dredging activities are performed: an active Major CAMA permit, NCDENR 401 Water Quality Certification, NCDENR Stormwater approval; and consent agreements with the Army Corps and each individual disposal site landowner. National Pollutant Discharge Elimination System (NPDES) may be required for some dredge operations. To obtain these permits, canal dredge survey, disposal area survey and sediment sampling is required and must be less than one year old. Following are tables indicating the status of permits or most recent activity for each of the communities.

Due to the current slow economy, the North Carolina General Assembly passed the Permit Extension Act of 2009 which suspends the running time of permits required for development for current and valid permits during the period beginning January 1, 2008 and ending December 31, 2010. Where relevant, the new expiration dates are indicated below and marked with an asterisk (\*).

Mechanical dredging using the bucket-to-barge method may be permitted at all times during the year, however hydraulic dredge operations must be completed each year by April 1<sup>st</sup> in order to prevent disruption of sea turtle nesting.

<b>Holden Beach Harbor</b>		
<b>Permit Specifics</b>	<b>Issue/Expiration Dates</b>	<b>Notes</b>
CAMA #40-05	Renewed 7-27-2015 Expires 12/31/2019 *	

NCDENR 401 Water Quality Certification		Expires with CAMA or 404 permit
NCDENR Stormwater		
US Army Corps Consent	None Current	
Property Owner Consent	None Current	
NPDES		Not required for this project

<b>Heritage Harbor</b>
------------------------

Permit Specifics	Issue/Expiration Dates	Notes
CAMA #164-08	Issued 6-28-2015 Expires 2/10/2020*	
NCDENR 401 Water Quality Certification	Issued 6-28-2015	Expires with CAMA or 404 permit
NCDENR Stormwater		SW #8 081018 exemption
US Army Corps Consent	None Current	
Property Owner Consent	None Current	
NPDES		Not required for this project

<b>Harbor Acres</b>
---------------------

Permit Specifics	Issue/Expiration Dates	Notes
CAMA #128-90	Renewed 7-27-2015 Expires 09/19/2020 *	
NCDENR 401 Water Quality Certification		Less than 0.5 acres open water covered by General WQ Certificate #3351

NCDENR Stormwater		
US Army Corps Consent	None Current	
Property Owner Consent	None Current	
NPDES		Not required for this project

4. PROJECT COSTS

4.1. Construction Cost Estimate

ITEM	UNITS	# OF UNITS	UNIT COST	TOTAL
Mobilization	LS	1	\$150,000	\$150,000
Hydraulic Dredging Holden Beach Harbor	CY	30,000	\$10	\$300,000
Hydraulic Dredging Heritage Harbor	CY	15,000	\$10	\$150,000
Hydraulic Dredging Harbor Acres	CY	22,000	\$10	\$220,000
Booster Pump	LS	1	\$100,000	\$100,000
Entrance Canal Dredging Holden Beach Harbor	CY	1,500	\$10	\$15,000
Entrance Canal Dredging Heritage Harbor	CY	1,500	\$10	\$15,000
Entrance Canal Dredging Harbor Acres	CY	1,500	\$10	\$15,000
Disposal Area Maintenance Cost	EA	1	\$150,000	\$150,000
Corps of Engineers Disposal Fees	CY	71,500	\$5	\$357,500
Property Owner Disposal Fees	CY	71,500	\$3	\$214,500
			<b>TOTAL CONSTRUCTION COST:</b>	<b>\$1,687,000</b>

#### 4.2. Project Cost

1	CONSTRUCTION COST	\$1,687,000
2	LEGAL AND ADMINISTRATIVE	\$45,000
3	ENGINEERING PROJECT	
	A. ADMINISTRATION	\$25,000
	B. DESIGN / CONSTRUCTION MANAGEMENT	\$120,000
	C. CONSTRUCTION INSPECTION	\$40,000
	D. CANAL SURVEYS, DISPOSAL AREA SURVEYS, SEDIMENT SAMPLING, & ENVIRONMENTAL ISSUES/PERMITTING	\$86,000
4	CONTINGENCIES @ 10% OF CONSTR. COST	\$168,700
5	LAND AND RIGHTS-OF-WAY	\$10,000
		<b>SUBTOTAL = \$2,181,700</b>
		<b>ESTIMATED TOTAL PROJECT COST: \$2,182,000</b>
		(Rounded to nearest thousand)

#### 4.3. Annual Costs

We recommend that canal surveying be conducted every two years to assess the shoaling conditions. This is estimated to cost \$25,000, or \$12,500 annually.

#### Projected Annual Revenues Required

Revenues were calculated based on overall project costs and annual costs combined, then divided among land owners in each subdivision based on the ratio of linear feet of canal for each subdivision. The following table shows the projected annual assessment per land owner.

		<b>Annualized Period</b>	<b>Annualized Dredge Cost</b>			
<b>Total Dredging Project Cost=</b>		<b>\$2,182,000</b>	10	\$218,200		
<b>Annual Surveying Cost=</b>		<b>\$12,500</b>				
<b>Total Annual Cost=</b>		<b>\$230,700</b>				
<b>Subdivision</b>	<b>Number of Riparian Residences</b>	<b>Percent of Canal LF Overall</b>	<b>Portion of Annual Dredge Cost</b>	<b>Portion of Annual Survey Cost</b>	<b>Total Annual Cost</b>	<b>Required Annual Assessment</b>
Holden Beach Harbor	350	46.2%	\$100,808	\$5,775	\$106,583	\$304
Heritage Harbor	312	21.9%	\$47,786	\$2,738	\$50,524	\$162
Harbor Acres	301	31.9%	\$69,606	\$3,988	\$73,594	\$245

## 5. CONCLUSIONS AND RECOMMENDATIONS

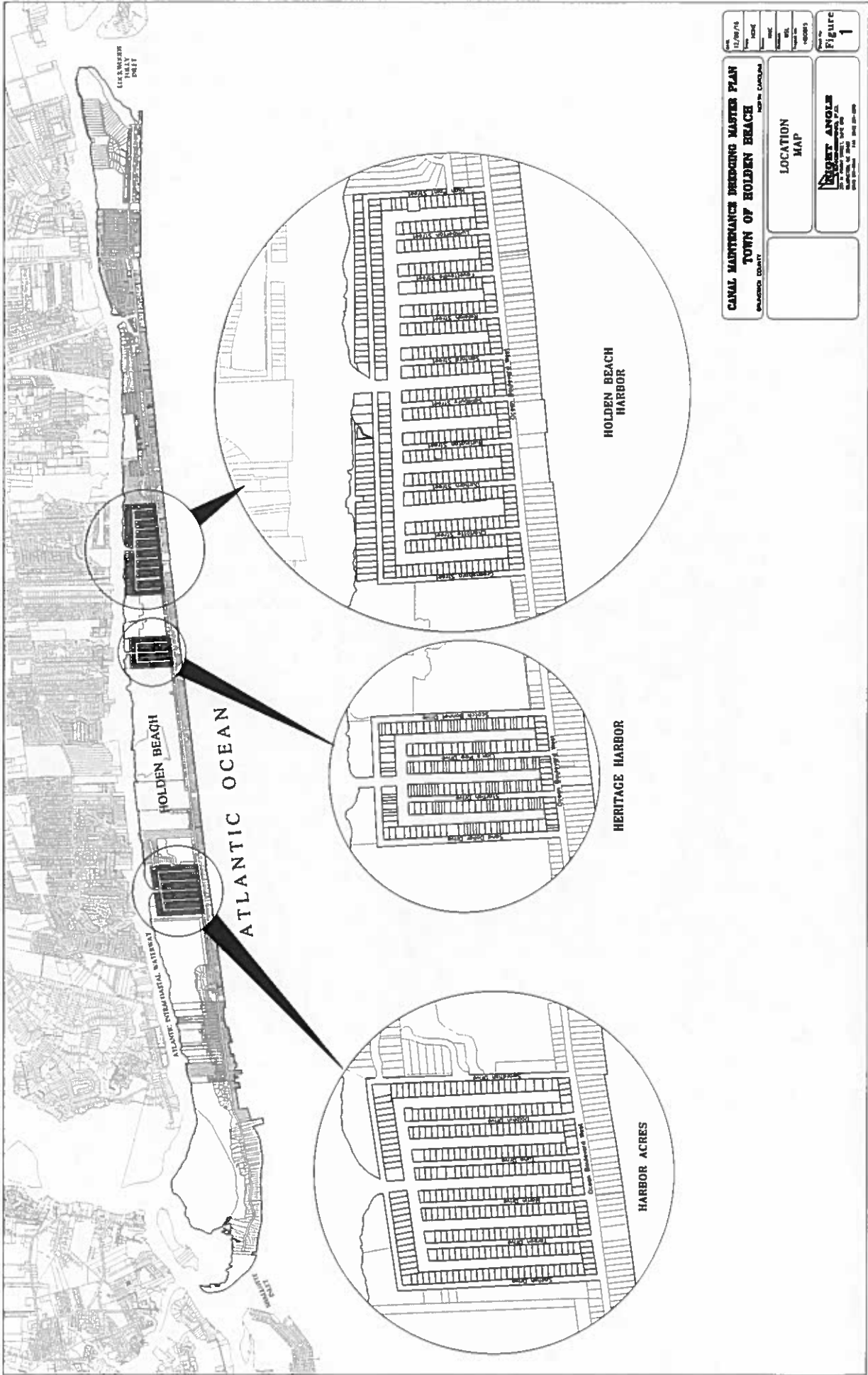
Based on historical dredge cycles and the estimated shoaling rate, it appears that ten year dredge cycles would be appropriate to maintain navigable water depths. Construction costs were estimated for all three subdivisions and based upon estimated construction costs and annual costs, the annual individual property owner assessment should be: Holden Beach Harbor - \$304 per lot; Heritage Harbor - \$162 per lot; and for Harbor Acres - \$245 per lot.

The outlet structures should be inspected and maintained prior to letting of dredge contracts.

Shoaling rates, surveying and dredge frequency are all subject to dynamic coastal conditions. Care should be taken by the Town of Holden Beach to assess yearly localized events and bi-annual canal monitoring surveys should be implemented. Based on prior years dredging, average shoaling rates, and monitoring surveys, it would be expected to conduct maintenance dredging in November 2018/March 2019 for all of Holden Beach Harbor, Heritage Harbor, and entrance canal of Harbor Acres.

## Appendix

<b>Resolution No. 08-20</b>	.....	<b>Holden Beach Harbor</b>
<b>Resolution No. 08-21</b>	.....	<b>Heritage Harbor</b>
<b>Resolution No. 08-22</b>	.....	<b>Harbor Acres</b>
<b>CAMA Permit 40-05</b>	.....	<b>Holden Beach Harbor</b>
<b>CAMA Permit 164-08</b>	.....	<b>Heritage Harbor</b>
<b>CAMA Permit 128-90</b>	.....	<b>Harbor Acres</b>
<b>Photographs of Existing Outlet Structure</b>		
<b>Session Law 2007 - 335 House Bill 429</b>		
<b>Session Law 2013 – 179 House Bill 229</b>		



Date	12/29/16
Drawn	JKC
Checked	
Reviewed	
Approved	
Scale	AS SHOWN
Project	CANAL MAINTENANCE DREDGING MASTER PLAN
Location	TOWN OF HOLDEN BEACH
County	WILMINGTON COUNTY
State	NORTH CAROLINA
Sheet	1
Figure	1

LOCATION MAP

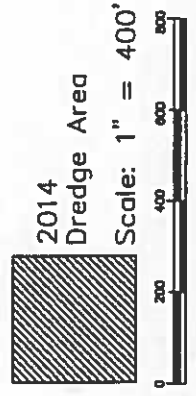
**RIGHT ANGLE**  
 SURVEYING & ENGINEERING, P.A.  
 1000 W. 10TH STREET, SUITE 100  
 WILMINGTON, NC 28401  
 PHONE: 704.366.8888



ATLANTIC INTRACOASTAL WATERWAY

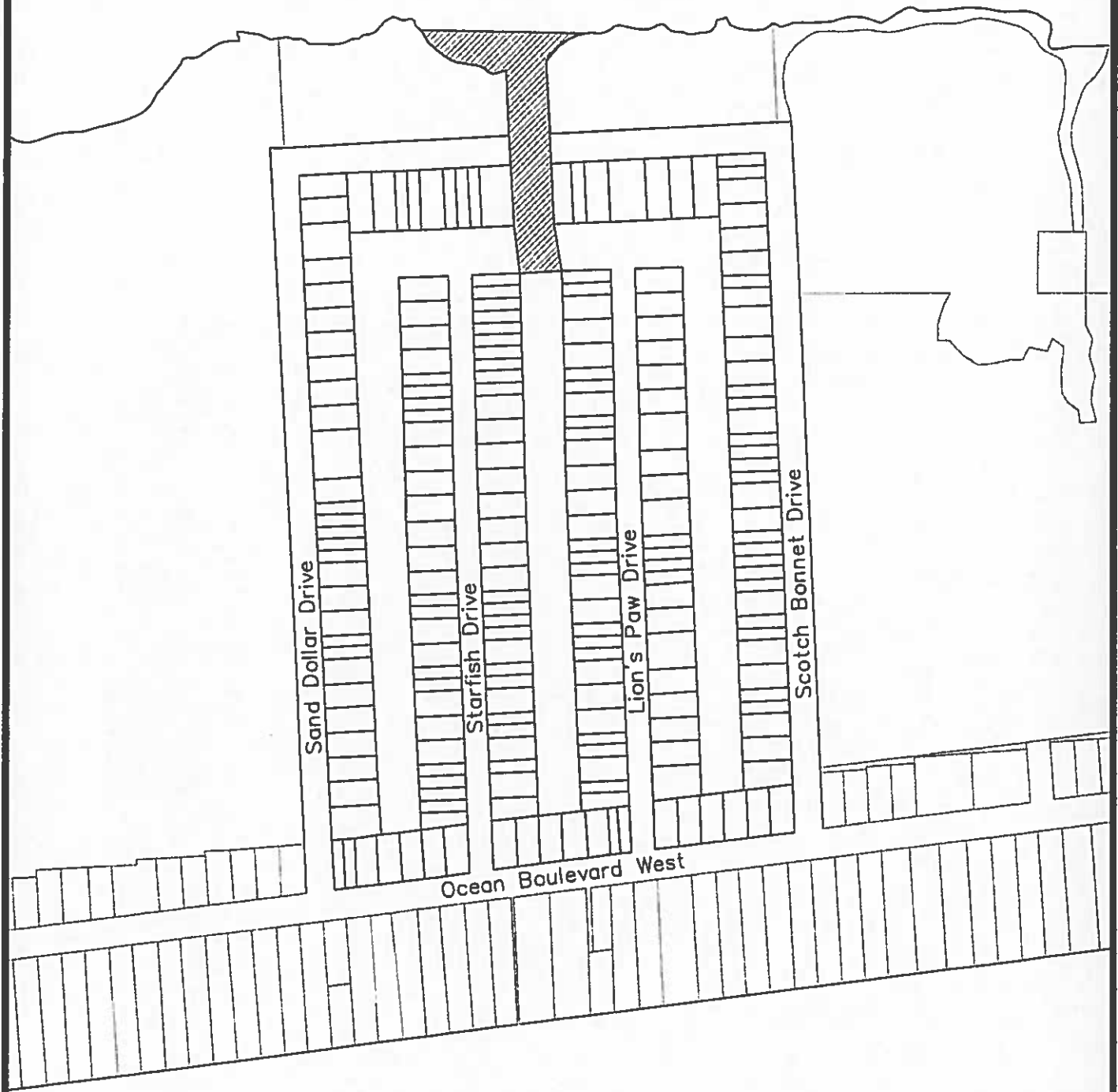


Figure 2  
HOLDEN BEACH  
HARBOR



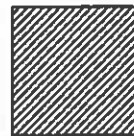
ATLANTIC OCEAN

ATLANTIC INTRACOASTAL WATERWAY



ATLANTIC  
OCEAN

Figure 3  
HERITAGE HARBOR

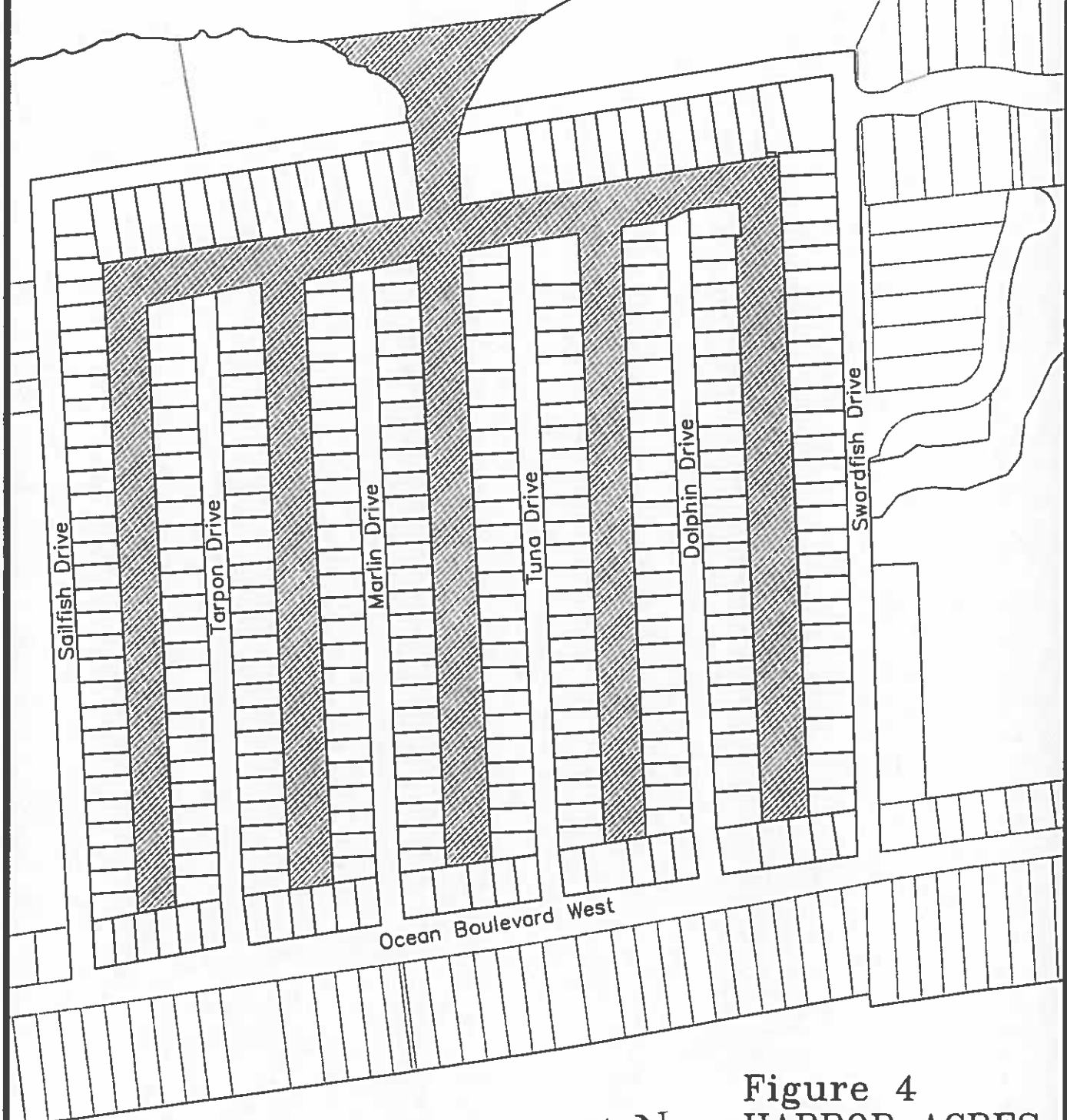


2014  
Dredge Area

Scale: 1" = 300'

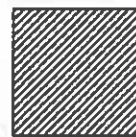


ATLANTIC INTRACOASTAL WATERWAY



ATLANTIC OCEAN

Figure 4  
HARBOR ACRES



2014  
Dredge Area

Scale: 1" = 300'





Disposal Area (DA)	290	291	292	293
Space Available in cubic yards	85,747 *	48,632 *	138,131 **	58,616 *

\* Based on actual field survey. \*\* Based on field estimation.

FIGURE 5

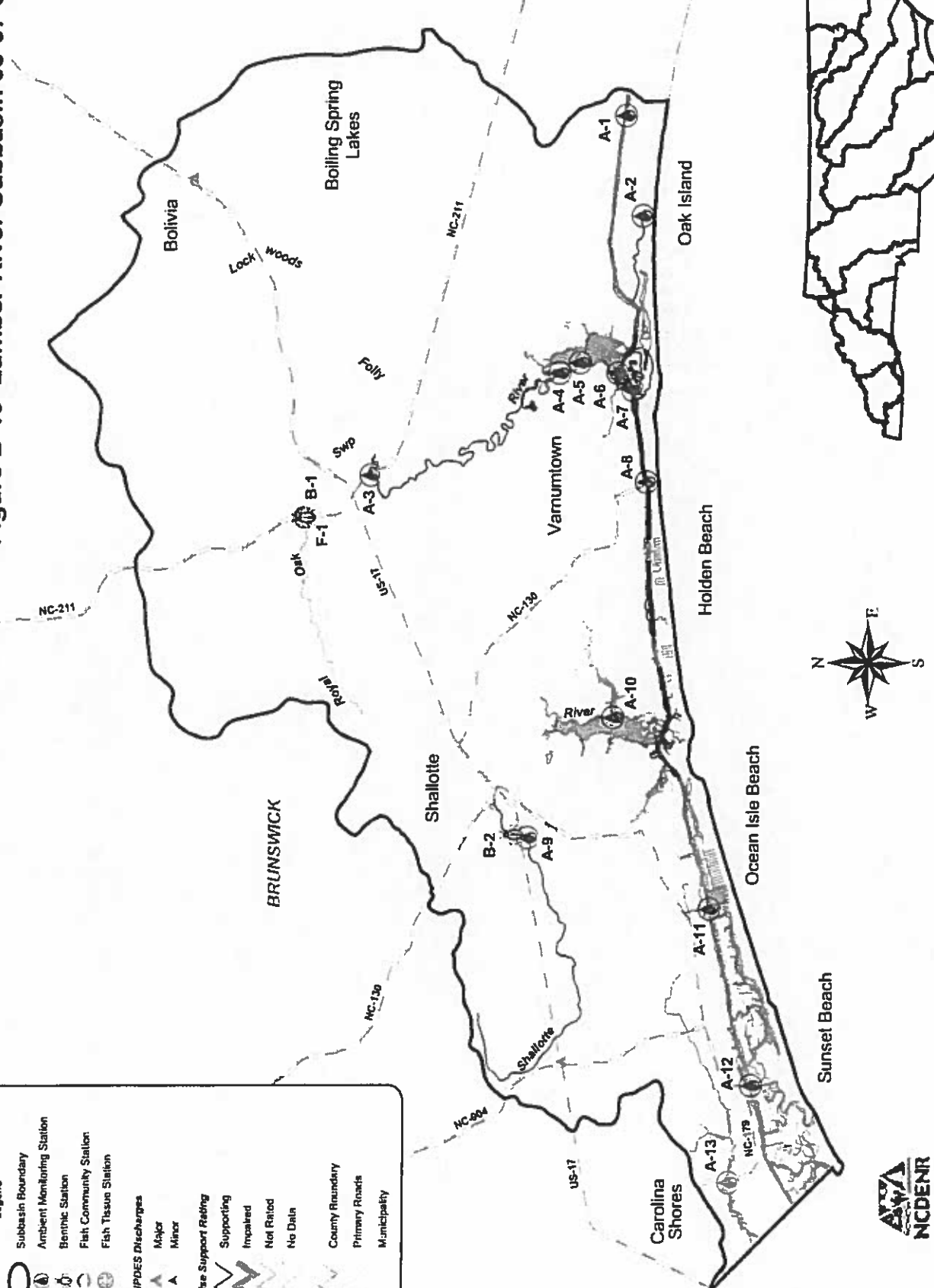
# HOLDEN BEACH MAINTENANCE DREDGING MASTER PLAN

DISPOSAL AREA LOCATIONS AND QUANTITIES

**RIGHT ANGLE**  
ENGINEERING, P.C.

212 PRINCESS STREET  
WILMINGTON, NC 28401  
(910) 251-8544 FAX (910) 251-2208

Figure B-10 Lumber River Subbasin 03-07-59



**Legend**

- Subbasin Boundary
- Ambient Monitoring Station
- Benthic Station
- Fish Community Station
- Fish Tissue Station
- NPDES Discharges
  - Major
  - Minor
- Use Support Rating
  - Supporting
  - Impaired
  - Not Rated
  - No Data
- County Boundary
- Primary Roads
- Municipality



Planning Branch  
 Basinwide Planning Program Unit  
 January 20, 2004



Figure 6 – Use Support Ratings

**RESOLUTION NO. 08-20**

**RESOLUTION ESTABLISHING A HOLDEN BEACH HARBOR SUBDIVISION**

**FEE-SUPPORTED CANAL DREDGING DISTRICT**

**WHEREAS**, that subdivision of land commonly referred to as "Holden Beach Harbor" is a platted subdivision within the corporate limits of the Town of Holden Beach NC; and,

**WHEREAS**, Holden Beach Harbor is more accurately depicted on those maps titled "Canal Layout Holdens Beach East, Holden Beach Realty Corp." prepared by Greer-McHenry, Reg. Surveyors, dated July 30, 1962, recorded in the office of the Brunswick County Register of Deeds at Map Book 7, page 24 and "Proposed Canal Layout Holdens Beach East, Holden Beach Realty Corp." prepared by Gerrit C. Greer, Reg. Surveyor, dated Jan 15, 1963, recorded in the office of the Brunswick County Register of Deeds at Map Book 7, page 22; attached hereto and included by reference.

**NOW THEREFORE, BE IT RESOLVED** by the Board of Commissioners of the Town of Holden Beach, North Carolina that in accordance with North Carolina General Assembly Session Laws 2004-104 and 2005-90; a fee supported canal dredging district for the Holden Beach Harbor Subdivision is hereby created; said district's boundary to encompass those properties depicted on the maps previously aforementioned and intended to be coincidental with boundaries of same.

Adopted this the 24<sup>th</sup> day of June, 2008.

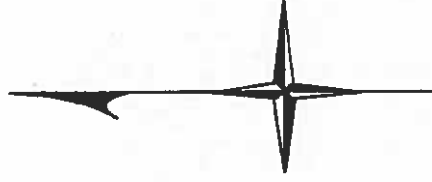
ATTEST:

Heather Fennell  
Heather Fennell, Town Clerk



J. Alan Holden  
J. Alan Holden, Mayor

N



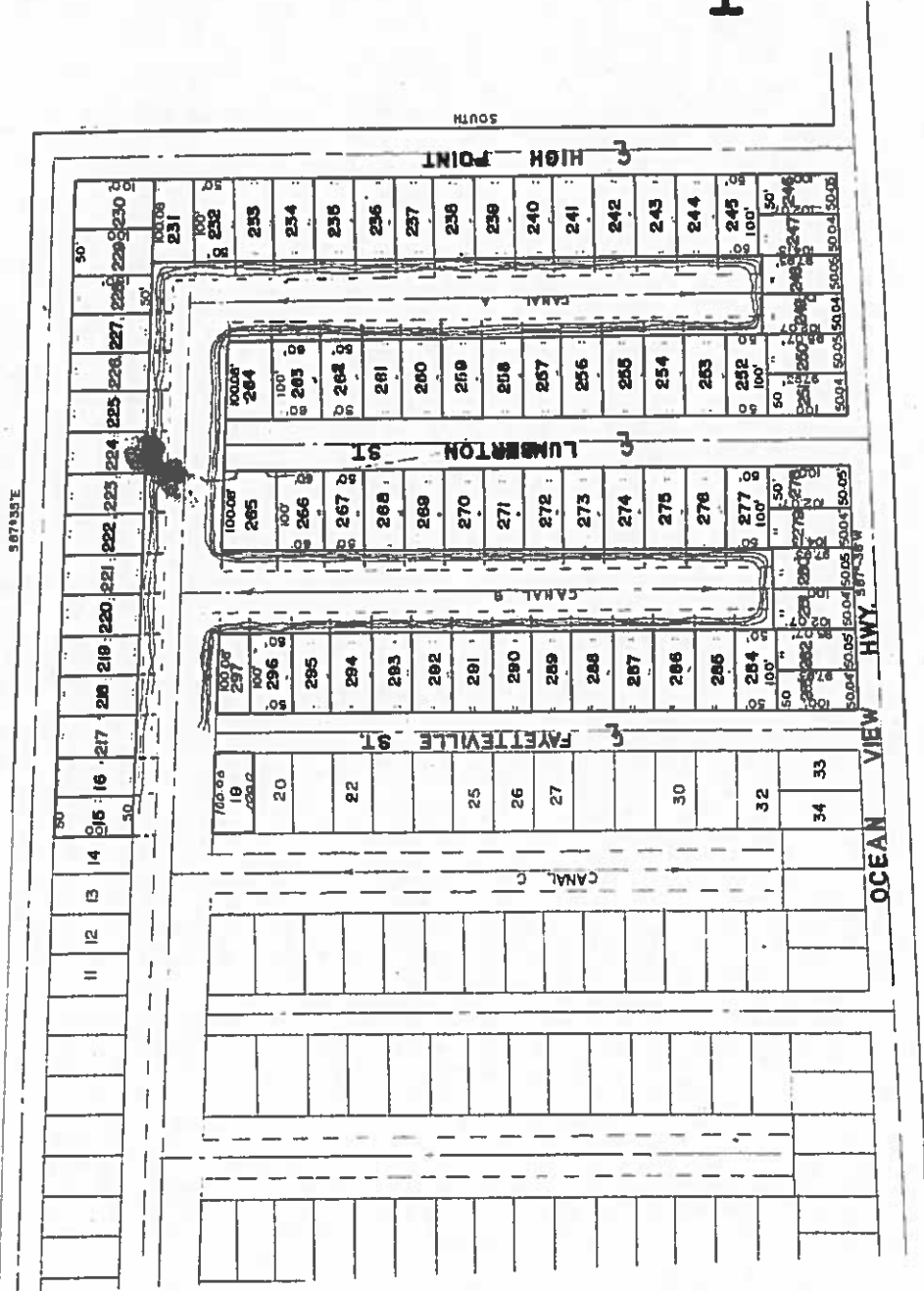
RESOLUTION 08-20

PROPOSED  
CANAL LAYOUT  
HOLDENS BEACH EAST

# HOLDEN BEACH REALTY CORP

LOCALWOODS FOLLY TWN. BRUNSWICK CO. JAN 15, 1983  
SCALE 1:100'

GERRIT C. GREER  
REGISTERED SURVEYOR  
SOUTH CAROLINA  
REG. NO. L-813

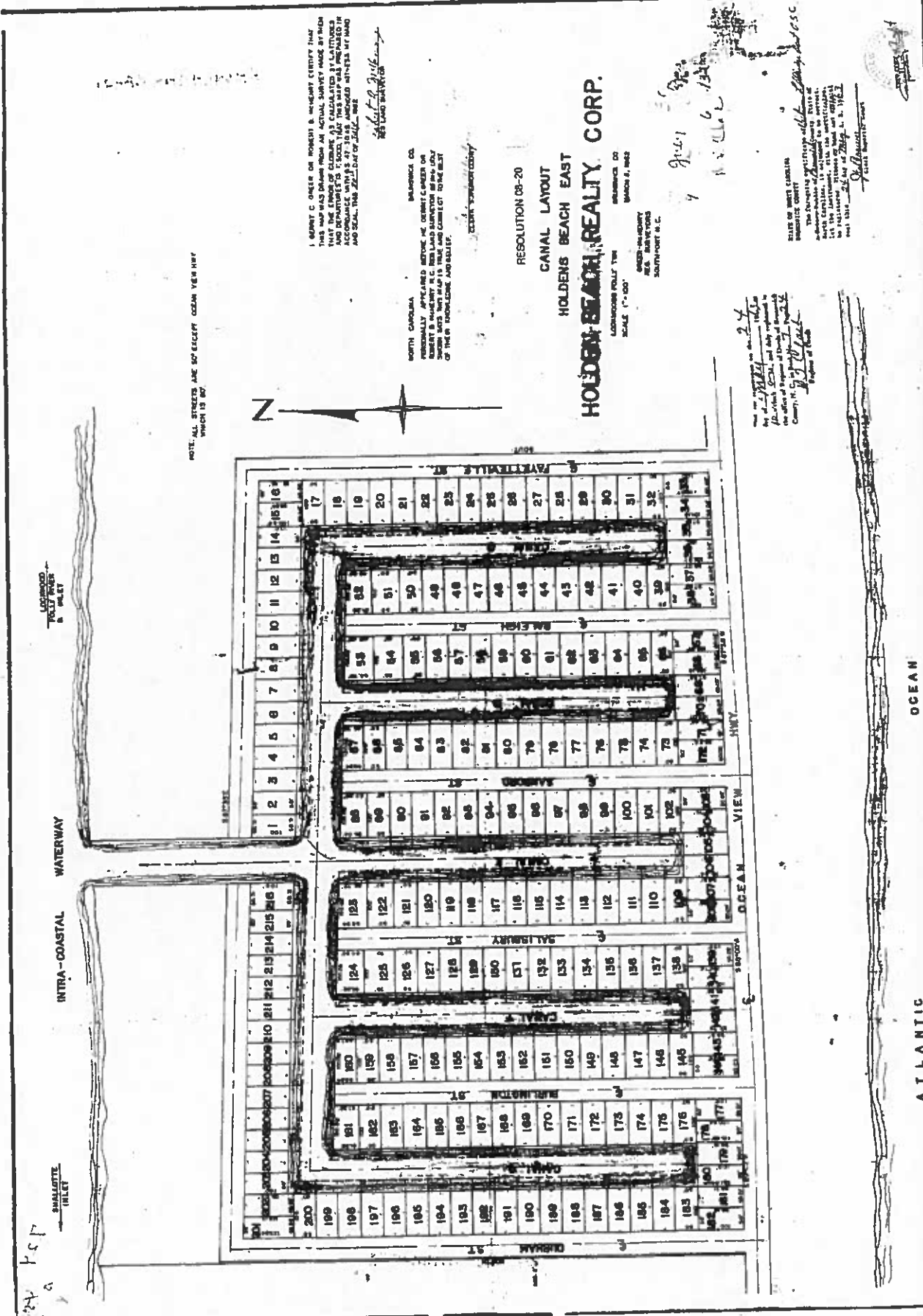


I, GERRIT C. GREER, CERTIFY THAT THIS MAP WAS DRAWN FROM AN ACTUAL SURVEY MADE BY ME THAT THE ERROR OF CLOSURE AS CALCULATED BY LATITUDES AND DEPARTURES IS 1:100,000 THAT THIS MAP WAS PREPARED IN ACCORDANCE WITH 47-30 AS AMENDED, WITNESS MY HAND AND SEAL, THIS 15th DAY OF JANUARY, 1983.

*Handwritten:* 2.2  
163

NOTE: ALL STREETS ARE 50' EXCEPT OCEAN HWY, WHICH IS 80'.  
SUBSCRIBED AND SWORN TO BEFORE ME THIS 15th DAY OF JANUARY, 1983.

7022



LOCWOOD  
POLLY RIVER  
& WALLEY

INTRA-COASTAL  
WATERWAY

SHALLCOTT  
INLET

OCEAN

ATLANTIC

NOTE: ALL STREETS ARE 50' EXCEPT OCEAN VIEW HWY WHICH IS 80'



I HEREBY CERTIFY THAT THIS MAP WAS DRAWN FROM AN ACTUAL SURVEY MADE BY ME IN THE YEAR 1922 AND THAT THE LINES OF THE LOTS ARE CORRECTLY LOCATED AND ACCORDANCE WITH AS AT THAT TIME AND I HAVE MY HAND AND SEAL TO THIS PLAT THIS 22nd DAY OF JULY, 1922.

*W. G. J. [Signature]*  
SURVEYOR

NORTH CAROLINA  
RESUBDIVISION OF LANDS  
WHEREIN THE LOTS ARE TO BE  
DIVIDED INTO TRACTS AND CONVEYED TO THE BEST  
OF THE INTERESTS AND BELIEF.

RESOLUTION 08-20  
CANAL LAYOUT  
HOLDEN BEACH EAST  
**HOLDEN BEACH, REALTY CORP.**

WITNESSED BY ME  
AND TWO OTHER  
JUSTICES OF THE  
PEACE IN AND FOR  
SOUTHPORT N. C.  
SCALE 1" = 100'

STATE OF NORTH CAROLINA  
COUNTY OF WASHINGTON  
I, [Name], Clerk of the Superior Court, do hereby certify that the within plat is a true and correct copy of the original plat on file in my office and that the same is in accordance with the laws of this State.  
WITNESSED BY ME  
AND TWO OTHER JUSTICES OF THE PEACE IN AND FOR  
SOUTHPORT N. C.  
THIS 22nd DAY OF JULY, 1922.

*W. G. J. [Signature]*  
SURVEYOR



C-3

5:50pm 6-22-72 Map Book 11 - at page 22

LISTED  
TAMMERS RECORD  
JAN 21 1972  
BY THE  
COUNTY CLERK

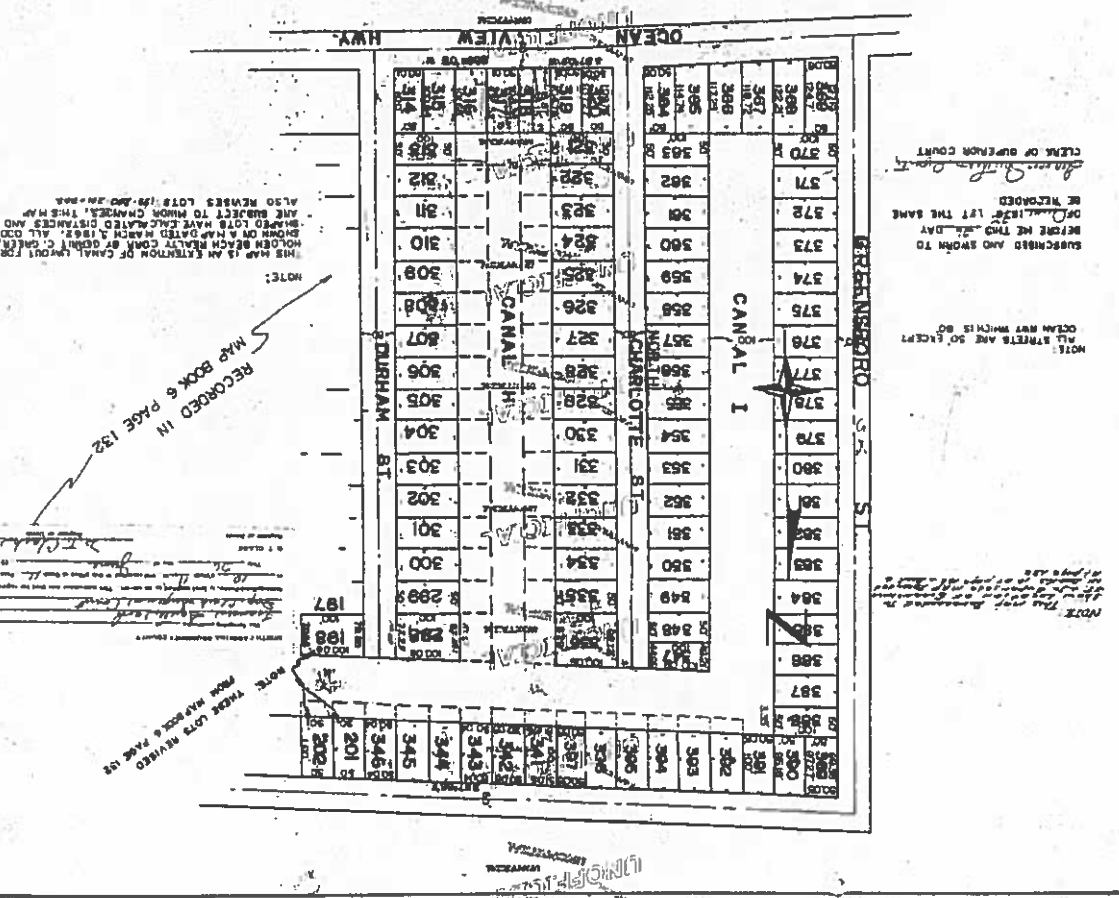
HOLDEN BEACH REALTY CORP.

LAYOUT OF  
CANALS H-I  
HOLDEN BEACH EAST

I HEREBY CERTIFY THAT THIS MAP WAS  
MADE FROM AN ACTUAL SURVEY MADE BY ME AND  
MY KNOWLEDGE AND BELIEF  
THAT IT IS TRUE AND CORRECT TO THE BEST OF  
MY KNOWLEDGE AND BELIEF  
WITNESS MY HAND AND SEAL THIS 22<sup>ND</sup> DAY OF JULY 1972

LOCKWOOD POLLY 17W  
BRUNSWICK GA  
JULY 8, 1968  
SCALE 1" = 100'

HOLDEN BEACH REALTY CORP.  
HOLDEN BEACH EAST  
N.C.



NOTE:  
THIS MAP IS AN EXTENSION OF CANAL LAYOUT FOR  
HOLDEN BEACH REALTY CORP. OF HOLDEN BEACH, N.C.  
SHOWN ON A MAP DATED MARCH 1, 1967. ALL LOTS  
AND SHARED LOTS HAVE EASEMENTS DISTINGUISHED AND  
ARE SUBJECT TO MUDON CHANGES. THIS MAP  
ALSO REVEALS LOTS 197, 198 AND 199.

NOTE:  
OCEAN HWY WHICH IS 50'  
ALL STREETS ARE 50' EXCEPT  
SUSPENDED AND SWORN TO  
BEFORE ME TWO (2) DAY  
BE RECORDED  
LET THE SAME  
CLERK OF SUPERIOR COURT

RECORDED IN  
MAP BOOK 6 PAGE 132

NOTE:  
THESE LOTS REVEALED IN  
MAP BOOK 6 PAGE 132

**RESOLUTION NO. 08-21**

**RESOLUTION ESTABLISHING A HERITAGE HARBOR SUBDIVISION  
FEE-SUPPORTED CANAL DREDGING DISTRICT**

**WHEREAS**, that subdivision of land commonly referred to as "Heritage Harbor" is a platted subdivision within the corporate limits of the Town of Holden Beach NC; and,

**WHEREAS**, Heritage Harbor is more accurately depicted on that map titled "Map of Heritage Harbor" prepared by H.L. Willis, R.L.S., dated October 1, 1968, recorded in the office of the Brunswick County Register of Deeds at Map Book 9, page 87; attached hereto and included by reference.

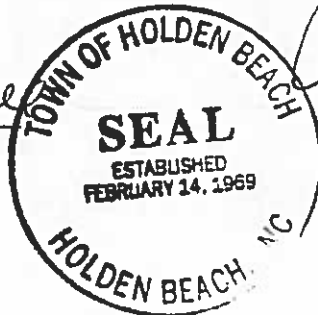
**NOW THEREFORE, BE IT RESOLVED** by the Board of Commissioners of the Town of Holden Beach, North Carolina:

1. In accordance with North Carolina General Assembly Session Laws 2004-104 and 2005-90; a fee supported canal dredging district for the Heritage Harbor Subdivision is hereby created; said district's boundary to encompass those properties depicted on the map previously aforementioned and intended to be coincidental with boundaries of same.
2. Resolution No 06-16 of the Town of Holden Beach NC is hereby revoked and rescinded.

Adopted this the 24<sup>th</sup> day of June, 2008.

ATTEST:

Heather Funnell  
Heather Funnell, Town Clerk



J. Alan Holden  
J. Alan Holden, Mayor

# MAP OF HERITAGE HARBOR

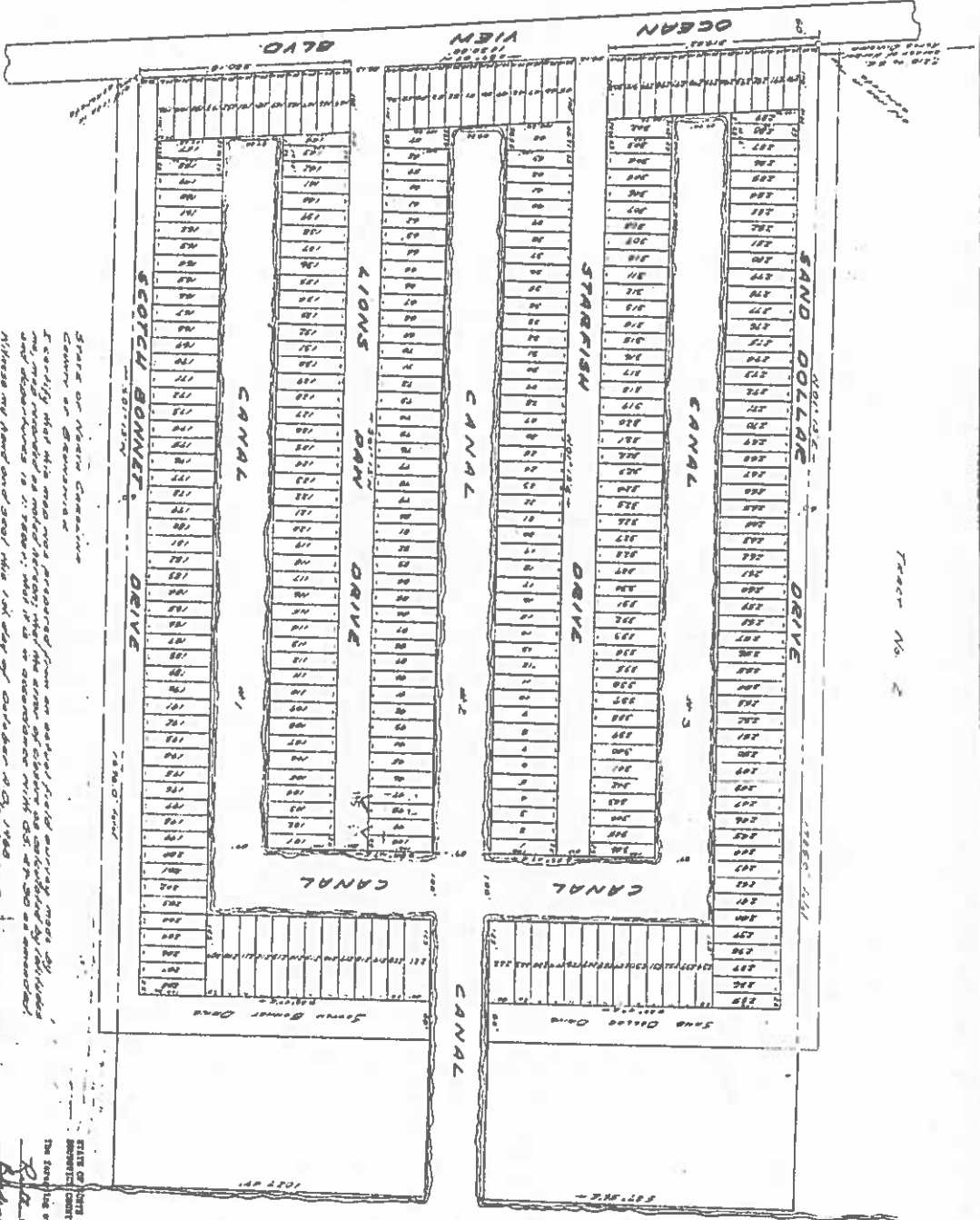
OCEAN

ATLANTIC

RESOLUTION 08-21

STATE OF NORTH CAROLINA  
COUNTY OF WARE  
I, the undersigned, Clerk of Superior Court  
in and for said County, do hereby certify  
that the within and foregoing is a true and  
correct copy of the original as the same  
appears in the records of said Court.

HOLDENS BEACH, NORTH CAROLINA  
LORENSO HOLLY TRAY - DRAWING CO., INC.  
COLUMBIA, S. C.  
H. L. WILKS JR.  
EST. ARCHITECT, N.C.  
LITTLETON, CO.  
SEPTEMBER 1, 1968



STATE OF NORTH CAROLINA  
COUNTY OF WARE  
I certify that this map was prepared from an actual field survey made by  
me and marked as a matter of record; that the area of claim as indicated by the  
and boundaries is 1.7800 acres; that it is accordance with G.S. 47-30 as amended;  
Witness my hand and seal this 1st day of October, 1968.

Subscribed and sworn before me this 1st day of October, 1968.

My commission expires 3-31-1970.



STATE OF NORTH CAROLINA  
COUNTY OF WARE  
The State of record certificate of  
D. J. Clark, Clerk of Superior Court,  
is hereby certified to be correct.  
and recorded in this office of the  
this 9th day of April, 1968.  
D. J. Clark  
Clerk of Superior Court

9187

INTRACOSTAL WATERWAY

TRACER No. 2

**RESOLUTION NO. 08-22**

**RESOLUTION ESTABLISHING A HARBOR ACRES SUBDIVISION**

**FEE-SUPPORTED CANAL DREDGING DISTRICT**

**WHEREAS**, that subdivision of land commonly referred to as "Harbor Acres" is a platted subdivision within the corporate limits of the Town of Holden Beach NC; and,

**WHEREAS**, Harbor Acres is more accurately depicted on that map titled "Map of Harbor Acres" prepared by C.B. Berry, R.L.S., dated July 30, 1965, recorded in the office of the Brunswick County Register of Deeds at Map Book 8, page 13; attached hereto and included by reference.

**NOW THEREFORE**, BE IT RESOLVED by the Board of Commissioners of the Town of Holden Beach, North Carolina that in accordance with North Carolina General Assembly Session Laws 2004-104 and 2005-90; a fee supported canal dredging district for the Harbor Acres Subdivision is hereby created; said district's boundary to encompass those properties depicted on the map previously aforementioned and intended to be coincidental with boundaries of same.

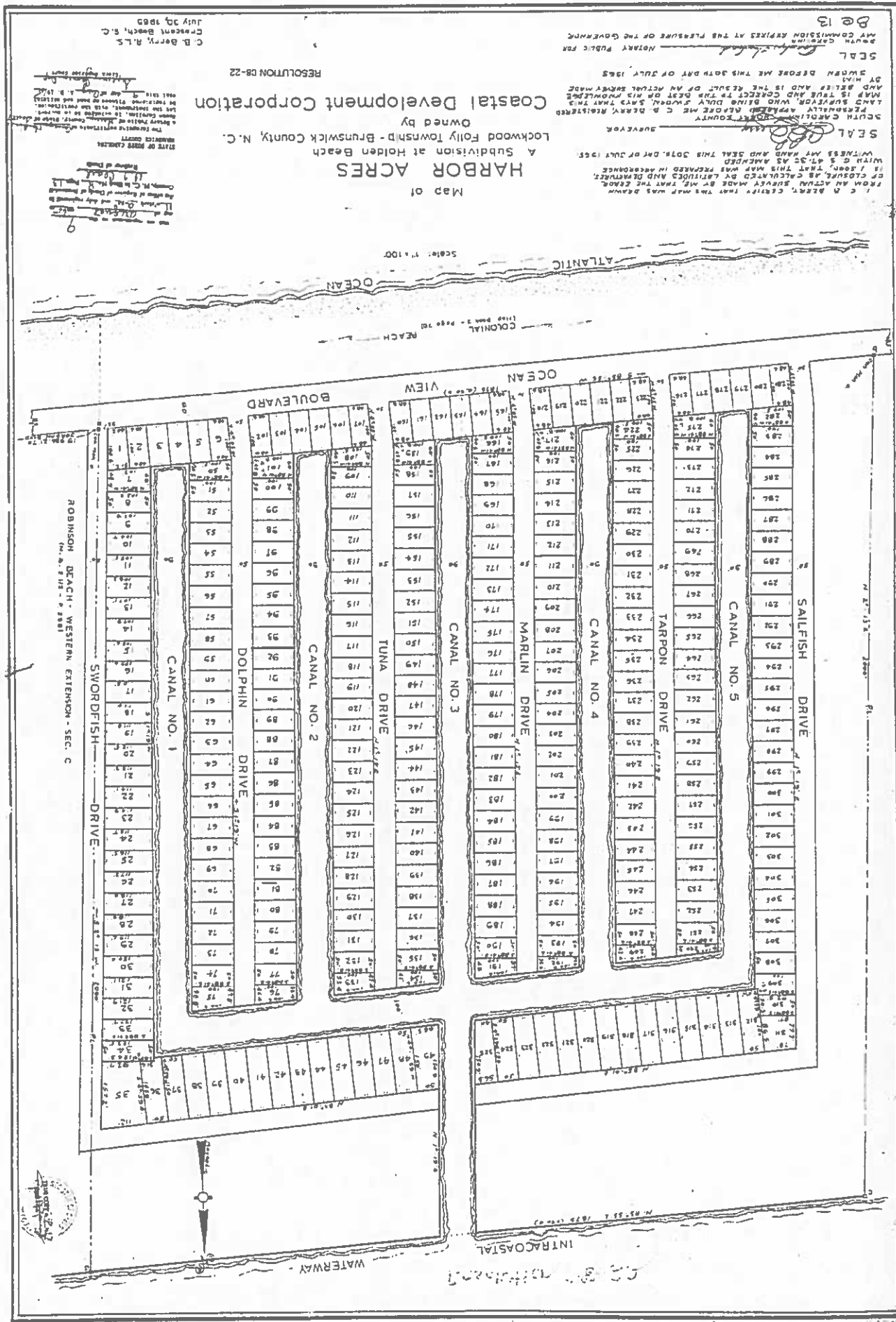
Adopted this the 24<sup>th</sup> day of June, 2008.

ATTEST:

*Heather Finnell*  
Heather Finnell, Town Clerk



*J. Alan Holden*  
J. Alan Holden, Mayor



Map of  
**HARBOR ACRES**  
 A Subdivision at Holden Beach  
 Lockwood Folly Township - Brunswick County, N. C.  
 Owned by  
**Coastal Development Corporation**

RESOLUTION 88-22

C. B. BERRY, R.L.S.  
 Crescent Beach, S. C.  
 July 29, 1988

SEAL  
 NOTARY PUBLIC FOR  
 BROWN COUNTY  
 MY COMMISSION EXPIRES AT THE END OF THE YEAR OF THE GOVERNMENT

SEAL  
 SURVEYOR

1. A BERRY CERTIFY THAT THIS MAP WAS DRAWN FROM AN ACTUAL SURVEY MADE BY ME THAT THE ERROR OF CLOSURE, AS CALCULATED BY LATITUDE AND DEPARTURE, IS 1 FOOT, THAT THIS MAP WAS PREPARED IN ACCORDANCE WITH G. S. 47-25 AS AMENDED TO HIS PUBLISHED MAP IS TRUE AND CORRECT TO THE BEST OF HIS KNOWLEDGE AND BELIEF AND IS THE RESULT OF AN ACTUAL SURVEY MADE AT WASHING BEACH, N. C. BERRY REGISTERED PROFESSIONALLY APPLICANT FOR THE STATE OF NORTH CAROLINA

AT WASHING BEACH, N. C. BERRY REGISTERED PROFESSIONALLY APPLICANT FOR THE STATE OF NORTH CAROLINA

SEAL  
 SURVEYOR

1. A BERRY CERTIFY THAT THIS MAP WAS DRAWN FROM AN ACTUAL SURVEY MADE BY ME THAT THE ERROR OF CLOSURE, AS CALCULATED BY LATITUDE AND DEPARTURE, IS 1 FOOT, THAT THIS MAP WAS PREPARED IN ACCORDANCE WITH G. S. 47-25 AS AMENDED TO HIS PUBLISHED MAP IS TRUE AND CORRECT TO THE BEST OF HIS KNOWLEDGE AND BELIEF AND IS THE RESULT OF AN ACTUAL SURVEY MADE AT WASHING BEACH, N. C. BERRY REGISTERED PROFESSIONALLY APPLICANT FOR THE STATE OF NORTH CAROLINA

HBT

Permit Class  
**RENEWAL**  
(MAINTENANCE 5)

Permit Number  
**40-05**

STATE OF NORTH CAROLINA  
Department of Environment and Natural Resources  
and  
Coastal Resources Commission

# Permit

- Major Development in an Area of Environmental Concern pursuant to NCGS 113A-118
- Excavation and/or filling pursuant to NCGS 113-229

Issued to Town of Holden Beach, 2869 Holden Beach Rd, Holden Beach, NC 28462

Authorizing development in Brunswick County at a man-made canal system adjacent to the AIWW, Holden Beach as requested in the permittee's application dated ~~letter dated~~ 4/10/15.

This permit, issued on July 27, 2015, is subject to compliance with the application (where consistent 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.

- 1) This renewal shall be attached to the original of Permit No. 40-05, which was issued on 3/15/05, as well as all subsequent modifications and renewals, and copies of all documents shall be readily available on site when a Division representative inspects the project for compliance.
  - 2) All conditions and stipulations of the active permit remain in force under this renewal unless specifically altered herein.
- NOTE:** A permit renewal application processing fee of \$100 was received by DCM for this project.
- (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.

This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

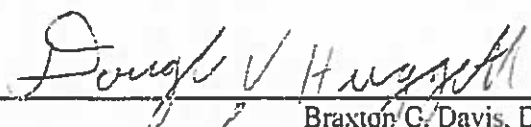
Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

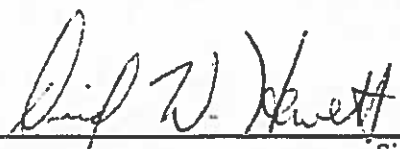
**December 31, 2019**

In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

Signed by the authority of the Secretary of DENR and the Chairman of the Coastal Resources Commission.

  
 \_\_\_\_\_  
 Braxton C. Davis, Director  
 Division of Coastal Management

This permit and its conditions are hereby accepted.

  
 \_\_\_\_\_  
 Signature of Permittee

**ADDITIONAL CONDITIONS**

**Maintenance Clause**

- 3) The Division of Coastal Management shall be notified in writing at least two (2) weeks in advance of any maintenance work authorized by this permit, and such notification shall include:
- A. The number of the original permit.
  - B. A statement that no dimensional changes are proposed.
  - C. A copy of the original permit plans with cross-hatching indicating the area to be maintained, the area to be used for spoil disposal, and the estimated amount of material to be removed. The location, design and holding capacity of the spoil disposal site shall be approved by a representative of the Division prior to the initiation of any maintenance dredging activities.
  - D. The date of map revision and the permittee's signature shown anew on the original plan.

HH

Permit Class  
RENEWAL

Permit Number  
164-08

STATE OF NORTH CAROLINA  
Department of Environment and Natural Resources  
and  
Coastal Resources Commission

# Permit

for

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 Town of Holden Beach, 110 Rothschild Street, Holden Beach, NC 28462

Authorizing development in Brunswick County at adj. to the AIWW, within the "Heritage Harbor" canal system as requested in the permittee's application dated letter dated 4/10/15.

This permit, issued on June 28, 2015, is subject to compliance with the application (where consistent 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.

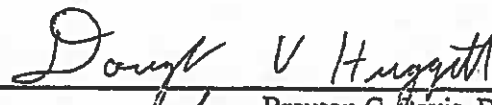
- 1) This renewal shall be attached to the original of Permit No. 164-08, which was issued on 11/20/08, as well as all subsequent modifications and renewals, and copies of all documents shall be readily available on site when a Division representative inspects the project for compliance.
- 2) All conditions and stipulations of the active permit remain in force under this renewal unless specifically altered herein.

(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.

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.

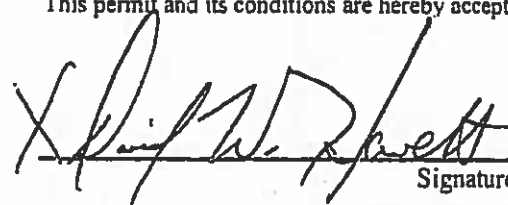
  
for Braxton C. Davis, Director  
Division of Coastal Management

Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

This permit and its conditions are hereby accepted.

February 10, 2020

  
Signature of Permittee

In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.



**ADDITIONAL CONDITIONS**

**Maintenance Clause**

- 3) The Division of Coastal Management shall be notified in writing at least two (2) weeks in advance of any maintenance work authorized by this permit, and such notification shall include:
- A. The number of the original permit.
  - B. A statement that no dimensional changes are proposed.
  - C. A copy of the original permit plans with cross-hatching indicating the area to be maintained, the area to be used for spoil disposal, and the estimated amount of material to be removed. The location, design and holding capacity of the spoil disposal site shall be approved by a representative of the Division prior to the initiation of any maintenance dredging activities.
  - D. The date of map revision and the permittee's signature shown anew on the original plan.

**NOTE:** A permit renewal application processing fee of \$100 was received by DCM for this project.

HA

Permit Class

**RENEWAL**

Permit Number

**128-90**

(MAINTENANCE 5)

STATE OF NORTH CAROLINA  
Department of Environment and Natural Resources  
and  
Coastal Resources Commission

# Permit

for

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

Excavation and/or filling pursuant to NCGS 113-229

Issued to Town of Holden Beach, 2869 Holden Beach Rd, Holden Beach, NC 28462

Authorizing development in Brunswick County at the AIWW. canal system off of. in Holden Beach. as requested in the permittee's application ~~dated~~ letter dated 4/10/15.

This permit, issued on July 27, 2015, is subject to compliance with the application (where consistent 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.

- 1) This renewal shall be attached to the original of Permit No. 128-90, which was transferred to the permittee on 4/13/09, and copies of all documents shall be readily available on site when a Division representative inspects the project for compliance.
- 2) All conditions and stipulations of the active permit remain in force under this renewal unless specifically altered herein.

**NOTE:** A permit renewal application processing fee of \$100 was received by DCM for this project.

(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.

This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

September 19, 2020

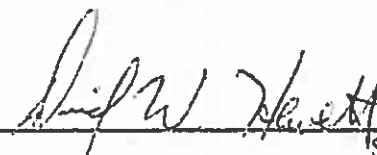
In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

Signed by the authority of the Secretary of DENR and the Chairman of the Coastal Resources Commission.



for **Braxton C. Davis, Director**  
Division of Coastal Management

This permit and its conditions are hereby accepted.



Signature of Permittee

**ADDITIONAL CONDITIONS**

**Maintenance Clause**

- 3) The Division of Coastal Management shall be notified in writing at least two (2) weeks in advance of any maintenance work authorized by this permit, and such notification shall include:
  - A. The number of the original permit.
  - B. A statement that no dimensional changes are proposed.
  - C. A copy of the original permit plans with cross-hatching indicating the area to be maintained, the area to be used for spoil disposal, and the estimated amount of material to be removed. The location, design and holding capacity of the spoil disposal site shall be approved by a representative of the Division prior to the initiation of any maintenance dredging activities.
  - D. The date of map revision and the permittee's signature shown anew on the original plan.



**Disposal Area Discharge Pipe**



**Disposal Area Outlet Structure**

**GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2007**

**SESSION LAW 2007-335  
HOUSE BILL 429**

AN ACT TO AUTHORIZE THE TOWNS OF OCEAN ISLE BEACH, EMERALD ISLE, AND HOLDEN BEACH TO SET CANAL DREDGING FEES BASED ON A PROPERTY OWNER'S FRONTAGE ABUTTING A DREDGING PROJECT, AND TO MODIFY BRUNSWICK COUNTY'S FIRE PROTECTION FEES.

The General Assembly of North Carolina enacts:

**SECTION 1.** Section 3 of S.L. 2004-104 reads as rewritten:

**"SECTION 3. Fees.** – The fees imposed by the municipality may not exceed the cost of providing for the dredging of the canals within the municipality. The fees shall be imposed on owners of each dwelling unit or parcel of property that could or does benefit from water access through the canal system on the ~~island~~ island and shall be made on the basis of one of the following:

- (1) The frontage abutting the project at an equal rate per foot of frontage.
- (2) Per unit or parcel of property."

**SECTION 2.** Section 1 of S.L. 1999-323, as amended by S.L. 2001-74, reads as rewritten:

**"Section 1. Fee-supported fire districts.**

**"Section 1.(a) Request for Fee-Supported District.** – A county may create a fee-supported fire district for insurance grading purposes if it receives one of the following:

- (1) A written request to create the district signed by at least two-thirds of the members of the board of directors of a fire department that contracts with the county to provide fire protection within an area of the county.
- (2) A petition requesting creation of a district signed by fifteen percent (15%) of the resident freeholders living in an area in the county. The petition must describe the area to be designated as the district.

**"Section 1.(b) Creation of Fee-Supported District.** – Upon receipt of a request as provided in subsection (a), the county may adopt a resolution establishing a fee-supported fire district and imposing annual fees for the provision of fire protection services within the district. The fee may be established or changed only after the county board of commissioners has received the recommendations of the committee for that district, established under subsection (b1) of this section. The district may not include any area that is within (i) a tax-supported fire district established under Article 3A of Chapter 69 of the General Statutes; (ii) a county service district established under Article 16 of Chapter 153A of the General Statutes for fire protection purposes; or (iii) another fee-supported fire district. The district may not include any area that is within the corporate limits of a municipality unless the governing body of the municipality agrees to the inclusion. However, it is not necessary to obtain the consent of a municipality if the municipality has not levied a tax, performed any official act, nor held any elections within a period of 10 years preceding the adoption of the resolution including the area within the district.

**"Section 1.(b1) Committee for District.** – Each district shall have a committee to allow local control over the fee-setting process. In each district that does not include any territory in a participating municipality, the committee shall consist of five members as

follows: The Fire Chief, the member of the board of county commissioners in whose electoral district more than fifty percent (50%) of the land area of the district lies, a community member chosen by the Fire Department Board of Directors, a community member chosen by the board of county commissioners, and the Fire Marshal. In each district that does include any territory in a participating municipality, the committee shall consist of members as follows: The Fire Chief, the mayor of each participating municipality in the district, the member of the board of county commissioners in whose electoral district more than fifty percent (50%) of the land area of the district lies, a community member chosen by the Fire Department Board of Directors, a community member chosen by the board of county commissioners, and the Fire Marshal. In either type of district, the Fire Marshal shall chair the committee, but may vote only to break a tie. The committee shall conduct an inquiry into the amount of funds required by the district to meet its needs, and shall make findings on the issue. The committee will communicate these findings to the board of county commissioners and recommend a fee. The board of county commissioners will then set the fee. The same process shall be used for changes to the fee once established.

"Section 1.(c) Fees. – The fees imposed by the county may not exceed the cost of providing fire protection services within the district and may be imposed on owners of all real property that benefits from the availability of fire protection and on owners of all manufactured or mobile homes that benefit from the availability of fire protection. For the purpose of this section, the term 'fire protection' includes furnishing emergency medical, rescue, and ambulance services to protect persons in the district from injury or death. The county shall establish a schedule of fees for different classes of property and the fee for each class of property shall be proportional to the estimated cost of providing fire protection services to that class of property. The schedule of fees shall include the following classes of property and the fee on each class of property shall not exceed the following maximums:

- (1) A single-family dwelling or manufactured or mobile home, and appurtenant structures, plus up to five acres of surrounding land. The fee on this class of property may not exceed:
  - a. ~~Fifty dollars (\$50.00)~~ per site per year for homes ~~1,500–1,000~~ square feet of heated floor area or less.
  - b. One hundred dollars (\$100.00) per site per year for homes greater than ~~1,500–1,000~~ square feet of heated floor area but less than ~~2,500–2,000~~ square feet of heated floor area.
  - c. ~~One hundred fifty dollars (\$150.00)~~ Two hundred dollars (\$200.00) per site per year for homes ~~2,500–square feet of heated floor area and above~~ 2,000 square feet or greater of floor area but not greater than 3,000 square feet of heated floor area.
  - d. Three hundred dollars (\$300.00) per site per year for homes greater than 3,000 square feet of floor area but not greater than 4,000 square feet of heated floor area.
  - e. Four hundred dollars (\$400.00) per site per year for homes greater than 4,000 square feet of floor area but not greater than 5,000 square feet of heated floor area.
  - f. Five hundred dollars (\$500.00) per site per year for homes greater than 5,000 square feet of floor area but not greater than 6,000 square feet of heated floor area.
  - g. Six hundred dollars (\$600.00) per site per year for homes greater than 6,000 square feet of floor area but not greater than 7,000 square feet of heated floor area.
  - h. Seven hundred dollars (\$700.00) per site per year for homes greater than 7,000 square feet of floor area but not greater than 8,000 square feet of heated floor area.

- i. Eight hundred dollars (\$800.00) per site per year for homes greater than 8,000 square feet of heated floor area.
- (2) Unimproved land other than the five acres of land classified as part of a single-family dwelling or manufactured or mobile home. The county may establish a maximum fee for unimproved land as follows:
  - a. Up to five acres, ~~five dollars (\$5.00)~~, ten dollars (\$10.00).
  - b. Five acres or more but less than 25 acres, ~~ten dollars (\$10.00)~~, twenty dollars (\$20.00).
  - c. 25 acres or more but less than ~~100~~ 50 acres, fifty dollars (\$50.00).
  - d. ~~100~~ 50 acres or more but less than ~~500~~ 100 acres, ~~one hundred twenty five dollars (\$125.00)~~, one hundred dollars (\$100.00).
  - e. 100 acres or more but less than 200 acres, one hundred fifty dollars (\$150.00).
  - f. 200 acres or more but less than 300 acres, two hundred dollars (\$200.00).
  - g. 300 acres or more but less than 400 acres, three hundred dollars (\$300.00).
  - h. 400 acres or more but less than 500 acres, four hundred dollars (\$400.00).
  - e.i. 500 acres or more, ~~two hundred fifty dollars (\$250.00)~~, five hundred dollars (\$500.00).
- (3) An animal production or horticultural operation. The fee on this class of property may not exceed ten dollars (\$10.00) per site per year.
- (4) A commercial facility other than an animal production or horticultural operation. The fee on this class of property may not exceed for a commercial facility:
  - a. Less than 5,000 square feet, ~~one hundred dollars (\$100.00)~~, two hundred dollars (\$200.00).
  - b. 5,000 square feet but less than 10,000 square feet, ~~two hundred dollars (\$200.00)~~, four hundred dollars (\$400.00).
  - c. 10,000 square feet but less than 20,000 square feet, ~~five hundred dollars (\$500.00)~~, eight hundred dollars (\$800.00).
  - d. 20,000 square feet but less than ~~50,000~~ 30,000 square feet, one thousand dollars (\$1,000).
  - d1. 30,000 square feet but less than 40,000 square feet, one thousand five hundred dollars (\$1,500).
  - d2. 40,000 square feet but less than 50,000 square feet, two thousand dollars (\$2,000).
  - e. 50,000 square feet but less than ~~100,000~~ 60,000 square feet, ~~two thousand five hundred dollars (\$2,500)~~, three thousand dollars (\$3,000).
  - e1. 60,000 square feet but less than 70,000 square feet, four thousand dollars (\$4,000).
  - e2. 70,000 square feet but less than 80,000 square feet, five thousand dollars (\$5,000).
  - e3. 80,000 square feet but less than 90,000 square feet, six thousand dollars (\$6,000).
  - e4. 90,000 square feet but less than 100,000 square feet, seven thousand dollars (\$7,000).
  - f. 100,000 square feet or over, ~~three thousand dollars (\$3,000)~~, eight thousand dollars (\$8,000).
- (5) A multiple-family dwelling. Each unit in a multiple-family dwelling shall be treated as a single-family dwelling under subdivision (1) of this subsection.

- (6) Any other class of property selected by the county. The fee on these classes of property may not exceed one hundred dollars (\$100.00) per year.
- (7) Outbuildings and special structures that fail to fall into any category above will be classified based on the most appropriate category determined by the specific use of the type of structure.

"Section 1.(d) Billing of Fees. – The county may include a fee imposed under this section on the property tax bill for the real property, or the manufactured or mobile home, on which the fee is imposed.

"Section 1.(e) Use of Fees. – The county shall credit the fees collected within the district to a separate fund to be used only to furnish fire protection in the district. The board of commissioners shall administer the fund to provide fire protection by one or more of the following methods:

- (1) Contracting with any municipality, any incorporated nonprofit volunteer or community fire department, or the Department of Environment and Natural Resources.
- (2) Furnishing fire protection itself if it maintains an organized fire department.
- (3) Establishing a fire department in the district.

"Section 1.(f) Audit of Fire Department. – If the county contracts with a fire department to provide fire protection services in a fee-supported fire district, the fire department shall prepare an annual budget based on anticipated revenues and shall submit the budget to the county for processing and approval through the county's regular budget procedure. The fire department shall contract for quarterly bookkeeping/accounting services from an independent accountant for each fiscal year July 1 through June 30. The independent accountant must be approved in advance by the County Finance Officer. The fire department is to submit all invoices, cash receipts, bank statements with canceled checks or facsimiles, check registers or stubs, and other financial source documents to the accountant within 15 days of the end of each fiscal quarter. The accountant is to provide a monthly bank reconciliation for each month of the quarter, an itemized schedule of all disbursements for the quarter, and an itemized schedule of cash receipts for the quarter, a quarterly financial report, and a year-to-date financial report directly to the County Fire Marshal's office within 45 days of the end of each fiscal quarter. Funding will not be disbursed until the financial report is accepted by the Finance Officer. The fire department agrees to contract for an independent financial audit conducted by a certified public accountant in accordance with generally accepted accounting principles, for each fiscal year July 1 through June 30 to be completed by October 31 after that fiscal year and submitted to the Brunswick County Emergency Services Department by November 10 following that fiscal year and will comply with federal and State laws and regulations related to financial and compliance audits. Towns will handle all financing and accounts that are spent for the town fire departments. The Town will follow all accounting principles and practices as required by the State of North Carolina. The Treasurer of any fee-supported department shall be bonded for at least one and one-half times the department's annual budget. Upon request of the county, the fire department shall make quarterly or semiannual reports to the county detailing its revenues, expenditures, and activities. The county may audit the fire department's financial records upon reasonable notice to the fire department. Any fees collected by the county to be disbursed to a fee-supported department will be withheld until all fiscal issues are resolved to the satisfaction of the County Finance Officer.

"Section 1.(g) Extension of Area of District. – The county may by resolution annex to any fee-supported fire district any territory that it could include in a new district under subsection (c) of this section, upon finding that:

- (1) The area to be annexed is contiguous to the district, with at least one-eighth of the area's aggregate external boundary coincident with the existing boundary of the district; and



(2) The area to be annexed requires the services of the district.

The county may also by resolution annex to any fee-supported fire district any territory it could include in a new district under subsection (c) of this section if seventy-five percent (75%) of the real property owners in the territory to be annexed have petitioned the board of commissioners for annexation to the service district.

The area of any fee-supported fire district may be increased by including within the boundaries of the district any adjoining territory lying within a municipality if the territory is not already included in another fire protection district, and both the municipal governing body and the county commissioners of the county in which the district is located agree by resolution to the inclusion. However, it is not necessary to obtain the consent of a municipality if the municipality has not levied a tax, performed any official act, nor held any elections within a period of 10 years preceding the adoption of the resolution including the area within the district.

**"Section 1.(h) Annexation of District.** – When any portion of a fee-supported fire district has been annexed by a municipality furnishing fire protection to its citizens, and the municipality has not agreed to allow territory within it to be in the district, then the portion of the district annexed is no longer part of a fee-supported district. For the purposes of this section and regardless of the actual effective date of annexation, the date of annexation shall be considered to be a date in the month of June. When any portion of a fee-supported fire district is annexed by a municipality furnishing fire protection to its citizens, there is debt associated with the prior fee-supported district providing the fire protection to that area. an assumption of debt shall be paid to the fee-supported district at a rate of not less than one-half the fees that are collected from the annexed area for a period of not less than three years. This shall in no way limit or restrict a municipality from contracting with a fee-supported district to provide fire protection services nor shall it require a fee-supported district to provide fire protection services without an additional contract.

**"Section 1.(i) Abolition of District.** – Upon finding that there is no longer a need for a given fee-supported fire district, the board of commissioners may repeal the resolution establishing the district and thus abolish the district.

**"Section 1.(j) Administrative Oversight.** – Each nonmunicipal department shall bring any purchase in excess of ten thousand dollars (\$10,000) for approval to a fire protection oversight board that is determined by the board of commissioners of the county and is chaired by the Emergency Services Director or his designee. Failure to adhere to the recommendations of the committee could lead to forfeiture of collected fees. All departments that receive funding from a fee-supported district shall participate in countywide strategic planning sessions conducted by the emergency services office no less than once a year.

**"Section 1.(k) Collection Remedies.** – A county may foreclose fire fee liens under any procedure provided by law for the foreclosure of property tax liens, except that: (i) lien sales and lien sale certificates are not required, and (ii) foreclosure may be begun at any time after 30 days after the due date. The county is not entitled to a deficiency judgment in an action to foreclose a fire fee lien. The lien of fire fees is inferior to all prior and subsequent liens for State, local, and federal taxes, and superior to all other liens."

**SECTION 3.** Section 2 of this act becomes effective January 1, 2008. The remainder of this act is effective when it becomes law.

In the General Assembly read three times and ratified this the 2<sup>nd</sup> day of August, 2007.

s/ Beverly E. Perdue  
President of the Senate

s/ Joe Hackney  
Speaker of the House of Representatives

**GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2005**

**SESSION LAW 2005-90  
SENATE BILL 14**

**AN ACT TO ALLOW THE TOWN OF HOLDEN BEACH TO IMPOSE A CANAL  
DREDGING FEE.**

The General Assembly of North Carolina enacts:

**SECTION 1.** Section 7 of S.L. 2004-104 as rewritten by S.L. 2005-47 reads as rewritten:

**"SECTION 7.** This act applies only within the municipal boundaries of the ~~Town~~ Towns of ~~Emerald Isle~~ Emerald Isle, Holden Beach, and Ocean Isle Beach."

**SECTION 2.** This act is effective when it becomes law.

In the General Assembly read three times and ratified this the 21<sup>st</sup> day of June, 2005.

s/ Marc Basnight  
President Pro Tempore of the Senate

s/ James B. Black  
Speaker of the House of Representatives



**GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2003**

**SESSION LAW 2004-104  
HOUSE BILL 1734**

**AN ACT TO ALLOW THE TOWN OF OCEAN ISLE BEACH TO IMPOSE A CANAL  
DREDGING FEE.**

The General Assembly of North Carolina enacts:

**SECTION 1. Fee-Supported Canal Dredging District.** - A municipality by resolution may create a fee-supported canal dredging district for all properties that are contiguous to a canal within the corporate limits.

**SECTION 2. Imposition of Annual Fees.** - A municipality may impose annual fees for the dredging of canals, both natural and concrete, within the corporate limits. The governing board shall establish the fees on or before July 1 each year.

**SECTION 3. Fees.** - The fees imposed by the municipality may not exceed the cost of providing for the dredging of the canals within the municipality. The fees shall be imposed on owners of each dwelling unit or parcel of property that could or does benefit from water access through the canal system on the island.

**SECTION 4. Billing of Fees.** - The municipality may include a fee imposed under this section on the property tax bill for each parcel of property lying within the municipal limits on which the fee is imposed. Said fee shall be collected in the same manner as provided for in the General Statutes for the collection of ad valorem taxes, and remedies available by statute for the collection of taxes shall apply to the collection of the canal dredging fees.

**SECTION 5. Use of Fees.** - A municipality shall credit the fees collected within the district to a separate fund to be used only to pay the bill that is received for canal dredging. The governing board shall administer the fund to provide for the payment of canal dredging.

**SECTION 6. Abolition of District.** - Upon finding that there is no longer a need for a given fee-supported district, the governing board may repeal the resolution establishing the district and thus abolish the district.

**SECTION 6.1. Capital Reserve Fund.** - If a municipality establishes a capital reserve fund under Chapter 159 of the General Statutes to build up funds for the purpose of providing the service under this act, it may delay providing the service until sufficient funds have accumulated, but in no case to exceed five years.

**SECTION 7.** This act applies only within the municipal boundaries of the Town of Ocean Isle Beach.

**SECTION 8.** This act is effective when it becomes law.

In the General Assembly read three times and ratified this the 15<sup>th</sup> day of July,  
2004.

s/ Beverly E. Perdue  
President of the Senate

s/ James B. Black  
Speaker of the House of Representatives

**GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2013**

**SESSION LAW 2013-179  
HOUSE BILL 229**

**AN ACT AUTHORIZING THE TOWNS OF HOLDEN BEACH AND OCEAN ISLE BEACH TO ACCUMULATE FUNDS IN A CAPITAL RESERVE FUND FOR THE PURPOSE OF CANAL DREDGING AND MAINTENANCE FOR A PERIOD OF TEN YEARS.**

The General Assembly of North Carolina enacts:

**SECTION 1.** Section 6.1 of S.L. 2004-104 reads as rewritten:

**"SECTION 6.1.** Capital Reserve Fund. – If a municipality establishes a capital reserve fund under Chapter 159 of the General Statutes to build up funds for the purpose of providing the service under this act, it may delay providing the service until sufficient funds have accumulated, but in no case to exceed ~~five~~ 10 years."

**SECTION 2.** This act applies only to the Towns of Holden Beach and Ocean Isle Beach.

**SECTION 3.** This act is effective when it becomes law.

In the General Assembly read three times and ratified this the 24<sup>th</sup> day of June, 2013.

s/ Daniel J. Forest  
President of the Senate

s/ Thom Tillis  
Speaker of the House of Representatives



\* H 2 2 9 - V - 4 \*