

1. Basic Project Details

The City of Tybee Island is continuing the work begun under Permit #460

- a. The City of Tybee Island ("City") was granted Permit #460 in March of last year for Phase 1 of dune restoration, covering dune build from Pier to 19th Street, including a subsurface stabilized dune at 19th Street to accommodate emergency and Department of Public Works vehicles.
- b. The City built the 19th Street dune April 2018 and updated the Committee at their November 2018 meeting. Guardian Retention Systems was the contractor who installed the 19th Street dune and will be used to construct the subsurface stabilized dunes under this new Permit if granted.
- c. The City completed construction of the dunes from the Pier to 19th Street in March of this year and updated Committee at their August meeting.
- d. The City is working on landscaping and Strand Promenade elements of Permit #460.

We are applying for an SPA Permit to provide for Phase 2

- e. The City is now applying for a Permit for Phase 2 of our dune restoration project. We expect to begin after the US Army Corps of Engineers (USACE) beach re-nourishment planned to be completed by February 2020
 - i. **We will construct dunes in three areas:**
 1. **Area 1** - South from Chatham Ave to 19th Street, an area where we have experienced severe beach erosion due to storms.
 2. **Area 2** - Mid-Island from approximately south of Center Street to the Eastgate crossover, an area where dunes do not accrete naturally due to long shore current flows.
 3. **Area 3** - Gulick Street where there is an at-grade vehicle access point.
 - ii. **We will add subsurface stabilization at two access points:**
 1. For emergency and DPW vehicles only
 2. At 3rd Street (Mid-island) and Gulick Street (North island), which are currently at-grade vehicle access points
 3. Guardian Retention Systems will install a subsurface stabilization system identical to that used on 19th Street.

- iii. **We will close two at-grade access points:** Center Street and 2nd Street
- iv. **We will plant native, drought tolerant dune vegetation on the dunes.**
- v. **We will build pedestrian crossovers:**
 - 1. Build new crossovers at public streets (ie. Center, 3rd, 2nd)
 - 2. Build public crossovers to accommodate private streets and traditional access points where multi-family hotels and condominiums have had direct at-grade access to the beach
 - a. To encourage private crossovers where appropriate in response to new dunes at south and mid-Island,
 - b. At locations where several residents and visitors are expected to use them (hotels, condos, private streets)
 - c. Adhere to DNR specifications
 - d. Discourage pedestrian pathways on dunes where foot traffic is expected to be heavy.
- vi. **We will install associated landscaping and landward improvements:**
 - 1. Provide easier access between public crossovers to encourage use of public crossovers
 - 2. Provide pedestrian access at "The Turn" from 1st Street to Butler Ave
 - a. Commercial Gateway to the city but currently has no direct access to and from the beach
 - b. Enhance the small green space (the "Anchor")
 - 3. Install new trash receptacles and renovate existing trash receptacles at public street crossovers
- vii. **The size of the proposed impact area is approximately 317,000 square feet or 7.3 acres.**
- viii. **Approximately 95% of the total project will remain naturally vegetated and topographic condition**

2. Description of Alternatives Considered

a. The City's plan for dune restoration considers the entire length of the ocean side of the island.

- i. Phase 1 was the south-end commercial district.
- ii. Phase 2 is the very south of the island not impacted by Phase 1, the middle of the island, and the at-grade access point on the north-end.

b. Alternatives considered to our plan were:

i. Do nothing

1. Doing nothing will not address the identified weak points of the dune system
2. Does not address the flooding and other storm related damage experienced over the past three years with Hurricanes Mathew, Irma, Florence, and Michael.
3. This Permit request is a continuation of and completely aligned with the execution of Permit #460.

ii. Do less at this time, resulting in a smaller impact area

1. We are taking advantage of the USACE beach re-nourishment to obtain sand more economically
2. USACE had originally designed the dunes in these areas as part of their beach re-nourishment
3. USACE has now declined to build the dunes so the City is taking advantage of this unique opportunity.

3. Landfill/Hazardous Waste Statement – The site is not over a hazardous waste site or landfill.

4. Public Interest Statement

- a. No harmful, increased alteration of the dynamic dune field or submerged lands, or function of the sand-sharing system will be created. In fact, this Phase 2 of our project serves to restore and protect the dune field and is expected to be an integral part of the sand-sharing system.
- b. The granting of this Permit and the completion of our proposal will not interfere with the conservation of marine life, wildlife, or other resources. The City will construct the dunes prior to the May 1st beginning of Turtle Season.
- c. The granting of this Permit and the completion of our proposal will not interfere with access by and recreational use and enjoyment of public properties impacted by the project. The City's proposal will enhance the access and recreational use and enjoyment of the beach by adding protection of life and property from storm events and by adding and improving access to the beach.

Drawings of the Proposed Project:

All drawings should be:

- a. Submitted on a registered survey or on the recorded plat of the property
- b. Submitted on 11" X 17" (if needed to see details clearly), leave a 1" margin on the long side of each page for binding purposes
- c. Drawn to scale. Include a bar scale or other graphic scale and a North arrow.

Site plans should depict:

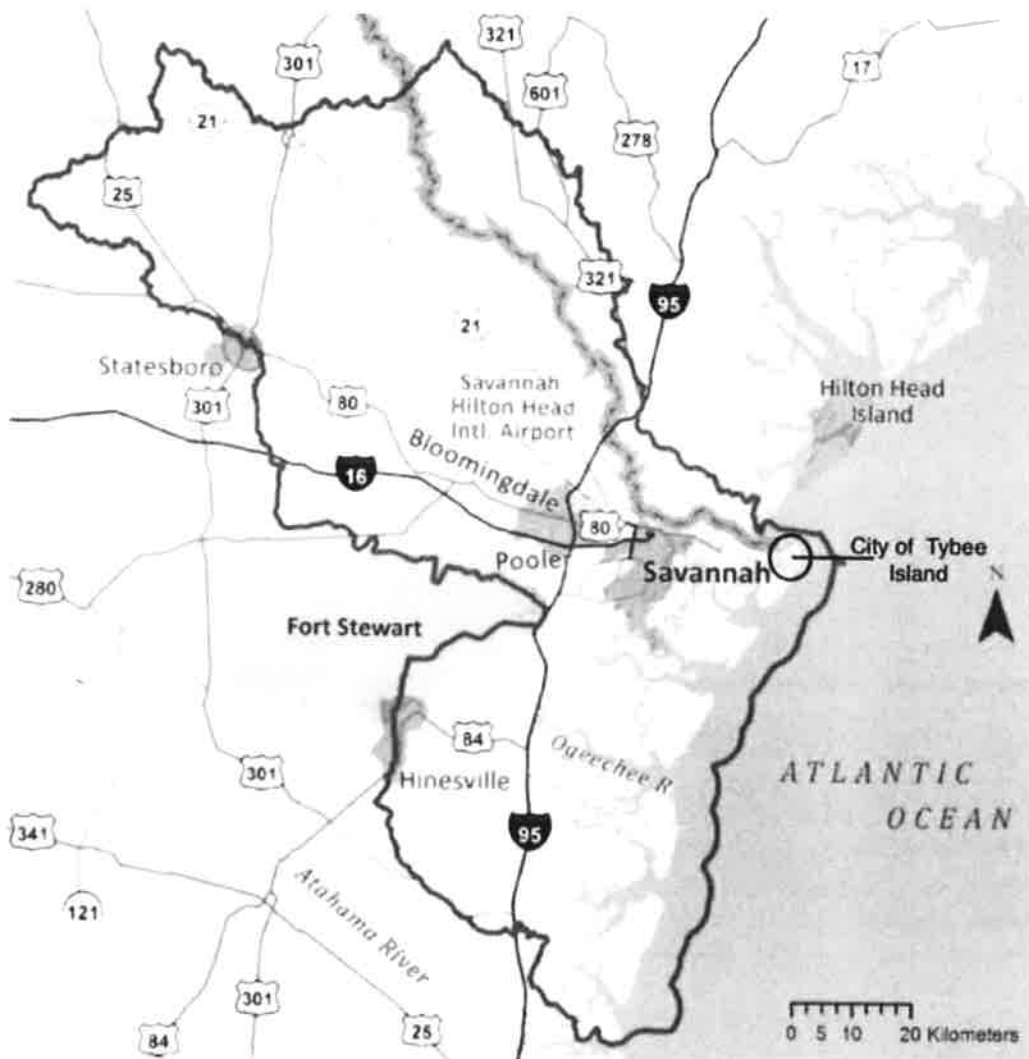
- a. Existing and proposed features, including streets, utilities, structures, boardwalks, etc.
- b. Any applicable local government building setbacks in the project area
- c. Erosion control devices, significant natural vegetation, landscaping, topographical features, significant drainage patterns
- d. DNR Shore Jurisdiction Line (DNR staff must verify the Shore Jurisdiction Line and this line must be surveyed in by a registered surveyor), the ordinary high and low waterlines and the toe of the dune.
- e. Dimensions of the structure/project
 - i. Dunes – see attached
 - ii. Pedestrian Crossovers
 1. All crossovers built to standard DNR specifications
 2. Center Street: 200' x 6' = 1200 SF
 3. 3rd Street: 200' x 6' = 1200 SF
 4. 2nd Street: 200' x 6' = 1200 SF
 5. Anchor Park (1st Street): 500' x 6' = 3000 SF
 6. 2 Public Crossovers seaward of private streets: each 200' x 6' = 1200 each x two crossovers = 2400 SF
- f. Square footage calculations will be helpful in understanding the proposal – see attached
- g. Distance of the project into the waterway and to the navigable channel. Label existing structures in the navigable waters near the proposed activity. Not applicable
- h. A Section/Elevation View should show a cross-section view of the project using the same water elevations as the Site Plan – see attached.
- i. Also show the depth of water at the water-ward face of the proposed project, the dimensions and names of structures supported on floats or piles, the distance between pilings, the number of pilings, types of materials used and construction techniques – not applicable

City of Tybee Island Shore Protection Act Permit Application
August 9, 2019

Deed or Other Instrument of Title or Permission and Property Plat: Not applicable as the City is the Applicant

Vicinity Map and Directions to the Project Site:

Include a vicinity map that shows the location of the project, latitude and longitude, name of waterway, distance to nearest town or interstate highway, and a "north" arrow. Please provide driving directions to your project site.



Adjoining Property Owners

On a copy of the plat, please show the names and addresses of adjacent property owners (include owners across the waterway).

Zoning Letter and Signed Drawings from Local Government

Have your plans reviewed by the local government and submit:

1. a letter from the local zoning authority stating that this proposal does not violate any zoning laws. This letter must be specific to the project and cannot be conditional in any way – see attached.

2. a copy of the most current version of your plans, signed and dated by the local zoning authority. If the project is redesigned, the zoning authority must sign the latest plans. This ensures that there will be no confusion about which "version" of the project was approved. Not applicable as the City is the Applicant

Certification that Project Meets Hurricane Design Standards

Have your project engineer or architect certify that the project has been designed to meet applicable hurricane-resistant building standards. Your project engineer or architect must be registered and licensed in the state of Georgia. – see attached.

Barreiro, Deb

From: Alan Robertson <arobertson@cityoftybee.org>
Sent: Sunday, September 01, 2019 1:11 PM
To: Barreiro, Deb
Cc: Shawn Gillen; Peter Gulbranson; Daniel Carpenter
Subject: Fw: SPA Permit Application for Phase 2 of our Dune Restoration Project - Addendum
Attachments: SPA Phase 2 Final Application Signed Documents and Presentation 080919.pdf

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Deb,

Please accept this addendum to the City of Tybee Island's Permit Application attached.

Upon reflection, we want to highlight the benefits of this project to marine and other wildlife, as outlined in O.C.G.A. § 12-5-239, paragraph (i)(2):

(i) In passing upon the application for a permit, the permit-issuing authority shall consider the public interest which for purposes of this part shall be deemed to be the following considerations:

(1) Whether or not unreasonably harmful, increased alteration of the dynamic dune field or submerged lands, or function of the sand-sharing system will be created;

(2) Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with the conservation of marine life, wildlife, or other resources; and

(3) Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with reasonable access by and recreational use and enjoyment of public properties impacted by the project.

In our application we noted the improvement this project will make to the function of the sand-sharing system in the dynamic dune field by creating a dune in that area of the island where the long-shore currents inhibit natural dune growth: from south of Center Street to Eastgate. We also pointed out that this project will not interfere with reasonable access by and recreational use and enjoyment of public properties. In fact, we intend to improve access and recreational use in the center of the island by adding a pedestrian crossover and improving Anchor Park.

However, we did not specifically address (i)(2). This project will not interfere with the conservation of marine life, wildlife, or other resources. On the contrary, we expect it will improve the habitat for sea turtles by providing dunes in an area of the beach where historically there have been none, and so turtles have not nested in this area. We are hopeful the addition of dunes will support sea turtle nesting in an improved habitat.

RECEIVED

Thank you for your consideration,

GA DNR / HMP
1

RECEIVED
SEP 01 2019
GA DNR / HMP

MAYOR
Jason Buelterman

CITY COUNCIL
Barry Brown, Mayor Pro Tem
Wanda Doyle
John Branigin
Monty Parks
Julie Livingston
Shirley Sessions



CITY MANAGER
Shawn Gillen

CITY CLERK
Janet LeViner

CITY ATTORNEY
Edward M. Hughes

CITY OF TYBEE ISLAND

August 9, 2019

Mr. Karl Burgess
GA Dept. of Natural Resources, Coastal Resources Division
One Conservation Way, Suite 300
Brunswick, GA 31520

Re: Tybee dune restoration Phase 2: Chatham Ave to 19th Street, Center Street to Eastgate, and at Gulick, with stabilized dunes to accommodate emergency vehicle and city vehicles at 3rd Street and Gulick Street, with associated vegetation, landscaping, pedestrian crossover construction, and other improvements landward of the impact area
Tybee Island, GA 31328

Dear Mr. Burgess:

The City of Tybee Island is requesting to continue the work we have completed under SPA Permit #460 with Phase 2 of our dune restoration: restoring dunes from Chatham Ave to 19th Street, Center Street to Eastgate, and at Gulick; adding subsurface stabilization to the dune at 3rd Street and Gulick Street to accommodate emergency vehicle and city vehicles; closing at-grade access at Center and 2nd Streets; with associated vegetation, landscaping, pedestrian crossover construction, and other improvements landward of the impact area.

This project does not violate any of the ordinances of The City of Tybee Island.

Sincerely,

George Shaw
Community Development Director

Cc: Alan Robertson

DAVIS ENGINEERING, INC.
PO Box 1663 Tybee Island, GA 31328
Tel. (912) 695-7262 dkdbus@gmail.com

August 19, 2019

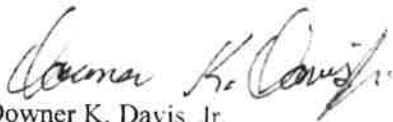
Georgia Department of Natural Resources / Coastal Resources Division
1 Conservation Way
Brunswick, GA 31520

Attn: Directors and Staff:

I have reviewed the updated Tybee Island Dune Restoration 2019 package to be presented to the State on October 25th. Based on my observations and experience and to the best of my knowledge, information and belief, the design improves Tybee Island's resistance to hurricane damage. Additionally, I find the design to be practical and an improvement to the existing dune system.

If you need any additional information, please advise.

Sincerely,


Downer K. Davis, Jr.
President



TYBdune_engineer certification



COASTAL RESOURCES DIVISION
ONE CONSERVATION WAY • BRUNSWICK, GA 31520 • 912.264.7218
COASTALGADNR.ORG

MARK WILLIAMS
COMMISSIONER

DOUG HAYMANS
DIRECTOR

September 6, 2019

Alan Robertson
City of Tybee Island
P.O. Box 2749
Tybee Island, Georgia 31328

Re: Letter of Permission (LOP) for Hurricane Dorian Temporary Activities in the State's Shore Protection Act Jurisdiction, Tybee Island, Atlantic Ocean, Chatham County, Georgia.

Dear Mr. Robertson:

This Letter of Permission is in response to your request dated September 1, 2019 for emergency placement of sand, sand bags and/or jersey barriers on the beach at Tybee Island as illustrated in the attached project description. The project will begin immediately as there is a public safety concern.

The proposed project includes the placement of materials at as many as ten (10) locations on Tybee Island. As proposed, the project will include the placement of beach quality sand from an approved upland source. Additionally, the project areas may or may not include the use of jersey barriers. This request includes the use of heavy equipment including dump trucks, front end loaders and other necessary machinery in the State's SPA jurisdiction. The project is in response to Hurricane Dorian.

The Department authorizes the placement of the pre-approved beach quality sand on the beach, the temporary placement of jersey barriers, and the temporary activities associated with the project as depicted in the attached description and location map. No unauthorized equipment, materials, or debris may be placed in, disposed of, or stored in jurisdictional areas.

Department staff will need to be notified upon completion of the temporary activities in order to perform a site visit. Any modification or enhancement of any structures, outside the footprint of the pre-storm conditions, will require review and possibly additional authorizations from the Department or the Shore Protection Committee. The jersey barriers will be removed in coordination with the commencement of the City of Tybee Island's proposed dune restoration project.

Since these activities will occur during the period of May 1st to October 31st, all areas must be surveyed daily by a person in possession of a DNR Sea Turtle Cooperators Permit prior to commencement of any activities. If a nesting site is located, nests must be marked and avoided.

This LOP is not meant to exempt the above referenced activities from future environmental laws. **No unauthorized equipment, materials or debris may be placed, disposed of, or stored in jurisdictional areas.** Any incidental impacts associated with this project must be rectified by fully restoring areas to their pre-construction topographic and vegetative states. This LOP is valid for the above referenced projects.

If you have any further questions or concerns in regard to this or any other project, please feel free to contact Deb Barreiro at (912) 266.3695.

Sincerely,



Jill Andrews
Chief, Coastal Management Section

Enclosures: Project Description and Project Plan

cc: Mark Dodd GADNR WRD Nongame

George Shaw
P.O. Box 2749
403 Butler Avenue
Tybee Island, Georgia 31328

Mr. Gillen
City of Tybee Island
P.O. Box 2749
Tybee Island, GA 31328

LOP20190131

This document details the series of events on Tybee Island through September 5, 2019. History illustrates the City of Tybee Island's (COTI) commitment to creating a dune field that will enhance public safety in the event of a Hurricane. Their process included identifying areas of concerns based on past flooding events, permitting the creation of dunes in areas where the flooding occurred and an emergency response based on current conditions. The target areas identified included vehicular access points to the beach, as well as locations devoid of dune fields. Their projects were designed to enhance resiliency by creating dune fields that would minimize chronic flooding for the island's residents & beachfront business community.

History (Pre-Hurricane Dorian)

Hurricane Matthew October 8, 2016

- COTI experienced flooding of residential & commercial properties



2nd Street vehicular access flooded during storm surge

Hurricane Irma September 11, 2017

- COTI experienced flooding of residential & commercial properties



COTI 16th Street: storm surge flooding overtopped deflated dune field seaward of parking lot in commercial district

SPA Committee Permit #460 issued March 30 2018

- Authorized the placement of 20,00 cubic yards of sand, modification of two vehicular access points and improvements to the pedestrian promenade

Florence SPA LOP

- dated 9/11/18 requesting authorization for placement of sandbags at 2nd, 3rd & Gulick

Monday August 26, 2019

- City of Tybee Island (COTI) hosts NOAA & CRD to discuss SPC 460 and visit project area

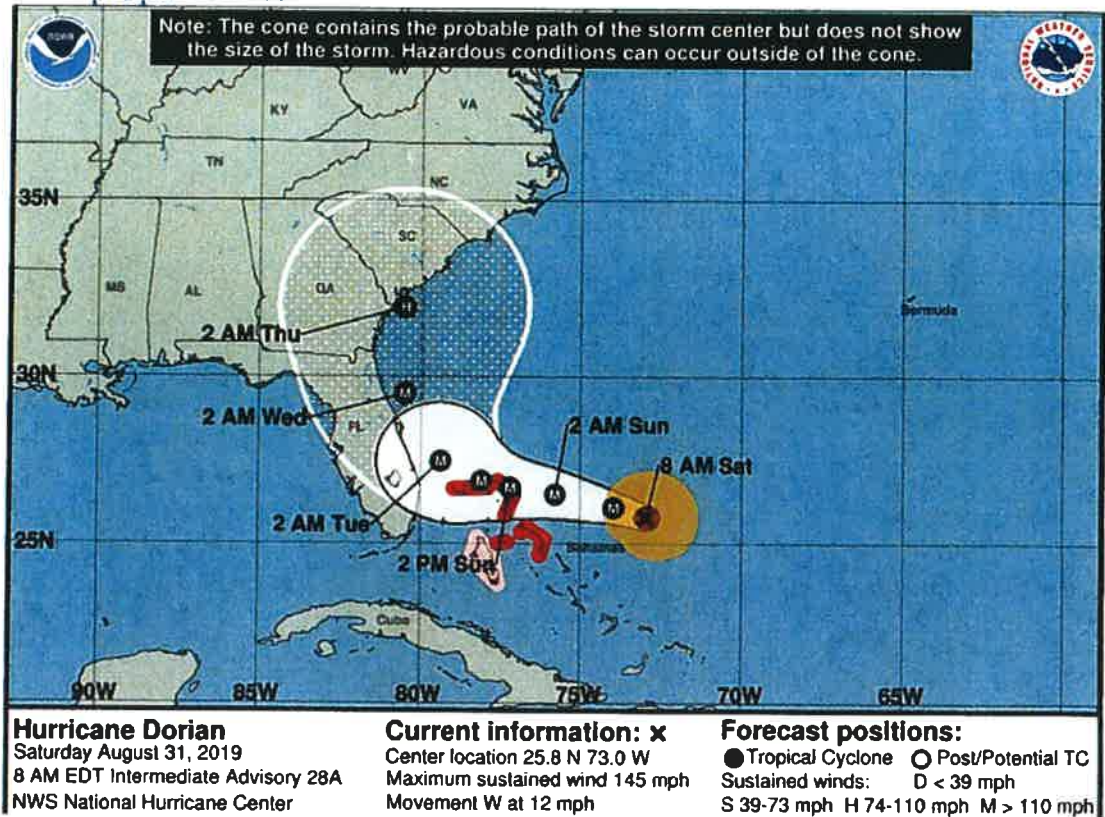
Hurricane Dorian Timeline (Pre-storm)

Friday August 29, 2019

- NHC issues 5am update and includes south Georgia within the Cone of Uncertainty for first time in storm's history
- Kemp declares State of Emergency fo coastal Georgia ahead of Hurricane Dorian

Saturday August 31, 2019

- Discussion with City of Tybee Island (COTI) officials to review storm preparedness



Sunday September 1, 2019

- Site visit to 16th Street, 18th Street, 19th Street, 2nd Street, 3rd Street and Center Street
- COTI officially submit an LOP request for emergency placement of sand and barriers on beach at 2nd, 3rd, & Center and the placement of sand at 16th Street and Gulick Street;
- COTI provides timeframe for executing proposed activities in SPA jurisdiction
- Work commences by COTI Department of Public Works (DPW) at 3rd Street & Center Street (includes the use of heavy equipment in SPA jurisdiction for the placement of water filled barriers wrapped in plastic and covered with beach quality sand)
- Governor Kemp issues mandatory evacuation orders for coastal GA



CRD staff with City of Tybee Engineer Pete Golbronson, Fire Chief Jason Patterson and City Manager Shawn Gillen



19th looking north at low tide



19th looking north at high tide



19th looking north at high tide



3rd Street vehicular access around low tide



3rd Street



3rd Street



3rd Street



3rd Street



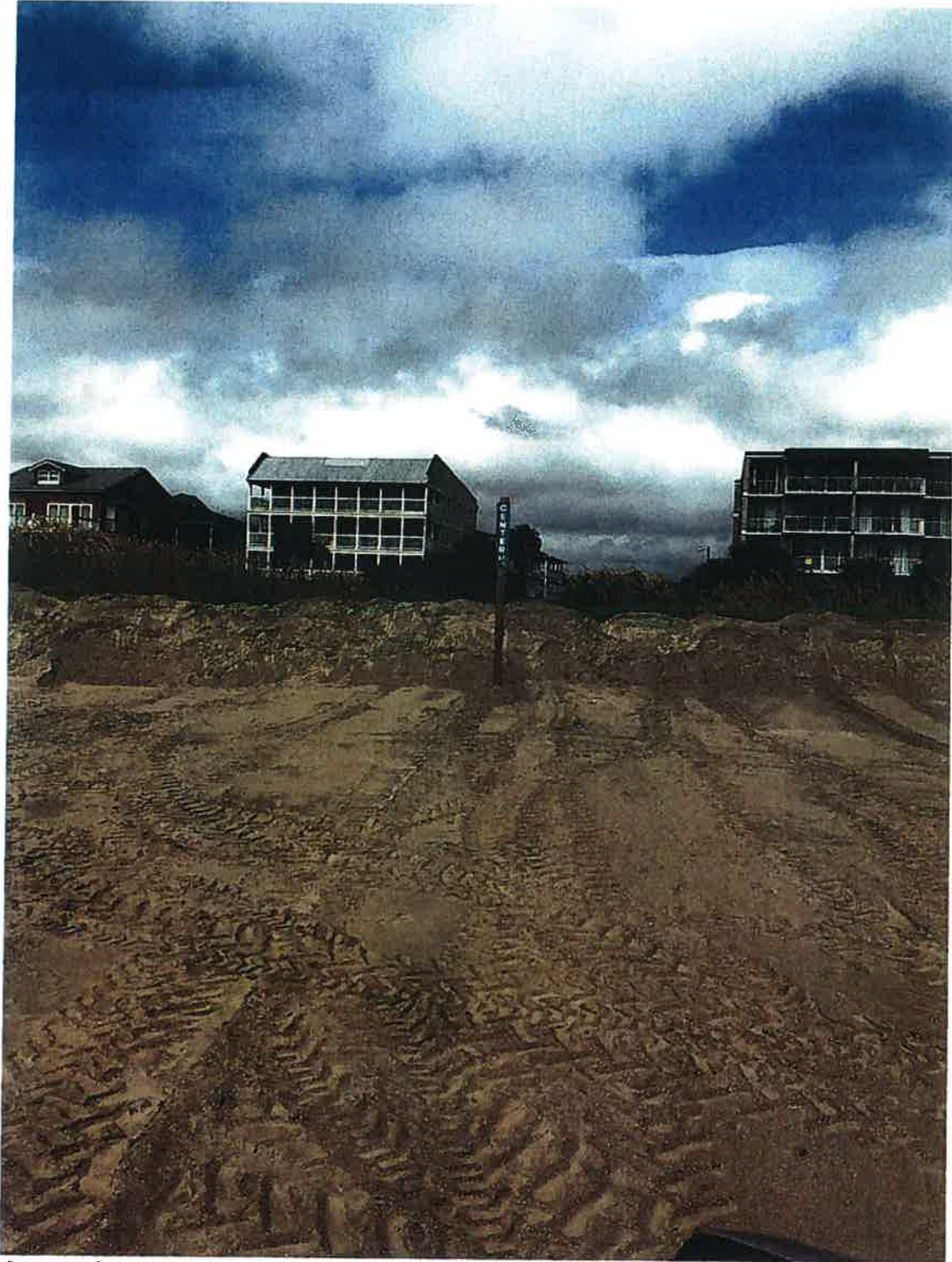
3rd Street



3rd Street



Center Street



Center Street

Monday September 2, 2019

- COTI DPW completes Center Street, 3rd Street, & Gulick Street
- COTI commences with 2nd Street
- NHC issues Hurricane Watch for entire Georgia coast



Center Street



3rd Street



3rd Street



Gulick Street



2nd Street

Tuesday September 3, 2019

- COTI DPW completes 2nd Street
- COTI DPW removes existing dune crossover at 16th Street
- COTI completes 16th Street (dune elevation now consistent with existing dunes authorized under SPA 460)
- Hurricane Warning issued for GA coast north of Altamaha
- Tropical Storm Warning issued for GA coast south of Altamaha
- Hurricane Watch still in effect for south GA counties
- GADOT begins I-16 contraflow



2nd Street



16th Street



16th Street



16th Street



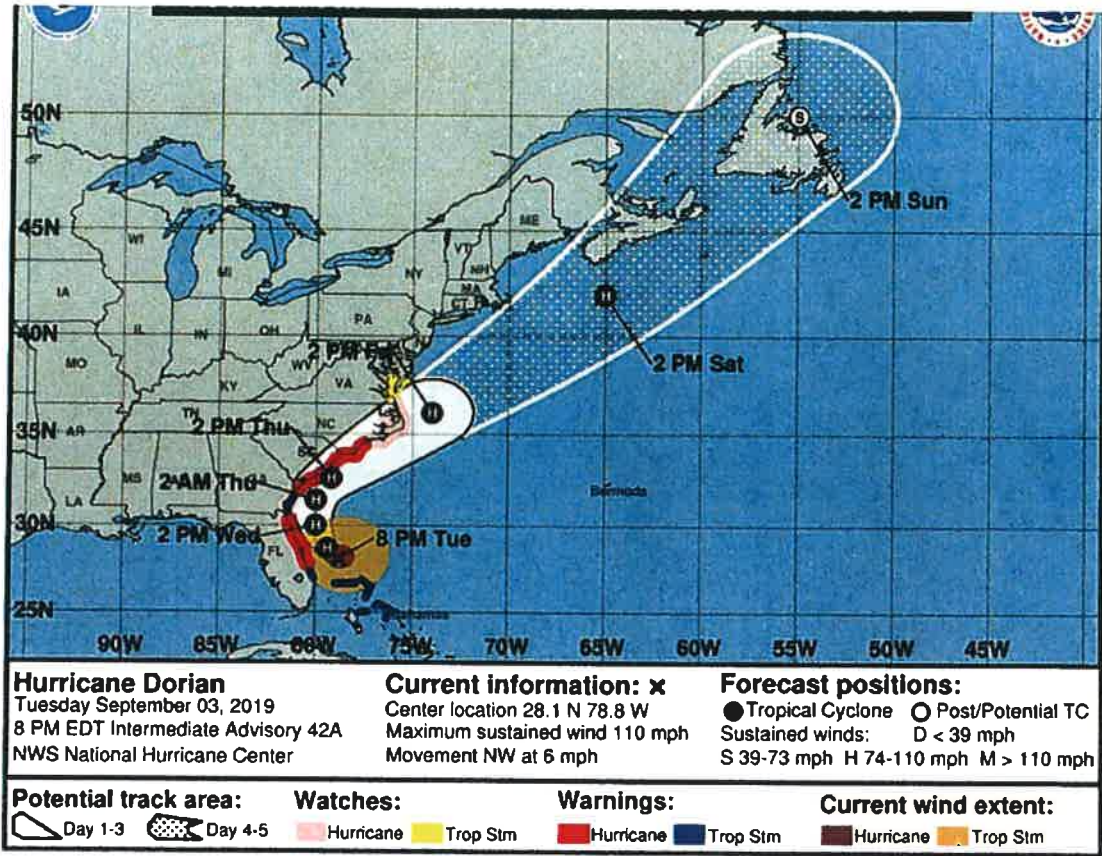
16th Street



16th Street

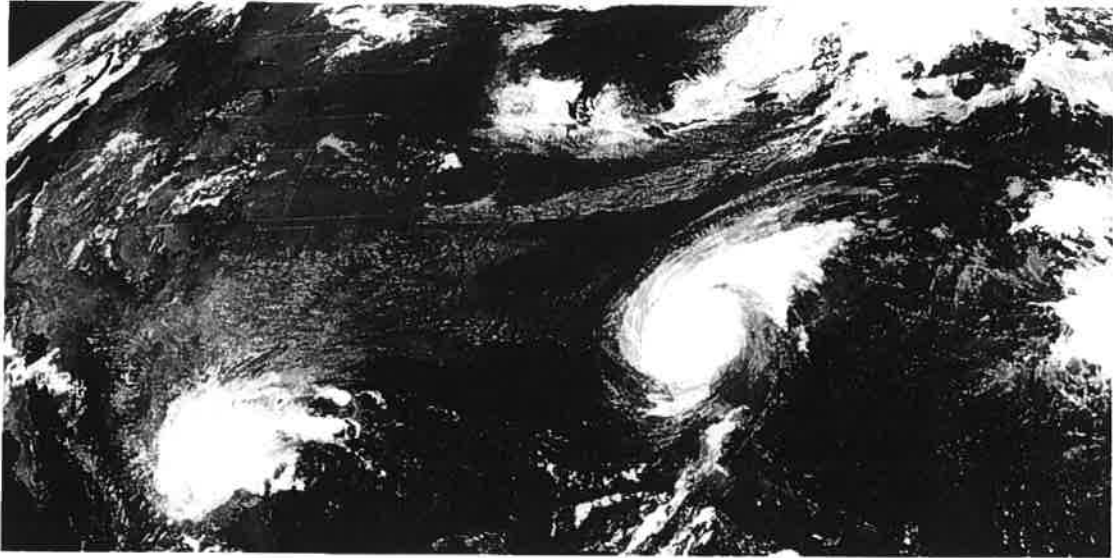


16th Street



Wednesday September 4, 2019

- Hurricane Dorian off GA coast
- NHC track has Dorian as a category 3 hurricane

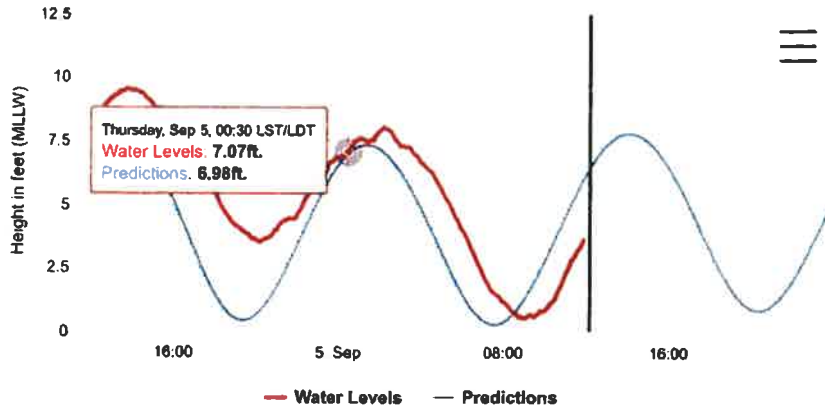


Thursday September 5, 2019

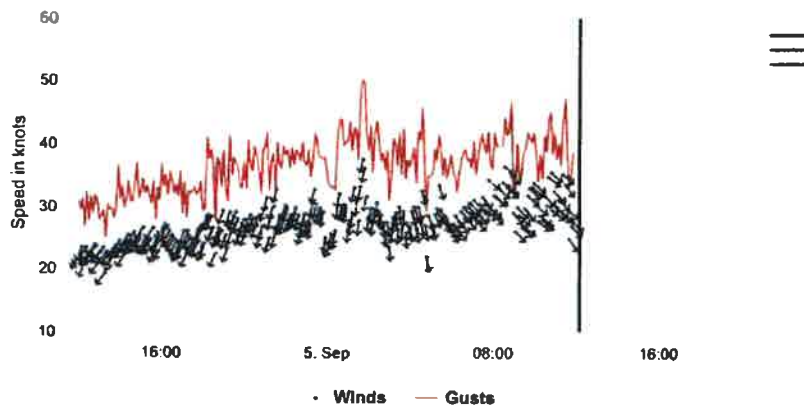
- Hurricane Dorian is east of Tybee at approximately 6:30 am
- Storm surge coincides with low tide then follows with a favorable shift in wind direction to help avoid flooding

Water Levels
3.62
ft.

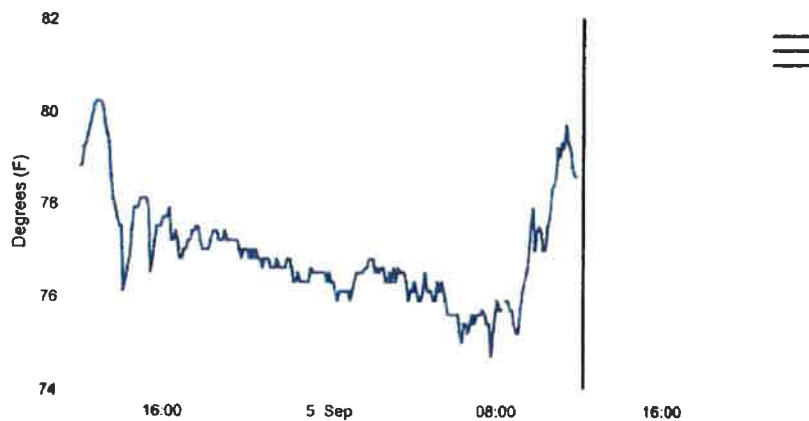
MLLW
as of 09/05/2019
11:54 LST/LDT



Winds
27.6kn.
from NW
as of 09/05/2019
11:54 LST/LDT



Air Temp
78.6°F
as of 09/05/2019
11:54 LST/LDT



Water Temp



September 10, 2018

Ms. Deb Barreiro
Department of Natural Resources
185 Richard Davis Drive, Suite 104
Richmond Hill, GA 31324

Dear Ms Barreiro:

The City of Tybee Island requests an authorization from the Department of Natural Resources (DNR) to place sand bags at critical weak points in the dune system in advance of Hurricane Florence.

The goal is to reduce the imminent risk of flooding associated with storm surge created by the storm, and so protect residents and businesses. We will close the at-grade access points, strengthen those sections of dunes weakened previously by Hurricanes Mathew and Irma, and protect that part of the shoreline between 2nd Avenue and Eastgate, the nodal point of the Island and lacking any significant natural dune creation,

Permasield bags made of polypropylene woven fabric (see attached specification sheet) will be filled with beach quality sand obtained from an upland source (to be identified) and certified to comply with DNR practices prior to placement in the Shore Protection Act Jurisdiction.

Each bag is 72" high x 84" wide at the base and 24" wide at the top opening. Individual bags will be connected to span the length required at each site. These are the same bags approved under SPA Permit #460, April 11, 2018 for our use in the restoration of the 19th Street dune. In the case of emergency storm placement they will not be covered with sand.

Guardian will place the bags using dump trucks, back end loaders, skid steer loaders, rubber tire loaders, hand shovels, and vibratory smooth drum rollers. They will access the beach at 19th Street, 3rd Street, and Gulick Street access points. It is anticipated that the project can be accomplished within 3-4 days. Total estimated sand placed on the beach is up to approximately 3100 cubic yards.

Specifically, bagged sand will be placed in the following footprint:

18th Street – approximately 170 linear feet at 6 feet high, directly in front of the seaward side of the existing closed off pedestrian crossover (Estimate 200 cubic yards of sand).

Tybrisa Street – approximately 620 linear feet at 6 feet high, extending from an existing dune just north of 17th Street, extending under the Pier Pavilion, to the dune field South of the 15th ½ Street crossover (Estimate 700 cubic yards of sand).

Center Street - at the most landward existing dunes, approximately 40 linear feet at 6 feet high (Estimate 50 cubic yards of sand).

3rd Street – approximately 50 linear feet between the existing dunes on the landward side of 3rd Street at 6 feet high (Estimate 60 cubic yards of sand).

2nd Street – approximately 50 linear feet between the existing dunes on the landward side of 2nd Street at 6 feet high (Estimate 60 cubic yards of sand).

2nd Street to just North of the turn at Butler (past the anchor) – beginning just North of 2nd Street and extending approximately 975 feet then turning westward for approximately 140 linear feet to tie into existing dunes, all at 6 feet high. This is the nodal point of the shoreline where dunes do not accrete naturally due to the long-shore currents and the existing seawall (Estimate 1250 cubic yards of sand).

Gulick Street – approximately 150 linear feet at 6 feet high, in the gap within the existing dune field (Estimate 480 cubic yards of sand).

Alley 3 – approximately 50 linear feet at 6 feet high, in the gap within the existing dune field (Estimate 60 cubic yards of sand).

Inlet – approximately 50 linear feet at 6 feet high, in the gap within the existing dune field (Estimate 60 cubic yards of sand).

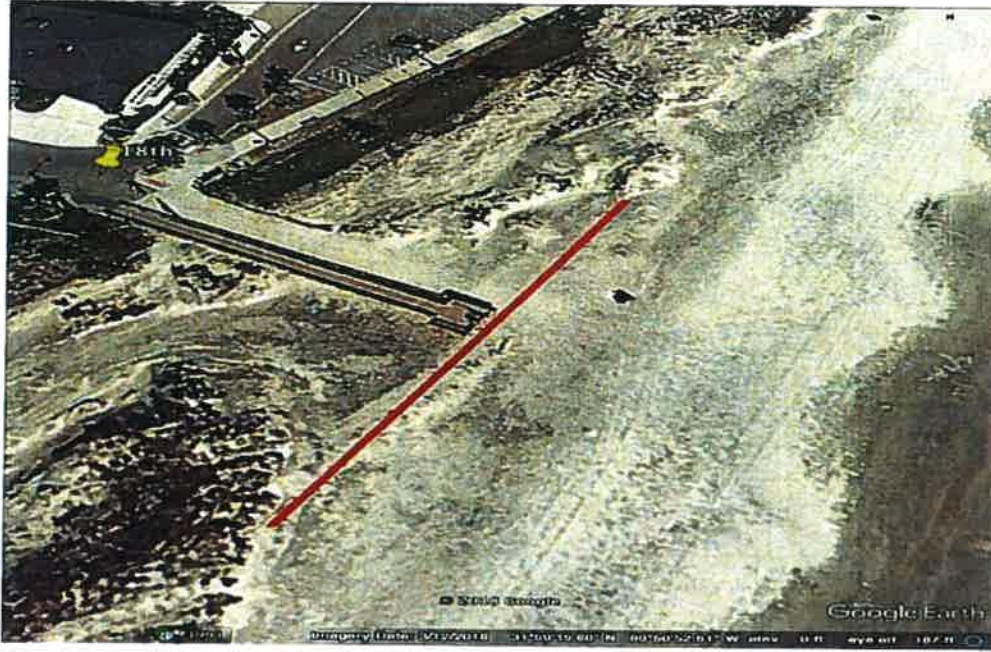
Respectfully submitted,

George Shaw

Director of Development
City of Tybee Island

Cc: Karl Burgess

18th Street



Tybrisa Street



Center Street



3rd Street



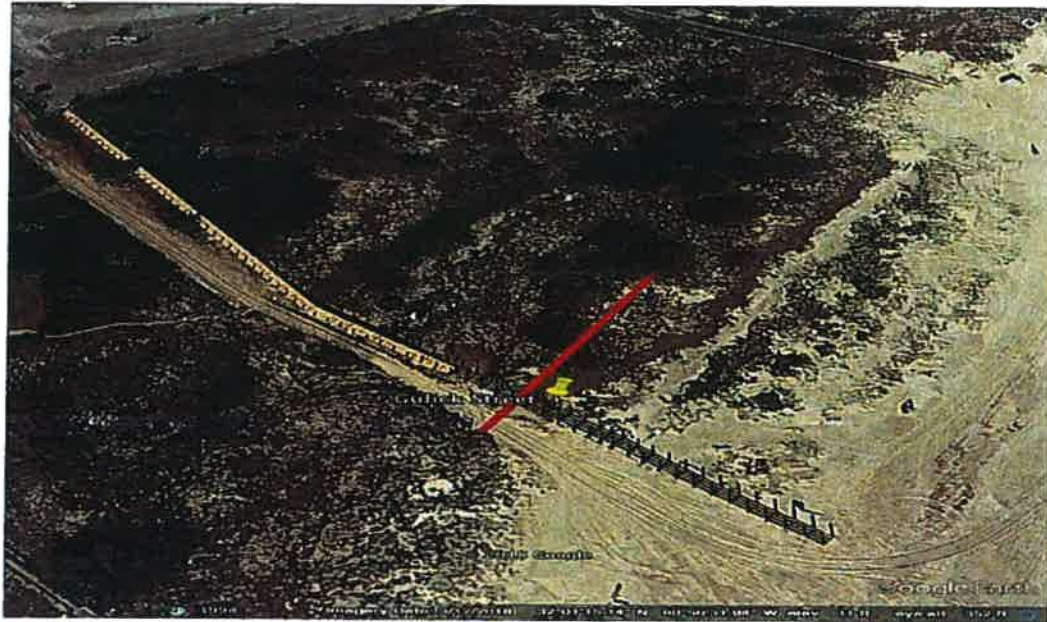
2nd Street



2nd to Eastgate



Gulick Street



Alley 3



Inlet



Emergency Bag Specification

GRS POLYPROPYLENE WOVEN FABRIC BAG SEGMENT

SCALE: NTS
WALL DIMENSIONS (IN)

NOTES

1. OVER 100' BAG CELL NO. IS HEAVY GAUGE (400' x 100' x 3) WITH GUTTERS ON ALL SIDES.
2. OVER 100' BAG CELL NO. IS HEAVY (200' x 100' x 3) WITH GUTTERS ON LONG SIDE AND 100' BAG CELL NO. IS HEAVY (100' x 100' x 3) WITH GUTTERS ON LONG SIDE.
3. BAGS IN 100' BAG CELL NO. SHOULD BE 100' x 100' x 3. BAGS IN 200' BAG CELL NO. SHOULD BE 200' x 100' x 3. BAGS IN 400' BAG CELL NO. SHOULD BE 400' x 100' x 3.
4. THE BAGS SHALL BE MADE BY WOVING POLYPROPYLENE FABRIC.

DESIGN SPECIFICATIONS

1. GRS GUTTER BAGS ARE AVAILABLE IN 10' SPACING. EACH SECTION WHEN COILED WITH THE BAGGING SECTION BY SECTION OR UNCOILED SHALL COVER 10' x 10' x 3' AREA BY WELDED STITCH AND GUTTERS.
2. THE BAGS SHOWN HEREIN ARE COILED GUTTED WITH HEAVY POLYPROPYLENE FABRIC AND FILLED WITH WETTED SAND. IF SAND IS NOT AVAILABLE, BUT DEPENDING ON THE GUTTER BAGS MAY BE FILLED WITH COARSE GRAVEL UP TO 1/4" SIZE.
3. EACH 10' SECTION INCLUDES 25' x 3' AND INTERLOCKING CELLS AND 1' x 1' MANHOLE CONNECTION.
4. DIMENSIONS SHOWN AND PUNCTURE STRENGTH FROM 10' x 10' x 3' TO 400' x 100' x 3'.

PHYSICAL CHARACTERISTICS OF GRS UNITS			
SECTION	HGT. (IN)	BOTTOM WID. (IN)	TOP OPENING (IN)
1	24"	48"	24"
2	24"	48"	24"
3	24"	48"	24"
4	24"	48"	24"

PRECISION

GRS GUARDIAN
RETENTION SYSTEMS

A-3

GRS PRODUCT: 02/2012

Amendment (09-10-18 1:20pm)

This is to amend the original emergency sand bagging plan.

With Hurricane Florence potentially threatening the area Thursday, we have run out of time to institute the emergency sand bagging plan using Guardian.

Should the hurricane move south between now and Thursday, such that an emergency is declared on Tybee Island, we request DNR approval for the City to deposit the sand we have staged at the DPW station directly onto the beach, without bags, using front-end loaders and dump trucks, at the points described in our emergency plan.

We are making every effort to certify this "staged" sand prior to its use. However, should we not have that accomplished and need to place it on the beach, we respectfully request approval to place the sand and acquire a post-placement certification. Should the sand not meet DNR requirements as to color and granularity, we will remove it immediately following the storm.

Respectfully submitted,

George Shaw

Director of Development
City of Tybee Island

Cc: Karl Burgess
Shawn Gillen
Alan Robertson
Danny Carpenter

Amendment 2 (09-01-19 12:30pm)

This is to amend the original Letter of Permission (LOP) granted September 11, 2018.

With Hurricane Dorian threatening the area later this week, we respectfully request that the LOP currently in place be updated to reflect the combination of placing sand directly, sand in sand bags, and water filled traffic barriers at the crossover points outlined in the original LOP: 18th Street, Tybrisa Street, Center Street, 3rd Street, 2nd Street, Gulick Street, Alley 3, and Inlet. To these, we add 19th Street and 17th Street at this time.

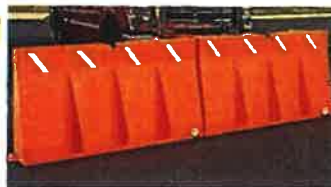
We have approximately 250 cubic yards of DNR certified sand from an upland source stored on the island at the DPW site. We intend to use this sand for placement on the beach, using front-end loaders and dump trucks.

Per our conversations of the past couple of days, we also intend to use the Jersey Barriers outlined below. These will be placed at Center, 2nd, and 3rd Streets, filled with water, covered with a geotextile, and sand will be added to reinforce them. All lengths are approximate.

Sand will be placed at Tybrisa across the pedestrian crossover to raise the height of the dunes at that point. Gulick will remain open as an emergency point of ingress and egress to the beach. Should it be required, Gulick will be closed with sand.

Emergency Deployment - Jersey Barriers

Site	Location	Length (LF)	# of Barriers ¹	Rows
				3
1	Center	60	10	10
2	3rd	60	10	10
3	2nd	60	10	10
4	Gulick	100	17	17
5	Inlet	120	20	20
6	Alley 3	60	10	10
	Total	460	77	77



TRAFFIC BARRIERS

- Protect construction areas and direct traffic flow.
- High-density polyethylene with UV protection.
- Reflective safety strips help drivers in low light conditions.
- Interlocking joints allow user to form a continuous traffic barricade.
- Fill traffic barriers with sand or water for added stability. * If cap, 7' max.

MOORE NO.	DESCRIPTION	SIZES L x W x H	WT EMPTY (lbs)	WT FILLED (lbs)	PRICE EACH	ADD TO CART
U-6881	Traffic Barrier	48 x 16 x 24"	36	964	\$199	\$186
U-6880	Traffic Barrier	72 x 16 x 24"	70	875	399	329

SHIP VIA MOORE REQUEST

¹ Barriers are 6' long x 42" high - fill with water

Respectfully submitted,

Alan W Robertson

**Cc: Shawn Gillen
Pete Gulbranson
Danny Carpenter**