

**US Army Corps  
of Engineers**  
Philadelphia District

Wanamaker Building  
100 Penn Square East  
Philadelphia, PA 19107-3390  
ATTN: CENAP-OP-R

# Public Notice

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Public Notice No.	Date
<b>CENAP-OP-R-2017-00089-87</b>	<b>May 26, 2017</b>

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Application No.	File No.
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In Reply Refer to:  
**REGULATORY BRANCH**

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This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

**APPLICANT:** Ray Gormly, Mayor, Township of Little Egg Harbor  
665 Radio Road  
Little Egg Harbor, NJ 08087

**AGENT:** Kristopher Krzyston, T&M Associates  
11 Tindall Road  
Middletown, NJ 07748

**WATERWAY:** Waterways to be dredged include Thompson Creek, sections of man-made lagoons adjacent to Tuckerton Beach, Tuckerton Creek (including sections of adjacent man-made lagoons), Rose Creek (including sections of adjacent man-made lagoons), Mystic Island Northwest Channel (including sections of adjacent man-made lagoons), Mystic Island Southwest Channel (including sections of adjacent man-made lagoons), man-made lagoons adjacent to Osborn Island, Ocean Boulevard Channel and Ocean Boulevard Access Channel.

Waterways associated with the transport of dredged material by pipe include Great Bay including Little Thorofare, Jimmies Creek, Bogans Cove, and Big Creek; and Little Egg Harbor including: Marshelder Channel, Horsefoot Cove, Big Thorofare, Tuckerton Cove, Tuckerton Bay, and Edge Cove.

**LOCATION:** The above mentioned waterways are located in the Township of Little Egg Harbor, and the Borough of Tuckerton in Ocean County, New Jersey. A living shoreline is proposed at the terminus of Iowa Court, Block 326, Lot 28.01 in Little Egg Harbor Township. Sediment enrichment is proposed along Great Bay Boulevard, Block 326, Lot 61; and Block 327 Lots 33 and 34 in Little Egg Harbor Township.

**ACTIVITY:** The applicant proposes to hydraulically dredge accumulated sediment from within portions of the first eight waterways listed above as well as portions of adjacent man made lagoons (see enclosures E1-17), and to beneficially reuse the dredged material by

depositing it on nearby areas of degraded tidal marsh (see enclosures E2, and E18-21). The applicant also proposes to create a living shoreline.

The proposed maintenance dredging would entail hydraulic dredging of approximately 151,350 cubic yards of sediment comprised of a mixture of silt, clay and sand, from approximately 9,774 linear feet of Thompson Creek channel including sections of adjacent man-made lagoons, approximately 1,100 linear feet of Tuckerton Creek including sections of adjacent man-made lagoons, approximately 6,468 linear feet of sections of man-made lagoons adjacent to Tuckerton Beach, approximately 7,743 linear feet of Rose Creek channel including sections of adjacent man-made lagoons, approximately 2,797 linear feet of Mystic Island Northwest channel including sections of adjacent man-made lagoons, approximately 3,950 linear feet of Mystic Island Southwest Channel including sections of adjacent man-made lagoons, approximately 2,497 linear feet of man-made lagoons adjacent to Osborn Island, and approximately 860 linear feet of Ocean Boulevard Channel and Ocean Boulevard Access Channel.

The proposed dredging depth in all waterways is four feet below mean low water (-4' MLW). The channel design width at Tuckerton Creek, Tuckerton Beach, Mystic Island Northwest Channel, Mystic Island Southwest Channel, Osborn Island, and Ocean Boulevard and their adjacent lagoons is typically fifty feet (50') with a few exceptions having narrower widths as low as twenty feet (20'). Rose Creek and its adjacent lagoons would typically have a channel design width of about forty feet (40') with a few exceptions having narrower widths as low as twenty feet (20'). The channel design width at Thompsons Creek and its adjacent lagoons would generally range from thirty feet (30') to forty feet (40'), and would measure eighty feet (80') from STA 68+00 to STA 73+80 (see enclosures E1-17). Channel side slopes are 3H:1V.

While it appears that all or most of the proposed dredging areas have previously been dredged, the Corps is currently reviewing whether state and federal authorizations were made for previous dredging projects. Shoaling has impeded navigation within these important channels. The maintenance dredging project is intended to restore these channels to the authorized project dimensions to allow safe passage for recreational and commercial marine traffic.

The applicant proposes to perform sediment enrichment across five distinct areas of degraded tidal salt marsh along Great Bay Boulevard in Little Egg Harbor Township, NJ. The marsh areas where sediment is proposed to be placed currently consist primarily of marsh grass (*spartina alterniflora*) and salt meadow cord grass (*spartina patens*). There are numerous locations within these marsh areas that are completely inundated after the tide recedes. These tide pools are continuing to grow in size as vegetation dies off due to constant inundation. The dredged sediment material to be generated by the dredging component of this project predominately consists of silt (37-62%), clay (35-55%), and sand (4%), which is an ideal sediment composition for sediment enrichment.

The sediment layer deposition would be conducted by spreading approximately 151,350 cubic yards (CY) of suitable dredged sediment into a series of five (5) cells. The five (5) cells are identified as follows: "Area A" which measures 23.024 acres, "Area B" which measures 3.676 acres, "Area C" which measures 5.784 acres, "Area D" which measures 11.278 acres, "Area E (North Pond)" which measures 6.699 acres. The total area of proposed sediment deposition is approximately 50.461 acres.

The proposed height of the sediment deposit layer will be based on the initial elevation at each location and the biological target elevation for optimal high salt marsh growth. Generally, the existing marsh elevation at each site ranges from 1 foot to 2 feet. Preliminary target elevations estimates have been submitted by the applicant (see enclosures E18-21), but will be fine-tuned based on the findings of a topographic survey and rapid marsh assessment, which will be completed in the spring of 2017. The applicant anticipates that the sediment deposition would result in the placement of up to 2 +/- feet of material within the low lying areas of the marshes. The specific preliminary proposed sediment layer depths can be found on the plans located in enclosures E18-21. The sediment deposition areas would be planted with spartina once the sediment has stabilized.

To achieve the desired elevation, within each cell, dredging barges will pump sediment from the bottom of the designated dredge channels through an 8' – 10' polyethylene pipeline as the dredge discharge pipe and will utilize booster pumps to assist in pumping the dredge material to its ultimate destination. The pipeline would be floated over water except where it crosses over navigation channels, where it would be sunk in order to avoid interference with vessel and watercraft traffic.

The project also includes the design of a living shoreline. The living shoreline would entail .495 acre of fill below the mean high water line. The living shoreline project will include construction of a stone breakwater measuring three hundred and eighty-five (385) linear feet, construction of four (4) wooden breakwaters measuring thirty (30) linear feet each, placement of one thousand three hundred and fifty (1,350) cubic yards of clean sand, and planting of spartina.

The applicant proposes to temporarily place a super silt fence, hay bales, and turbidity barriers around the sediment placement areas in order to contain the deposited dredge material.

**PURPOSE:** The overall goal of the project is to remove accumulated sediment in various lagoons and creeks and to beneficially reuse the material in order to restore areas of degraded marsh habitat and help slow marsh loss. The goal of the living shoreline is to protect Iowa Court and reduce wave action for the nearby homes.

A preliminary review of this application indicates that the proposed work will not affect threatened and endangered species. While Atlantic Sturgeon (*Acipenser oxyrinchus*), Kemp's ridley sea turtle (*Lepidochelys kempii*), loggerhead sea turtle (*Caretta caretta*), green sea turtle (*Chelonia mydas*), leatherback sea turtle (*Dermochelys coriacea*) and hawksbill sea turtle (*Eretmochelys imbricate*) are possibly in the vicinity, due to the water depths and boating activity, these species are not likely present. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values,

flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the proposed work should be submitted, in writing, within 30 days to the District Engineer, U.S. Army Corps of Engineers, Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390.

Pursuant to Section 106 of the National Historic Preservation Act, the permit action is being reviewed for potential to impact historic properties eligible for listing on the National Register of Historic Places (NRHP). The proposed permit action has little likelihood to impact historic properties eligible for or listed on the NRHP. A No Effect determination will be coordinated with the New Jersey State Historic Preservation Office and with the Tribes.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act 1996 (Public Law 104-267), requires all Federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). A preliminary assessment of the species listed in the "Guide to Essential Fish Habitat Designations in the Northeastern United States, Volume IV: New Jersey and Delaware", dated March 1999, indicated that the project may have an adverse effect on EFH and species of concern. The USACE will consult with the National Marine Fisheries Service in order to ensure that any action taken will not have a substantial effect on EFH.

**Compensatory Mitigation:** In accordance with 33 CFR 325.1(d)(7), applicants wishing to discharge dredged and fill material into waters of the U.S. must include a statement describing how the project will avoid and minimize impacts, as well as how they intend to compensate for unavoidable impacts. The applicant has avoided and minimized impacts to the aquatic environment by incorporating engineering/construction procedures into the process that will substantially reduce impacts to aquatic resources. Additionally, the applicant has stated that the underlying intent of beneficially reusing the dredge material generated by this project is to enhance degraded areas of marsh in Little Egg Harbor Township. The proposed strategic placement of dredged material is intended to enhance marsh functions by raising the elevation of the marsh platform and increasing the resiliency of the marsh. Wetlands will not be converted to uplands through this technique. Different portions of the marsh will respond differently to sediment enrichment and such responses may change from year to year. By having the applicant



commit to an adaptive management approach, the techniques to manage the vegetative community can be tailored to the specific area during that particular season.

In accordance with Section 307(c) of the Coastal Zone Management Act of 1972, applicants for Federal Licenses or Permits to conduct an activity affecting land or water uses in a State's coastal zone must provide certification that the activity complies with the State's Coastal Zone Management Program. The applicant has stated that the proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management (CZM) Program. No permit will be issued until the State has concurred with the applicant's certification or has waived its right to do so. Comments concerning the impact of the proposed and/or existing activity on the State's coastal zone should be sent to this office, with a copy to the State's Office of Coastal Zone Management.

In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate is necessary from the State government in which the work is located. Any comments concerning the work described above which relate to Water Quality considerations should be sent to this office with a copy to the State.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state in writing, with particularity, the reasons for holding a public hearing.

Additional information concerning this permit application may be obtained by calling Rachel Ward at (215) 656-6733, via email at Rachel.J.Ward@usace.army.mil, or writing this office at the above address.

Edward E. Bonner  
Chief, Regulatory Branch

Copies Furnished:

NMFS (Sandy Hook, NJ)  
USEPA, Region II (New York, NY)  
NJDEP, LURP (Trenton, NJ)

Agent: Kristopher Krzyston  
T&M Associates  
11 Tindall Road  
Middletown, NJ 07748

PLANS FOR  
MARSH RESTORATION PROJECT

TOWNSHIP OF LITTLE EGG HARBOR/BOROUGH OF  
TUCKERTON, OCEAN COUNTY, NEW JERSEY  
PROJECT No. LEHT-01730

LITTLE EGG HARBOR GOVERNING BODY	
MAYOR:	RAY CORNELLEY
DEPUTY MAYOR:	BARBARA J. ORCA
TOWNSHIP COMMITTEE:	JOHN COMELLA LISA STOKES
TOWNSHIP ADMINISTRATOR/CLERK:	GARETT LUGSCH DANA MOSCHEN
TOWNSHIP CLERK:	GEORGE GUARISE, ESQ.
TOWNSHIP ATTORNEY:	665 RADIO ROAD TUCKERTON, NJ 08087 PHONE: (609) 298-7242 WEB: WWW.LEHT.COM

TUCKERTON GOVERNING BODY	
MAYOR:	SUSAN R. MARSHALL
COUNCIL PRESIDENT:	SAM COLANGELO
BOROUGH COUNCIL:	DORIS MATTHESEN MICHAEL SANDO JOHN SCHWARTZ KEITH WREGLAND
BOROUGH ADMINISTRATOR/CLERK:	JENNY CLEGGION
CONTACT INFORMATION:	420 E. MAIN STREET TUCKERTON, NJ 08087 PHONE: (609) 746-0701 WEB: WWW.TUCKERTONBOROUGH.COM

UTILITY OWNERS	
ELECTRIC:	TELEPHONE
ATLANTIC CITY ELECTRIC	ATLANTIC CITY ELECTRIC
P.O. BOX 231	375 WEST MAIN STREET
WILLIAMSON, DE 19899	FREDERICK, NJ 07728
(800) 642-3786 (CUSTOMER SERVICE)	TELEPHONE
GAS	TELEPHONE
ATLANTIC CITY NATURAL GAS	ATLANTIC CITY NATURAL GAS
775 VASSAR AVENUE	FARMINGDALE, NJ 07727
ATLANTIC CITY, NJ 08401	(800) 437-6977
(800) 437-6977 (CUSTOMER SERVICE)	WATER & SEWER
CABLE	WATER & SEWER
752 BRICK BOULEVARD	MUNICIPAL UTILITIES AUTHORITY
ATLANTIC CITY, NJ 08401	LITTLE EGG HARBOR, NJ 08087
(800) 298-4188 (MAIN OFFICE)	(800) 298-4188 (CUSTOMER SERVICE)
LOCATION OF UTILITIES SHOWN ON THESE PLANS IS NOT WARRANTED AS TO EXACTNESS. CONTRACTOR SHALL DETERMINE EXACT LOCATION AND DEPTH OF UTILITIES PRIOR TO CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND OTHER APPLICABLE LAWS.	
PRIOR TO DIGGING CALL 1-800-272-1000	



KEY MAP  
PREPARED BY  
**JAMES M. ORIS**  
CONSULTING ENGINEER



YOUR GOALS. OUR MISSION.  
9 GRAND AVENUE, BUILDING 1  
TUCKERTON, NJ 08087  
TEL: 201-473-2400  
FAX: 201-473-2400

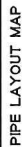
MADE IN THE UNITED STATES OF AMERICA  
CONSULTING ENGINEER

SHEET INDEX	
SHEET	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	DREDGING PLANS - MYSTIC ISLAND NORTHWEST & DESIGN ISLAND
4	DREDGING PLANS - MYSTIC ISLAND SOUTHWEST
5	DREDGING PLANS - ROSE CREEK
6	DREDGING PLANS - ROSE CREEK
7	DREDGING PLANS - THOMPSONS CREEK
8	DREDGING PLANS - TUCKERTON CREEK
9	DREDGING PLANS - TUCKERTON CREEK
10	DREDGING PLANS - TUCKERTON BEACH
11	DREDGING PLANS - MYSTIC ISLAND NORTHWEST & DESIGN ISLAND
12	DREDGING PLANS - MYSTIC ISLAND NORTHWEST & DESIGN ISLAND
13	CROSS SECTIONS - ROSE CREEK
14	CROSS SECTIONS - ROSE CREEK
15	CROSS SECTIONS - THOMPSONS CREEK
16	CROSS SECTIONS - TUCKERTON CREEK
17	CROSS SECTIONS - TUCKERTON CREEK
18	DRAW COURT LIVING SHORELINE
19	CONCEPTUAL THIN LAYER DEPOSITION PLAN
20	CONCEPTUAL THIN LAYER DEPOSITION PLAN - NORTH POND
21	CONCEPTUAL THIN LAYER DEPOSITION PLAN - NORTH POND
22	CONSTRUCTION DETAILS

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**GENERAL NOTES:**

1. THE LOCAL STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2007 AND CURRENT SUPPLEMENTARY SPECIFICATIONS THEREIN ARE TO GOVERN THE PROJECT.
2. THE FOLLOWING ARE THE KEY PROJECT OBJECTIVES:
  - ELIMINATION OF PONDING ISSUES IN THE ROADWAY & RIGHT-OF-WAY
  - IMPROVEMENT OF THE EXISTING DRAINAGE SYSTEM FROM THE STREET TO THE LAKEON IN THE DESIGNATED SITES.
  - PROTECTION OF THE EXISTING DRAINAGE SYSTEM AND RESTORATION OF ALL PROPERTIES TO THEIR PRE-CONSTRUCTION CONDITIONS.
  - COORDINATION WITH ALL GOVERNMENT, CURRENT, FUTURE, MUNICIPAL, COUNTY, STATE, AND FEDERAL REQUIREMENTS.
3. CONTRACTORS ARE STRONGLY ENCOURAGED TO VISIT THE SITES PRIOR TO PREPARING A BID.
4. THE CONTRACTOR WILL BE REQUIRED TO HAVE PRE- AND POST-CONSTRUCTION BATHMETRIC SURVEYS PERFORMED BY A LICENSED SURVEYOR TO MONITOR THE ROADWAY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, AND THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH RESIDENTIAL LAND OWNERS FOR THE TEMPORARY REDUCTION OF FLOODING DUE TO ALLOW FOR DREDGING.
6. ALL DREDGE MATERIAL SHALL BE BENEFICIALLY REUSED WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL DREDGE MATERIAL FROM LITTLE GAGE HARDER SHALL BE PUMPED TO AREA A, AREA B, AND TO A NORTH LAGOON. DREDGE MATERIAL SHALL BE PUMPED TO AREA C, AND TO A NORTH LAGOON.
7. THE CONTRACTOR SHALL LOCATE DREDGE PIPING ON THE EDGES OF WATERWAYS TO THE RESTORATION SITES. THE CONTRACTOR SHALL BE REQUIRED TO SHED SAND PILING AREAS. ANY INTERSECTIONS WITH EXISTING DRAINAGE SYSTEMS SHALL BE PROTECTED BY THE RESTORATION OF THE DOWN COUNTRY WASH AREA. ALL THE CUL-DE-SACS A 18 INCH THICK LAYER OF DREDGED MATERIAL FROM THE LAKEON AND AREA B SHALL BE USED TO "CAP" THE DOWN COUNTRY WASH.
8. THE CONTRACTOR SHALL REMOVE ALL EXISTING DRAINAGE MATERIAL FROM THE RESTORATION SITES.
9. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED WITHIN THE MARSH RESTORATION AREAS PRIOR TO PUMPING OF DREDGE MATERIAL.
10. THE CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS AND REGULATIONS CONCERNING THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
11. NO CONSTRUCTION ACTIVITY IS TO TAKE PLACE OUTSIDE THE LIMIT OF DISTURBANCE UNLESS DIRECTED BY THE ENGINEER. WHERE NO DISTURBANCE IS REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF DISTURBANCE SHALL BE WITHIN THE LIMIT OF CONSTRUCTION.





LOCATION	DREDGE VOLUME (CY)
OSBORN ISLAND	1,200
MYSTIC ISLAND NORTHWEST	1,200
TOTAL	2,400

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TOTAL	2,400





ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED  
DATE 08-11-2010 BY 60322 UCBAW

Age Group	1980 (%)	1990 (%)	2000 (%)
15-24	15	25	35
25-34	25	25	25
35-44	25	25	25
45-54	25	25	25
55-64	25	25	25
65+	25	20	15

7

OCEAN BOULEVARD ACCESS CHANNEL

**JUM INFORMATION**  
 8 ISLAND HOLE CREEK, WESTIC KILAND (NORTHWEST)  
 2000 CLAND SOUTHWEST

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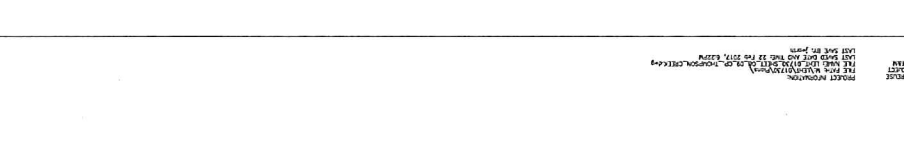
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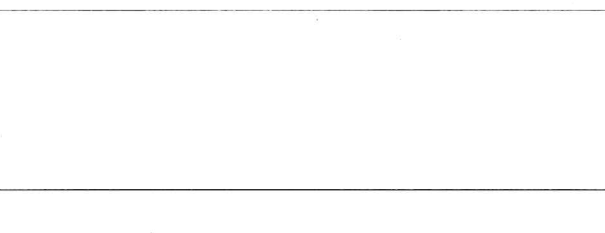


THE ASSOCIATE - ALL RIGHTS RESERVED. THE COPYING OR REPRODUCTION OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION OF THE ASSOCIATE IS PROHIBITED. THEREFORE, THE ASSOCIATE REQUESTS THAT THE USER OF THIS DOCUMENT RECOGNIZE THE ASSOCIATE'S CONTRIBUTION TO THE DOCUMENT.







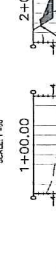










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SCALE: 1" = 20'  
 0' 20' 40'

CROSS SECTIONS - MYSTIC ISLAND SOUTHWEST & OCEAN BOULEVARD  
 MARSH RESTORATION PROJECT  
 TOWNSHIP OF LITTLE EGGS HARBOR BOROUGH OF TUCKERTON  
 JAMES M. ORIS

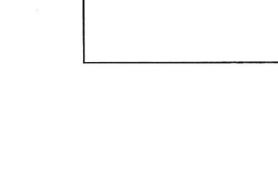
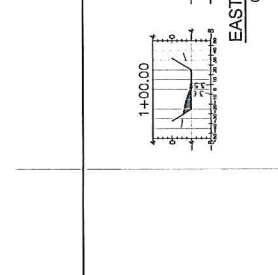
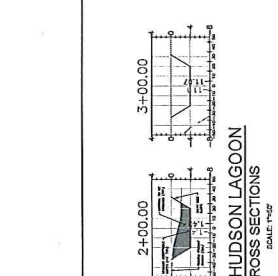
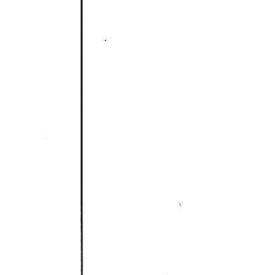
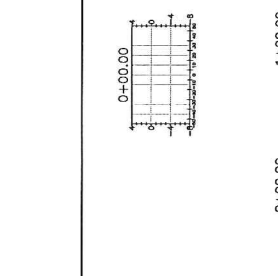
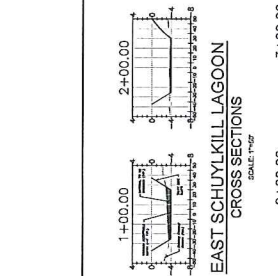
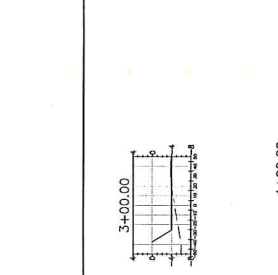
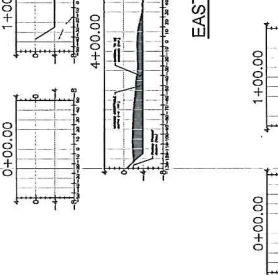
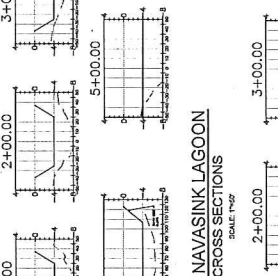
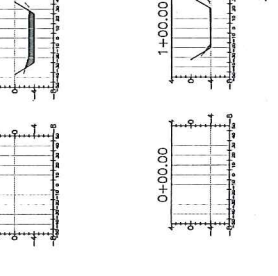
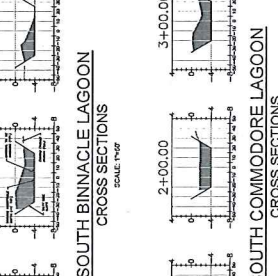
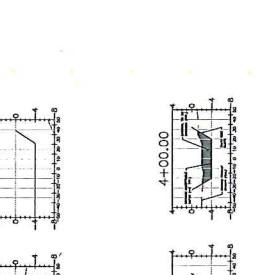
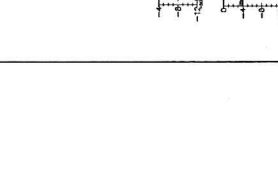
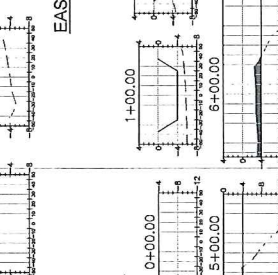
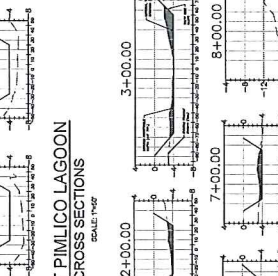
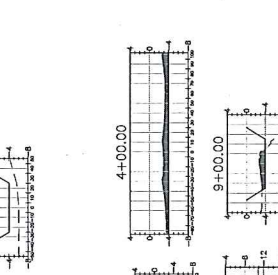
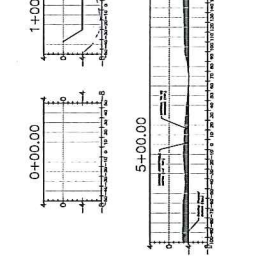
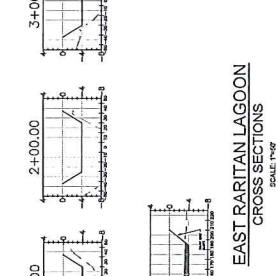
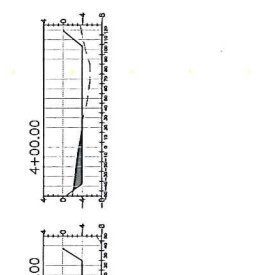
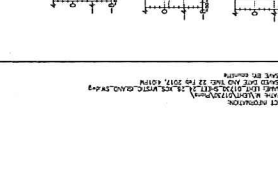
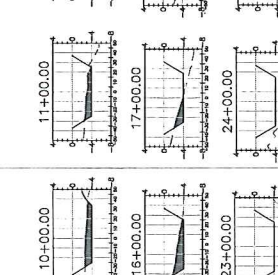
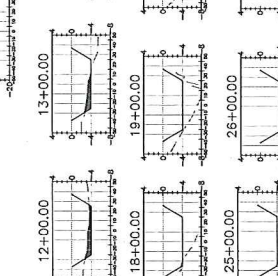
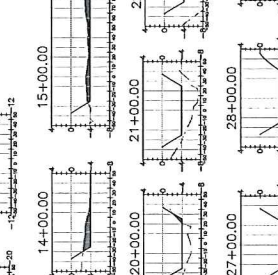
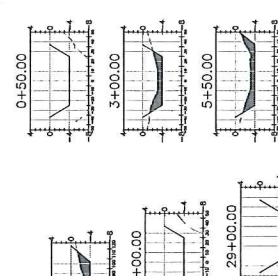
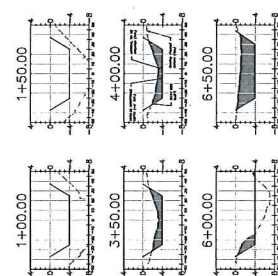
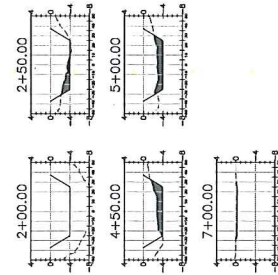
CROSS SECTIONS - MYSTIC ISLAND SOUTHWEST & OCEAN BOULEVARD  
 MARSH RESTORATION PROJECT  
 TOWNSHIP OF LITTLE EGGS HARBOR BOROUGH OF TUCKERTON  
 JAMES M. ORIS

CROSS SECTIONS - MYSTIC ISLAND SOUTHWEST & OCEAN BOULEVARD  
 MARSH RESTORATION PROJECT  
 TOWNSHIP OF LITTLE EGGS HARBOR BOROUGH OF TUCKERTON  
 JAMES M. ORIS

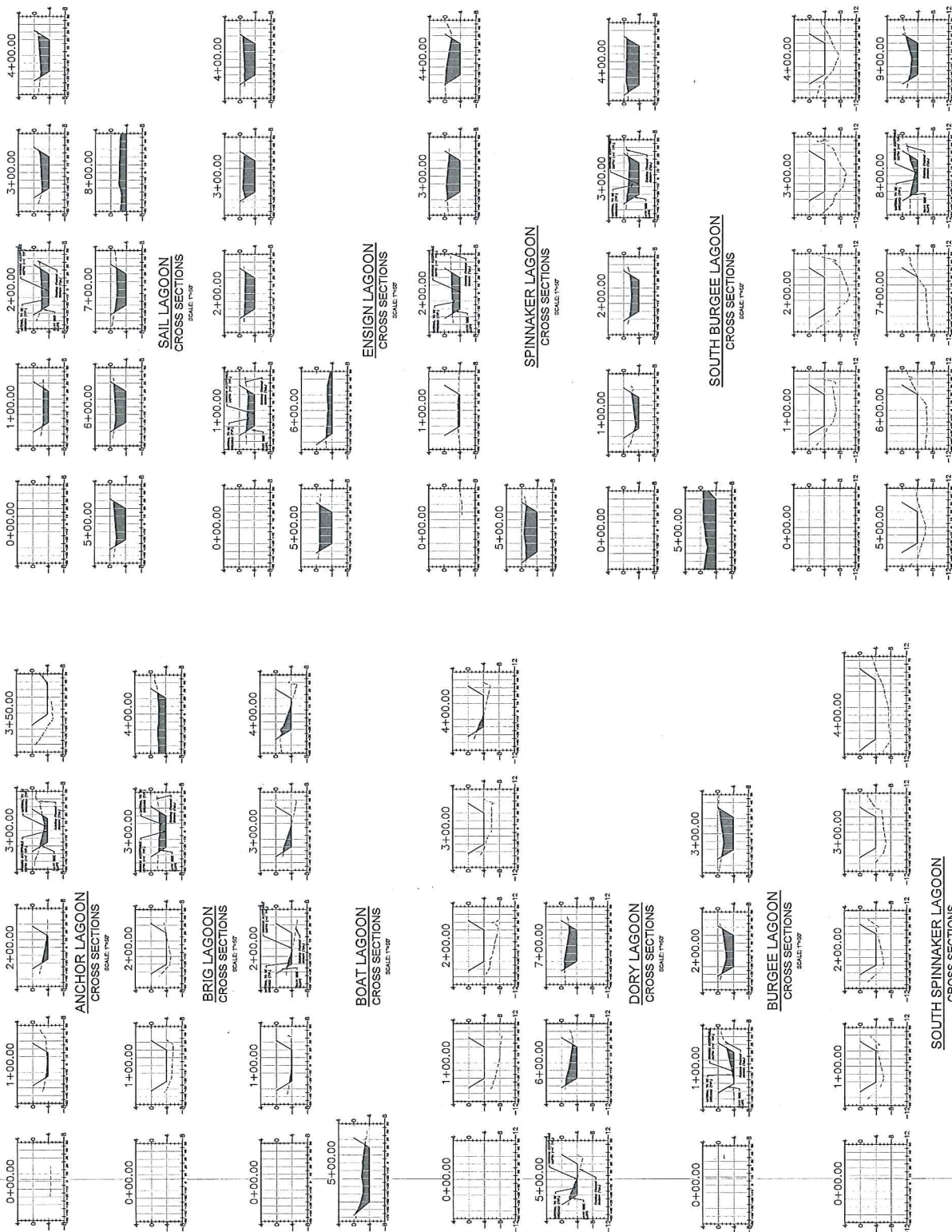
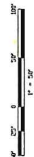
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 MARSH RESTORATION PROJECT  
 TOWNSHIP OF LITTLE EGGS HARBOR BOROUGH OF TUCKERTON  
 JAMES M. ORIS

CROSS SECTIONS - MYSTIC ISLAND SOUTHWEST & OCEAN BOULEVARD  
 MARSH RESTORATION PROJECT  
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 JAMES M. ORIS

CROSS SECTIONS - MYSTIC ISLAND SOUTHWEST & OCEAN BOULEVARD  
 MARSH RESTORATION PROJECT  
 TOWNSHIP OF LITTLE EGGS HARBOR BOROUGH OF TUCKERTON  
 JAMES M. ORIS





FOR PERMITTING  
PURPOSES ONLY



TOWNSHIP OF LITTLE EGGS HARBOR BOROUGH OF TUCKERTON  
MARSH RESTORATION PROJECT  
CROSS SECTIONS - ROSE CREEK

JAMES M. ORS  
TOWNSHIP ENGINEER

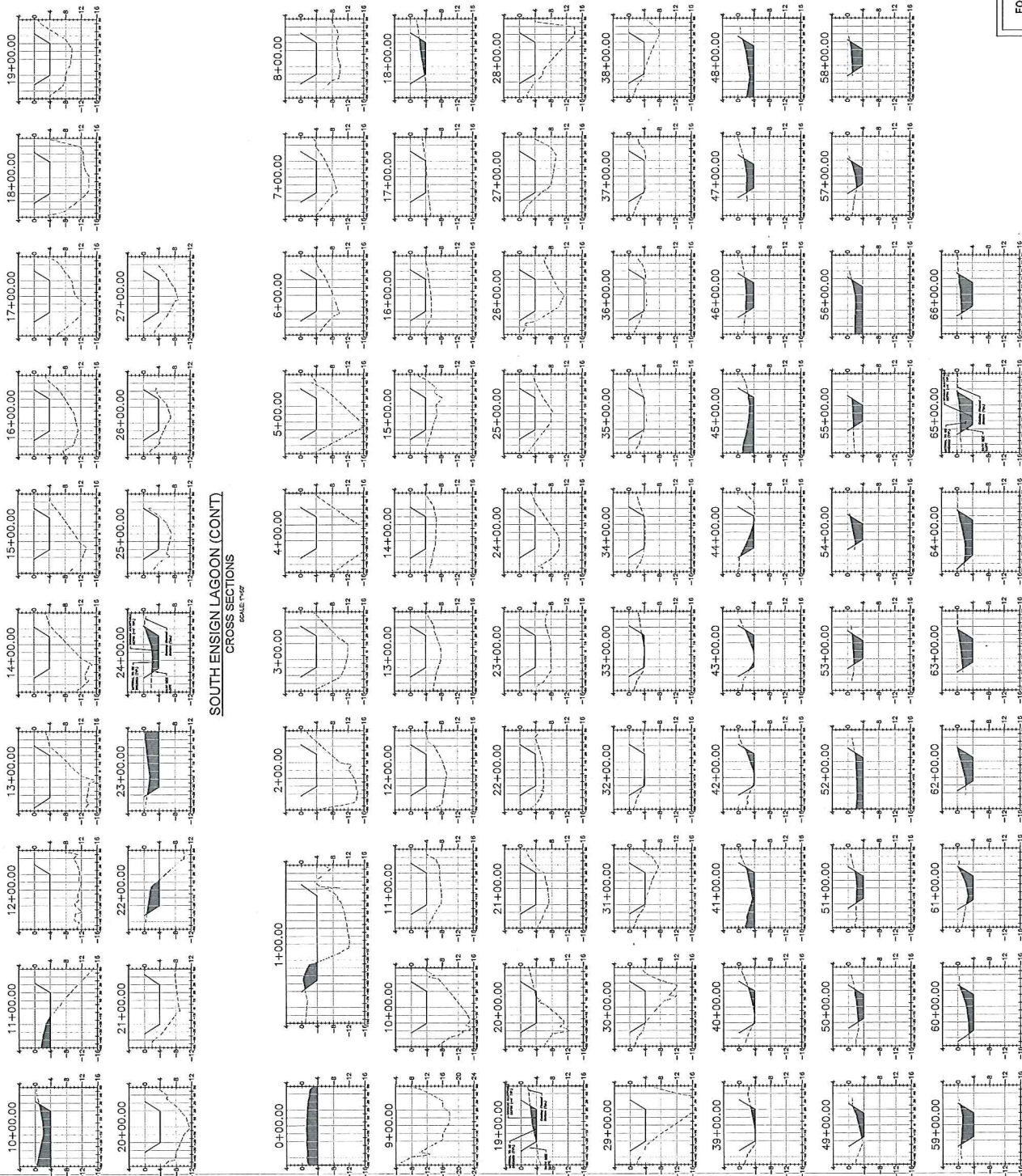
3/1/17

DATE	3/1/17
SCALE	1" = 30'
PROJECT	ROSE CREEK
NO. OF SHEETS	22
SHEET NO.	14
DESIGNED BY	XCS-4
CHECKED BY	DATE

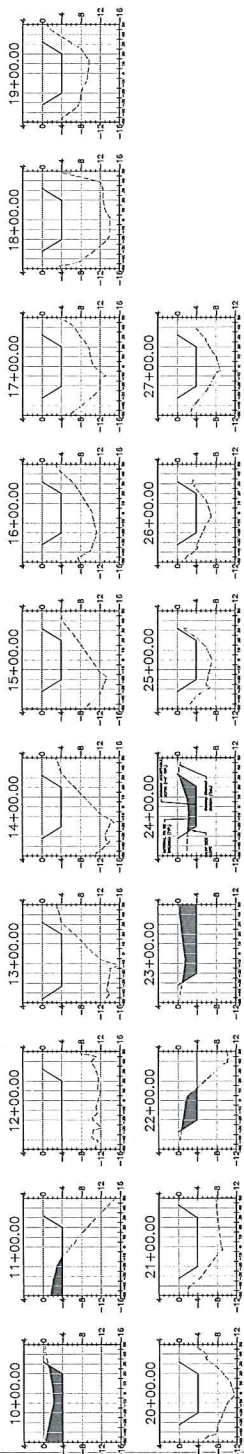
FOR PERMITTING  
PURPOSES ONLY



ROSE CREEK  
CROSS SECTIONS  
SCALE: 1"=30'

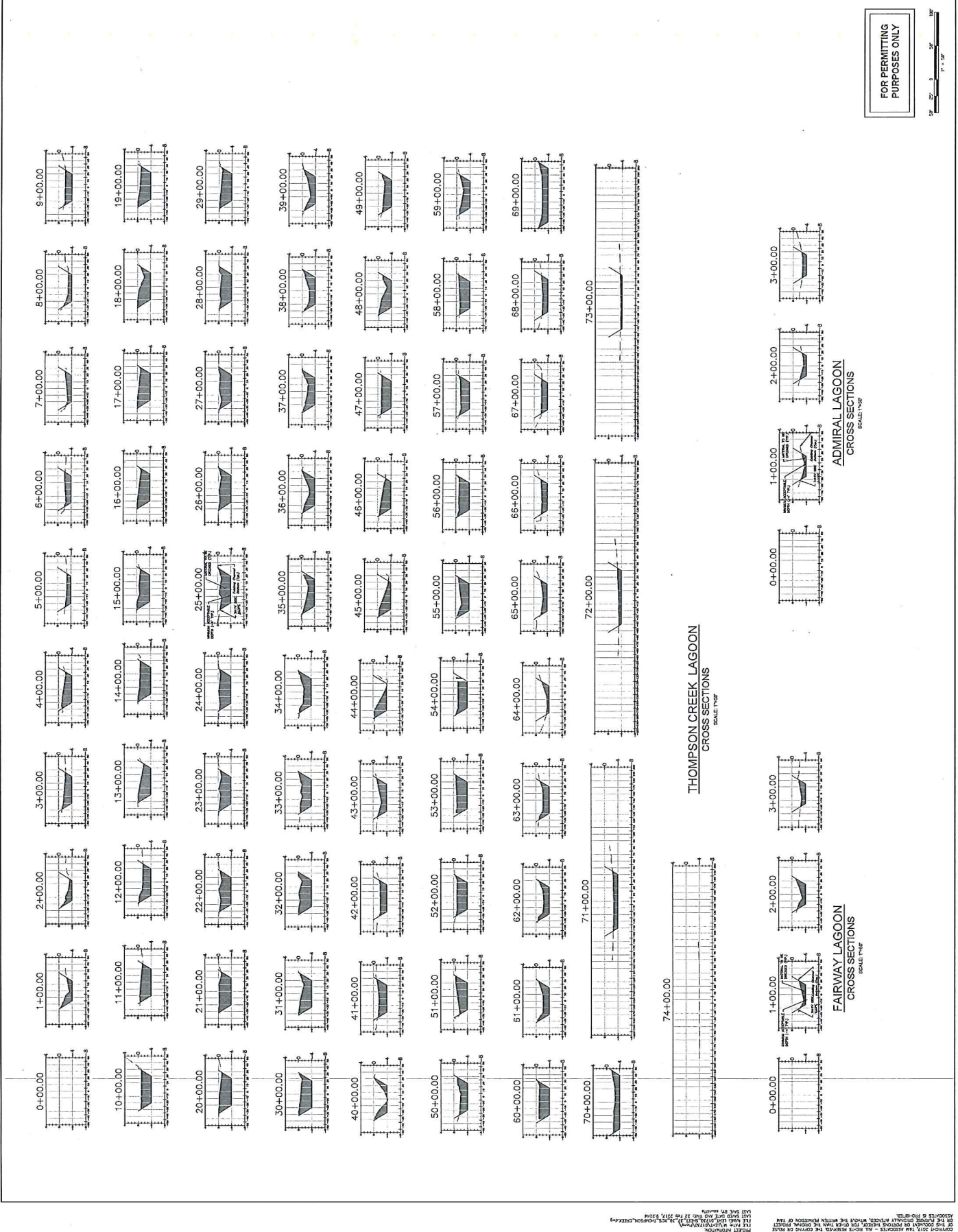


SOUTH ENSIGN LAGOON (CON'T)  
CROSS SECTIONS  
SCALE: 1"=30'





NO.	DATE	REVISION
1	12/17/17	ISSUED FOR PERMITTING
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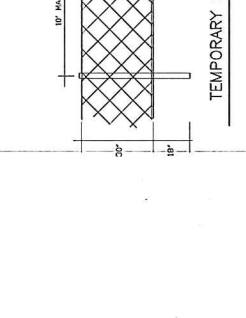
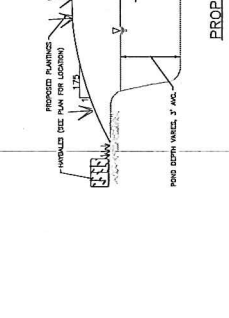
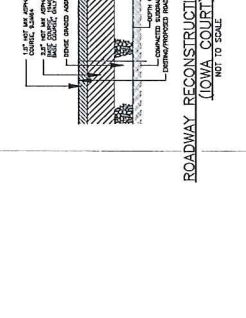
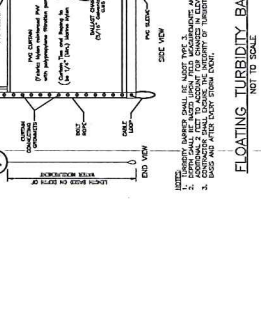
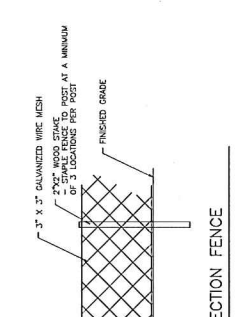
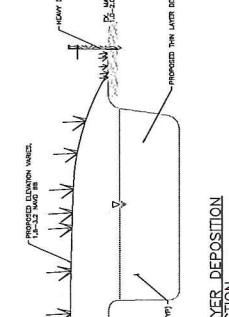
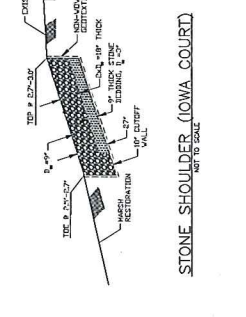
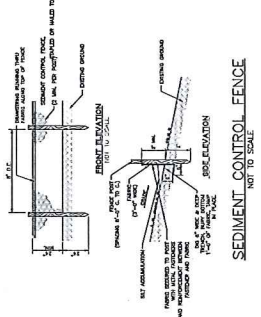
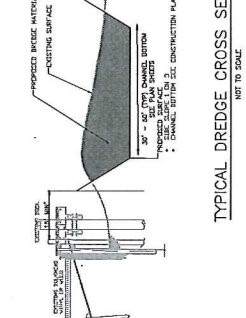
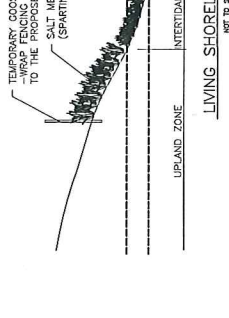
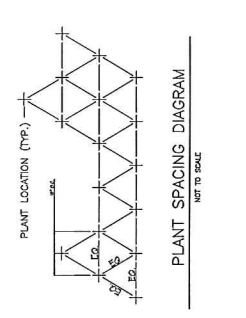
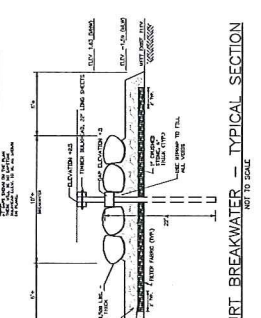
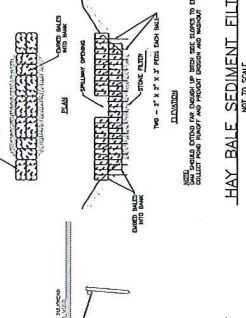
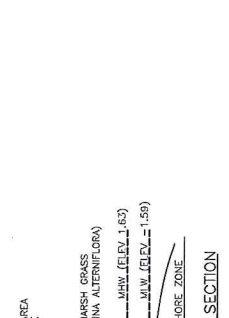
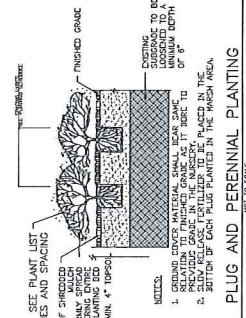
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100	REVISED FOR CONSTRUCTION	10/1/11

CONSTRUCTION DETAILS  
MARSH RESTORATION PROJECT  
TOWNSHIP OF LITTLE EGGS HARBOR BOUQUET OF TUCKERSON  
JAMES M. ORIS  
CONSULTING ENGINEER



PROJECT NO.	CD-1
DATE	10/1/11
SCALE	AS SHOWN
PROJECT LOCATION	22
OF	22

- LIVING SHORELINE NOTES:**
1. ALL CONSTRUCTION SHALL BE INSTALLED WITH ALL SOIL PLANTED WITHIN 30 DAYS OF COMPLETION.
  2. ALL CONSTRUCTION SHALL BE INSTALLED WITHIN 30 DAYS OF COMPLETION.
  3. ALL CONSTRUCTION SHALL BE INSTALLED WITHIN 30 DAYS OF COMPLETION.
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  10. ALL CONSTRUCTION SHALL BE INSTALLED WITHIN 30 DAYS OF COMPLETION.



FOR PERMITTING PURPOSES ONLY