South Carolina Department of Health and Environmental Control
Division of Ocean and Coastal Resource Management
1362 McMillan Avenue, Suite 400
Charleston, South Carolina 29405

April 15, 2015 Permit Application Public Notice

Horizon Project Foundation, Inc., OCRM-15-103-J

The Department has received an application for a permit for the alteration of a critical area. The application was submitted pursuant to the Coastal Zone Management Act (Act 123) of 1977 South Carolina General Assembly. The application in brief, is described as follows:

Location:

On and adjacent to marshes of the Ashley River at Fishburne Street, Lockwood Boulevard& Hagood Avenue, Charleston, Charleston County, South Carolina. TMS: various.

Work:

The work as proposed consists of constructing drainage features. Specifically, the applicant seeks to fill 4.025 acres of critical area with 570° of 54" RCP connecting to 1650° of 5' x 8' box culvert to tie into an existing culvert at Lockwood Boulevard. The proposed drainage structures will be pile supported. The drainage system ultimately drains to the Ashley River. The work as described is for drainage.

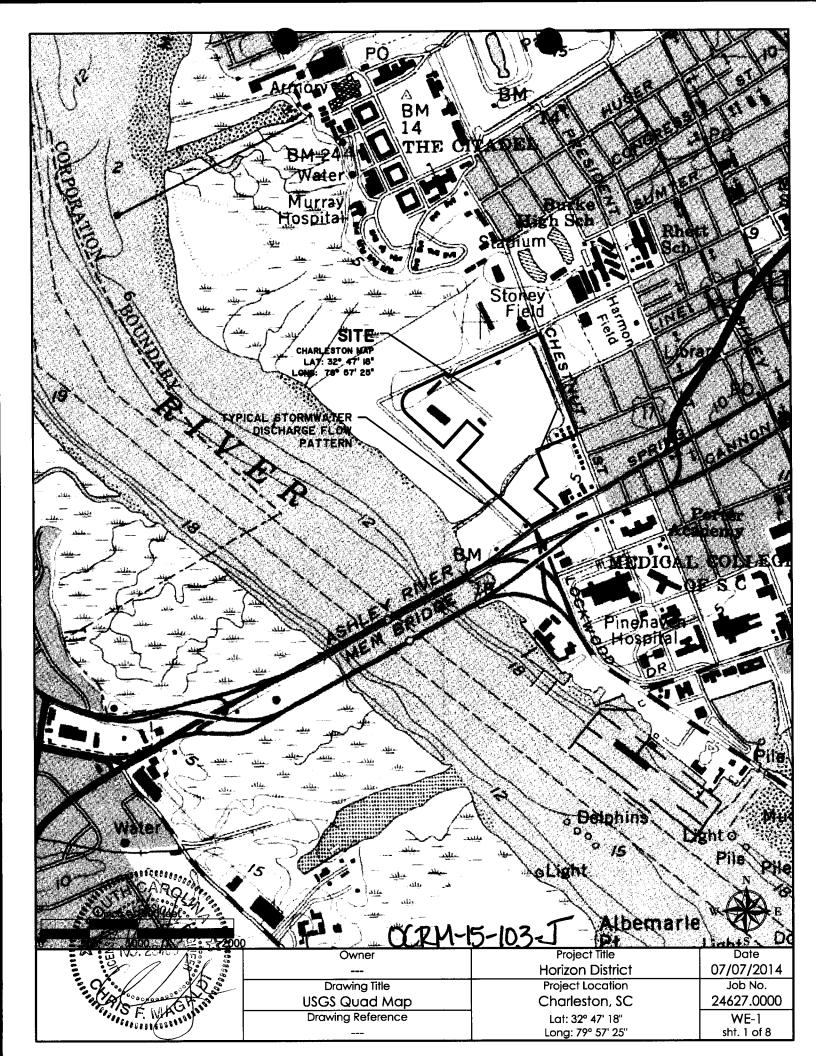
This public notice is being distributed to all known interested persons and agencies to assist in developing facts on which a decision by the Department can be based. Comments concerning the proposed work must be submitted in writing, setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

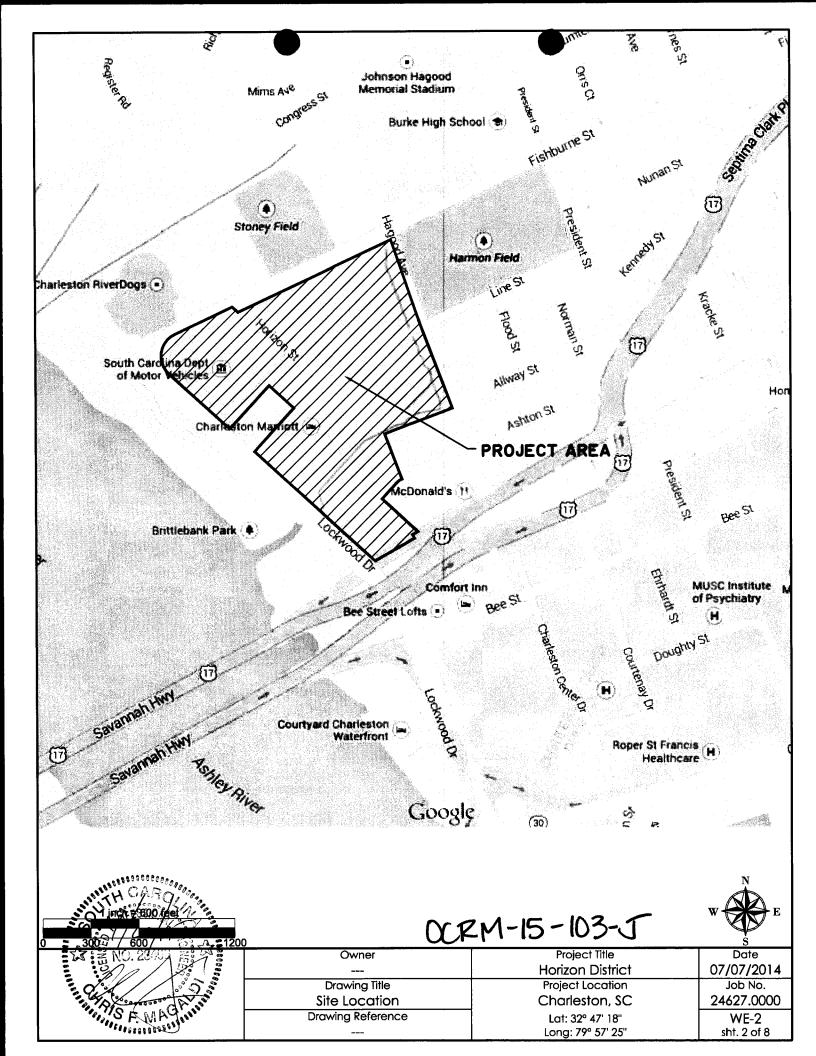
Comments regarding this application must be received by the Department on or before May 15, 2015. For more information, please contact

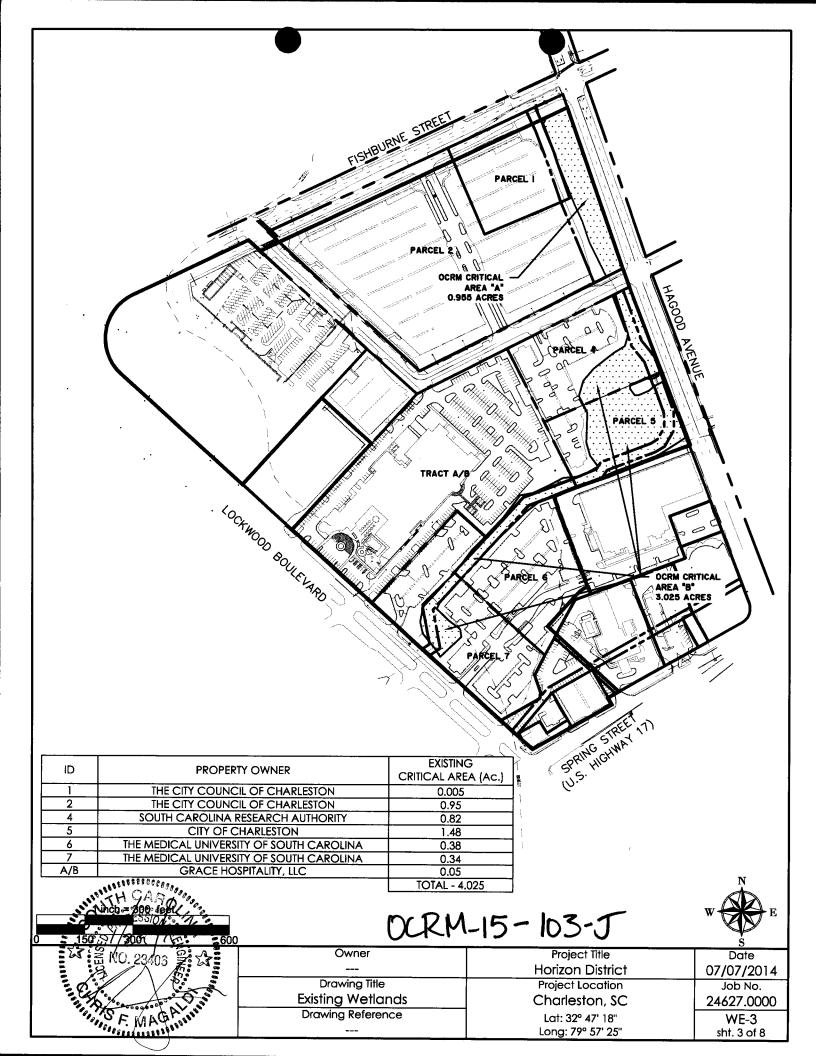
Matt Slagel at 843-953-0250 or via email at slagelmj@dhec.sc.gov.

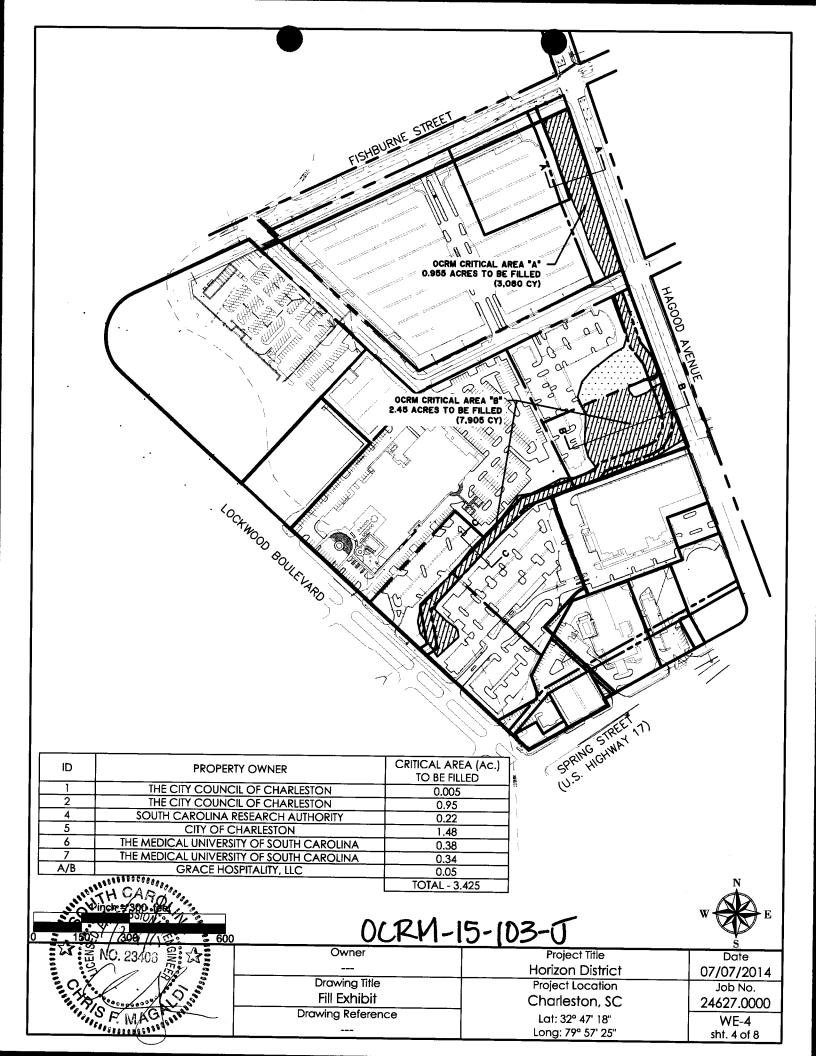
Note:

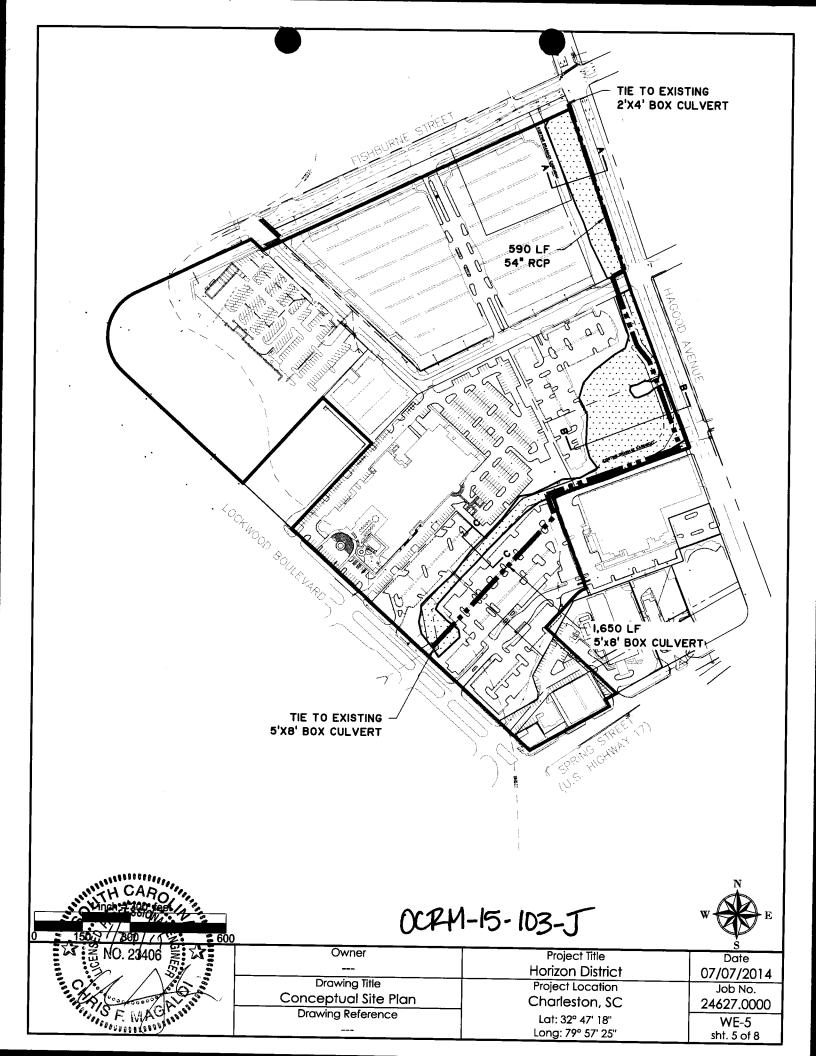
Plans depicting the proposed work are available and will be provided upon receipt of a written request or may be viewed on the Department website at http://www.scdhec.gov/Apps/Environment/PublicNotices

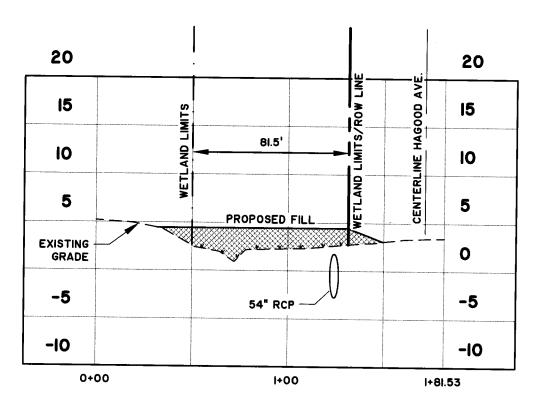










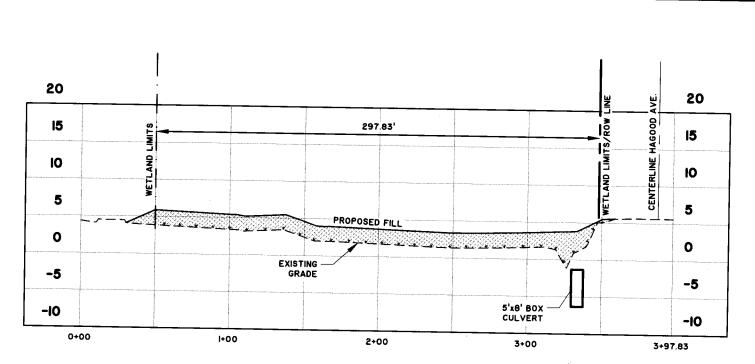


CRITICAL AREA FILL SECTION A

STATIONS: 0+00 - 1+82 SCALE: HORZ.: 1" = 50' VERT.: 1" = 10'

OCRM-15-103	3-J
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MA CONTRACTOR OF THE PARTY OF T	Drawing Title Fill Cross-Section A Drawing Reference	Project Location Charleston, SC Lat: 32° 47' 18" Long: 79° 57' 25"	Job No. 24627.0000 WE-6 sht. 6 of 8

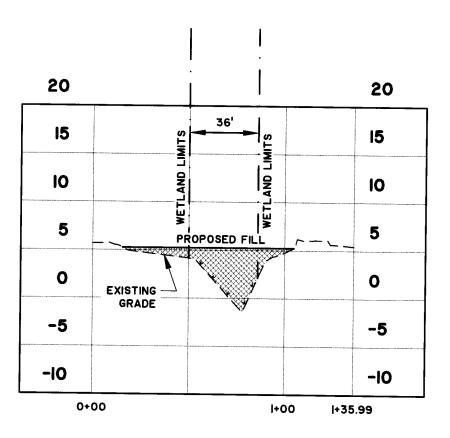


CRITICAL AREA FILL SECTION B

STATIONS: 0+00 - 3+98 SCALE: HORZ.: 1" = 50'

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NO. 28406 NO. Owner	Project Title	Date	
	Horizon District	07/07/2014	
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CRITICAL AREA FILL SECTION C

STATIONS: 0+00 - 1+36 SCALE: HORZ.: 1" = 50' VERT.: 1" = 10'

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OCRM-15-103-J

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NO 22/02 8: 1	Owner	Project Title	Date
23400 8		Horizon District	07/07/2014
	Drawing Title Fill Cross-Section C	Project Location Charleston, SC	Job No. 24627.0000
F MAGARIA	Drawing Reference	Lat: 32° 47' 18" Long: 79° 57' 25"	WE-8
		Long. 77 37 23	sht. 8 of 8

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CHARLESTON OFFICE



PERMIT

S. C. Department of Health and Environmental Control Office of Ocean and Coastal Resource Management Charleston 953-0200 Beaufort 846-9400 Myrtle Beach 238-4528

ROMOTE PROTECT PROSPER	953-0201 (fax) 846-9810(fax) 238-4526(fax)
NAME & MAILING ADDRESS OF APPLICANT (and email address if applicable) NAME AND (If an agent is	MAILING ADDRESS OF AUTHORIZED AGENT: listed, all correspondence will be sent to the agent.)
Horizon Project Foundation, Inc. Chris	Magaldi, P.E.
c/o Michael T. Maher, CEO Thomas	s and Hutton, Eng., Inc.
19 Hagood Avenue Suite 909J 682 J	Johnnie Dodds Blvd
Charleston, SC 29403 Mt. F	Pleasant, SC 29464
PHONE #: (Bus.) 843-958-6493 PHONE #:	(Bus.) <u>843-849-0200 or</u>
(Home)	(Home) 843-725-5233
(Fax)	(Fax) (both office #s)
PIC SUPPRECL DESCRIBE THE DIMENSIONS, GENERAL SPECIFICATIONS, AN	ND PURPO SE OF THE PROJECT:
The project is described as "Maintenance of	of Existing Fill Horizon
District". The Project's dimensions and o	general specifications
are the placement of fill material and a r	
Acceptance and the second seco	
feature resulting in filling approximately wetlands within an area formerly used as	
wetlands within an area formerly used as NAMES AND COMPLETE MAILING ADDRESSES OF ADJOININ owns adjoining property, give name and address for nearest property no	
See attached list	See attached
of adjoining property	narrative for Project
or adjoining property	
owners	<u>purpose and descript</u> io
(Attach additional sheet of paper if necessary.)	
LOCATION OF THE PROJECT (address & directions to the site):	
The parcels comprising the Horizon Distric	ct are located
adjacent to Fisburne St. and Lockwood Blvd	and are bounded by
Hagood Avonuo	
Hagood Avenue.	
hagood Avenue.	COUNTY: Charleston
	COUNTY: Charleston
TAX MAP NUMBER (Required on all applications): see att	cached list in multiple
TAX MAP NUMBER (Required on all applications): see att	cached list in multiple

MARYHOPE MATT SLAGEL

Blair Page 7 Sous to Drocked WIPIN



PERMIT APPLICATION

S. C. Department of Health and Environmental Control
Office of Ocean and Coastal Resource Management
Charleston
953-0200
Beaufort
846-9400
238-4528
953-0201 (fax)
846-9810(fax)
238-4526(fax)

IS ANY PORTION OF ACTIVITY FOR WHICH AUTHORIZATION IS SOUGHT NOW COMPLETE? YES NO X
IF "YES", GIVE REASONS, INCLUDING THE MONTH AND YEAR ACTIVITY WAS COMPLETED. INDICATE EXISTING WORK ON DRAWINGS.
ADDITIONAL REMARKS:
See attached Project Narrative
APPLICATION IS HEREBY MADE FOR A PERMIT OR PERMITS TO AUTHORIZE THE ACTIVITIES DESCRIBED HEREIN. I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS APPLICATION, AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE, COMPLETE, AND ACCURATE. I FURTHER CERTIFY THAT I POSSESS THE AUTHORITY TO UNDERTAKE THE PROPOSED ACTIVITIES OR I AM ACTING AS THE DULY AUTHORIZED AGENT OF THE APPLICANT. Michael T. Maher 2015.01.26_13:22:18-05'00' Date IMPORTANT!! THE APPLICATION MUST BE SIGNED BY THE APPLICANT AND THE AUTHORIZED AGENT (IF AN AGENT HAS BEEN LISTED ON PAGE ONE OF THIS APPLICATION).
The applicant shall permit the SCDHEC Office of Ocean and Coastal Resource Management, the District Engineer, the State Law Enforcement Division, South Carolina Department of Natural Resources, and other State permit inspection agencies, or their representative(s) to make periodic inspection at any time deemed necessary in order to assure that the activity being performed is in accordance with the terms and conditions prescribed herein

RE: Horizon

Magaldi, Christopher < magaldi.c@thomasandhutton.com>

Mon 4/6/2015 9:06 AM

Inbox

To:Trumbull, Mary <trumbumt@dhec.sc.gov>;

Tess, here is the purpose of project you requested:

The previous after-the-fact permit issued in 1971 authorized "an existing fill...in the marsh...covering an area north of US Highway 17 to the Citadel, Charleston County, South Carolina." The permit included a condition that "the permittee will maintain the structure herein approved in good conditions in accordance with the approved plans." The overall project purpose is to conduct activities to maintain the structure as required as a condition of the permit.

Let me know if you need anything else. Thanks.

Chris Magaldi, PE Thomas & Hutton (P) 843-725-5233 (C) 843-749-2721 Website

"Relationships and Solutions for Success"

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From: Trumbull, Mary [mailto:trumbumt@dhec.sc.gov]

Sent: Friday, April 03, 2015 12:17 PM

To: Magaldi, Christopher Subject: Re: Horizon

Hey - Can you give me the narrative for the 'purpose of the project'?

From: Magaldi, Christopher < magaldi.c@thomasandhutton.com >

Sent: Friday, April 3, 2015 11:53 AM

To: Trumbull, Mary Subject: Horizon

Tess,

Per our conversation the 1,650 LF of 5'x8' of box culvert and 590 LF 54" RCP proposed in the Horizon permit application will be piled supported. Please let me know if you have any other questions. Thanks.

Chris Magaldi, PE Thomas & Hutton (P) 843-725-5233 (C) 843-749-2721 Website

"Relationships and Solutions for Success"

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Horizon

Magaldi, Christopher <magaldi.c@thomasandhutton.com>

Fri 4/3/2015 11:53 AM

Inbox

To:Trumbull, Mary <trumbumt@dhec.sc.gov>;

Tess,

Per our conversation the 1,650 LF of 5'x8' of box culvert and 590 LF 54" RCP proposed in the Horizon permit application will be piled supported. Please let me know if you have any other questions. Thanks.

Chris Magaldi, PE Thomas & Hutton (P) 843-725-5233 (C) 843-749-2721 Website

"Relationships and Solutions for Success"

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Tax Map Numbers of Parcels Impacted by Proposed Maintenance Fill

TMS #: 460-00-00-022 Owner: City of Charleston

TMS #: 460-00-00-008 Owner: City of Charleston

TMS #: 460-00-00-023 Owner: City of Charleston

TMS #: 460-00-00-015 Owner: SCRA

TMS #: 460-00-00-021 Owner: Medical University of S. C.

TMS #: 460-00-00-014 Owner: Medical University of S. C.

TMS #: 460-00-00-018 Owner: Grace Hospitality LLC

Adjoining Property Owners

City of Charleston

c/o Laura Cabaniss, P. E.

Public Service Director

75 Calhoun Street

Charleston, S. C. 29401

TMS #: 460-00-00-022 (Fishburne St. and Hagood Ave.)

TMS #: 460-00-00-013 (Fishburne St. and Lockwood Blvd.)

TMS #: 460-00-00-008 (Fishburne St. and Hagood Ave.)

TMS #: 460-00-00-012 (Horizon St.)

TMS #: 460-00-00-023 (Hagood Avenue)

South Carolina Employment Security Commission

Legal Department

P. O. Box 995

Columbia, S. C. 29202-0995

TMS #: 460-00-00-024 (176 Lockwood Blvd.)

Grace Hospitality, LLC

Luke Finlay, CFO

60 Pointe Circle

Greenville, S. C. 29615-3568

TMS #: 460-00-00-018 (170 Lockwood Blvd.)

Medical University of S. C.

P. O. Box 250205

Charleston, S. C. 29452-0205

TMS #: 460-00-00-021 (Lockwood Blvd.) TMS #: 460-00-00-014 (Lockwood Blvd.) TMS #: 460-00-00-017 (19 Hagood Avenue)

South Carolina Research Authority 1330 Lady Street Suite 503 Columbia, S. C. 29201-3300

TMS #: 460-00-00-015 (Hagood Avenue)



AFFEDAVIT (III OWNERSI) EU OR CONTROL

S. C. Department of Health and Environmental Control
Office of Ocean and Coastal Resource Management
Charleston
953-0200
844-9400
238-4523
953-0201 (fax)
846-9810 (fax)
238-4526 (fax)

PROMO	TE PROTECT PROSPER	OR CONTROL	953-0201 (fax)	846-9810(fax)	238-4526(fax)
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×	Record Owner				
- 14 - de - 6	Lessee Record Easement Holder Applicant To Record Own Contract To Purchase Prop				
	Record Easement Holder				
Assessment	Applicant To Record Own	er For Basement			
1					
said prop reco perm	property is all of that said posed in the permit application of easement holder, I have	y situated in Charleston property that is contiguous to a on is to be conducted. Furtherme, or will have prior to unders with a legal interest in said p	and landward of ore, I certify tha ortaking the wo	the area in wit t as record ow rk, necessary	hich the work mer, lessee, or approvals or
ATT. REC EASI	ACHED" (in large bold letters ENT CERTIFIED PLAT OF	OF HIGHLAND (as described in a) AND ATTACH A COPY OF THE PROPERTY. IF YOU ARE ST ALSO SUBMIT WRITTEN PROPOSED ACTIVITY.	THE DEED, LEA E NOT THE REC	SE, EASEMEN ORD OWNER	T, OR MOST LESSEE OR
In	net A and B	Lockwood Dr 00-018	irc		
I	1115 760-00-	00-018			
which claim	h is in the ownership of other to the wetlands or areas b	proposed does not cross any er private persons or public or release mean high water by private onveyance or other legal documents. Signa	ortyate entities as the person or other	nd that there is ner entities du Winership of t	s no disputed te to a Kings hese areas.
Swor South	n to and subscribed before in Carcina, this9 th d	ay of <u>Septenber</u> , 2	. Gra	muille	County,
110:0E	Public Prumission expires: 1-14-2		COMMISSION HOLD THE COMMIS	SSION SESSION	No Production of the second
			**************************************	1111,,,	

Grace Hospitality, LLC 60 Pointe Circle Greenville, SC 29615

September 9, 2014

Tess Trumbull SCDEH-OCRM 1362 McMillan Avenue Suite 400 Charleston, SC 29405

Re: Maintenance of Existing Fill Horizon District

Dear Ms. Trumbull:

Grace Hospitality, LLC, is the record owner of one parcel located in the City of Charleston, South Carolina, which is or may be impacted by the above-referenced project. This parcel is identified as Tract A and B, located on Lockwood Drive, TMS 460-00-018.

Grace Hospitality, LLC, expressly authorizes activities described in the permit application submitted to SCDHEC-OCRM by the Horizon Project Foundation, Inc. that will be undertaken on Tract A and B, Lockwood Drive.

Sincerely,

V 10

lospitality, LLC

By: Luke Finlay, Authorized Signatory

Enclosure: Affidavit of Ownership or Control



AFFIDAVIT OF OWNERSHIP OR CONTROL

S. C. Department of Health and Environmental Control Office of Ocean and Coastal Resource Management

Charleston Beaufort Mertle Beach
953-0200 846-9400 238-4528

PROMOTE PROTECT PROSPER	OR CONTROL	953-0201 (fax)	846-9810(fax)	238-4526(fax)
I hereby certify that I am the	(check one):			***************************************
Record Owner				
Lessee				
Record Easement Hold	er			
Applicant To Record C	wner For Easement			
Contract To Purchase I	Property			
proposed in the permit application record easement holder, I	perty situated in <u>Charleston</u> aid property that is contiguous to a cation is to be conducted. Furtherm have, or will have prior to undersons with a legal interest in said property.	and landward of lore, I certify tha ortaking the wo	the area in w t as record ow rk. necessary	hich the work ner, lessee, or
RECENT CERTIFIED PLAT	ON OF HIGHLAND (as described in ters) AND ATTACH A COPY OF TOF THE PROPERTY. IF YOU ARE MUST ALSO SUBMIT WRITTEN FIRE PROPOSED ACTIVITY.	<u>THE DEED, LEA</u> NOT THE REC	SE, EASEMEN	T. OR MOST
Parcel B, 2 acres,	Hagood Avenue 460-	-00-00-008		
Parcel A, 9.48 acr 460-00-00-022	es, Line Street betwee	en Hagood a	nd Horizo	on
Tract A-1 Hagood	Avenue 460-00-00-023			
which is in the ownership of claim to the wetlands or area	t as proposed does not cross any other private persons or public or public or public or public or public or conveyance or other legal documents.	rivate entities as	nd that there is ner entities du ownership of t	s no disputed te to a Kings hese areas.
Sworn to and subscribed befor	e me at City of Charlest day of January, 2	on Ch	relector	County,
South Carolina, this 16th	_day oflanuary, 2	0 <u>15</u> .		
Notary Public	NO.			
My commission expires: Not	DEBORAH J. CATHERS ary Public, State of South Carolina			
C 3898 (03/2007)	Commission Expires 12/20/2020			

Tess Trumbull SCDHEC-OCRM 1362 McMillan Avenue Suite 400 Charleston, SC 29405

Re: Maintenance of Existing Fill Horizon District

Dear Ms. Trumbull:

The City of Charleston is the record owner of three parcels located in the City of Charleston, South Carolina, which are or may be impacted by the above-referenced project. These parcels are identified as Tract A-1, located on Hagood Avenue, Parcel A Line Street, and Parcel B, Hagood Avenue, TMS numbers 460-00-00-023, 460-00-00-022, 460-00-00-008 respectively.

The City of Charleston expressly authorizes the activities described in the permit application submitted to SCDHEC-OCRM by the Horizon Project Foundation, Inc. that will be undertaken on Tract A-1, Parcel A, and Parcel B described above.

For the City of Charleston



AFFIDAVIT OF OWNERSHIP OR CONTROL

S. C. Department of Health and Environmental Control Office of Ocean and Coastal Resource Management Charleston Beaufort Myrtle Beach 953-0200 846-9400 238-4528

PROMOTE PROTECT PROSPER	OR CONTROL	953-0201 (fax)	846-9810(fax)	238-4526(fax)		
I hereby certify that I am the	I hereby certify that I am the (check one):					
Record Owner						
Lessee						
Record Easement Holo	ler					
Applicant To Record (Owner For Easement					
Contract To Purchase I	Property					
said property is all of that s proposed in the permit applied record easement holder, I	perty situated in Charleston aid property that is contiguous to a cation is to be conducted. Furtherm have, or will have prior to undersons with a legal interest in said p	and landward of lore, I certify that ertaking the wo	the area in wat as record over the record over the record of t	which the work vner, lessee, or approvals or		
ATTACHED" (in large bold lo RECENT CERTIFIED PLAT	ON OF HIGHLAND (as described in etters) AND ATTACH A COPY OF OF THE PROPERTY. IF YOU ARIMUST ALSO SUBMIT WRITTEN FOR THE PROPOSED ACTIVITY.	THE DEED, LEA E NOT THE REA	SE, EASEME	NT, OR MOST		
Tract A-2, 2.56 acr Avenue. 460-00-00-	es, located on Southwe: 015	st Corner o	of Hagood			
I also certify that the project as proposed does not cross any wetlands or areas below mean high water which is in the ownership of other private persons or public or private entities and that there is no disputed claim to the wetlands or areas below mean high water by private person or other entities due to a Kings Grant, State Grant, easement or conveyance or other legal document evidencing ownership of these areas. Signature of Record Holder or Lessee						
Sworn to and subscribed before South Carolina, this	remeat Columbia _ day of January , 2	.?ia	deland	_County,		
My commission expires: 09	24.2022					

Tess Trumbull SCDHEC-OCRM 1362 McMillan Avenue Suite 400 Charleston, SC 29405

Re: Maintenance of Existing Fill Horizon District

Dear Ms. Trumbull:

The South Carolina Research Authority ("SCRA") is the record owner of one parcel located in the City of Charleston, South Carolina, which is or may be impacted by the above-referenced project. This parcel is identified as Tract A-2, located on Hagood Avenue, TMS 460-00-00-015.

SCRA expressly authorizes the activities described in the permit application submitted to SCDHEC-OCRM by the Horizon Project Foundation, Inc. that will be undertaken on Tract A-2 Hagood Avenue.

For the South Carolina Research Authority



Office of the Executive Vice President for Finance and Operations 179 Ashley Avenuc Colcock Hall MSC 003 Charleston SC 29425-0030 121 843 792 5050 Tax 843 792 4975

Ms. Tess Trumbull SCDHEC-OCRM 1362 McMillan Avenue Suite 400 Charleston, SC 29405

RE: Maintenance of Existing Fill Horizon District

Dear Ms. Trumbull:

The Medical University of South Carolina is the record owner of two parcels which are or maybe impacted by the above-referenced project. These projects are identified as Tract 2A, Lockwood Boulevard and Tract 2B Lockwood Boulevard, City of Charleston, South Carolina, TMS 460-00-00-021 and 460-00-00-014.

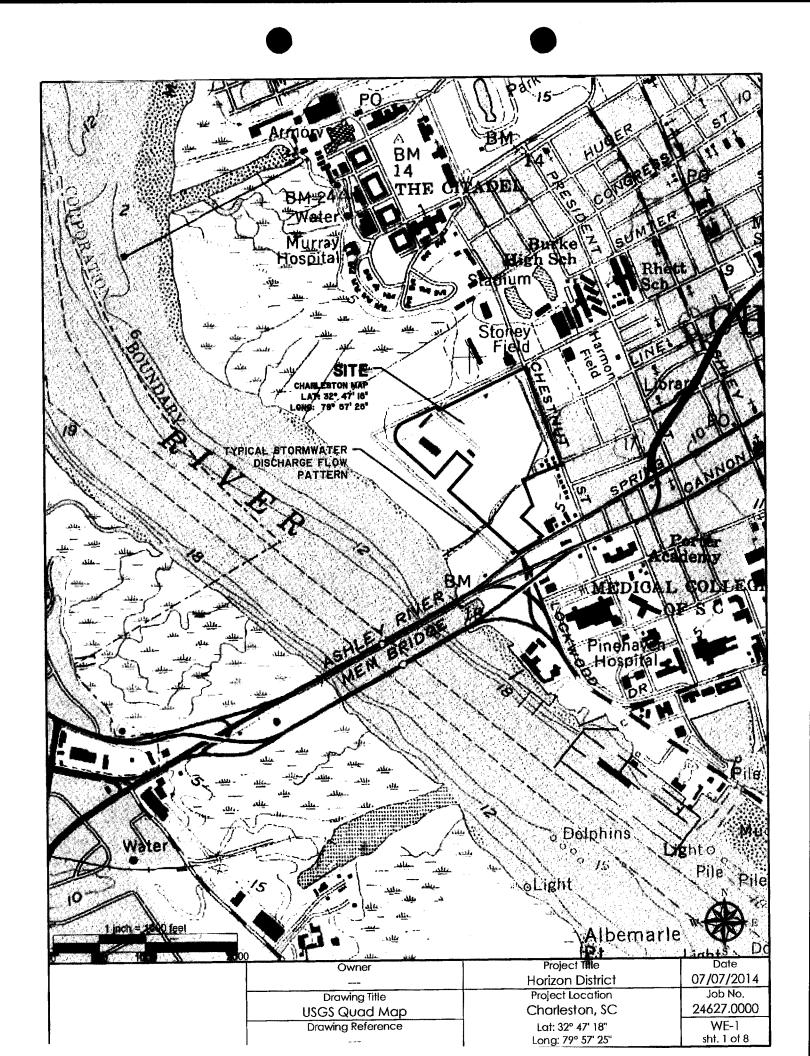
The Medical University of South Carolina expressly authorizes the activities described in the permit application submitted to SCDHEC-OCRM by the Horizon Project Foundation, Inc. that will be undertaken on Tracts 2A and 2B, Lockwood Boulevard.

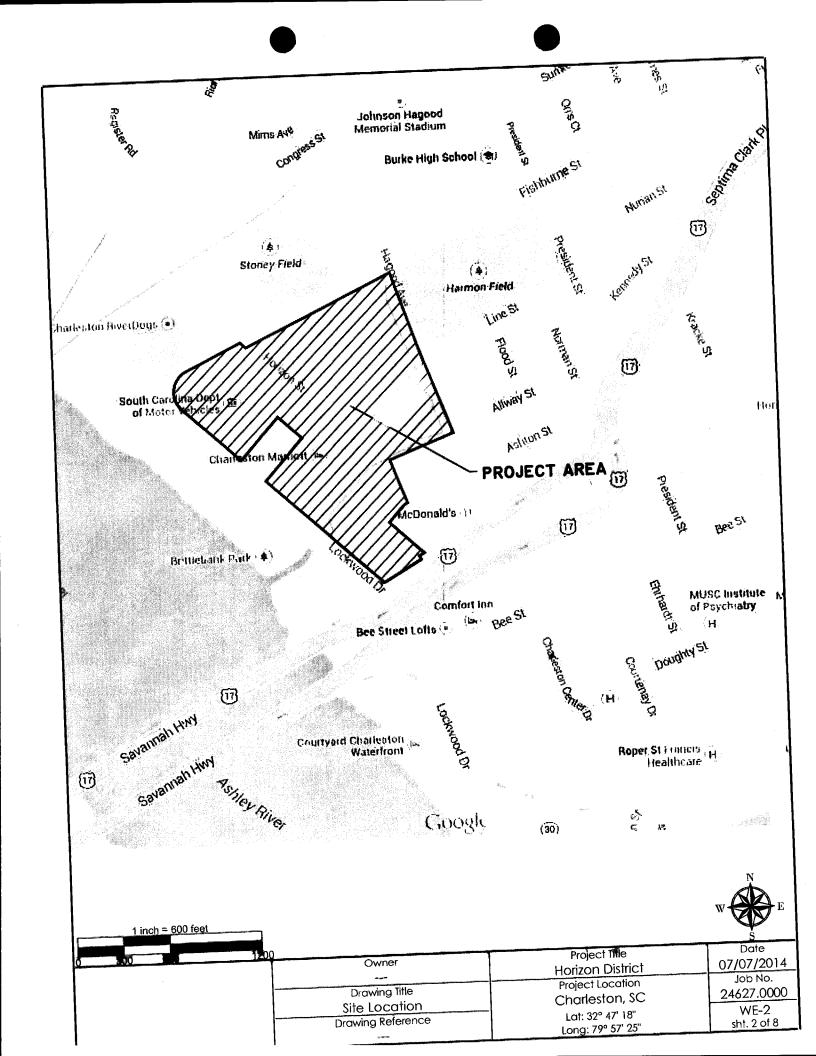
Please contact me should you have any questions.

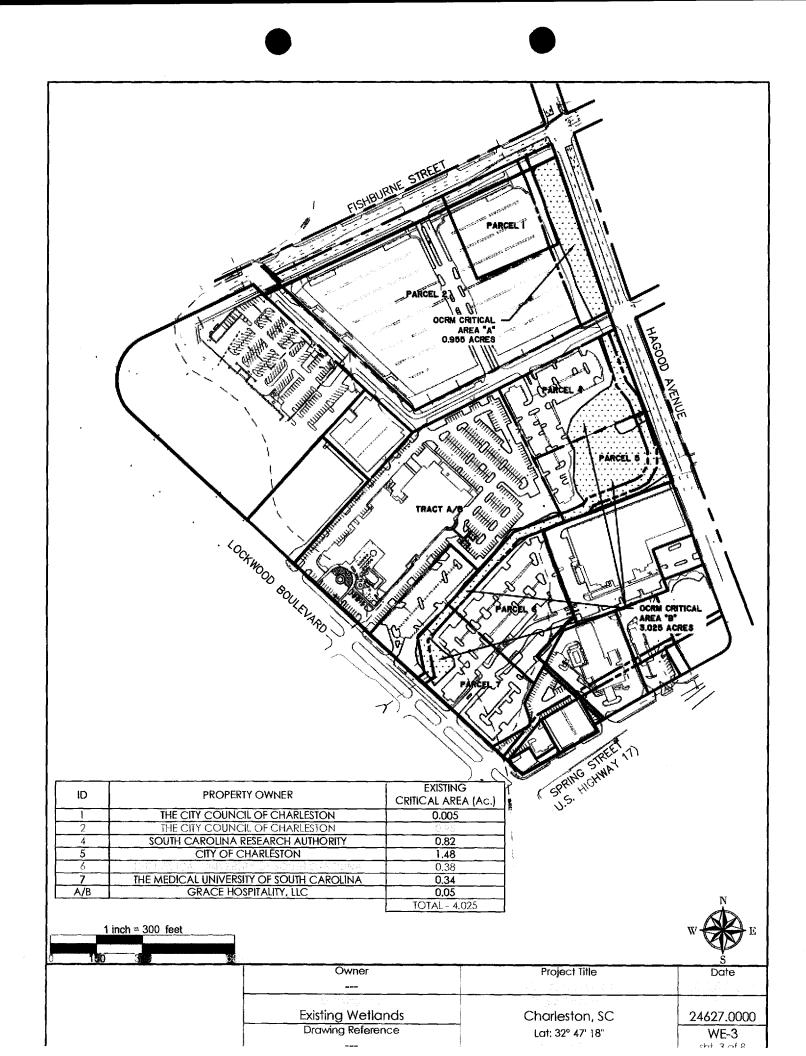
Sincerely

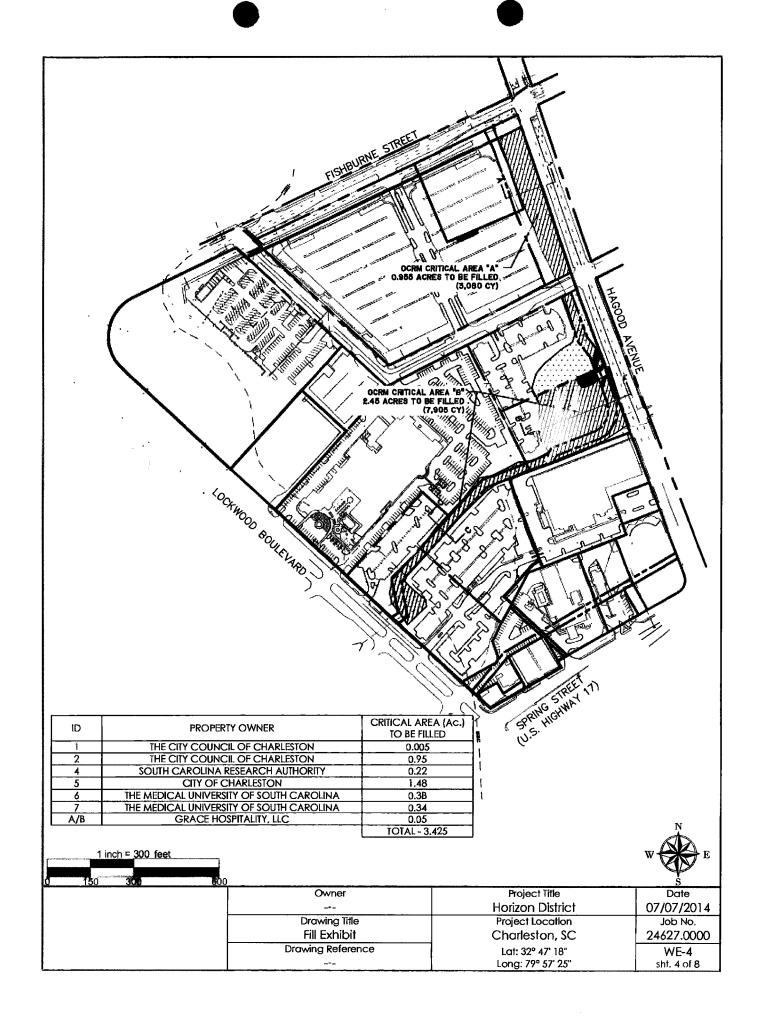
Lisa P. Montgomery

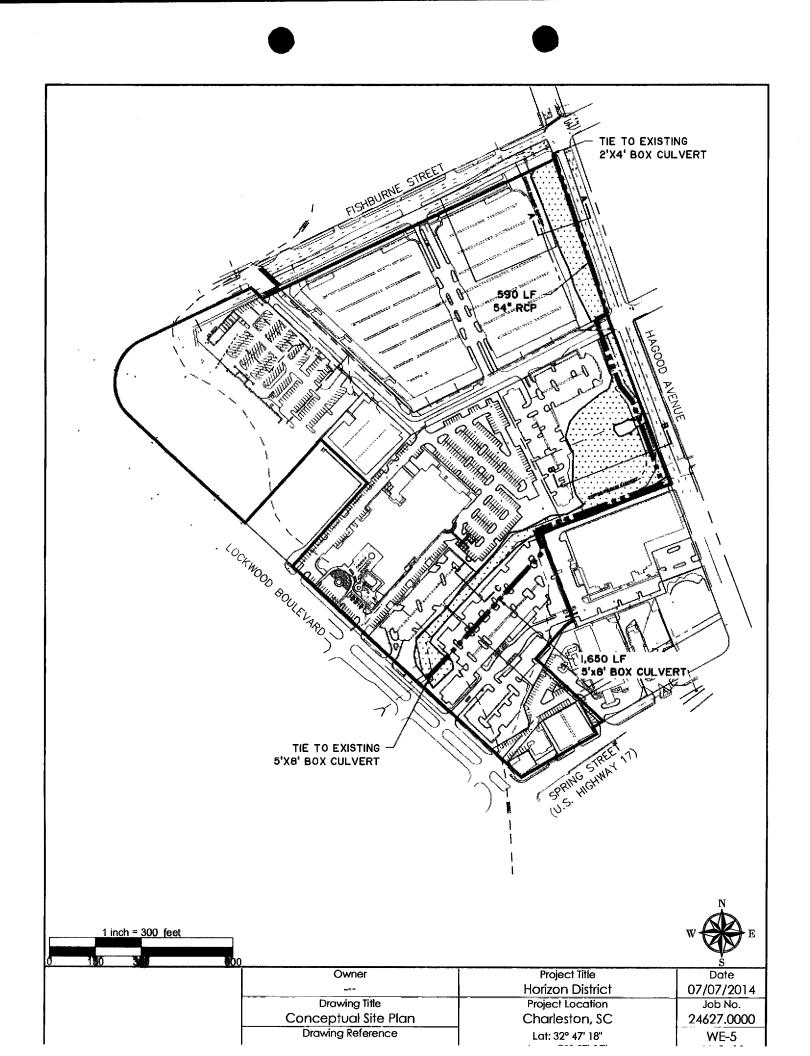
Executive Vice President Finance and Operations

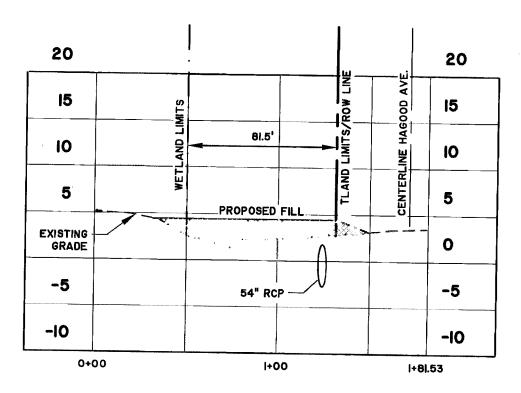










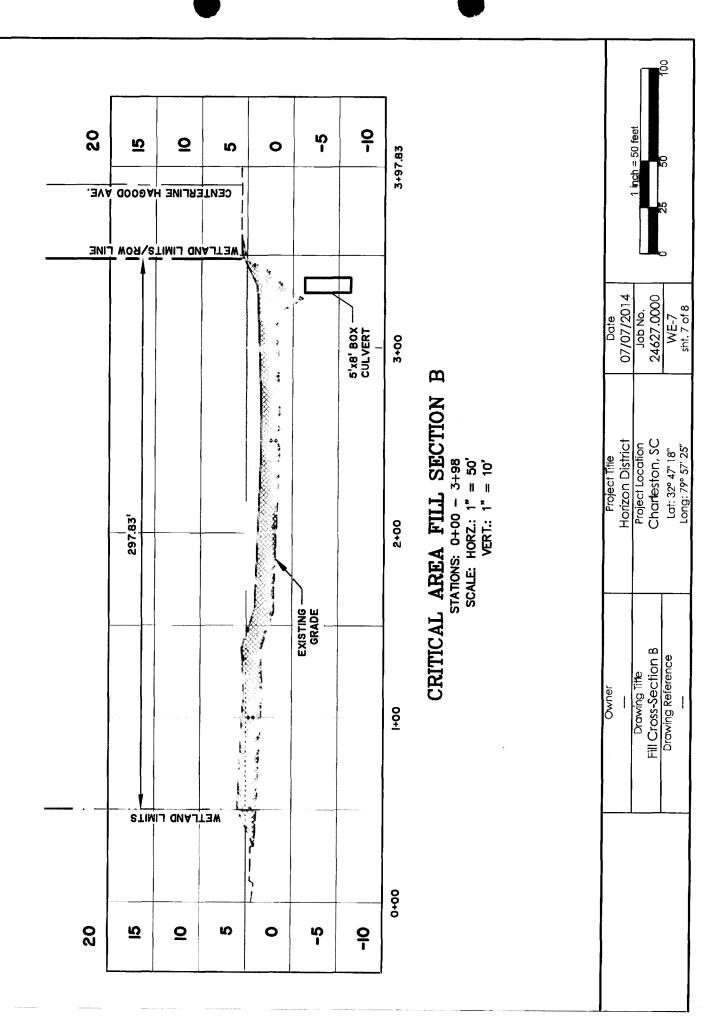


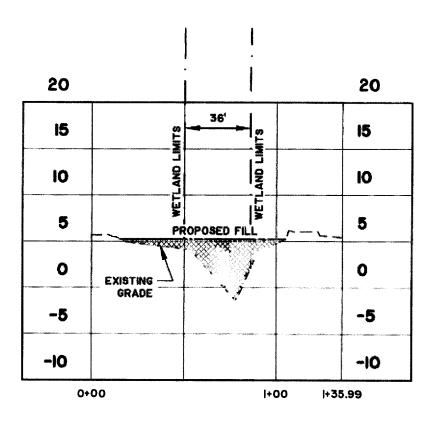
CRITICAL AREA FILL SECTION A

STATIONS: 0+00 - 1+82 SCALE: HORZ.: 1" = 50' VERT.: 1" = 10'

1 inch = 50 feet	
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	Owner	Project Title	Date
-		Horizon District	07/07/2014
	Drawing Title	Project Location	Job No.
L	Fill Cross-Section A	Charleston, SC	24627.0000
	Drawing Reference	Lat: 32° 47′ 18″	WE-6
•	(1 and 70° 57' 25"	sb4 (= £0





CRITICAL AREA FILL SECTION C

STATIONS: 0+00 - 1+36SCALE: HORZ.: 1" = 50'VERT.: 1" = 10'

1 inch = 50 feet

יטו	J		
	Owner	Project Title	Date
		Horizon District	07/07/2014
	Drawing Title	Project Location	Job No.
	Fill Cross-Section C	Charleston, SC	24627.0000
	Drawing Reference	Lat: 32° 47′ 18"	WE-8
	T 70 W	Long: 79° 57′ 25″	

Project Description

Horizon Project Foundation, Inc. ("HPF") proposes, on behalf of the City of Charleston ("City") and The Medical University of South Carolina Foundation ("MUSCF"), to conduct maintenance of previously authorized fill and to pipe and re-route stormwater runoff that presently flows through open ditches on the project site which has exposed municipal and medical waste as a result of scour and the deterioration of the original fill and landfill cap ("Project"). The stormwater runoff ultimately leaves the site through an existing box culvert under Lockwood Boulevard and discharges directly into the marshes of the Ashley River.

Background

The Project is located on lands formerly used by the City as a landfill ("Landfill"). The Landfill was located in areas generally bound by Spring Street, Hagood Avenue, Fishburne Street and encompassed approximately 95 acres of former marshland along the Ashley River. Municipal, medical, and industrial wastes were disposed into unlined trenches at the site. The Landfill was in operation from 1955 to 1969. Soil and groundwater contamination were identified in a CERCLA sampling inspection report for the Landfill dated September 13, 1988.

Following the closure of the Landfill in 1969, the City obtained an "after-the-fact" permit from the United States Army Corps of Engineers, ("the Corps") issued on February 8, 1971, (#71-02-15.) The permit authorized "an existing fill ... in the marsh ... covering an area north of U. S. highway 17 to the Citadel, Charleston County, South Carolina." A copy of this permit is attached as Exhibit A to this narrative. The permit referenced attached plans and included a condition that it be recorded with the RMC's Office. The permit included a condition that "the permittee will maintain the structure herein approved in good conditions in accordance with the approved plans."

The approved plans, incorporated by reference in the permit, included the following additional specifications: "3. No further use of the subject property will be made as a garbage or refuse dump. ... 5. A cover layer of non-waste bearing earth having a compacted thickness of not less than two feet (including existing earth cover) will be provided over the entire area and shall be completed within five years from the date the permit is issued, subject to budgetary limitations and the availability of funds to the City of Charleston. ... 6. No beneficial use will be made of any portion of the property nor any structure constructed thereon without first placing the earth cover layer as described in Note 5 above on that portion of the property affected." The permit, which was issued under the River and Harbors and Act, also includes general condition "n": "[t]hat no building or other structure may be erected on the fill approved by this permit unless such building or other structure is appropriately identified and describe in the plans and drawings attached hereto."

The Corps has provided wetland determinations for various parcels comprising the Horizon Project Area. The Corps has determined that there are "jurisdictional waters of the

¹ Phase I Environmental Site Assessment, August 23, 2011, S&ME.

United States, which includes wetlands' located on the parcels comprising the Horizon Project Area. "These salt marsh wetlands and open-water tidal areas are 'Critical Area'." ²

The Corps' findings were based, in part, on review of plats delineating wetland boundaries which included approved "critical lines" for the impacted parcels³ from SCDHEC-OCRM, signed by Steve Brooks of OCRM on February 1, 2012. Mr. Brooks approved a critical line for the parcels owned by the City, impacted by the project, which include .005⁴ acres of tidal wetlands, 1.48⁵ acres of critical area, and .95⁶ acres of tidal wetlands. Brooks approved a critical line for the parcel owned by SCRA which includes .82⁷ acres of critical area. Brooks approved a critical line for the parcels owned by MUSC including .38⁸ acres of tidal wetlands and .34⁹ acres of tidal wetlands. Brooks approved a critical line for the parcel owned by Grace Hospitality, LLC, including .05 acres of tidal wetlands.

The applicant HPF proposes impact to 4.025 acres of tidal, critical area wetlands in accordance with the attached plans as part of the Project. The impacts are associated with the stormwater improvements include the installation of approximately 570 linear feet of 54" RCP and 1,650 linear feet of 5'x8' box culvert within an existing City drainage easement adjacent to Hagood Avenue, running south, and then east towards Lockwood Blvd. Following completion of the stormwater improvements a cover layer of non-waste bearing earth having a compacted thickness of not less than two feet (including existing earth cover) will be placed in all exposed areas of the Landfill in order to restore and maintain the cover or cap, as required in the Corps' permit. It is estimated that the Project will require 13,115 cubic yards of fill material.

SCDHEC's Bureau of Land and Waste Management has considered the project plans and concluded that "re-routing of stormwater and enhancement of the landfill cap related to the proposed redevelopment of properties between Hagood and Lockwood Drive" are "positive" improvements to conditions at the former Landfill site. A letter from Kent M. Coleman, Director of the Division of Mining and Solid Waste, reflecting this determination is attached as Exhibit B.

Horizon Project Foundation/Horizon Project Area

HPF is a South Carolina nonprofit corporation established to support the City and MUSCF. HPF is governed by a Board of Directors, and is organized exclusively for charitable, scientific, and educational purposes.

² Letters, Charles R. Crosby (Corps) to Bret Davis (S&ME), February 2, 2012 and February 3, 2012.

³ For purposes of this permit application the "impacted parcels" are the parcels impacted by the proposed maintenance fill.

⁴ TMS # 460-00-00-008

⁵ TMS # 460-00-00-023

⁶ TMS # 460-00-00-022

⁷ TMS # 460-00-00-015

⁸ TMS # 460-00-00-021

⁹ TMS # 460-00-00-014

¹⁰ TMS # 460-00-00-018

In 2012, the City and MUSCF entered into a Memorandum of Understanding ("MOU") in which they agreed to establish HPF. In accordance with the MOU the primary functions of HPF are to support "the education, research and clinical funding activities of MUSCF ... and ... the City's objective to create economic development opportunities and improved quality of life in its neighborhoods, by working to implement the redevelopment project plan for the development of the area known as the Horizon Redevelopment Project Area."

The Horizon Redevelopment Project Area is reflected on the drawings attached to the Critical Area Permit Application and consists of approximately 20 contiguous acres proposed for redevelopment to accomplish the purposes set forth in the MOU. The parcels contained within the Project Area are identified as:

1.	TMS # 460-10-02-022	Lot 4A-2 Spring Street
2.	TMS # 460-00-00-022	Parking Lot Near Joe Riley Baseball Park
3.	TMS # 460-00-00-008	Parking Lot Near Joe Riley Baseball Park
4.	TMS # 460-00-00-023	Tract A-1 Hagood Avenue
5.	TMS # 460-00-00-012	Horizon House
6.	TMS # 460-10-02-014	244 Spring Street
7.	TMS # 460-00-00-021	Tract 2-B Lockwood Blvd vacant land
8.	TMS # 460-00-00-014	Tract 2-A Lockwood Blvd vacant land
9.	TMS # 460-10-02-023	Lot 4 A-1 Spring Street
10.	TMS # 460-10-02-019	Lot 16, 17, 18 and 19, 360 Spring St.

The subject parcels are located on the western edge of the Charleston Peninsula and are bound by Fishburne Street to the north, Spring Street to the south, Hagood Avenue to the east, and Lockwood Drive to the west. This entire area is within the original boundary of the Landfill and subject to the conditions of the Corps' permit, including the obligation to maintain the cover structure.

Regulatory Requirements

Normal Maintenance and Repair of a Grandfathered Structure.

"Normal Maintenance and Repair" is defined as "work performed on any structure within the critical area as part of a routine and ongoing program to maintain the integrity of the structure provided that the structures is still generally intact and functional in its present condition and the work only extends to the original dimensions of the structure." S. C. Code Reg. 30-1(D)(36). "Normal maintenance and repair applies only to work on a structure which has been previously permitted or is grandfathered or exempted and is still generally intact and functional in its present conditions. The work may only extend to the original dimensions of the structure, and any expansion, additions, or major rebuilding will require either a Department permit or documentation to and written approval from the Department." R. 30-5(D)

Normal Maintenance and Repair for structures in the critical area is generally considered exempt from the permitting requirements embodied in S. C. Code Ann. Sec. 48-39-130.

Additionally, "[m]aintenance and repair of drainage and sewer facilities constructed in accordance with federal or state laws and normal maintenance and repair of any utility or railroad" is specifically exempted from critical area permitting requirements in accordance with S. C. Code Ann. Sec. 48-39-130(D)(7).

Here, HPF proposes to repair and maintain the cover, or cap, over the Landfill. Following the installation of the cap, the City established a drainage easement in 1973 over and across the Landfill. The existing drainage ditch facilitates and conveys stormwater and tidal flows from the surrounding drainage basin which includes the adjoining roads, portions of the Citadel's athletic and alumnae facilities, Burke High School, surrounding public housing communities, and other commercial and residential areas. The easement purpose must be preserved while maintaining and repairing the cap, which is accomplished with the installation of the pipe, culvert and cover material. These activities clearly constitute repair of a drainage facility authorized by the Corps, as the drainage ditch is depicted and labeled on the drawings accompanying the permit. Consequently, HPF is exempt from the requirement to obtain a critical area permit.

In preliminary conversations with SCDHEC, the staff requested that HPF submit a permit application, rather than a request for authorization as normal maintenance and repair. If the staff concludes, upon review of the activities as described in this application, that the exemption provided by S. C. Code Ann. Sec. 48-39-130 is inapplicable, then the regulatory requirements discussed below are triggered.

Dredging and Filling - Critical Areas

S. C. Code Ann. Reg. 30-12(G) governs project proposals for placing fill material in critical area. Here the applicant proposes to place approximately 13,115 cubic yards of cover material over a pipe and culvert, installed in critical area to fulfill maintenance obligations under the Corps permit that authorized the capping of the Landfill, and to facilitate the drainage over and across the Landfill. S. C. Code Ann. Reg. 30-12(G)(2)(a) addresses the regulatory standard for fill activities in tidelands critical areas. "The creation of commercial and residential lots strictly for private gain is not a legitimate justification for the filling of wetlands. Permit applications for the filling of wetlands and submerged lands for these purposes shall be denied, except for erosion control ... or boat ramps. All other dredge and fill activities not in the public interest will be discouraged." (Emphasis added.)

HPF is not seeking to place fill material to create commercial and/or residential lots. Those "lots" already exist. Sheet 3/8 of the permit application drawings includes a table, or key, reflecting information for 7 "lots" or "parcels", and five property owners. This list of parcels is not inclusive of all of the parcels comprising the Horizon Project Area, which is a total of ten, as enumerated above. Instead HPF's project is to maintain compliance with the conditions in the Corps permit to maintain the structure and that "[n]o beneficial use will be made of any portion of the property nor any structure constructed thereon without first placing the earth cover layer as described in Note 5 above on that portion of the property affected." The City's drainage facility and easement area is exposed, and cover is required before the redevelopment can be accomplished.

In accordance with the requirements of 30-12(G), this project is in the public interest. The City's elected officials and governing bodies establish public policy and identify the public interest within the political boundaries of the City. As is referenced in the MOU between the City and MUSCF, the City has determined that the public interest is served through facilitating medical research, creating economic development opportunities, and improving quality of life in its neighborhoods. HPF was created to further these interests. The redevelopment proposed within the Horizon Project Area is described as "an urban, mixed-use, bio-tech research development." HPF's vision is to transform the Horizon Project Area into multi-family residential space, offices, and research space. In plans submitted recently to the City's Board of Architectural Review, HPF indicated that redevelopment efforts would include residential infill. biotech research centers with an incubator accelerator, offices, retail, including a grocery store, and restaurant space. HPF intends to increase the City's profile in the biotechnology industry and to extend medical research currently being undertaken at MUSC into the commercial realm. However, no additional beneficial use of these parcels can be undertaken without addressing the current condition of the landfill cap and the contact between waste and stormwater and tidal flows.

Mitigation

S. C. Code Reg. 30-4(G) provides mitigation criteria for critical area permit. "Mitigation may be required for any projects impacting tidelands at the discretion of the Department." HPF requests that the Department waive any mitigation requirement in accordance with its discretionary authority. The tidal wetlands at issue exist within an unlined landfill. The landfill cap has eroded significantly causing direct contact between stormwater, tidal waters, and waste, trash, and debris. As is noted in the environmental reports prepared for various parcels located within the Horizon Project Area, there is existing soil and groundwater contamination. HPF proposes to repair the cap, eliminate the pathway for stormwater and tidal flows to come into contact with waste, and to channelize the drainage providing for better flow and addressing, to some degree, flooding that occurs during significant rain and tidal events. As was noted by the Bureau of Land and Waste Management, the project is a "positive" measure to address current, undesirable conditions at the former landfill site.

Conclusion

HPF seeks authorization to impact 4.025 acres of what are now described as tidal wetlands. These impacts are unavoidable, as HPF seeks to repair and maintain the eroded cap over the Landfill that was initially authorized by the Corps in 1971. Currently, drainage over and across the Landfill and to the Ashley River is through channels that are scoured, eroded, and exposed to waste. The repair and maintenance of the Landfill cover is exempt from SCDHEC's permitting requirements, since the cap is a grand-fathered structure authorized by the Corps prior to the inception of the State's regulatory authority over tidal wetlands and since the project is maintenance and repair of an existing drainage facility, as evidenced by the City's drainage easement which was initially executed and recorded in 1973. A copy of this easement is attached to this narrative as Exhibit C.

Should SCDHEC determine that a critical area permit is required, the project satisfies the requirements of R. 30-12(G) and has been determined to be in the public's interest by the elected officials of the City.

EXHIBIT

A

DEPARTMENT OF THE ARMY

Permit #71-02-15

APPROVAL OF PLANS

BOOK 7. 99 PAGE 338

GAMER

8 February

1971

City of Charleston Charleston, South Caroline 29402 District Engineer Corps of Engineers P. O. Box 919 Charleston, S. C. 29402

Centlemen:

Referring to written request dated

30 April 1970

for the

approval of the attached plans of an existing fill

which has been constructed in the marsh area along the easterly shore of the Ashley Eiver

MIX covering an area north of U. S. Highway 17 to The Citadel, Charleston County, South Carolina.

Upon the recommendation of the Chief of Engineers, and under the provisions of Section 10 of the Act of Congress approved March 3, 1899, entitled "An act making appropriations for the construction, repair, and preservation of certain public works on rivers and harbors, and

for other purposes," said plans are approved by the Secretary of the Army, subject to the following conditions:

- (a) That this instrument does not convey any property rights either in real estate or material, or any exclusive privileges; and that it does not authorize any injury to private property or invasion of private tights, or any infringement of Federal, State or local laws or regulations, nor does it obviate the necessity of citaming State or local assent required by law for the structure or work herein approved.
- (b) That the permittee shall comply promptly with any lawful regulations, conditions, or instructions affecting the structure or work herein approved if and when issued by the Federal Water Quality Administration and/or the State water pollution co. Itol agency having jurisdiction to abate or prevent water pollution, including thermal or radiation pollution. Such regulations, conditions or instructions in effect or hereafter presembed by the Federal Water Quality Administration and/or the State agency are hereby made a condition of this genuit.
- (c) That the partitive will maintain the structure herein approved in good condition in accordance with the approved plane.
- (ii) That this permit may at any time be modified by authority of the Secretary of the Army if it is determined that, tooler existing circumstances, modification is in the public interest. The permittee, upon receipt of a notification, shall comply therewith as directed by the Secretary of the Army or his authorized representative.
- (e) That this penult may be revoked by authority of the Secretary of the Army if the permittee fails to comply with may of the provisions or if the Secretary determines that, under the existing circumstances, with action is required in the public interest.*
- (C) That any modification or sevocation of this permit shall not be the basis for a claim for damages sgrims; the United States.
- (3) That the U-stad States shall in no way be liable for any damage to any structure or work herein approved which may be exceed by or result from future operations undertaken by the Covernment in the public interest.
- (ii) That no itempt shalf be made by the permittee to forbid the full and free use by the public of all navigable waters it or adjacent to the structure or work herein approved by this permit.
- (i) That if the Cisplay of lights and signals on any structure or work herein approved is not otherwise provided for the law, such lights and signals as may be prescribed by the United States Coast Guard, shall be installed and nontrined by and at the expense of the permittee.
 - (ii) Part the logal requirements of all Federal agencies be met.
- (E) This this permit does not approve particular structures, the authorization or approval of which may seques action by the Congress or other agencies of the Federal Government.
- (3) That all the provisions of this permit shall be binding on any assignes or successor in interest of the paratree.
- (m) That is the recording of this permittee shall take such action as may be necessary to record this permit with the Registrar of Deeds or other appropriate action as may be necessary to record this permit with the Registrar of Deeds or other appropriates actions as may be necessary to record this permit with the Registrar of Deeds or other appropriates actions example with the responsibility for maintaining records of title to and interests in teal property.

2021 7. 99 HAR 338

(n) That no building or other structure may be exected on the fill approved by this permit unless such building or other structure is appropriately identified and described in the plans and drawings attached hereto; that buildings of other structures approved by this permit, once exected, may not be significantly modified in their outward appearance or form down and outer buildings on structures exected in their place unless a modification of this permit is authorized by the Secretary of the Army or his authorized representative; and that neither the fill itself nor buildings or structures exected in accordance with the plans and drawings attached hereto may be dedicated to any different use than that contemplated at the time of issuance of this permit unless a modification of this permit is authorized by the Secretary of the Army or his authorized representative.

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*A judgment as to whether or not suspension, modification or revocation is in the public interest involves a consideration of the impact that any such action or the absence of any such action may have on factors affecting the public interest. Such factors include, but are not limited to navigation, fish and widdiffe, water quality, economics, conservation, aesthetics, recreation, water supply, flood damage prevention, ecosystems and, in general, the needs and welfare of the people.

BY Authority of the Secretary of the Ar 7/25/72_ BURKE W. LEE Date	my:	
Lohn v Hallucie 7/25/1	2 Hilmel	2/4/11
Witness	BUKKE W. LEE COL, Corps of Engineers L District Engineer	Date
Witness		,
Permittee hereby accepts the terms and Faller Bailland A. 8/2 Permittee	conditions of this permit. 1/12 Calmer Gailland Sh	. alelzi
Ch Murchy 3-2-72	Permittee City of Charleston	Date
Mithess		

STATE OF Doc Class	BOOK 7. 99 PAGE 338
County of Acres 48	
Fersonally before me appeared duly storm, says that he saw the abo	Caprison Scalery & S' Kyle, who being ove named Burke W. Lee sign, seal, and as
his act and deed desiver the above witnesse	written permit and that he with Whater
Sworn to before we, this 25%	A. D. 1973
Notarial Seal	Conside Demin
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	Commission Expires Mar. 30, 19
Corps of Engineers by	
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STATE OF South Carolina	
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County of Charleston	- Anni Brannan anni Alla (Alla an
Personally before me appeared	Mrs. C. L. Murphy , who being
duly sworn, says that he saw the abo	ove named J. Falmer Gaillard, Jr., sign, seal,
	above written permit and that She with witnessed the due execution thereof.
J. J. Budds Sworn to before me, this 2nd	withessed the due execution thereof,
day of August	A. D. 1972
	Mm. B Oliver
Notarial Seal	Notary Public in and for S. C.
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	My Commission expires January 1980
Same of the second seco	
*City of Charleston by	

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2. The approx. top elevation of the lendfill is 10.5 mlw.

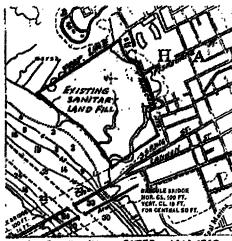
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3. All perimeter ditches and the edge of the fill along the Abilay River will be standed of all refuse matter and their fishe will be evered with these restebearing each or march mad. Also, the banks along the Abhlay River will be propected by a layer of broken concrete, pricibate, or other similar material buttable for use as rip may. Their mad rip cap shall be not less than 3' in any dimension. Hope and ditch cleacing will be completed within six menths from the date the permit is issued. Rip rap will be placed an it becomes available, however, not less than 500 linear feat of Sysk shall be completed in any one calendar year.

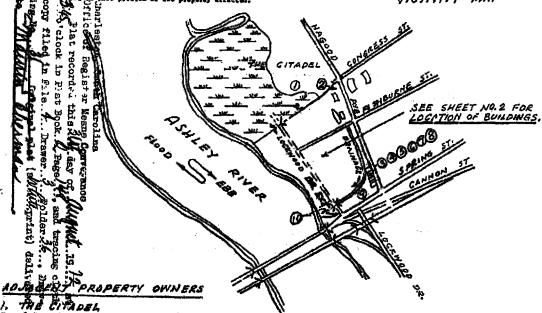
500 linear feet of bight shall be completed in any one calendar year.

5. "A cover layer of non-weste bearing earth having a companied thickness of not less than two feet (including existing earth tever) will be provided ever the entire orws and will be completed which five years from the data the permit is issued; subject to budgatary limitations and the availability of funds to the City of Charleston."

6. No bespicial use will be made of any portion of the property mer any attracture constructed thereon without of its placing the earth cover layer as described in Note 5 have as that portion of the property affected.



DATED JAN. 1968 470, VICINITY MAP



- 2. S.G. NAT. GUARO ARMORY 3. FLORA W. MYERS 4. EST. OF OSCAR SOKOL
- 5. ATLANTIC COAST LIFE INS. CO. 6. T. R. FOSTER, SR.
- 7. J.L. RASIN
- 8. MONA & SOKOL 9. HOWE & GARROLL
- 10. ATLANTIC COAST LIFE INS, CO.

EXISTING SANITARY LANDFILL IN MARSH WEST OF HAGOOD AVE. AND NORTH OF SPRING STREET. AS OF JULY 1969.

COUNTY OF CHARLESTON, STATE, SC. APPLICATION BY 1' CITY OF CHARLESTON DATE: JAN: 1971 SHEET 1 OF 2

APPROVED PLAT

DATE: -CITY ENGINEER CITY OF CHARLESTON

100 **299** : 330 STONEY FIELD CARAGE POLICE HORIZON HOUSE PROPOSED LOCATION OF CITY POLICE STATION AND HORIZON HOUSE.

SCALE 1" 300'

Plat recorded this Million and tracing cloth copy filed in File. T. Drawer. ... Jolder. 36. Drawer. ..

Milles H. Burnen

Ramintar Heave Conveyance

SHEET 2 OF 2

600a 7. 99 PAGE 338

Plat 1-00

Q-148 43-36-31 4-3-36-32

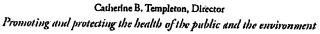
Filed, Indexed and Recorded

Charleston County, S. Charleston County, S.

- 1. The subject landfill was begun in 1956 and completed in July 1969. The total area involved is approximately minety-five (95) acres.
- 2. The approx. top elevation of the landfill is 10.5 mlw.
- 3. No further use of the subject property will be made as a garbage or refuse dump.
- the Ashley River will be cleaned of all refuse matter and their banks will be covered with non-wastebearing earth or marsh mud. Also, the banks along the Ashley River will be protected by a layer of broken concrete, brickbats, or other similar material suitable for use as rip rap. Thickmess of earth fill or the combined thickness of the earth and rip rap shall be not less than 3' in any dimension. Edge and ditch cleaning will be completed within six months from the date the permit is issued. Rip rap will be placed as it becomes available, however, not less than 500 linear feet of bank shall be completed in any one calendar year.
- parted thickness of not less than two feet (including existing earth cover) will be provided over the entire area and will be completed within five years from the date the permit is issued, subject to budgetary limitations and the availability of funds to the City of Charleston."

 in He beneficial use will be made of any portion of the property nor any structure constructed thereon without first placing the earth cover layer as described in Note 5 above on that portion of the property affected.







June 10, 2014

Mr. Michael T. Mayer, CEO Horizon Project Foundation, Inc. 19 Hagood Ave. Suite 909J Charleston, SC 29403

RE: Former Charleston Landfill, SCD 980 846 034

In regard to your request for an opinion on the possible re-routing of stormwater and enhancement of the landfill cap related to the proposed redevelopment of properties between Hagood Street and Lockwood Drive, the Division of Mining and Solid Waste has reviewed the Department file.

It is well established science that oxygen content and the movement of moisture through solid waste are two factors that influence the amount of methane produced. A reduction of available oxygen through maintenance and repair of the cap along with the reduction in moisture will reduce the amount of methane produced over time. Since methane represents a possible safety hazard and can cause groundwater contamination, we see the proposed stormwater improvements and additional capping associated with the proposed development as a positive.

Sincerely,

Kent M. Coleman, Director Division of Mining and Solid Waste Bureau of Land and Waste Management

Joan JJ:Ho



Attached please find the following related to the drainage easements:

- 1. Copy of deed recorded in Book M102, Page 329, dated 7/29/73 from the City Council of Charleston to Ashley Square Limited Partnership, reserving a 20' and a 35' drainage easement (see p. 2 of deed.)
- 2. Copy of 1973 plat AC/59 showing the easements.
- 3. Copy of 1973 plat AC/114 showing the easements.
- 4. Copy of 1984 plat BA/119 abandoning at least a portion of the easement and substituting a new 30'easement.

TO A TANK THE PROPERTY OF A PARTY WHEREAS the City Council of Charleston heretofore advertised for bids for the sale of land owned by it consisting of approximately bids for the sals of land owned by it consisting of approximately
13.475 acres; and
WHEREAS Ashvier Enterprises, a general partnership, submitted a bid
satisfactory to the City which bid was accepted by the City; and
WHEREAS the City Council of Charleston and Ashview Enterprises, a
general partnership, heretofore entered into an agreement for the
conveyance of the afolicated tract and also for the exchange of
certain other properties between the parties; and
WHEREAS all the rights of Ashview Enterprises, a general partnership,
have been assigned to Ashley Equare, a limited partnership, the
Grantee herein; and WHERAS the City Council of Charleston and Ashley Square, a limited whereheas the City Council of this instrument and other instruments partnership, by the execution of this instrument and other instruments executed simultaneously herewith, wish to complete the sale of the executed simultaneously herewith, wish to complete the sale of the aforesaid 13.475 acre tract and exchange of other properties; NOW, KNOW ALL MEN BY THESE PRESENTS, That CITY COUNCIL OF CHARLESTON in consideration of the premises and also in consideration of the sum of \$310,986,00----- dollars and the premises and also in to determine the sealing and delivery of these presents by ASHLEY SQUARE, a limited partnership (the receipt whereof is hereby acknowledged) have remised, released and forever quit-claimed, and by these presents do remise, release and forever quit-claim unto the mid ASRLEY SQUARE, a limited The property set forth on Exhibit A which is attached hereto and incorporated herein by reference. partnership GRANTEES AddRess: P.Os. DYAMER. U ... ___ Chapleston, s.c. 29402

4162/329

lat by Richard C. lat of Land Tract 1973, can'ttled in part Plat of Land Tract "" Lattered ABCDERGENKIA Containing Approximately 13.475 Acres and recorded in the R.M.C. Office for Charleston County in Plat Book AC Page 57.

said property is more particularly described according to eald plat

REGINING at a point on the Eastern side of Lockwood Drive 41.35 feet
North of the center line of a 35 foot-wide draining easement hereinafter
Gasocibed, designated as Point "A" on the plat hereinabove referred
to, and proceeding thence N 61° 44' E 649.84 feet to Point "B" on said
plat; thence on a line bearing N 39? 48' E 97.18 feet to Point "C"
on said plat; thence on a line bearing N 24° 03' W 105.74 feet to
Point "N" on said plat; thence N 13.07' W 295.34 feet to Point "E"
on said plat; thence on a line bearing N 23° 24' E 77.38 feet to Point
"F" on said plat; thence on a line bearing N 60° 36' E 61.68 feet to
Point "G" on said plat; thence N 68. 46' E 93.04 feet to Point "B"
on said plat; thence N 21° 31' W 177.04 feet to Point "J", on the
South side of Line Street 60 ft. right-of-way, on said plat; thence
S 65° 16' W 668.57 feet along the South side of said Line Street to
Point "K" on said plat; being at the intersection of Line and Borizon
Streets; thence S 44° 30' W 574.80 feet to a point marked "L" on said
plat on the eastern side of Lockwood Drive 120 ft. right-of-way;
thence S 45° 33' E 527.98 feet along the sastern side of the Lockwood
Drive to Point "A" on said plat; being the Point of Esginning, be all
the said dimensions and measurements more or less. The premises above
lescribed containing 13.475 acres, more or less. lescribed containing 13.475 acres, more or less.

SAIn property being a portion of the property conveyed by Joseph M.

Foulnot, Sheriff of Charleston County to the City Council of
Charleston by Deed dated February 20, 1934 and recorded in Book H-36
Fage 453, and quit-claimed unto the City Council of Charleston by
Walter B. Wilbur by Deed dated December 6, 1972 and recorded in Book
T-100, Page 222, of the R.M.C. Office for Charleston County A portion
also having been conveyed to the Grantor by James H. D. Howe et al
by Daed dated April 28, 1965 and recorded in Book W-92; Page 54, asid
R.M.C. Office. and S. 1965 and recorded in Book W-92; Page 54, asid

THS1 460-0-0-8

PARCEL 2

ALL right, title and interest of the City of Charleston in and to all real property, including all of the marsh, low land and high land, situate, lying and being in the City and County of Charleston, South Carolina, and located as follows:

South of Line Street and South of Line K-L which runs 8 44° 30° W a distance of 574.80 feet from Point "K" at the intersection of the southeastern edge of Line Street with the southwestern edge of Horizon Street rights-of-way to Point "L" on the northeastern edge of Lockwood Drive as shown on the aforementioned plat of Tract N as hereinafter referred to; West of Hagood Avenue; North of Spring Street and Fast of Lockwood Drive, including the drainage ditch or creek known as Gadsden Creek, as will more fully appear by reference to said plat by Richard C. Davis as all the dimensions and recorded in Plat Book AC. Page 54, said R.M.C. Office, which plat is incorporated by reference, be all the dimensions and measurements shown thereon a little more or less; RESERVING, however, for drainage gurposes only, a casement over that portion of the within described premises shown on the aforesaid plat as "20 ft. drainage suspenses "unning from Hagood Avenue to 35° easement and as "25° drainage eggement from Line Street to Ashley River" which

to the Grantes herein, however, the right to come the coulor on specifications of the City of Charleston to day, the drain contemplated to be carried within said essement area, provided the drained no structures shall be built upon said easement area without consent of the City of Charleston, South Carolina, its successors or aggigns, whether a culvart is installed or not. The parties by agreement may relocate the within easement area in whole or in part. THE 460-0-0-8 460-10-2-21

PARCEL 3

All of the right, title and interest of the City of Charleston in and to all real property, including all of the marsh, low land and high land located in the City of Charleston, South Carolina as folices: 1. 3. 2. 3. 4.

North of the southern boundary of a strip of land now or formerly of the County of Charleston with said southern boundary extended to the channel of the Ashley River (which said strip of land extends West from Lockwood Drive to the Ashley River and is located North of Spring Street); East of the channel of the Ashley River; West of Lockwood Drive; and South of the northern boundary of a 0.405 acre tract formerly of Atlantic Coast Life Insurance Company and now of Grantee herein with said northern boundary extended to the channel of the Ashley River; RESERVING, however, an easement only for drainage 35 feet in width from the West side of Lockwood Drive to the Ashley River which said easement in more particularly located 17.5 feet on either side of the center line of the drinage ditch or creek commonly known as Gadsden Creek, all of which will more fully and at commonly known as Gadsden Creek, all of which will more fully and at large appear by reference to the said plat by Richard C. Davis recorded in Plat Book AC , Page 59 , R.M.C. Office of Charleston County.

THS \$ 460-10-1-2 460-10-1-1

Parcels 2 and 3 having been conveyed to the City Council of Charleston by the following instruments:

- (1) Deed of Atlantic Coast Life Insurance Company dated dated April 15, 1965 and recorded in Book W-82, Page 53 of the R.M.C. office of Charleston County,
- or the R.M.C. office of Charleston County;
 (2) Deed of James H. D. Howe, et al, dated April 28, 1965 and recorded in Book W-82, Page 54, said R.M.C. Office;
- Deed of Joseph M. Poulnot, Sheriff, dated January 20, 1934 and recorded in Book M-36, Page 53, R.M.C. Office
- Deed of Walter B. Wilbur dated December 6, 1972 and recorded in Book T-100, Page 222, R.H.C. Office of Charleston County;
- Various acts of the Legislature of the State of South Carolina conveying title to real property to the City of Charleston, South Carolina, including those acts set forth in EHRHARDT v. THE CITY OF CHARLESTON, 55 S.E. 2D 344.

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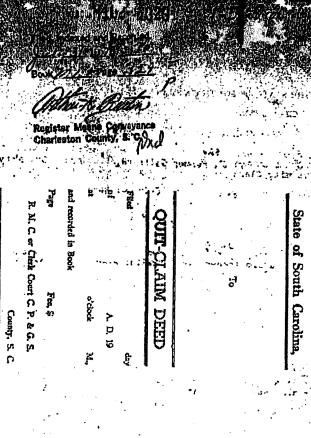
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and any

TO HAVE AND TO HOLD all and singular the said premises before mentioned unto the taid ASHLEY SQUARE, a limited partnership, its successors, heirs MARGE and assigns, forever-so that neither art of parcel thereof, forever. Witness Its hand and seal this 21 day of July in the year of our Lord one thousand nine hundred and seventy-threeand in the one hundred year of the Sovereignty and Independence of the United States of and ninety-eighth America. RZE - MATERIA

THE STATE OF SOUTH CAROLINA, CHARLESTON PERSONALLY appeared before me Sharon S. Bath and made each that the CHARLESTON By: J. Polmer Galllard, Ito Mayor, By: Mary R. Wilson Its City Clork

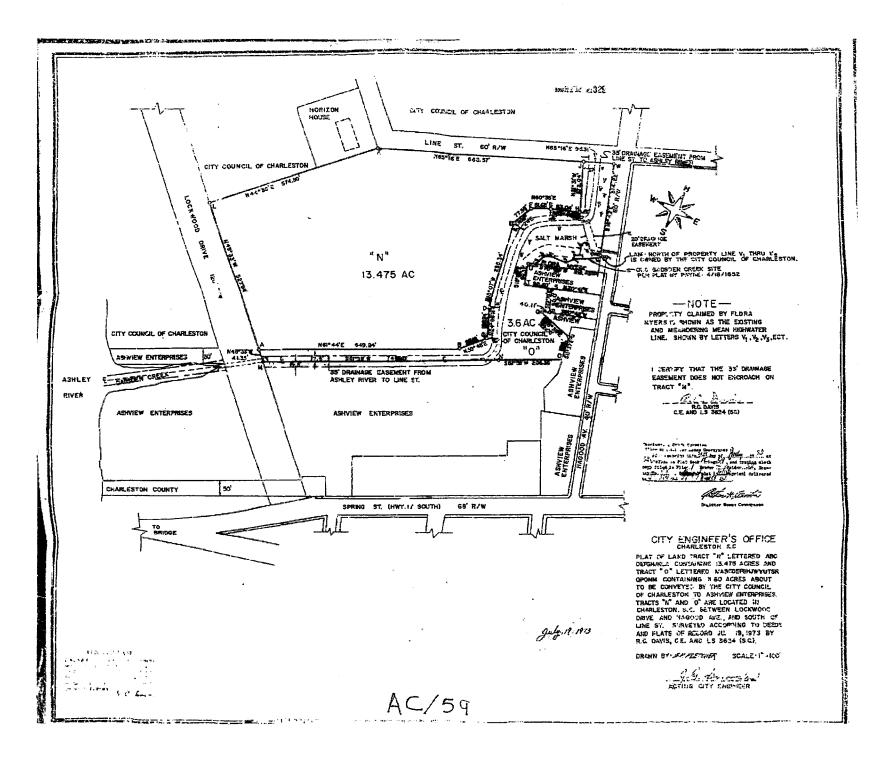
Sign, seal, and as their att and deed, deliver the within written with Betva. C. Hugan Deed; and that She witnessed the execution thereof. SWORN to before me, this 27 al Ny Commission expires 9/24/80 RENUNCIATION OF DOWER. THE STATE OF SOUTH CAROLINA, County. do hereby certify unto all whom it may concern, that Mrs. the wife of the within named. did this day appear before me, and upon being privately and segurately examined by me, did declare that she does freely, voluntarily, and without any compulsion, dread or fear of any person or persons whomsoever, renounce, release and forever relinquish unto the within named Heirs and Assigns, all her interest and estate, and also all her right and claim of dower, of, in or to all and singular the premises within mentioned and released. day of Given under my Hand and Seal, this Anno Domini, 19

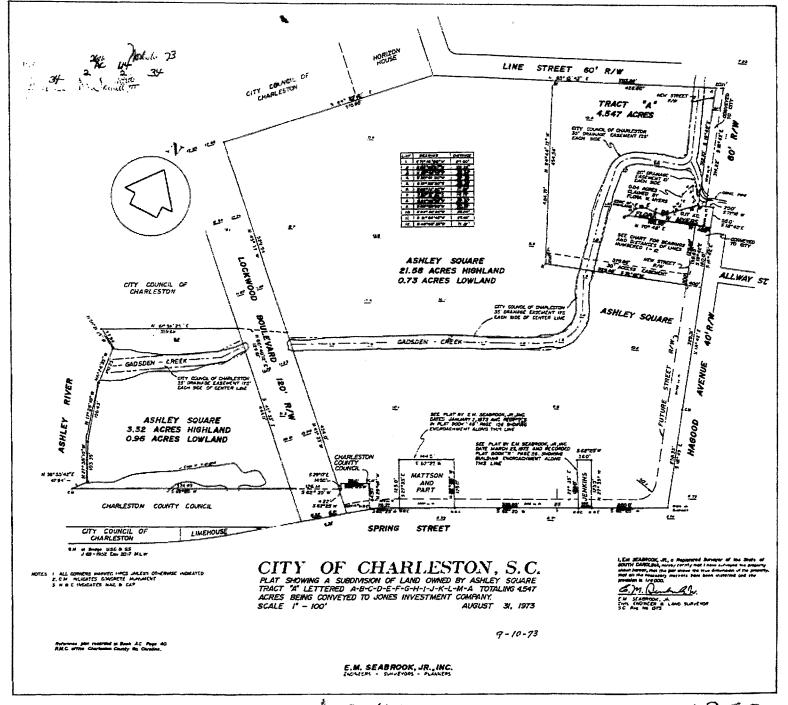


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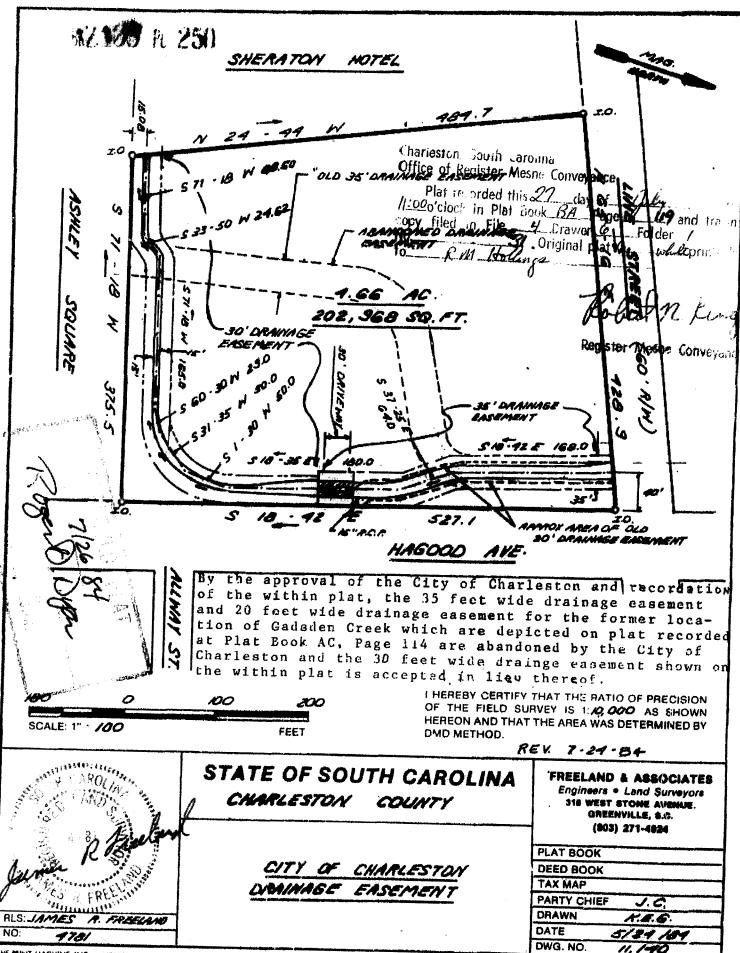
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THE MINT MACHINE, INC. N37703

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Letter of Tignsmittel

To: Tess Trumbull SCDHEC-OCRM 1362 McMillan Avenue Suite 400 Charleston, SC 29405

JAN 27 2015	
Date: January 26, 2015	

Job: Horizon District DHEC. OCHM
Re: Permit Application

WE ARE SENDING YOU THE FOLLOWING ITEMS (\Box attached) ($oxtimes$ under separate cover via \Box Bullet \Box	☐ Prints ☐ Plans ☐ Samples ☐ Specifications	☐ Change Order ☐ Other:	Description	Cover Letter	Permit Application Package	Fee Check for \$1,000.00 (check # 442367)	These are transmitted as checked below;	Approved as Submitted Resubmit Copies for Approval	Submit	Refurned for Corrections Return	Somment			Copy to Mary Shahid, Nexsen Pruet Signed	Ken Smook Schipe and Water
THE FOLLOWING ITI	☐ Prints	☐ Change Ord		Cover Lette	Permit Appli	Fee Check f) AS CHECKED BELC	☐ Approve	☐ Approve	☐ Returned	omment			id, Nexsen Pruet	Schine and Mr.
SENDING YOU	☐ Shop Drawings	☐ Copy of Letter	Date				E TRANSMITTED	pproval	For Your Use	J As Requested	For Review and C			Mary Shah	Ken Smool
We are s	Shop	(doo)	Copies	_	_		These are	For Approval	For ≺	As Re	∐ For R¢	Remarks		Copy to	



682 JOHNNIE DODDS BLVD, SUITE 100 | MOUNT PLEASANT, SC 29464 POST OFFICE BOX 1522 | MOUNT PLEASANT, SC 29465-1522 843.849.0200 | WWW.THOMASANDHUTTON.COM

RECEIVED

JAN 27 2015

Tess Trumbull, Wetland Section Coordinator SCDHEC-OCRM 1362 McMillan Avenue Suite 400 Charleston, SC 29405

DHEC - OCRM CHARLESTON OFFICE

Re: HORIZON DISTRICT

Dear Mrs. Trumbull:

Please find enclosed a permit application and supporting documentation submitted on behalf of the Horizon Project Foundation, Inc. ("HPF") seeking authorization to restore and maintain the existing fill and cap located at the former City landfill, and future site of the Horizon District. In addition, the applicant proposes to pipe and re-route the existing drainage presently running through the former landfill site.

I'm also enclosing the application fee in the amount of \$1,000.00 made payable to the South Carolina Department of Health and Environmental Control.

On behalf of HPF, I request that OCRM grant authorization to the applicant to perform the activities described in the permit application as normal maintenance and repair. Specifically, the applicant is seeking to repair a drainage facility, by restoring and maintaining the cap at the former City landfill and by piping and rerouting the existing drainage. This is specifically exempt from the requirements of obtaining a critical area permit in accordance with S. C. Code Ann. Sec. 48-39-130.

In the even that OCRM disagrees with the applicant's characterization of the proposed activity, we would ask that you process the enclosed application in accordance with your procedures. The applicant has a separate submittal before the Charleston District Corps of Engineers, seeking authorization to conduct the activities described in the critical area permit application as either Maintenance, under NW Permit #3, or as Cleanup of Hazardous and Toxic Waste, under NW Permit #38.

If you have any questions or need any additional information please do not hesitate to contact me.

Chris Magaldi, P. E., agent for HPF



Letter of Transmittal

To:

Tess Trumbull

SCDHEC-OCRM

1362 McMillan Avenue

Suite 400

Charleston, SC 29405

Date: January 29, 2015

Job: Horizon District

Re: Permit Application

WE ARE SEN	NDING YOU THE	FOLLOWING ITEMS ((□ attached	d) (🛭 under separate	cover via <u>Bullet</u>)				
Shop D	rawings [] Prints	Plans	Samples	☐ Specifications				
Copy of Letter Change Order Other:									
Copies	Date			Description					
1		Stamped Permit I	Plans						
For App For You As Requ	oroval ır Use	CHECKED BELOW: Approved as S Approved as I Returned for C	Noted	Resubmit Submit Return	Copies for Approval Copies for Approval Copies for Approval				
Remarks									
Romana									
Copy to _				Signed Chris Møgalø	i, PE				

Re: Horizon

Trumbull, Mary

Wed 3/25/2015 11:06 AM Sent Items

To:Ken Smoak <ksmoak@sabinc.net>;

Cc:Williams, Blair N. <WILLIABN@dhec.sc.gov>;

Bcc:Slagel, Matt J. <slagelmj@dhec.sc.gov>; Brooks, Steve <BROOKSS@dhec.sc.gov>;

Morning Ken - We do have the application in house & it has been assigned to Matt Slagel. Whoever you have previously sent information to will be able to forward it.

For public notice purposes, we have been coordinating with the Corps. It is our understanding that the Corps is still determining the proper path, whether an individual permit or nationwide permit, will be followed.

We will keep you posted as our coordination continues.

Thanks - Tess

From: Ken Smoak <ksmoak@sabinc.net>
Sent: Wednesday, March 25, 2015 10:56 AM

To: Trumbull, Mary Subject: Horizon

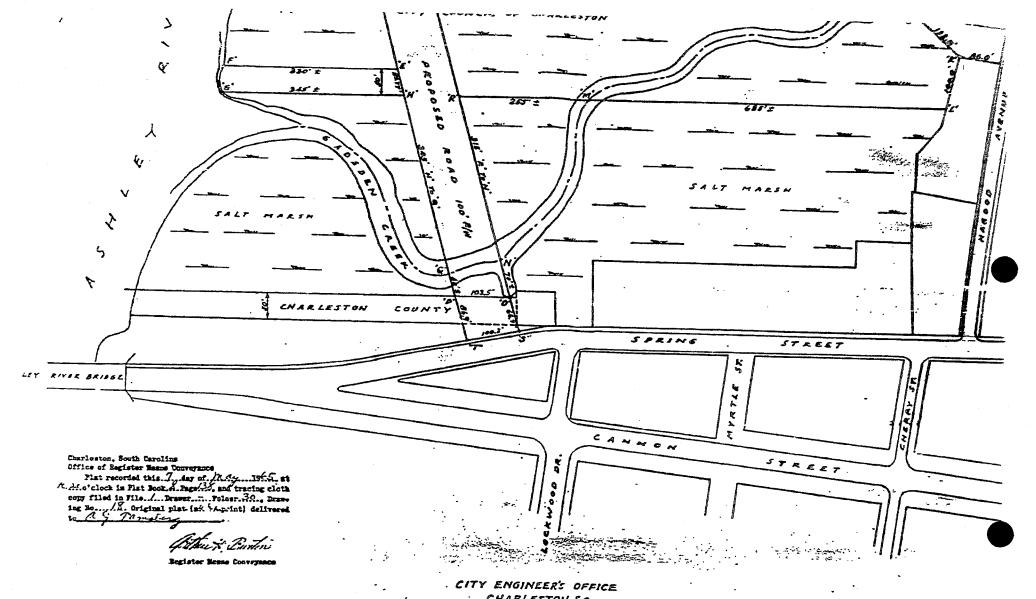
Tess, I spoke with Steve Brooks this A.M. and he said he has not been assigned as the project manager (yet) for the Horizon project, but he said that he thought OCRM was waiting for some additional info from Thomas & Hutton. I spoke with Chris Magaldi at Thomas and Hutton and he said as far as he knew the application was complete and has not been asked for additional info. Chris Magaldi had sent you an additional permit drawing Feb 3. I am working with T&H on the USACE application as well and asked Steve Brooks who gets the newspaper public notice. Steve said to send it to him and he would forward it. Will that work? As I am involved with the project I keep getting asked status and to follow up with OCRM so here I am. Has the permit gone out on public notice or can it be handled as R&M for the cap? Do you know if the PM has been assigned? Thanks, Ken

This message and any attachment are confidential and may be privileged or otherwise protected from disclosure. If you are not the intended recipient, please telephone or email the sender and delete this message and any attachment from your system. If you are not the intended recipient you must not copy this message or attachment or disclose the contents to any other person.

from Store Becoks, 3.25.15 The time making

Horizon District Location

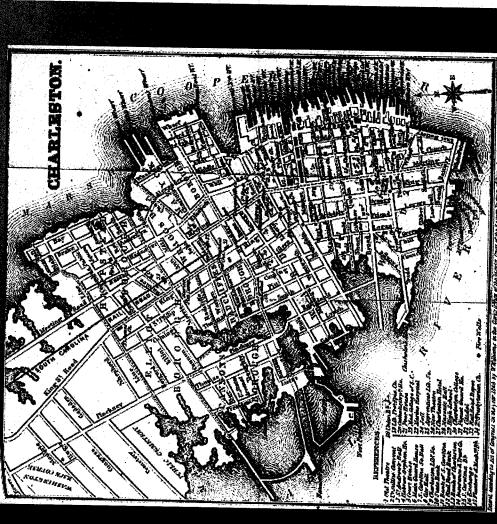


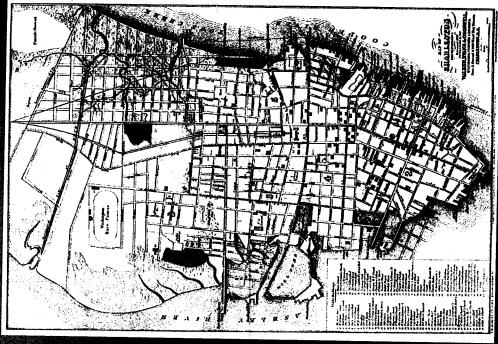


CHARLESTON, S.C.

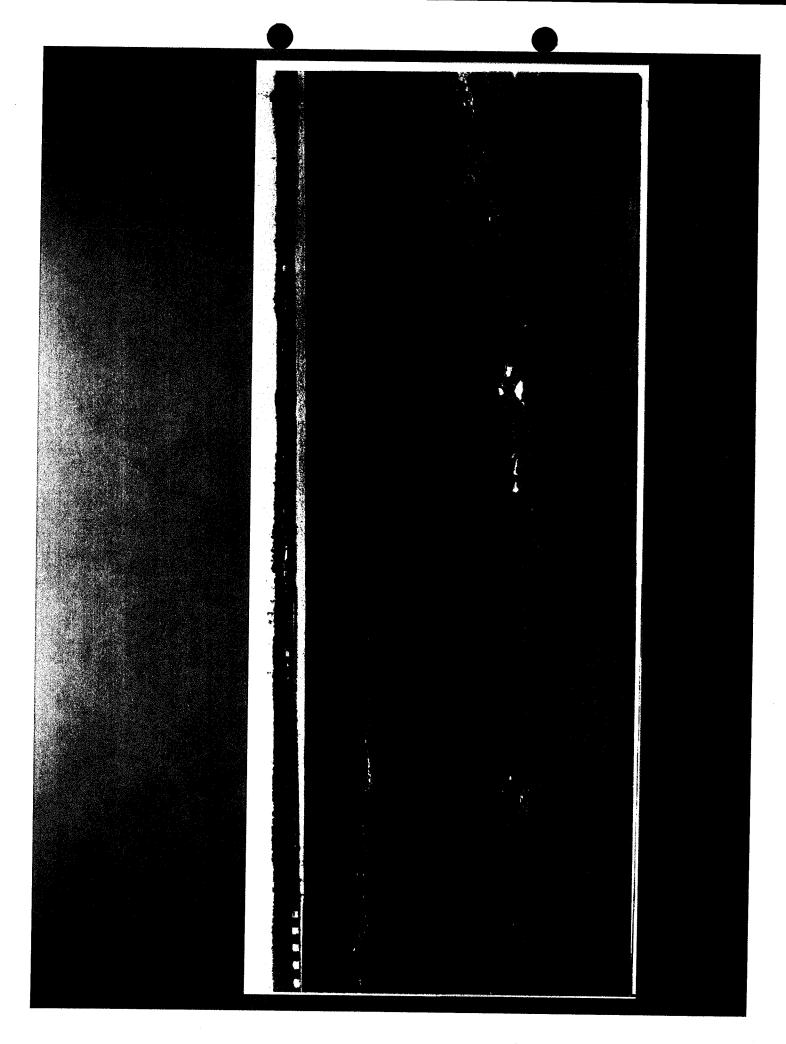
PLAT OF TRACT OF LAND LETTERED A'B'C'D' OWNED BY ATLANTIC COAST LIFE INS. CO. ABOUT TO BE CONVEYED TO CITY COUNCIL OF CHARLESTON, S.C., AND TRACT OF LAND LETTERED'E'F'G'H' OWNED B" CITY COUNCIL OF CHARLESTON, S.C. ABOUT TO BE CONVEYED TO ATLANTIC COAST LIFE INS. CU. ALSO, TRACTS OF LAND LETTERED C'U'K'L'M' AND N'O'P'G' OWNED BY HOWE-CARROLL ABOUT TO BE CONVEYED TO CITY COUNCIL OF CHARLESTON, S.C. AND TRACTS OF LAND LETTERED M'N'R' AND 'G'H'Q' O'NNED BY CITY COUNCIL OF CHERESTON, S.C. ABOUT TO BE CONVEYED ALSO, TRACT OF LAND LETTERED P'O'S'T' OWNED BY THE COUNTY OF CHARLESTON, S.C. ABOUT TO BE CONVEYED TO CITY COUNCIL OF CHARLESTON, S.C.

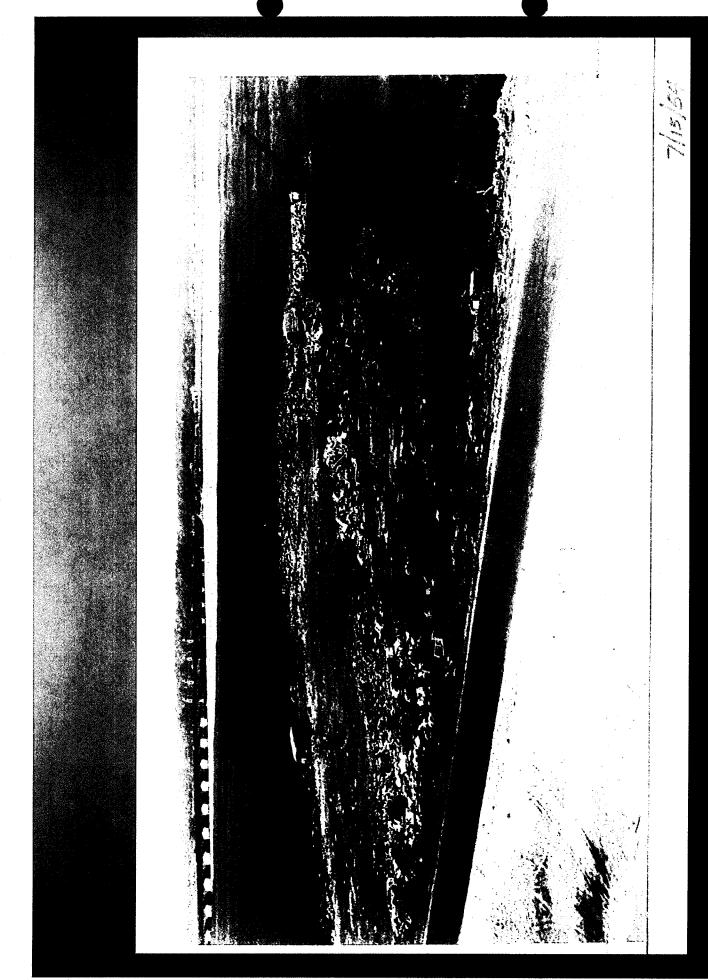
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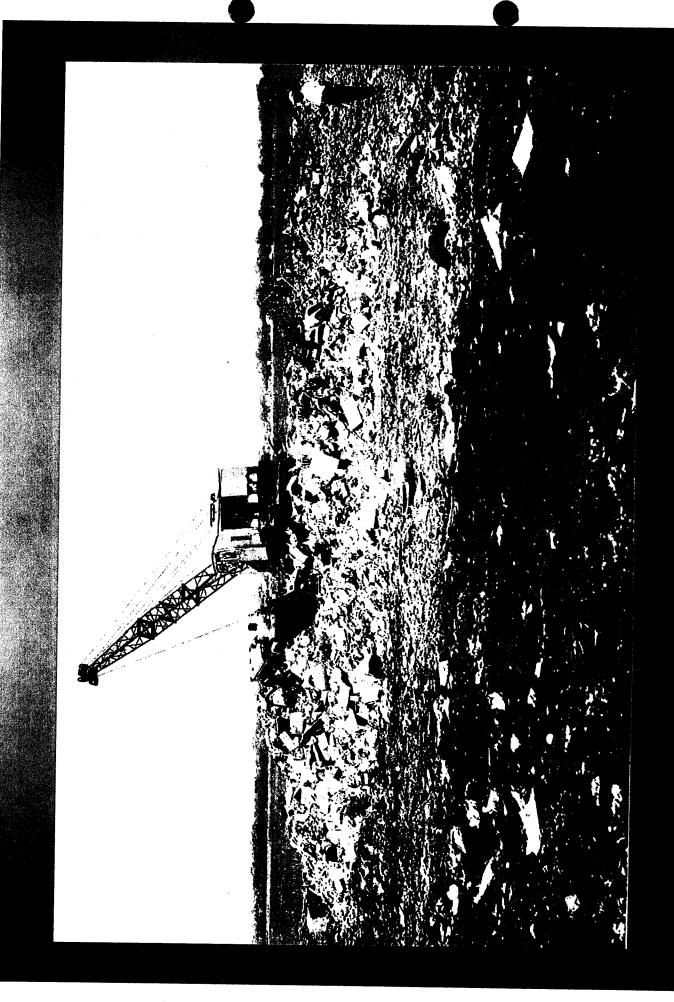


Versus and fill.















News and Courier, 1964

Brittlebank Park, 1973

News and Courier, 1975

11, 1975

Site Research

- Environmental and Geotechnical experience at the site and surrounding properties (and other former landfills).
- City of Charleston Sanitary Landfill approx. 1955 to 1969
- SCDHEC estimated 1.5M tons of waste (municipal, industrial, medical) in unlined trenches in the 93-ac landfill. US Army Corps of Engineers issued an "after-the-fact" closure permit (#71-02-15) on February 8, 1971.
- Former and active petroleum tanks, exposed waste material in the drainage ditches.

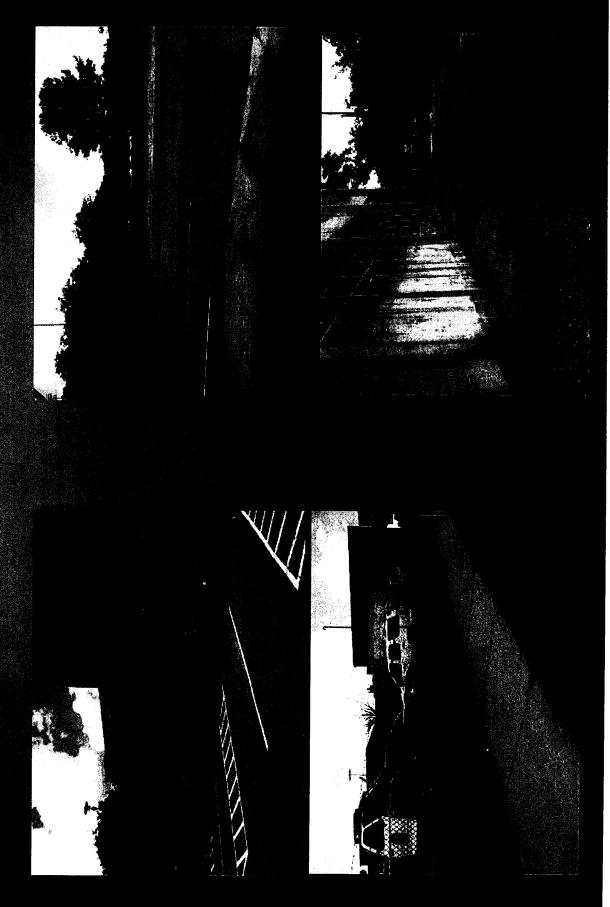
Driving issues

- Buried debris and elevated volatiles, semivolatiles, metals in soil and groundwater – so avoid excavations, if possible.
- Landfill gasses, in particular methane and hydrogen sulfide.
- Geotechnical consideration for settlement and foundation design.
- Stormwater drainage.

Settlement



Settlement



Settlement



Methane and Hydrogen Sulfide

- Reports of a flash fire in 1982 that injured a worker at the Sheraton (now Marriott) hotel (likely due to methane accumulation).
- monitoring, and special considerations for utility connections, Suggest design include recommendations for gas venting, subgrade vaults, etc.



Permit #71-02-15

DEPARTMENT OF THE ARMY

APPROVAL OF PLANS

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A Fabruary

1971

City of Charleston Charleston, Fouth Carolina 29402 District Engineer Corps of Engineers P. O. Box 919 Charleston, S. C. 29402

Deat Lancet

Relening to written request dated

30 April 1970

for the

approval of the attached plans of an excisting fill

which has been constructed in the march area along the easterly shere of the Ashley River

Mix covering so eres north of U. S. Highway 17 to The Citadel, Charleston County, South Carolins.

Upon the recommendation of the Chief of Engineers, and under the provisions of Section 10 of the Act of Congress approved March 3, 1899, entitled "An act making appropriations for the construction, repair, and preservation of certain public works on rivers and barbors, and

MAY 1970

2001 Z 99 8436338

for other purposes," said plans are approved by the Secretary of the Army, subject to the

following conditions:

- (a) That this instruces does not convey any property rights wither in real solute or material, or any exclusive private property or invasion of private nights, or any infrancement of Federal, State or local laws or regulations, nor does it obtate the necessity of obtaining State or local assent required by law for the circuits or work herein approved.
- (b) That the permittee shall comply promptly with any lawful regulations, conditions, or instructions affecting the structure or work herein approved if and when leaved by the Federal Water thallty Administration and/or the Ruste water pollution control agency having jurisdiction to abuse or prevent water pollution, including thermal or radiation pollution. Such regulations, conditions or instructions in affect of hereafter presented by the Federal Water Quality Administration and/or the State agency are kereby made a condition of the pennil.
- (c) That the possitive will maintain (be structure better approved to good condition is accordance with the approved plane.
- (6) That this pennit may at any time be modified by authority of the Senzetary of the Army if it is debroaded that, order existing circumstances, modification is in the public interest." The pennities, upon pacetys of a notice of modification, shall comply therewish as directed by the Secretary of the Army or his authorized representative.
- (e) That this parent may be revoked by authority of the Secretary of the Army if the permittee fails to comply with any of its provisions or if the Secretary determines that, earlier the existing cure wateness, such action is required in the public interest.
- (f) That any neutrification or revocation of this permit shall not be the banic for a claim for damages against the United States.
- (d) That the United States shall in no way be liable for any damage to any structure or work berein approved which may be caused by or result from future operations undertaken by the Corumnent in the patito intercest.
- (a) That no attempt shall be made by the permittee to foilid the full and free nes by the public of all navigable waters at or adjacent to the structure or work berein approved by this permit.
- (i) That if the display of lights and signals on any structure or work batein approved it not otherwise provided for by law, such lights and signals as may be prescribed by the United States Coast Ouard, shall be installed and maintained by and at the expense of the penalties.
 - (f) That the legal requirements of all l'ederal agencies be met.
- (c) That this penalt does not approve particular structures, the authorization or approval of which may require action by the Congress or other againsts of the Federal Government.
- (i) That all the provisions of this permit shall be binding on any assignes or successor in interest of the permittee,
- (m) That if the recording of this permit is possible under applicable Rate or local law, the permittee shall take such action a.. may be necessary to record this permit with the Registrar of Deeds or other appropriate official charged with the responsibility for maintaining records of title to and laterests in real property.

10017. 99 Hat 338

(ii) That to brilding or other structure may be created on the fill approved by this permit unless such building or other structure is appropriately ider titled and described in the plans and distrings attached literate: that buildings or other attructures approved by this permit, once structures are not the significantly modified in their out; "id appearance or thin down and other buildings or structures erected in their place unless a modification of this permit; a authorized by the Secretary of the Army or his authorized representative; and that neither the fill itself nor buildings or introduced in the contemplated at the time of ispeaces of this permit unless a modification of this permit is authorized by the Secretary of the Army or his authorized representative.

"A jodgment no to whother of not suspension, modification or revocation in in the public interest lavolves a consideration of the impact that any such action or the absence of any much acti-a may have on factors affecting affecting the public interest. Such factors include, but are not limited to maxigation, fish and wildlife, water quality, according, consecution, econymisms and, in general, the needs and welfare of the people.

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BURKE W. LEE DATE	Jahr
Witness Hallucia 1/25/7 Mille	77''
Vitness BUEKE W. LEE COL, Corps of Engineers District Engineer	Date
Permittee hereby accepts the terms and conditions of this permit.	
I Valmer Brilland A. 1/2/2	•
Permittes Pote I balmer Gailland &	1. 0/8/71
Vitness Purmittee	Date
City of Charleston	
17-17-55	•

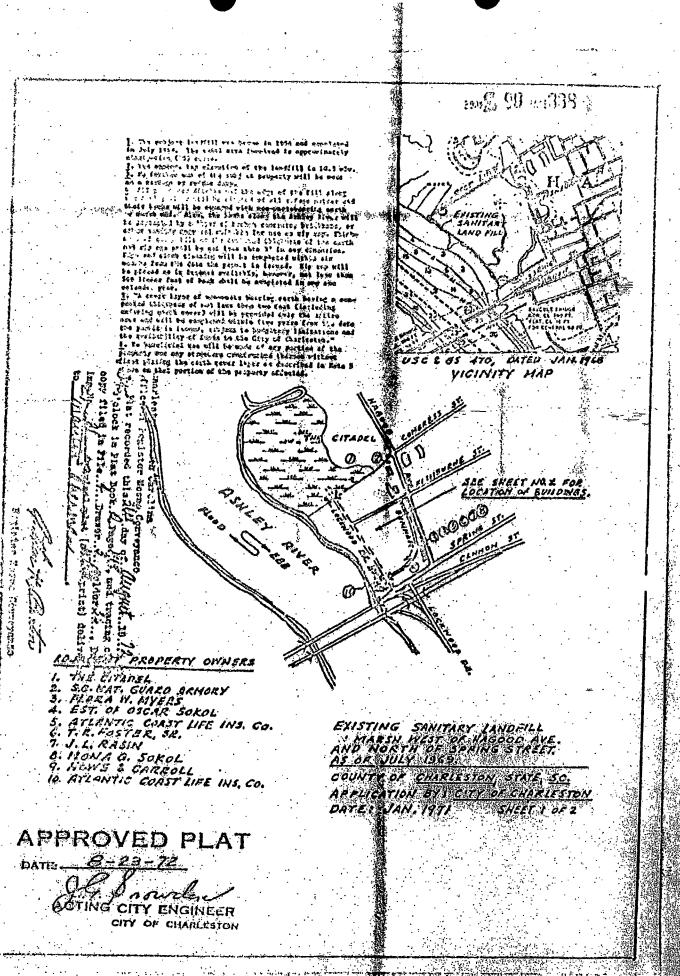
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South Larolina Department of Health-Pef. 6

and Environmental Control

2600 Bull Street Columbia, S.C. 29201

Commissioner Michael D. Jarrett



Board

Moses H. Clarkson, Jr., Chairman Oren L. Brady, Jr., Vice-Chairman Euta M. Colvin, M.D., Secretary Harry M. Hallman, Jr. Henry S. Jordan, M.D. Toney Graham, Jr. M.D.

MEMORANDUM

TO:

File

FROM:

David W. Nix

Site Screening Section

Bureau of Solid and Hazardous Waste Management

RE:

Screening Site Inspection Visit

February 23, 1988

Charleston Landfill - SCD 980 846 034

DATE:

May 19, 1988

On February 23, 1988 the writer, along with Charles S. Strange, Jr., Marianna DePratter, Helen McGill, Wayne Fanning and John Ohlandt of DHEC, conducted a Screening Site Inspection Visit at the old Charleston Landfill located on the Ashley River at U.S. Highway 17. We arrived at the site at approximately 2:30 p.m. and were met by Chuck Jarman, City Engineer, City of Charleston. The weather was clear, cool and windy. The tide was out at the time of the visit. The groundwater was saturated from recent rains.

We made a visual inspection of the site while Charlie Strange made a videotape of the visit. The first area we visited was the northern boundary drainage ditch. The ditch separated the landfill from a fill area for construction debris still in operation (owned by the Citadel) and a salt marsh behind the Citadel. A small surface drainage ditch, running perpendicular to the northern border ditch, was cut into the surface of the landfill, exposing refuse, which was about even with the Lockwood Drive extension to the south. The small surface drainage ditch contained water that appeared to be septic, was colored red and had a steady evolution of methane gas forming bubbles in the scum coating on the surface of the water. Areas of exposed refuse could be observed to the east of this ditch in an open area that had been considered as a site for the Trident Technical College campus.

From this area we drove around the perimeter of the site to allow Charlie to film the entire area. We noticed many areas of uneven surface coverage which were probably caused by settling of the garbage dump. Some of the roads built on the site were almost impassable due to the extensive settling occurring across the landfill. Tennis courts built behind the Sheraton Hotel were useless because of the uneven surfaces due to settling.

Observation of the perimeter drainage ditches revealed small leachate streams as water flowed out of the landfill during low tide. Ponding was observed on the surface of the landfill where the ground had settled.

Memo to File May 19, 1988

During the drive around, we stopped to look for monitoring wells installed at the site proposed for construction of the Charleston Employment Security building. We could not locate the wells. Later it was discovered that we had looked in the wrong area.

Our final stop was at the Sheraton Charleston Hotel. We obtained permission to gain access to the roof so that we could film the area from an aerial vantage point. One of the hotel maintenance workers told of an incident which resulted in a hotel employee receiving burns from a flash fire caused by the buildup of methane gas in the water meter manhole at the hotel. He also stated that the hotel was constructed so that methane gas would be vented around the perimeter of the hotel. The buildup of methane gas in the water meter manhole presents a continued danger to hotel employees or municipal workers entering it to read the water meters.

The inspection was concluded at around 5:30 p.m.

DWN:elf



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S. C. Dept. ... ¹³ealth & Environmental Control-Bure of Solid & Hazardous

Wat Management

Charleston LDF SCD 980 846 034 Charleston County

INTRODUCTION

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SITE DESCRIPTION

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Charleston Landfill SCD 980 846 034 Page 1

I. INTRODUCTION/EXECUTIVE SUMMARY

The old Charleston Landfill is located on the west bank of the Ashley River at US Highway 17 on the Charleston Peninsula. The site was operated as an open dump from the mid-1950's until 1969. The dump reportedly accepted primarily domestic waste, with a small amount of industrial waste also being dumped at the site.

The landfill is bordered by the Ashley River to the west, and tidal creeks to the north, east and south. Leachate from the site has been shown to have impacted the sediments and water in the tidal creeks. This impact poses the potential for impact of marine organisms in the tidal creeks and the salt marsh to the north.

Groundwater contamination may have occured, but because of salt water intrusion the upper aquifer is not used as a source of drinking water. The deeper aquifers that are tapped for emergency water supply by the City of Charleston are separated by over 1000 feet of various geologic formations, the uppermost of which is the relatively impermeable Cooper Formation. Because of the great depth of the aquifers and the location of the Cooper Formation (as a confining layer), the potential for contamination of emergency drinking water supplies is negligible.

Methane gas production by the decaying debris has necessitated that buildings on site be constructed with vent systems to prevent buildup of methane gas in the buildings. One incident of a methane gas explosion and flash fire in an underground vault containing water meters for the Sheraton Charleston Hotel has been reported.

Because of the potential for adverse impact on the marine ecosystem from leachate, the site is given a Low Priority for a Listing Site Inspection (ISI) to allow for assessment of biological parameters.

II. SITE BACKGROUND AND HISTORY

A. Ownership History

Owner: City of Charleston 80 Broad Street

Charleston, SC 29402

Operator: Same as owner

Direct Inquiries to: Chuck Jarman, City Engineer

City of Charleston 80 Broad Street Charleston, SC 29402

B. Site Description

The old Charleston Landfill (CLF) is located on the east bank of the Ashley River, bounded by U.S. Highway 17 to the south, Hagood Avenue to the east and salt marsh to the north. The site covers approximately 95 acres in downtown Charleston. The coordinates for the site are latitude 32 degrees, 47 minutes, 21.0 seconds and longitude 079 degrees, 57 minutes, 57.0 seconds (Ref. 1).

C. Regulatory History/RCRA Summary

When the City of Charleston closed out the landfill in 1969, they applied for an "After-the-Fact" permit with the Army Corps of Engineers (COE) Charleston District Office (Ref. 3). The COE issued the After-the-Fact permit (#71-02-15) on February 8, 1971 with the following conditions to be met in order to Validate the permit (Ref. 3).

- 1. The subject landfill was begun in 1956 and completed in July 1969. The total area involved is approximately ninety-five (95) acres.
- 2. The approximate top elevation of the landfill is 10.5 feet above mean sea level.
- 3. No further use of the subject property will be made as a garbage or refuse dump.
- 4. All perimeter ditches and the edge of the fill along the Ashley River will be cleaned of all refuse matter and their banks will be covered with non-waste bearing earth or marsh mud. also, the banks along the Ashley River will be protected by a layer of broken concrete, brickbats, or other similar material suitable for use as rip rap. Thickness of the earth fill or the combined thickness of the earth and rip rap shall not be less than three (3) feet in any dimension. Edge and ditch cleaning will be completed within six months from the date the permit is issued. Rip rap will be placed as it becomes available, however, not less than 500 linear feet of bank will be completed in any one calendar year.
- 5. "A cover layer of non-waste bearing earth having a compacted thickness of not less than two feet (including existing earth cover) will be provided over the entire area and will be completed within five years from the date the permit is issued, subject to budgetary limitations and the availability of funds to the City of Charleston."
- 6. No beneficial use will be made of any portion of the property, nor any structure constructed thereon, without first placing the earth cover layer as described in Note 5 above on that portion of the property affected.

In June of 1972, W.R. Davis, Chemist with the Industrial and Special Studies Branch EPA Region IV, conducted an inspection of the closed-out CLF, noted several problems and collected four samples from drainage ditches (Ref. 3). The first problem noted was the lack of adequate cover,

with bare areas apparent. He also noted that a sewer line had been installed in a ditch dug through the refuse with water running out of the fill into a small tidal stream flowing parallel with Hagood Street. Mr. Davis then discussed the results of the four water samples taken at the time of his inspection. Because of the nature of the results Mr. Davis determined that the Charleston Landfill was a source of pollution and made the statement that "the leachate from the Charleston Landfill is a definite threat to water quality in the Ashley River in the vicinity of the landfill."

The problems identified in 1972 were apparently never corrected because, in a 1980 inspection by personnel from the Army Corps of Engineers and DHEC, many of the deficiencies noted in 1972 were still existing with no apparent attempts having been made to abate the problems (Ref. 2). Among problems identified during this inspection were leachate from the site entering the Ashley River, erosion along drainage ditches, lack of diversion structures, evidence of improper or inadequate draining, no leachate collection system, and lack of adequate, impermeable cover material. Also noted in relation to past regulatory action was the statement that the CDE referred the site to the Department of Justice for permit violations but the DDI refused to act on the case. The inspection report also determined that the City of Charleston was not in compliance with the conditions of CDE permit #71-02-15.

Since the time of the 1980 inspection a City park, Brittlebank Park, has been constructed along the east bank of the Ashley River on top of the landfill. Also, a hotel, the Sheraton Charleston has been constructed on top of a portion of the landfill. During 1980, plans were made to construct a campus for Trident Technical College (Ref. 4). However, the building was abandoned during the initial stages of construction because of settling of the landfill. The partially constructed building was razed, and no sign of the construction exists in 1988.

Apparently, the City of Charleston is still attempting to make use of the landfill property since they have offered a portion of the property along Hagood and Fishburne Streets to be used as the site for a new Employment Security Building for Charleston (Ref. 7). The use of the landfill property for office buildings is questionable since methane gas is produced in explosive concentrations (Ref. 8) and presents a hazard to occupants of buildings on the site.

The old Charleston Landfill was operated prior to RCRA regulations and was, therefore, never permitted or regulated by RCRA. The City of Charleston applied for an after-the-fact permit from the U.S. Army Corps of Engineers (COE) as settlement of legal action taken by the COE with the U.S. Justice Department in order to force the City to bring the old landfill into compliance with COE regulations regarding the filling of wetlands. The COE granted the City of Charleston Permit Number 71-02-015 on February 9, 1971. The permit contained 14 sections defining the purposes and conditions to be met by the City with regards to closing out he landfill. Condition "b" states that the City must comply promptly with all regulations, conditions or instructions affecting the structure or work

at the landfill when they are promulgated by the Federal Water Quality Administration and/or the State Water Pollution Control Agency having jurisdiction to abate or prevent water pollution, including thermal or radiation pollution, and that such regulations, conitions or instructions in effect or thereafter prescribed by the Federal Water Quality Administration and/or State agency are automatically made a condition of the permit.

This condition places the City of Charleston in the position of having to comply with all landfill regulations yet to be promulgated by State and Federal Authorities. The COE permit also puts time constraints for meeting conditions of the permit or any newly promulgated regulations. Under the conditions of the COE permit the City of Charleston would also have to comply with all South Carolina Solid and Hazardous Waste Regulations relating to landfills, as well as, all applicable Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation and Liability Act (CERCIA) regulations. Therefore, the CERCIA program is reviewing the past history of the Charleston Landfill and investigating the current status of its' impact on the environment.

D. Process and Waste Disposal History

The CLF was the site of a domestic waste landfill project from 1956 to 1969. Prior to being landfilled, the site was a tidal influenced salt marsh. The landfill reportedly accepted primarily municipal wastes with some industrial waste (Ref. 1, 2). The wastes were dumped into unlined trenches to a depth of ten to twelve feet (Ref. 1, 3). Assuming that the entire 95 acres was used for landfill with a 10 foot depth of waste (Ref. 7), then potentially there could be 13,794,000 cubic yards of waste buried at the site. The actual amount of waste may be greater or less than this calculated amount. Whatever the total amount, it is apparent that over the life of the dump (1957 to 1969) it accepted quite a large volume of municipal waste and, potentially, a significant amount of hazardous waste from industrial sources.

E. Remedial and Removal Actions

No emergency or remedial actions by State or Federal authorities have taken place relative to the old Charleston landfill. The City of Charleston, however, was charged with maintaining the closed out landfill in a manner to prevent the possibility of public exposure to buried refuse in the US Army Corps of Engineers "After-the-Fact" permit (#71-02-015, Ref. 3).

F. Demography/Regional Setting

The old Charleston landfill is located on the heavily urbanized Charleston peninsula. It is adjacent to The Military College of South Carolina, The Citadel, and the roads which run through the site are used by Citadel Cadets for running and bicycling. To the south, across US Highway 17, is the Medical College of South Carolina and the Roper Hospital. To

the east is the old city portion of the Charleston peninsula with many historic homes and buildings dating from the eighteenth century. To the west is the Ashley River which is used for recreational sailing and fishing. Across the Ashley River are Johns Island and James Island which are heavily populated urban areas.

Burke High School is located to the northeast across the intersection of Fishburne and Hagood Streets, about 500 feet from the site.

A city park, Brittlebank Park, has been built on a portion of the old landfill that borders the Ashley River.

There is no farmland located within 4-miles of the site which could be affected by hazardous conditions at the site.

III. GROUNDWATER PATHWAY

A. Regional Hydrogeology

Wells located on the Charleston peninsula penetrate deep Cretaceous aquifers which are protected from contamination by the Cooper Formation, a calcareous clay. Pleistocene sands overlying the Cooper Formation comprise a shallow water-bearing unit that is most vulnerable to contamination. This shallow water-bearing unit is not used for water supply in the Charleston peninsula (Ref. 11, p.1).

The oldest sedimentary units underlying the Charleston peninsula were deposited in the continental to inner shelf marine environments and are Late Cretaceous in age. This Cretaceous section overlies the Triassic basement and is approximately two thousand (2000) feet thick. The depositional units of the Cretaceous section are, in ascending order, the Middendorf, Black Creek and Pee Dee Formations (Ref. 11, p. 2).

Above the Pee Dee Formation lies sedimentary units which are Tertiary in age and were deposited in marginal marine to outer shelf environments. Sand, silt and clay dominate the lithology of the lower part of the section, and pure to very impure limestone dominates the upper part of the section. The depositional units of the Tertiary section are, in ascending order, the Black Mingo Formation, the Santee Limestone and the Cooper Formation (Ref. 11, p. 3).

The depth of the depsotional units below mean sea level are illustrated in Appendix A, Figure 1.

The uppermost shallow water-bearing unit is approximately 20 feet thick at the site and is composed of Pleistocene sands and interbedded clays (Ref. 11, p.5).

Below the shallow water-bearing unit lies the Cooper Formation, a sandy phosphatic, dark greenish-gray marl of low intrinsic permeability. The Cooper Formation is approximately 220 feet thick at the site (Ref. 11, p. 5).

and Horizon Street, was a large amount of leaves, limbs and stumps piled up by the City of Charleston. This dumping on top of the landfill was noted to be in violation of the US Army Corps of Engineers Closure Permit #71-02-015.

B. Sample Types

The Division of Waste Assessment and Emergency Response of DHEC took samples of surface water, ground water an sediments on April 21, 1988 at the CLF in order to determine the extent and severity of any contamination present at the site (Ref. 9). A total of six samples were taken at this time, consisting of 3 surface water samples, 2 from the Ashley River (upstream and downstream) and one from the tidal influenced diversion canal near the Sheraton Charleston Hotel, one groundwater sample taken from a monitoring well (#1) at the proposed location for the new Employment Security Building, and two sediment samples from drainage ditches, one from near the Sheraton Charleston Hotel and one from near the Citadel Landfill

C. Analytical Results

Results from the surface water samples from the Ashley Rvier showed no impact from the landfill leachate (Ref. 11, pg. 6-7). The surface water sample taken from the drainage ditch near the Sheraton Hotel during ebb tide did not show any impact from leachate except for elevated levels of iron and manganese (Ref. fll, pg. 6). Sample results are tabulated in Appendix A, Table 2 (surface water results).

Sediment samples from the drainage ditches were found to be within the range expected for naturally occurring constituents except for elevated levels of barium, lead and iron found in the ditch near the Citadel landfill (Ref. 11, pg. 5-6). Sample results are tabulated in Appendix A, Table 3 (sediment results).

The ground water monitoring well sampled at the proposed site of the Charleston Employment Security Building was 15.5 feet deep and was screened from 6 feet deep to 15.5 feet deep (Ref. 12). Four feet of the screen was in the landfill debris and 5.5 feet of the screen was in the dark gray clay below the fill. Analytical results from the monitoring well yielded levels of barium, iron, manganese and lead above drinking water standards (Ref. 12, pg. 2). These levels are probably due to leaching of these metals from the landfill debris. Leachate collection is expected in this monitoring well since it is screened partially in the landfill debris.

VIII. CONCIUSIONS AND RECOMMENDATIONS

The profile of metals in the monitoring well leachate sample, ditch sediments and surface water samples is consistant with leaching of metals in a domestic waste landfill. No organic compounds were identified in samples taken at the site in April of 1988. The only hazardous condition identified at the site is the production of methane gas in explosive concentrations (Ref. 8).

Groundwater contamination may have occured, but because of salt water intrusion the upper aquifer is not used as a source of drinking water. The deeper aquifers that are tapped for emergency water supply by the City of Charleston are separated by over 1000 feet of various geologic formations, the uppermost of which is the relatively impermeable Cooper Formation. Because of the great depth of the aquifers and the location of the Cooper Formation (as a confining layer), the potential for contamination of emergency drinking water supplies is negligible.

The Charleston Landfill is located on the Ashley River with tidal creeks bordering to the north and south. Leachate has been shown to be impacting the sediments and water quality in the tidal creeks. Tidal Creeks and the associated salt marshes provide the breeding grounds for shrimp and other marine life and also provide the first link in the marine food chain. Therefore, any adverse impact upon the salt marsh and marine life associated with the marsh could have a severe impact upon the food chain and eventually the ecological balance of marine life in the Ashley River and Charleston Harbor. Because of these concerns, this site could benefit from biological analysis of shrimp, crabs, shellfish and other resident marine organisms. Such an evaluation would be beneficial in establishing the disposition of the site for CERCIA action.

This site is given a Low Priority for further action because of the areas discussed in this section. It is recommended that a Listing Site Inspection (LSI) be performed with special emphasis placed upon biological monitoring of the impact of the site on the surrounding marine habitats.



Catherine B. Templeton, Director Promoting and protecting the health of the public and the environment

NEXSEN PRUET, LLC **POST OFFICE DRAWER 2426** COLUMBIA SC 29202

Invoice Date: Invoice Number: 04/15/2015

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Program ID:

81423

Department Name:

OCRM- OFFICE OF OCRM

Department Contact: LYNETTE D THOMAS

Department Phone:

843-953-0200

Qty	Description	Unit	Extended
1.00	Application fee for critical area permit - major activity	1,000.00	1,000.00
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	Total		\$1,000.00

South Carolina Department of Health and Environmental Control

Facility Name:

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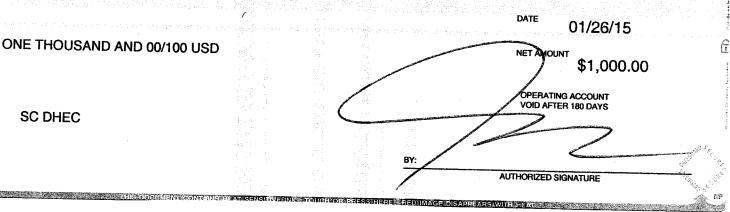
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Charleston, 50 29402

AFFIDAVIT OF PUBLICATION

The Post and Courier

State of South Carolina

County of Charleston

Personally appeared before me the undersigned advertising clerk of the above indicated newspaper published in the city of Charleston, county and state aforesaid, who, being duly sworn, says that the advertisement of

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03/18/15 Wed PC 03/18/15 Wed CNW

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Subscribed and sworn to before

methis 18 11

\z | 0 | 1 | ---- a

of March

AD 2015

Stephanie Kruger advertising clerk





PUBLIC NOTICE

HORIZON PROJECT FOUNDATION, INC. ("HPF"), rin
behalf of the Cily of Charles
ton ("City") and The Medical
University of South Carolina
Foundation ("MUSC"), has
applied to the U.S. Armo
Corps of Engineers and
SCOHEC-OCRA for a part
of Invacidational critical
area necessary to conduct
maintenance activities on a
previously authorized landillicover and to pipe and to reproving authorized landillicover and to pipe and to reroule stormwaler runoff in an
area generally bound a
rune Flathburne Street Comments will be received by the
South Carolina Street Comments will be received by the
South Carolina Department of
Health and Environment of
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Control Office of Ocean and
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MAR 30 2015

DHEC - OCRM
CHARLESTON OFFICE

Andrew J. Wunderley, Esq.

Thu 4/23/2015 9:17 AM

To:
Slagel, Matt J.;
You replied on 4/23/2015 3:17 PM.

Mr. Slagel,

In public notice OCRM-15-103-J the Horizon Project proposes to fill 4.025 acres of Critical Area to construct "drainage features" in advance of redeveloping the old Charleston Landfill brownfield site. Charleston Waterkeeper is concerned because the scope of work appears to be misleading and narrowly described. In fact, the Horizon Project proposes to bury Gadsden Creek in a pipe and fill the surrounding marsh area.

At one time, Gadsden Creek was a major tidal creek system on the peninsula's west side (see attached 1918 topo map). Although smaller than it once was, the creek is still a functioning tidal system. The tide ebbs and flows and spartina, marsh periwinkles, oysters, mud minnows, and egrets are all present (see attached Gadsden Creek 1 image).

It's important to understand that the Gadsden Creek tidal system is much more than a ditch or drainage feature. I invite you walk Gadsden Creek with me and see this tidal creek system first hand. How does sometime Monday (4/27) or Tuesday (4/28) afternoon work on your end?

Regards,

Andrew

Andrew J. Wunderley, Esq.

Charleston Waterkeeper

1630 Meeting Street Road, Suite 205 Charleston, South Carolina 29405 Email: andrew@charlestonwaterkeeper.org Phone: (843) 906-7073 Social: Twitter + LinkedIn

