September 22, 2020
4:30 p.m.
Conference Call:
1-929-205-6099
Access Code: 300611887

COMMITTEE ON WAYS AND MEANS

1. Invocation – Councilwoman Jackson

2. Approval of Minutes:

   July 28, 2020

   September 8, 2020

3. Budget Finance and Revenue Collections: An ordinance authorizing the issuance of City of Charleston Public Facilities Corporation Installment Purchase Revenue Bonds (City of Charleston Project), Series 2020; authorizing the execution and delivery of certain instruments relating to the issuance and sale of the aforesaid bonds, each between the City of Charleston, South Carolina and City of Charleston Public Facilities Corporation, a Bond Purchase Agreement among the City, City of Charleston Public Facilities Corporation and the underwriter, and a preliminary official statement and an official statement; and other matters relating thereto.

4. Police Department: Approval to accept the 2020 VOCA grant in the amount of $74,826 for the salaries and fringe benefits of (1) Elder Advocate and (1) Resource Specialist that reports to the CPD Family Violence Unit. A cash match of $18,707 is requested to be budgeted.

5. Police Department: Approval to accept the 2020 Port Security Grant in the amount of $274,766 for the Munson Retrofit and the Night Vision and Laser Designator for Harbor Patrol and SWAT. A cash match of $91,589 is requested to be budgeted for 2021.

6. Parks-Capital Projects: Approval of an Amendment to the Memorandum of Understanding with the Charleston County School District for cost share of the construction of a track around Stoney Field by Gulfstream Construction. Work will include a surcharge program, building a retaining wall along the marsh, cut of wall at each stadium face, perimeter fencing and the base and asphalt surface course. The City's share of this will be $460,895 (50% of the bid price of $921,790). Approval of this MOU will obligate $460,895 of the $3,018,480.50 project budget. Funding sources for this project are: 2005 GO Bond ($399,048), 2018 GO Bond ($2,600,000) and Capital Contribution ($19,432.50). ***(To be sent under separate cover)***

7. Parks-Capital Projects: Approval of the Ashley River Pedestrian Bridge Professional Services Contract with HDR Engineering, Inc. of Charleston in the amount of $2,009,112.81 for design build contract support, contingent upon FHWA approval of pre-award costs. Work performed under this contract is necessary to bid the Design Build Contract by next fall in order to obligate the FHWA Build Grant funding. The City has been working under the direction of FHWA with assistance from SCDOT to negotiate the contract with HDR that is in compliance with Federal guidelines.

Approval of this professional services contract will obligate $2,009,112.81 of the $22,749,750 project budget. Funding sources for this project are: BUILD Grant, Charleston County, General Fund Reserves and MUSC. Notice to proceed will not be given to contractor until City has received approval award letter from FHWA and subsequent funding from Charleston County.

8. Parks-Capital Projects: Approval of International African American Museum GMP Change Order #5 with Turner Construction Company in the amount of $229,150 for changes to include low voltage and revision to track lighting as coordinated with exhibitry. Approval of Change Order #5 will increase the Guarantee Maximum Price (GMP) Contract by $229,150 (from $58,892,872 to $59,122,022). This change order is fully funded by the IAAM. Funding sources for this project are: Accommodations Tax ($13,200,000), Charleston County Accommodations Tax ($12,500,000), State Funding ($14,000,000), IAAM Contributions ($53,000,000).

9. Stormwater Management: Approval of the Johns Island Restoration Plan to improve flood resiliency professional services contract with The Water Institute of the Gulf in the amount of $42,255 for Masterplan Services as part of the John's Island Restoration Plan to improve flood resiliency. The professional services contract will obligate $42,255 of the project budget. Funding for this project is coming from a National Fish & Wildlife Grant ($117,500) and Drainage Fund ($117,500).

10. Stormwater Management: Approval of Barberry Woods Improvements Fee Amendment #1 with WK Dickson & Co., Inc. in the amount of $192,745 for additional engineering and design services for drainage improvements in the Barberry Woods area of Johns Island. This fee amendment will add an additional 60 calendar days to the contract. Approval of Fee Amendment #1 will increase the professional services contract by $192,745 (from $498,050 to $690,795). Funding for this fee amendment is coming from a National Fish & Wildlife Grant ($117,500) and Drainage Fund ($117,500).

11. Housing and Community Development: Mayor and City Council are asked to approve the Coordinated Agency System Agreement that allows staff to participate with Charleston County and Service Providers across the Tri-County area to address a continuum of care for persons who are frequently in contact with the criminal justice system. The Homelessness Coordinator is the individual from the Department of Housing and Community Development that participates in these discussions and recommendations.

12. Planning, Preservation, and Sustainability (Business and Neighborhood Services): Approval to submit a grant application to Municipal Association of South Carolina in the amount of $25,000 for the implementation of new wayfinding signage in the Central Business District. BNS plans to submit the application by September 25, 2020. There is a 15% match. The City match will be in-kind by accounting for Business and Neighborhood Services staff time and fringe benefits.

13. Discussion of report from Bennett Preservation Engineering

14. Parks-Capital Projects: Approval of a Professional Services contract with Bennett Preservation Engineering, PC, in the amount of $89,355 for engineering services related to the partial removal and preservation of the St. Julian Devine Community Center Smoke Stacks. Approval of this engineering contract will obligate $89,355 of the project budget $3,110,000. Funding sources for this project are: 2015 General Fund Reserves ($250,000) 2018 General Fund Reserves

($400,000), Cooper River Bridge TIF ($2,250,000), and Charleston Parks Conservancy Contribution ($210,000). *(DEFERRED)*

15. Parks-Capital Projects: Approval of a Construction Contract with Demolition Environmental Company, LLC (DECO) in the amount of $485,990 for the partial demolition, removal and preservation of the twin smoke stacks located at the St. Julian Devine Community Center. With the approval of the project budget, Staff is authorized to award and/or amend contracts less than $40,000, to the extent contingency funds exist in the Council Approved Budget. Approval of this Construction Contract will obligate $485,990 of the project budget $3,110,000. Funding sources for this project are: 2015 General Fund Reserves ($250,000), 2018 General Fund Reserves ($400,000), Cooper River Bridge TIF ($2,250,000), and Charleston Parks Conservancy Contribution ($210,000). *(DEFERRED)*

16. **The Committee on Real Estate (Meeting was held on Monday, September 21, 2020 at 3:00 p.m., Conference Call: 1-929-205-6099; Access Code: 835 678 884) *(Meeting start times may be delayed due to prior meetings still in progress.)***

    a. Request authorization for the Mayor to execute a change order to the Agreement for Voluntary Cleanup Contract Services (Revision 1) Housing Parcel (VCC 17-6523-NRP) (the "VCC") from S&ME, Inc., relating to that certain parcel, containing 0.71 acres, more or less, located at the southern terminus of F Street (Charleston County TMS No. 4600404118) pursuant to the attached "Change to Agreement for Services" with S&ME, Inc. The change order would increase the scope of services S&ME proposes to perform on the site, as required under the VCC, to include additional soil quality assessment and to prepare a corrective measures ("CMP") and media management plan ("MMP"). SCDHEC will require these additional measures under the VCC. The change order will increase the total contract price from $76,945.00 to $86,110.00, for a total increase of $9,165.00.

    b. Authorize the Mayor to execute an MOU with Enough Pie for the installation of an artistic mural on the I-26 bridge columns between Cypress and Romney Streets near the Vivian Moultrie Playground. (41 Ashley Avenue – Vivian Anderson Moultrie Park)

    c. Approve an Agreement to Buy and Sell Real Estate between the City and Shade Tree Holdings, LLC, a South Carolina limited liability company, for the sale of approximately 3.329 acres located on Wildst Battery Dr. (at the intersection of Maybank Hwy. and Wildst Battery Dr. on Johns Island), to the City for the purchase price of $800,000. (TMS: 313-00-00-337)

    d. Consider the following annexation:

        (i) 1858 Christian Road (TMS# 353-14-00-095) 0.22 acre, West Ashley (District 7). The property is owned by William J. and Elizabeth K. Trull.

3.)

AN ORDINANCE

AUTHORIZING THE ISSUANCE OF CITY OF CHARLESTON PUBLIC FACILITIES CORPORATION INSTALLMENT PURCHASE REVENUE BONDS (CITY OF CHARLESTON PROJECT), SERIES 2020; AUTHORIZING THE EXECUTION AND DELIVERY OF CERTAIN INSTRUMENTS RELATING TO THE ISSUANCE AND SALE OF THE AFORESAID BONDS, EACH BETWEEN THE CITY OF CHARLESTON, SOUTH CAROLINA AND CITY OF CHARLESTON PUBLIC FACILITIES CORPORATION, A BOND PURCHASE AGREEMENT AMONG THE CITY, CITY OF CHARLESTON PUBLIC FACILITIES CORPORATION AND THE UNDERWRITER, AND A PRELIMINARY OFFICIAL STATEMENT AND AN OFFICIAL STATEMENT; AND OTHER MATTERS RELATING THERETO.

WHEREAS, the City of Charleston, South Carolina, a municipal corporation duly organized and existing under the laws of the State of South Carolina (the "**City**"), is authorized under the provisions of Section 5-7-40 of the Code of Laws of South Carolina 1976, as amended, to enter into the transactions set forth below; and

WHEREAS, City of Charleston Public Facilities Corporation, a South Carolina nonprofit corporation (the "**Corporation**"), has been formed for the purpose of supporting certain activities of the City; and

WHEREAS, in accordance with the terms of a Trust Agreement dated as of September 15, 2015 (the "**Original Trust Agreement**") between the Corporation and U.S. Bank National Association, as trustee (the "**Trustee**"), the Corporation issued $31,270,000 Installment Purchase Revenue Bonds (City of Charleston Project) Series 2015, dated September 15, 2015 (the "**Series 2015 Bonds**") in order to finance public safety capital improvements and acquisition of the Midtown Parking Garage (collectively, the "**2015 Project Facilities**"); and

WHEREAS, the Original Trust Agreement provides at Section 3.4 for the issuance of additional bonds (the "**Additional Bonds**") for, among other purposes, paying the costs of Additional Project Facilities, as defined in the Original Trust Agreement; and

WHEREAS, in accordance with the terms of the Trust Agreement and a Supplemental Trust Agreement dated as of November 1, 2017, between the Corporation and the Trustee (the "**Supplemental Trust Agreement**" and, together with the Original Trust Agreement, the "**Trust Agreement**"), the Corporation issued $22,920,000 Installment Purchase Revenue Bonds (City of Charleston Project) Series 2017, dated November 29, 2017; (the "**Series 2017 Bonds**") in order to defray the cost of completing the

Public Safety Improvements (as defined in the Original Base Lease (defined herein)) portion of the Project Facilities and the acquisition of Additional Project Facilities constituting the WestEdge Garage and related public parking facilities (the "**2017 Project Facilities**" and, together with the 2015 Project Facilities, the "**Project Facilities)**;" and

WHEREAS, the City has entered into a Base Lease and Conveyance Agreement dated as of September 1, 2015, and a Supplemental Base Lease and Conveyance Agreement dated as of November 1, 2017 (collectively, the "**Base Lease**") pursuant to which the City has conveyed the improvements located on the Real Property and leased the Real Property (as defined in the Base Lease) to the Corporation so that the Corporation could provide for the acquisition and construction of Project Facilities (as defined in the Base Lease); and

WHEREAS, the Real Property was sold to the City under the terms of a Municipal Facilities Purchase and Occupancy Agreement dated as of September 1, 2015, and a Supplemental Municipal Facilities Purchase and Occupancy Agreement dated as of November 1, 2017 (collectively, the "**Facilities Agreement**") between the Corporation and the City; and

WHEREAS, the payments to be made under the Facilities Agreement and the rights of the Corporation thereto (except for certain reserved rights as provided therein) have been assigned to the Trustee pursuant to the Trust Agreement in order to secure and provide a source of payment for certain bonds the proceeds of which are to be used for the payment of the costs of acquiring and constructing the Project Facilities and Additional Project Facilities; and

WHEREAS, the Corporation has determined to defray the cost of the acquisition of Additional Project Facilities constituting the Charleston Tech Center Garage and related facilities (collectively, the "**Project**") by the issuance of a series of Additional Bonds to be known as the not exceeding $30,000,000 Installment Purchase Revenue Bonds (City of Charleston Project) Series 2020, which will be dated their date of delivery and which may be assigned a different name or series designation by the Corporation (the "**Series 2020 Bonds**"), which will also pay certain costs related to the issuance of the Series 2020 Bonds; and

WHEREAS, the Series 2020 Bonds will be sold to Wells Fargo Bank, National Association, BofA Securities and Rice Financial Products Company (collectively, the "**Underwriter**") which, as contemplated by Section H.2. of the City's Procurement Policy, have been selected through a competitive bid process conducted by the Commissioners of Public Works of the City of Charleston, pursuant to the terms of a Bond Purchase Agreement (the "**Purchase Agreement**") to be entered into by the City, the Corporation and the Underwriter; and

WHEREAS, there shall be prepared the standard forms of (a) the Second Supplemental Base Lease and Conveyance Agreement; (b) the Second Supplemental Municipal Facilities Purchase and Occupancy Agreement; (c) the Purchase Agreement; and (d) the Preliminary Official Statement in connection with the sale of the Series 2020 Bonds (the "**Preliminary Official Statement**"), the final versions of which shall be in substantially the form used previously; and

WHEREAS, the execution of such documents shall constitute conclusive evidence of the persons executing the same of their approval.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHARLESTON, the governing body of the City of Charleston, South Carolina (the "**City Council**"), in meeting duly assembled:

1. The Mayor (the "**Mayor**") and the Clerk to City Council are hereby authorized and directed to execute, acknowledge and deliver the Second Supplemental Base Lease and Conveyance Agreement and the Second Supplemental Municipal Facilities Purchase and Occupancy Agreement in order to accomplish the purposes of the transaction contemplated in this Ordinance and as shall not be inconsistent with or contrary to such purpose. The execution of such documents shall constitute conclusive evidence of the persons executing the same of their approval.

2. The issuance of the Series 2020 Bonds by the Corporation and the sale of the Series 2020 Bonds to the Underwriter, with such terms, including principal maturities, maturity dates, interest rates, optional redemption features, mandatory sinking fund redemption features, and the determination as to whether and in what amount a debt service reserve fund for the Series 2020 Bonds shall be established, as set forth in the Purchase Agreement is hereby approved. The form of the Purchase Agreement is hereby approved. The Mayor is hereby authorized and directed to execute and deliver the Purchase Agreement, with such changes, insertions and omissions as may be approved by the Mayor, with the advice of counsel, such execution being conclusive evidence of such approval.

3. The use of the Preliminary Official Statement in the offering and sale of the Series 2020 Bonds is hereby approved.

4. The Official Statement of the City (the "**Official Statement**"), in substantially the form of the Preliminary Official Statement with such changes, insertions and omissions as the Mayor shall approve upon the advice of counsel, is hereby approved. The Mayor is hereby authorized and directed to execute and deliver the Official Statement.

5. The consummation of all transactions contemplated by this Ordinance and the documents authorized, including the Second Supplemental Trust Agreement, are hereby approved.

6. The Mayor and such other appropriate officials of the City are hereby authorized to execute, deliver and receive any and all such other agreements and documents as may be required by the City in order to carry out, give effect to and consummate the transactions contemplated by this Ordinance and the documents authorized, including without limitation a continuing disclosure certificate evidencing the City's compliance with the requirements of Securities and Exchange Commission Rule 15c2-12(b)(5) for the Series 2020 Bonds.

7. This Ordinance shall be construed and interpreted in accordance with the laws of the State of South Carolina.

8. This Ordinance shall become effective immediately upon final reading by City Council.

9. The provisions of this Ordinance are hereby declared to be separable and if any section, phrase or provisions shall for any reason be declared by a court of competent jurisdiction to be invalid or unenforceable, such declaration shall not affect the validity of the remainder of the sections, phrases and provisions hereunder.

10. All orders, resolutions and parts thereof in conflict herewith are, to the extent of such conflict, hereby repealed and the Ordinance shall take effect and be in full force from and after its passage and approval.

DONE IN MEETING DULY ASSEMBLED this 13th day of October, 2020.

CITY OF CHARLESTON, SOUTH CAROLINA

By:_____
Mayor

Attest:

_____
City Clerk

First Reading: September 22, 2020
Second Reading: October 13, 2020

STATE OF SOUTH CAROLINA)
)
COUNTY OF CHARLESTON)

I, the undersigned, Clerk of City Council of Charleston, South Carolina, DO HEREBY CERTIFY:

That the foregoing is a true, correct and verbatim copy of an Ordinance adopted by the said City Council, having been read at two duly called and regularly held meetings at which a quorum attended and remained throughout on each of September 22, 2020 and October 13, 2020.

That the said Ordinance is now in full force and effect and has not been modified, amended, repealed or rescinded.

IN WITNESS WHEREOF, I have hereunto set my Hand this ____ day of October, 2020.

_____
Clerk of City Council of the City of Charleston,
South Carolina

COMMITTEE / COUNCIL AGENDA

TO: John J. Tecklenburg, Mayor

FROM: Chief Reynolds **DEPT.** Police

SUBJECT: POLICE DEPARTMENT – 2020 SCAG VICTIMS OF CRIME ACT GRANT

REQUEST: To accept the 2020 VOCA grant in the amount of $74,826 for the Salaries and fringe benefits of (1) Elder Advocate and (1) Resource Specialist that reports to the CPD Family Violence Unit.

COMMITTEE OF COUNCIL: W&M **DATE:** September 22, 2020

COORDINATION: This request has been coordinated with: *(attach all recommendations/reviews)*

	Yes	N/A	Signature of Individual Contacted	Attachment
Corporate Counsel	☐	☐		☐
Cap. Proj. Cmte. Chair	☐	☐		☐
Police Department	☐	☐	Deputy Chief [illegible]	☐
Grants Manager	☐	☐	Chelsea Taylor	☐
	☐	☐		☐

FUNDING: Was funding previously approved? Yes ☐ No ☐ N/A ☐

If yes, provide the following: Dept./Div.: _____ Account #: _____

Balance in Account _____ Amount needed for this item _____

Does this document need to be recorded at the RMC's Office? Yes ☐ No ☒

NEED: Identify any critical time constraint(s).

CFO's Signature: _____

FISCAL IMPACT:

Requesting to budget a cash match of $18,707.

Mayor's Signature: _____ **John J. Tecklenburg, Mayor**

ORIGINATING OFFICE PLEASE NOTE: A FULLY STAFFED/APPROVED (except Mayor's Signature) PACKAGE IS DUE IN THE CLERK OF COUNCIL'S OFFICE NO LATER THAN 10:00AM THE DAY OF THE CLERK'S AGENDA MEETING.

ALAN WILSON
ATTORNEY GENERAL

September 1, 2020

The Honorable John Tecklenburg
Mayor
City of Charleston
80 Broad Street
Charleston, South Carolina 29401-2901

RE: Victims of Crime Act Program Grant No. 1V20044
Charleston Police Department Family Violence Unit: Elder Abuse Continuation

Dear Mayor Tecklenburg:

I am pleased to provide you with a grant award approved by this office in the amount of $74,826 for the grant project referenced above. In order to complete the contract for this award it is necessary for you, as the Official Authorized to Sign, to return the attached grant award with an original signature within 30 days from the date of this award. The signed original should be mailed to:

Bonnie Brooks, Administrative Coordinator
South Carolina Office of the Attorney General
Department of Crime Victim Assistance Grants
1205 Pendleton Street, Room 401
Columbia, South Carolina 29201

If you have any questions or concerns, please feel free to contact Deputy Director Barbara Jean (BJ) Nelson at bnelson@scag.gov or by calling 803-734-0791.

Sincerely,

Burke Fitzpatrick

Burke O. Fitzpatrick
Director

Enclosures

BOF/bb

C: Ms. Catrice Smalls
File

SOUTH CAROLINA OFFICE OF THE ATTORNEY GENERAL
CRIME VICTIM SERVICES DIVISION
1205 PENDLETON STREET
COLUMBIA, SOUTH CAROLINA 29201

GRANT AWARD

Subrecipient: Charleston Police Department

Grant Title: Charleston Police Department Family Violence Unit: Elder Abuse Continuation

Grant Period: 10/1/2020 - 9/30/2021 Date of Award: October 1, 2020

Amount of Award: $74,826 Grant No.: 1V20044

In accordance with the provisions of the Victims of Crime Act of 1984, 42 U.S.C. 10601, et seq, CFDA No. 16.575, and on the basis of the application submitted, the South Carolina Department of Crime Victim Assistance Grants hereby awards to the foregoing subrecipient a grant in the federal amount shown above, for the projects specified in the application and within the purposes and categories authorized for Victims of Crime Act grants.

This grant is subject to the terms and conditions set forth in the application and to the special conditions attached to the grant award. By accepting this grant award the subrecipient certifies that the federal and state conditions are fully understood and will be complied with, including the applicable provisions of VOCA Program Guidelines, and the requirements of the OJP Financial Guide, effective edition. The VOCA Program Guidelines may be downloaded at www.ojp.usdoj.gov/ovc/scad/guides/vaguide.htm. Financial Guidance may be accessed at: https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title02/2cfr200_main_02.tpl.

Payment of Funds: Grant funds will be disbursed to subrecipients (according to the project budget) upon receipt of evidence that funds have been invoiced and products received or that funds have been expended; i.e., invoices, contracts, itemized expenses, etc.

The award shall become effective, as of the date of award, upon return to the Department of Crime Victim Assistance Grants of an original signed copy of this form signed by the Official Authorized to Sign in the space provided below. This award must be accepted within thirty days from the date above, and such reports required by the South Carolina Office of the Attorney General must be submitted to Department of Crime Victim Assistance Grants in accordance with regulations and guidelines.

ACCEPTANCE FOR THE SUBRECIPIENT	ACCEPTANCE FOR THE SFA
	Barbara Jean (BJ) Nelson, Deputy Director Department of Crime Victim Assistance Grants
Signature of Official Authorized to Sign Mayor John Tecklenburg	Burke O. Fitzpatrick, Director Crime Victim Assistance Division

GRANT AWARD DATA: THIS AWARD IS SUBJECT TO SPECIAL CONDITIONS ATTACHED AND THE TERMS AND CONDITIONS CONTAINED IN THE APPLICATION PAGES.

SUBRECIPIENT: Charleston Police Department

GRANT TITLE: Family Violence Unit: Elder Abuse & Resource Specialist Continuation

GRANT NO: **1V20044**

AWARD DATE: October 1, 2020

ALL SPECIAL CONDITIONS MUST BE COMPLETED AND ACKNOWLEDGED IN WRITING AND APPROVED WITHIN THIRTY (30) DAYS OF THE PROJECT START DATE AND PRIOR TO ANY COMMITMENT, OBLIGATION. OR DISBURSEMENT OF FUNDS. PLEASE UPLOAD ANY APPLICABLE DOCUMENTATION TO THE POST AWARD ATTACHMENTS SECTION IN AGO GRANTS.

1. This award is contingent upon availability of funds.

2. Verify that the current Project Director, Financial Officer, and Authorized Official are all listed in the Grants Certification section of your grant in AGO Grants. If they are not listed or if the names listed are incorrect, you will need to generate a revision to update them.

3. All current and newly-hired grant-funded personnel, as well as the Project Director, shall view the civil rights training presentation available at https://ojp.gov/about/ocr/ocr-training-videos/video-ocr-training.htm Any recipient of these funds agrees that they have viewed, understood, and will comply with the civil rights requirements in the training. Upload an electronic copy of the signed document in AGO Grants under section "Post Award Attachments" as part of the response to special conditions and retain a copy for subrecipient agency files.

4. All current and newly-hired grant-funded personnel, as well as the Project Director, shall upload a copy of a current resume in AGO Grants under section "Post Award Attachments" within 30 days from the date of award or from the date of hire.

5. The sub recipient agrees to follow the applicable set of DCVAG grant financial guidelines, which are available at http://www.scag.gov/crime-victims-grants-help-desk . These do not supersede any specific grant terms and conditions in this award document or DOJ Grant Financial Guidelines.

6. Amendment of sub recipient award amounts

    a. Sub recipient must amend the grantee match award amount to $18,707 to reflect the 20% required agency match for VOCA awards.

COMMITTEE / COUNCIL AGENDA

TO: **John J. Tecklenburg, Mayor**

FROM: Chief Reynolds **DEPT.** Police

SUBJECT: POLICE DEPARTMENT - 2020 PORT SECURITY GRANT

REQUEST: To accept the 2020 Port Security Grant in the amount of $274,766 For the Munson Retrofit and the Night Vision and Laser Designator For Harbor Patrol and SWAT

COMMITTEE OF COUNCIL: W&M **DATE:** September 22, 2020

COORDINATION: This request has been coordinated with: *(attach all recommendations/reviews)*

	Yes	N/A	Signature of Individual Contacted	Attachment
Corporate Counsel	☐	☐	[signature]	☐
Cap. Proj. Cmte. Chair	☐	☐		☐
Police Department	☐	☐	Deputy Chief [signature]	☐
Grants Manager	☐	☐	Chelsea Taylor	☐
	☐	☐		☐

FUNDING: Was funding previously approved? Yes ☐ No ☐ N/A ☐

If yes, provide the following: Dept./Div.: _____ Account #: _____

Balance in Account _____ Amount needed for this item _____

Does this document need to be recorded at the RMC's Office? Yes ☐ No ☒

NEED: Identify any critical time constraint(s).

CFO's Signature: _____

FISCAL IMPACT:

Requesting to budget a cash match of $91,589 for 2021

Mayor's Signature: [signature]

John J. Tecklenburg, Mayor

ORIGINATING OFFICE PLEASE NOTE: A FULLY STAFFED/APPROVED (except Mayor's Signature) PACKAGE IS DUE IN THE CLERK OF COUNCIL'S OFFICE NO LATER THAN 10:00AM THE DAY OF THE CLERK'S AGENDA MEETING.

U.S. Department of Homeland Security
Washington, D.C. 20472

Cherrie-Ann Caton
City of Charleston
80 Broad Street
Charleston, SC 29401 - 2901

Re: Grant No.EMW-2020-PU-00069

Dear Cherrie-Ann Caton:

Congratulations, on behalf of the Department of Homeland Security, your application for financial assistance submitted under the Fiscal Year (FY) 2020 Port Security Grant Program has been approved in the amount of $274,766.00. As a condition of this award, you are required to contribute a cost match in the amount of $91,589.00 of non-Federal funds, or 25 percent of the total approved project costs of $366,355.00.

Before you request and receive any of the Federal funds awarded to you, you must establish acceptance of the award. By accepting this award, you acknowledge that the terms of the following documents are incorporated into the terms of your award:

- Agreement Articles (attached to this Award Letter)
- Obligating Document (attached to this Award Letter)
- FY 2020 Port Security Grant Program Notice of Funding Opportunity.
- FEMA Preparedness Grants Manual

Please make sure you read, understand, and maintain a copy of these documents in your official file for this award.

In order to establish acceptance of the award and its terms, please follow these instructions:

Step 1: Please log in to the ND Grants system at https://portal.fema.gov.

Step 2: After logging in, you will see the Home page with a Pending Tasks menu. Click on the Pending Tasks menu, select the Application sub-menu, and then click the link for "Award Offer Review" tasks. This link will navigate you to Award Packages that are pending review.

Step 3: Click the Review Award Package icon (wrench) to review the Award Package and accept or decline the award. Please save or print the Award Package for your records.

System for Award Management (SAM): Grant recipients are to keep all of their information up to date in SAM, in particular, your organization's name, address, DUNS number, EIN and banking information. Please ensure that the DUNS number used in SAM is the same one used to apply for all FEMA awards. Future payments will be contingent on the information provided in the SAM; therefore, it is imperative that the information is correct. The System for Award Management is located at http://www.sam.gov.

If you have any questions or have updated your information in SAM, please let your Grants Management Specialist (GMS) know as soon as possible. This will help us to make the necessary updates and avoid any interruptions in the payment process.

CHRISTOPHER PATRICK LOGAN GPD Assistant Administrator

U.S. Department of Homeland Security
Washington, D.C. 20472

AGREEMENT ARTICLES
Port Security Grant Program

GRANTEE:	City of Charleston
PROGRAM:	Port Security Grant Program
AGREEMENT NUMBER:	EMW-2020-PU-00069-S01

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Article I - Summary Description of Award

The terms of the approved Investment Justification(s) and Budget Detail Worksheet(s) submitted by the recipient are incorporated into the terms of this Federal award, subject to the additional description and limitations stated in this Agreement Article and the limitations stated in subsequent reviews by FEMA of the award budget. Investments not listed in this Agreement Article are not approved for funding under this award.

Investment 1: CPD Munson Retrofit is fully funded for $121583.
Investment 2: CPD Night Vision and Laser Designator Systems for SWAT and Harbor Patrol is fully funded for $153183.

Article II - Activities Conducted Abroad

Recipients must ensure that project activities carried on outside the United States are coordinated as necessary with appropriate government authorities and that appropriate licenses, permits, or approvals are obtained.

Article III - Reporting of Matters Related to Recipient Integrity and Performance

If the total value of any currently active grants, cooperative agreements, and procurement contracts from all federal awarding agencies exceeds $10,000,000 for any period of time during the period of performance of this federal award, then the recipients must comply with the requirements set forth in the government-wide Award Term and Condition for Recipient Integrity and Performance Matters located at 2 C.F.R. Part 200, Appendix XII, the full text of which is incorporated here by reference in the award terms and conditions.

Article IV - Trafficking Victims Protection Act of 2000 (TVPA)

Recipients must comply with the requirements of the government-wide financial assistance award term which implements Section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), codified as amended at 22 U.S.C. section 7104. The award term is located at 2 C.F.R. section 175.15, the full text of which is incorporated here by reference.

Article V - Federal Leadership on Reducing Text Messaging while Driving

Recipients are encouraged to adopt and enforce policies that ban text messaging while driving as described in E.O. 13513, including conducting initiatives described in Section 3(a) of the Order when on official government business or when performing any work for or on behalf of the federal government.

Article VI - Debarment and Suspension

Recipients are subject to the non-procurement debarment and suspension regulations implementing Executive Orders (E.O.) 12549 and 12689, which are at 2 C.F.R. Part 180 as adopted by DHS at 2 C.F.R. Part 3000. These regulations restrict federal financial assistance awards, subawards, and contracts with certain parties that are debarred, suspended, or otherwise excluded from or ineligible for participation in federal assistance programs or activities.

Article VII - Fly America Act of 1974

Recipients must comply with Preference for U.S. Flag Air Carriers (air carriers holding certificates under 49 U.S.C. section 41102) for international air transportation of people and property to the extent that such service is available, in

accordance with the International Air Transportation Fair Competitive Practices Act of 1974, 49 U.S.C. section 40118, and the interpretative guidelines issued by the Comptroller General of the United States in the March 31, 1981, amendment to Comptroller General Decision B-138942.

Article VIII - Americans with Disabilities Act of 1990

Recipients must comply with the requirements of Titles I, II, and III of the *Americans with Disabilities Act*, Pub. L. No. 101-336 (1990) (codified as amended at 42 U.S.C. sections 12101-12213), which prohibits recipients from discriminating on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities.

Article IX - Duplication of Benefits

Any cost allocable to a particular federal financial assistance award provided for in 2 C.F.R. Part 200, Subpart E may not be charged to other federal financial assistance awards to overcome fund deficiencies; to avoid restrictions imposed by federal statutes, regulations, or federal financial assistance award terms and conditions; or for other reasons. However, these prohibitions would not preclude recipients from shifting costs that are allowable under two or more awards in accordance with existing federal statutes, regulations, or the federal financial assistance award terms and conditions.

Article X - Copyright

Recipients must affix the applicable copyright notices of 17 U.S.C. sections 401 or 402 and an acknowledgement of U.S. Government sponsorship (including the award number) to any work first produced under federal financial assistance awards.

Article XI - Civil Rights Act of 1968

Recipients must comply with Title VIII of the Civil Rights Act of 1968, Pub. L. No. 90-284, as amended through Pub. L. 113-4, which prohibits recipients from discriminating in the sale, rental, financing, and advertising of dwellings, or in the provision of services in connection therewith, on the basis of race, color, national origin, religion, disability, familial status, and sex (see 42 U.S.C. section 3601 et seq.), as implemented by the U.S. Department of Housing and Urban Development at 24 C.F.R. Part 100. The prohibition on disability discrimination includes the requirement that new multifamily housing with four or more dwelling units-i.e., the public and common use areas and individual apartment units (all units in buildings with elevators and ground-floor units in buildings without elevators)-be designed and constructed with certain accessible features. (See 24 C.F.R. Part 100, Subpart D.)

Article XII - Best Practices for Collection and Use of Personally Identifiable Information (PII)

Recipients who collect PII are required to have a publicly available privacy policy that describes standards on the usage and maintenance of the PII they collect. DHS defines personally identifiable information (PII) as any information that permits the identity of an individual to be directly or indirectly inferred, including any information that is linked or linkable to that individual. Recipients may also find the DHS Privacy Impact Assessments: Privacy Guidance and Privacy Template as useful resources respectively.

Article XIII - Limited English Proficiency (Civil Rights Act of 1964, Title VI)

Recipients must comply with Title VI of the Civil Rights Act of 1964, (42 U.S.C. section 2000d et seq.) prohibition against discrimination on the basis of national origin, which requires that recipients of federal financial assistance take reasonable steps to provide meaningful access to persons with limited English proficiency (LEP) to their programs and services.
For additional assistance and information regarding language access obligations, please refer to the DHS Recipient Guidance: https://www.dhs.gov/guidance-published-help-department-supported-organizations-provide-meaningful-access-people-limited and additional resources on http://www.lep.gov.

Article XIV - Hotel and Motel Fire Safety Act of 1990

In accordance with Section 6 of the Hotel and Motel Fire Safety Act of 1990, 15 U.S.C. section 2225a, recipients must ensure that all conference, meeting, convention, or training space funded in whole or in part with federal funds complies with the fire prevention and control guidelines of the Federal Fire Prevention and Control Act of 1974, (codified as amended at 15 U.S.C. section 2225.)

Article XV - Disposition of Equipment Acquired Under the Federal Award

When original or replacement equipment acquired under this award by the recipient or its sub-recipients is no longer needed for the original project or program or for other activities currently or previously supported by DHS/FEMA, you must request instructions from DHS/FEMA to make proper disposition of the equipment pursuant to 2 C.F.R. Section 200.313.

Article XVI - Patents and Intellectual Property Rights

Recipients are subject to the Bayh-Dole Act, 35 U.S.C. section 200 et seq, unless otherwise provided by law. Recipients are subject to the specific requirements governing the development, reporting, and disposition of rights to inventions and patents resulting from federal financial assistance awards located at 37 C.F.R. Part 401 and the standard patent rights clause located at 37 C.F.R. section 401.14.

Article XVII - DHS Specific Acknowledgements and Assurances

All recipients, subrecipients, successors, transferees, and assignees must acknowledge and agree to comply with applicable provisions governing DHS access to records, accounts, documents, information, facilities, and staff.

1. Recipients must cooperate with any compliance reviews or compliance investigations conducted by DHS.

2. Recipients must give DHS access to, and the right to examine and copy, records, accounts, and other documents and sources of information related to the federal financial assistance award and permit access to facilities, personnel, and other individuals and information as may be necessary, as required by DHS regulations and other applicable laws or program guidance.

3. Recipients must submit timely, complete, and accurate reports to the appropriate DHS officials and maintain appropriate backup documentation to support the reports.

4. Recipients must comply with all other special reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

5. Recipients of federal financial assistance from DHS must complete the DHS Civil Rights Evaluation Tool within thirty (30) days of receipt of the Notice of Award or, for State Administering Agencies, thirty (30) days from receipt of the DHS Civil Rights Evaluation Tool from DHS or its awarding component agency. After the initial submission for the first award under which this term applies, recipients are required to provide this information once every two (2) years as long as they have an active award, not every time an award is made. Recipients should submit the completed tool, including supporting materials, to CivilRightsEvaluation@hq.dhs.gov. This tool clarifies the civil rights obligations and related reporting requirements contained in the DHS Standard Terms and Conditions. Subrecipients are not required to complete and submit this tool to DHS. The evaluation tool can be found at https://www.dhs.gov/publication/dhs-civil-rights-evaluation-tool.

6. The DHS Office for Civil Rights and Civil Liberties will consider, in its discretion, granting an extension if the recipient identifies steps and a timeline for completing the tool. Recipients should request extensions by emailing the request to CivilRightsEvaluation@hq.dhs.gov prior to expiration of the 30-day deadline.

Article XVIII - Procurement of Recovered Materials

States, political subdivisions of states, and their contractors must comply with Section 6002 of the Solid Waste Disposal Act, Pub. L. No. 89-272 (1965), (codified as amended by the Resource Conservation and Recovery Act, 42 U.S.C. section 6962.) The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 C.F.R. Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition.

Article XIX - Terrorist Financing

Recipients must comply with E.O. 13224 and U.S. laws that prohibit transactions with, and the provisions of resources and support to, individuals and organizations associated with terrorism. Recipients are legally responsible to ensure compliance with the Order and laws.

Article XX - Civil Rights Act of 1964 - Title VI

Recipients must comply with the requirements of Title VI of the Civil Rights Act of 1964 (codified as amended at 42 U.S.C. section 2000d et seq.), which provides that no person in the United States will, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity

receiving federal financial assistance. DHS implementing regulations for the Act are found at 6 C.F.R. Part 21 and 44 C.F.R. Part 7.

Article XXI - Prior Approval for Modification of Approved Budget

Before making any change to the DHS/FEMA approved budget for this award, you must request prior written approval from DHS/FEMA where required by 2 C.F.R. Section 200.308. DHS/FEMA is also utilizing its discretion to impose an additional restriction under 2 C.F.R. Section 200.308(e) regarding the transfer of funds among direct cost categories, programs, functions, or activities. Therefore, for awards with an approved budget where the Federal share is greater than the simplified acquisition threshold (currently $250,000), you may not transfer funds among direct cost categories, programs, functions, or activities without prior written approval from DHS/FEMA where the cumulative amount of such transfers exceeds or is expected to exceed ten percent (10%) of the total budget DHS/FEMA last approved. You must report any deviations from your DHS/FEMA approved budget in the first Federal Financial Report (SF-425) you submit following any budget deviation, regardless of whether the budget deviation requires prior written approval.

Article XXII - Acknowledgement of Federal Funding from DHS

Recipients must acknowledge their use of federal funding when issuing statements, press releases, requests for proposal, bid invitations, and other documents describing projects or programs funded in whole or in part with federal funds.

Article XXIII - Acceptance of Post Award Changes

In the event FEMA determines that changes are necessary to the award document after an award has been made, including changes to period of performance or terms and conditions, recipients will be notified of the changes in writing. Once notification has been made, any subsequent request for funds will indicate recipient acceptance of the changes to the award. Please call the FEMA/GMD Call Center at (866) 927-5646 or via e-mail to ASK-GMD@fema.dhs.gov if you have any questions.

Article XXIV - Rehabilitation Act of 1973

Recipients must comply with the requirements of Section 504 of the Rehabilitation Act of 1973, Pub. L. No. 93-112 (1973), (codified as amended at 29 U.S.C. section 794,) which provides that no otherwise qualified handicapped individuals in the United States will, solely by reason of the handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

Article XXV - False Claims Act and Program Fraud Civil Remedies

Recipients must comply with the requirements of the False Claims Act, 31 U.S.C. sections 3729-3733, which prohibits the submission of false or fraudulent claims for payment to the federal government. (See 31 U.S.C. sections 3801-3812, which details the administrative remedies for false claims and statements made.)

Article XXVI - Nondiscrimination in Matters Pertaining to Faith-Based Organizations

It is DHS policy to ensure the equal treatment of faith-based organizations in social service programs administered or supported by DHS or its component agencies, enabling those organizations to participate in providing important social services to beneficiaries. Recipients must comply with the equal treatment policies and requirements contained in 6 C.F.R. Part 19 and other applicable statues, regulations, and guidance governing the participations of faith-based organizations in individual DHS programs.

Article XXVII - Lobbying Prohibitions

Recipients must comply with 31 U.S.C. section 1352, which provides that none of the funds provided under a federal financial assistance award may be expended by the recipient to pay any person to influence, or attempt to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any federal action related to a federal award or contract, including any extension, continuation, renewal, amendment, or modification.

Article XXVIII - Education Amendments of 1972 (Equal Opportunity in Education Act) - Title IX

Recipients must comply with the requirements of Title IX of the Education Amendments of 1972, Pub. L. No. 92-318 (1972) (codified as amended at 20 U.S.C. section 1681 et seq.), which provide that no person in the United States will, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational

program or activity receiving federal financial assistance. DHS implementing regulations are codified at 6 C.F.R. Part 17 and 44 C.F.R. Part 19.

Article XXIX - Age Discrimination Act of 1975

Recipients must comply with the requirements of the Age Discrimination Act of 1975, Pub. L. No. 94-135 (1975) (codified as amended at Title 42, U.S. Code, section 6101 et seq.), which prohibits discrimination on the basis of age in any program or activity receiving federal financial assistance.

Article XXX - National Environmental Policy Act

Recipients must comply with the requirements of the National Environmental Policy Act of 1969 (NEPA), Pub. L. No. 91-190 (1970) (codified as amended at 42 U.S.C. section 4321 et seq.) and the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA, which require recipients to use all practicable means within their authority, and consistent with other essential considerations of national policy, to create and maintain conditions under which people and nature can exist in productive harmony and fulfill the social, economic, and other needs of present and future generations of Americans.

Article XXXI - Assurances, Administrative Requirements, Cost Principles, Representations and Certifications

DHS financial assistance recipients must complete either the Office of Management and Budget (OMB) Standard Form 424B Assurances - Non-Construction Programs, or OMB Standard Form 424D Assurances - Construction Programs, as applicable. Certain assurances in these documents may not be applicable to your program, and the DHS financial assistance office (DHS FAO) may require applicants to certify additional assurances. Applicants are required to fill out the assurances applicable to their program as instructed by the awarding agency. Please contact the DHS FAO if you have any questions.

DHS financial assistance recipients are required to follow the applicable provisions of the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards located at Title 2, Code of Federal Regulations (C.F.R.) Part 200, and adopted by DHS at 2 C.F.R. Part 3002.

Article XXXII - USA PATRIOT Act of 2001

Recipients must comply with requirements of Section 817 of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), Pub. L. No. 107-56, which amends 18 U.S.C. sections 175-175c.

Article XXXIII - Non-Supplanting Requirement

Recipients receiving federal financial assistance awards made under programs that prohibit supplanting by law must ensure that federal funds do not replace (supplant) funds that have been budgeted for the same purpose through non-federal sources.

Article XXXIV - Drug-Free Workplace Regulations

Recipients must comply with drug-free workplace requirements in Subpart B (or Subpart C, if the recipient is an individual) of 2 C.F.R. Part 3001, which adopts the Government-wide implementation (2 C.F.R. Part 182) of Sec. 5152-5158 of the Drug-Free Workplace Act of 1988 (41 U.S.C. sections 8101-8106).

Article XXXV - Universal Identifier and System of Award Management

Recipients are required to comply with the requirements set forth in the government-wide financial assistance award term regarding the System for Award Management and Universal Identifier Requirements located at 2 C.F.R. Part 25, Appendix A, the full text of which is incorporated here by reference.

Article XXXVI - Reporting Subawards and Executive Compensation

Recipients are required to comply with the requirements set forth in the government-wide award term on Reporting Subawards and Executive Compensation located at 2 C.F.R. Part 170, Appendix A, the full text of which is incorporated here by reference in the award terms and conditions.

Article XXXVII - Energy Policy and Conservation Act

Recipients must comply with the requirements of the Energy Policy and Conservation Act, Pub. L. No. 94- 163 (1975) (codified as amended at 42 U.S.C. section 6201 et seq.), which contain policies relating to energy efficiency that are defined in the state energy conservation plan issued in compliance with this Act.

Article XXXVIII - Whistleblower Protection Act

Recipients must comply with the statutory requirements for whistleblower protections (if applicable) at 10 U.S.C section 2409, 41 U.S.C. section 4712, and 10 U.S.C. section 2324, 41 U.S.C. sections 4304 and 4310.

Article XXXIX - Federal Debt Status

All recipients are required to be non-delinquent in their repayment of any federal debt. Examples of relevant debt include delinquent payroll and other taxes, audit disallowances, and benefit overpayments. (See OMB Circular A-129.)

Article XL - Use of DHS Seal, Logo and Flags

Recipients must obtain permission from their DHS FAO prior to using the DHS seal(s), logos, crests or reproductions of flags or likenesses of DHS agency officials, including use of the United States Coast Guard seal, logo, crests or reproductions of flags or likenesses of Coast Guard officials.

Article XLI - Notice of Funding Opportunity Requirements

All the instructions, guidance, limitations, and other conditions set forth in the Notice of Funding Opportunity (NOFO) for this program are incorporated here by reference in the award terms and conditions. All recipients must comply with any such requirements set forth in the program NOFO.

Article XLII - SAFECOM

Recipients receiving federal financial assistance awards made under programs that provide emergency communication equipment and its related activities must comply with the SAFECOM Guidance for Emergency Communication Grants, including provisions on technical standards that ensure and enhance interoperable communications.

BUDGET COST CATEGORIES

Personnel	$0.00
Fringe Benefits	$0.00
Travel	$0.00
Equipment	$340,968.00
Supplies	$0.00
Contractual	$25,387.00
Construction	$0.00
Indirect Charges	$0.00
Other	$0.00

Obligating Document for Award/Amendment

1a. AGREEMENT NO.	2. AMENDMENT NO.	3. RECIPIENT NO.	4. TYPE OF ACTION	5. CONTROL NO.
EMW-2020-PU-00069-S01	***	576000226	AWARD	WX03529N2020T

6. RECIPIENT NAME AND ADDRESS	7. ISSUING FEMA OFFICE AND ADDRESS	8. PAYMENT OFFICE AND ADDRESS
City of Charleston 80 Broad Street Charleston, SC, 29401 - 2901	FEMA-GPD 400 C Street, SW, 3rd floor Washington, DC 20472-3645 POC: 866-927-5646	FEMA Finance Center 430 Market Street Winchester, VA 22603

9. NAME OF RECIPIENT PROJECT OFFICER	PHONE NO.	10. NAME OF FEMA PROJECT COORDINATOR
Cherrie-Ann Caton	8439654055	Central Scheduling and Information Desk Phone: 800-368-6498 Email: Askcsid@dhs.gov

11. EFFECTIVE DATE OF THIS ACTION	12. METHOD OF PAYMENT	13. ASSISTANCE ARRANGEMENT	14. PERFORMANCE PERIOD	
09/01/2020	PARS	Cost Reimbursement	**From:** 09/01/2020	**To:** 08/31/2023
			Budget Period 09/01/2020	08/31/2023

1 5. DESCRIPTION OF ACTION

a. (Indicate funding data for awards or financial changes)

PROGRAM NAME ACRONYM	CFDA NO.	ACCOUNTING DATA (ACCS CODE) XXXX-XXX-XXXXXX-XXXXX-XXXX-XXXX-X	PRIOR TOTAL AWARD	AMOUNT AWARDED THIS ACTION + OR (-)	CURRENT TOTAL AWARD	CUMULATIVE NON-FEDERAL COMMITMENT
Port Security Grant Program	97.056	2020-FA-GC01-P410- -4101-D	$0.00	$274,766.00	$274,766.00	See Totals
			$0.00	**$274,766.00**	**$274,766.00**	**$91,589.00**

b. To describe changes other than funding data or financial changes, attach schedule and check here.
N/A

16 a. FOR NON-DISASTER PROGRAMS: RECIPIENT IS REQUIRED TO SIGN AND RETURN THREE (3) COPIES OF THIS DOCUMENT TO FEMA (See Block 7 for address)
Port Security Grant Program recipients are not required to sign and return copies of this document. However, recipients should print and keep a copy of this document for their records.
16b. FOR DISASTER PROGRAMS: RECIPIENT IS NOT REQUIRED TO SIGN
This assistance is subject to terms and conditions attached to this award notice or by incorporated reference in program legislation cited above.

17. RECIPIENT SIGNATORY OFFICIAL (Name and Title) DATE

,

18. FEMA SIGNATORY OFFICIAL (Name and Title) DATE
Mon Aug 31 19:27:16 GMT 2020

BERTRAM NMN MCKEITHEN JR , Assistance Officer

6.)

CPR COMMITTEE and/or COUNCIL AGENDA

TO: John J. Tecklenburg, Mayor

FROM: Virginia Jones / Andrew Jones **DEPT.** Parks – Capital Projects

SUBJECT: STONEY FIELD IMPROVEMENTS COST SHARE MOU AMENDMENT WITH CHARELSTON COUNTY SCHOOL DISTRICT

REQUEST: Approval of an Amendment to the Memorandum of Understanding with the Charleston County School District for cost share of the construction of a track around Stoney Field by Gulfstream Construction. Work will include a surcharge program, building a retaining wall along the marsh, cut of wall at each stadium face, perimeter fencing and the base & asphalt surface course. The City's share of this will be $460,895.00 (50% of the bid price of $921,790.00)

COMMITTEE OF COUNCIL: Ways & Means **DATE:** September 22, 2020

COORDINATION: This request has been coordinated with: *(attach all recommendations/reviews)*

	Yes	N/A	Signature of Individual Contacted	Attachment
CPR Committee Chair	☐	☐		☐
Corporate Counsel	☐	☐		☐
Capital Projects Director	☐	☐		☐
MBE Manager	☐	☐		☐

FUNDING: Was funding previously approved? Yes [X] No ☐ N/A ☐

If yes, provide the following: Dept/Div Parks-Capital Projects Acct # 051150-58240

Balance in Account $460,895.00 Amount needed for this item $460,895.00

Project Number CP1812

NEED: Identify any critical time constraint(s).

CFO's Signature: _____

FISCAL IMPACT: **Approval of this MOU will obligate $460,895.00 of the $3,018,480.50 project budget. Funding sources for this project are: 2005 Go Bond ($399,048.00), 2018 GO Bond ($2,600,000.00) and Capital Contribution ($19,432.50).**

Mayor's Signature: _____

John J. Tecklenburg, Mayor

ORIGINATING OFFICE PLEASE NOTE: A FULLY STAFFED/APPROVED (except Mayor's Signature) PACKAGE IS DUE IN THE CLERK OF COUNCIL'S OFFICE NO LATER THAN 10:00 A.M THE DAY OF THE CLERK'S AGENDA MEETING.

CPR COMMITTEE and/or COUNCIL AGENDA

TO: John J. Tecklenburg, Mayor

FROM: Terri Hubbard Sciarro / Andrew Jones **DEPT.** Parks – Capital Projects

SUBJECT: ASHLEY RIVER PEDESTRIAN BRIDGE PROFESSIONAL SERVICES CONTRACT

REQUEST: Approval of a Professional Services Contract with HDR Engineering Inc. of Charleston in the amount of $2,009,112.81 for design build contract support, contingent upon FHWA approval of pre-award costs. Work performed under this contract is necessary to bid the Design Build Contract by next fall in order to obligate the FHWA Build Grant funding. The City has been working under the direction of FHWA with assistance from SCDOT to negotiate the contract with HDR that is in compliance with federal guidelines.

Notice to proceed will not be given to contractor until City has received approval award letter from FHWA and subsequent funding from Charleston County.

COMMITTEE OF COUNCIL: Ways & Means **DATE:** September 22, 2020

COORDINATION: This request has been coordinated with: *(attach all recommendations/reviews)*

	Yes	N/A	Signature of Individual Contacted	Attachment
CPR Committee Chair	☐	☐	Amy Wharton	☐
Corporate Counsel	☑	☐	[illegible]	☐
Capital Projects Director	☐	☐	[illegible]	☐
MBE Manager	☒	☐	DocuSigned by: Ruth Jordan C6144858B5D447C	☐

FUNDING: Was funding previously approved? Yes ☒ No ☐ N/A ☐

If yes, provide the following: Dept/Div Parks-Capital Projects Acct # 051616-58238

Balance in Account $2,009,112.81 Amount needed for this item $2,009,112.81

Project Number CP2007

NEED: Identify any critical time constraint(s).

CFO's Signature: Amy Wharton

FISCAL IMPACT: **Approval of this professional services contract will obligate $2,009,112.81 of the $22,749,750.00 project budget. Funding sources for this project are: BUILD Grant, Charleston County, General Fund Reserves and MUSC.**

Mayor's Signature: [signature]

John J. Tecklenburg, Mayor

ORIGINATING OFFICE PLEASE NOTE: A FULLY STAFFED/APPROVED (except Mayor's Signature) PACKAGE IS DUE IN THE CLERK OF COUNCIL'S OFFICE NO LATER THAN 10:00 A.M THE DAY OF THE CLERK'S AGENDA MEETING.

HDR Contract

Attachments

A – Scope of Services & Schedule
B – Services of the City
C – Engineering Fee

AGREEMENT AND CONTRACT BETWEEN
CITY OF CHARLESTON
AND
HDR ENGINEERING INC. OF THE CAROLINAS

SECTION I. GENERAL RECITALS

THIS AGREEMENT and Contract, made and entered into this ___ day of _____, 2020, by and between the City of Charleston, South Carolina, hereinafter referred to as "CITY," and HDR ENGINEERING INC. OF THE CAROLINAS, a corporation organized and existing under and by virtue of the laws of the State of North Carolina and qualified to do business in the State of South Carolina, with its principal offices in Nebraska located at 8404 Indian Hills Drive, Omaha, NE 68114-4098, hereinafter referred to as "CONSULTANT," collectively the "Parties."

WITNESSETH:

WHEREAS, the CITY desires to employ CONSULTANT to furnish personnel and render professional engineering services for the use and benefit of the CITY in the development of the project as hereinafter more particularly described; and

WHEREAS, the CONSULTANT has represented to the CITY that the CONSULTANT is experienced and qualified to provide the services contemplated by this Agreement and the CITY has relied upon such representation; and

WHEREAS, S.C. Code Ann. Section 5-7-30 (as amended) authorizes the CITY to enter into this Agreement for such services;

NOW, THEREFORE, in consideration of these premises and of the mutual covenants herein set forth, it is agreed by and between the parties hereto as follows:

SECTION II. SCOPE OF SERVICES REQUIRED OF CONSULTANT

A. PROJECT DESCRIPTION. Design-Build Support for the Ashley River Bike and Pedestrian Bridge.

B. GENERAL STATEMENT OF CONSULTANT'S ASSIGNMENT. For the heretofore described project, the CONSULTANT will provide engineering services as described in ATTACHMENT "A," SCOPE OF SERVICES AND SCHEDULE, attached hereto and specifically made a part of this Agreement. Work and liaison will be performed by the CONSULTANT through its South Carolina office located at 4400 Leeds Avenue, Suite 450, North Charleston, SC 29405.

C. CERTIFICATION FOR PROJECT PLANS AND SPECIFICATIONS. The CITY and the CONSULTANT may agree to have project plans and specifications provided for by

"certification." The "Engineer Certification for Project Plans and Specifications" is attached hereto in Exhibit "I" and specifically made a part hereof. The "certification" will be executed if agreed by the parties as applicable.

SECTION III. SERVICES OF CITY

The CITY agrees to provide to the CONSULTANT, and at no cost to the CONSULTANT, the services and data set forth in ATTACHMENT "B," SERVICES OF THE CITY, attached hereto and specifically made a part of this Agreement. Liaison for the CITY will be the Project Manager assigned by the CITY's Capital Projects Division of the Department of Parks.

SECTION IV. SCHEDULE (TIME OF PERFORMANCE)

The effective date of this Agreement will be the date of execution as shown in Section I. The CONSULTANT shall begin work upon receipt of the CITY's written notice to proceed.

The CONSULTANT will prosecute all phases of the work in an expedient manner, exclusive of required review time by the CITY, and, if applicable, the Federal Highway Administration ("FHWA") as set forth in ATTACHMENT "A," SCOPE OF SERVICES AND SCHEDULE.

SECTION V. FEE AND COSTS

For the services covered under this Agreement, the CONSULTANT shall be compensated by the CITY as follows:

A. LUMP SUM. In the event the extent of the CONSULTANT's studies and work efforts during all phases of work set forth can be determined with exactness at the time of negotiation, it is mutually agreed by and between the CONSULTANT and the CITY that compensation to the CONSULTANT will be on a Lump Sum Basis. Lump sum may also include approved unit cost or per parcel if considered appropriate and approved by the CITY.

B. COST PLUS FIXED FEE. In the event the extent of the CONSULTANT's studies and work efforts during all phases of work set forth cannot be determined with exactness at the time of negotiation, it is mutually agreed by and between the CONSULTANT and the CITY that compensation to the CONSULTANT will be the basis of the CONSULTANT's actual cost of performing all phases of the work, plus a fixed amount to cover net fee only.

C. PROGRESS PAYMENT. For the CONSULTANT's services in which payment is on a cost plus fixed fee basis as described above, the actual costs of the CONSULTANT eligible for reimbursement are only those directly attributable to the accomplishment of the specific work of the CONSULTANT. These may include:

1. Actual basic salaries of productive personnel for work time directly connected with the project.

2. Payroll Additives eligible for reimbursement.

3. The indirect cost rate approved in compliance with Paragraph D below.

4. The general operating overhead costs of the CONSULTANT as determined by audit of CONSULTANT's operations.

5. Out-of-pocket direct project expenses at actual cost to the CONSULTANT. Any non-salary cost identified specifically with the project is a direct charge to the project and is eligible for compensation. Such out-of-pocket costs shall include, but not necessarily be limited to, travel and subsistence for the CONSULTANT's personnel on the project, project materials and supplies, telephone and communications, printing and reproductions, and computer services. Automobile mileage will be reimbursed at the actual cost per mile incurred provided such cost per mile does not exceed the rate established by the Internal Revenue Service for the period. Only mileage associated with the business use of vehicles will be reimbursed. Any mileage related to personal use by employees (including transportation to and from work) is unallowable. However, if contractually agreed to in advance, mileage associated with travel to a temporary work location may be reimbursed. Generally, a work location is considered to be temporary if the assignment to the new location is expected to last 1 year or less. Billings for any actual out-of-pocket expenses directly identifiable with the project shall be supported by actual account records, expense accounts, receipts and other miscellaneous supporting materials and shall be made available by the CONSULTANT for review and audit by the CITY or authorized CITY representative.

6. For the cost of outside services and associate services as may be necessary and as formally approved in writing by the CITY, the CONSULTANT shall be reimbursed by the CITY only for the actual cost to the CONSULTANT for such services.

D. INDIRECT RATE. The CONSULTANT and its subconsultants shall comply with the FHWA Order 4470.1A, dated October 27, 2010. This FHWA Order references a requirement for an approved Federal Acquisition Regulation (FAR) compliant indirect cost rate and certification.

E. NON-ALLOWABLE COSTS. The CITY shall not reimburse the CONSULTANT for any expenses relating to business development activities, attendance at any special event, function, or ceremony where attendance is for social purposes. This does not include special events, functions or a ceremony in which a written CITY request and approval has been given to the CONSULTANT to attend for the purpose of speaking and/or presenting purposes, or assisting CITY staff with preparation and delivery of the function. The CONSULTANT is required to certify compliance with this paragraph on all invoices.

F. TOTAL COMPENSATION. The amount of compensation set forth in ATTACHMENT "C." ENGINEERING FEE, attached hereto and specifically made a part of this Agreement, shall be the maximum payable by the CITY without prior written authorization from the CITY to increase the amount. Any such increase will also be subject to the approval of the FHWA if federal funds are involved. This Agreement may be subject to a pre-award audit as considered appropriate by the CITY auditors.

> Compensation to CONSULTANT under the terms of this AGREEMENT shall not exceed 1,828,401.63 for salaries, payroll additives, overhead, direct cost and outside services plus a fixed fee of 180,712 (in the event that significant changes in the scope of work occur, the fixed fee may be adjusted to an amount that is fair and reasonable to both CONSULTANT and CITY) resulting in a maximum limit of 2,009,112.81.

G. COST RECORDS. The CONSULTANT, and its authorized subcontractors, shall maintain cost records in such manner as to comply with the regulations set forth in Procurement, Management, and Administration of Engineering and Design Related Services (23 C.F.R. § 172), 48 C.F.R. § 31 of the Federal Acquisition Regulations, Subpart F of Uniform Administrative Requirements (2 C.F.R. §§ 200.500, *et seq.*), and other directives as appropriate.

H. PURCHASE AND RENTAL/LEASE. The CITY considers that the CONSULTANT should have the necessary equipment and other items to perform consultant work described in the scope of services. In those cases where it becomes necessary to purchase, lease, or rent equipment or other items with project funds, prior written CITY approval is required. All equipment and other items approved by the CITY for purchase with project funds shall become the property of the CITY at the completion of the project.

I. RELOCATION COSTS. The CONSULTANT has represented to the CITY that the CONSULTANT has the necessary personnel to perform the CONSULTANT's scope of services, and the CITY has relied upon such representation. In those CITY approved cases where it becomes necessary to relocate an employee, the CONSULTANT agrees that reimbursable relocation costs are limited to the costs incident to the permanent change of duty assignment (for an indefinite period or for a stated period of no less than 12 months) of an existing employee. To be considered for reimbursement eligibility, all relocation costs must be approved in writing by the CITY prior to any proposed relocation.

J. OVERTIME, EXTRA-PAY SHIFTS, MULTI-SHIFTS. Where the cost to the CITY may be affected, this Contract should be performed so far as practicable without the use of overtime, extra-pay shifts, or multi-shifts, and, in particular, without the use of overtime as a regular employment practice. Any required overtime, extra-pay shifts and multi-shifts will be limited to the minimum needed for accomplishment of the specific work and will require prior written approval by the CITY.

SECTION VI. MODE OF PAYMENT

A. The CONSULTANT shall submit monthly invoices to the CITY's Project Manager who in turn will review and recommend payment to and by the CITY.

B. Monthly Invoices. For services performed in this Agreement, the CONSULTANT shall be paid monthly based on an approved invoice. Monthly or partial payments, at the discretion of the CITY, may have appropriate retainage withheld until completion and acceptance of the work.

C. Acceptable Invoices. The CITY considers an acceptable invoice to include:

1. A breakdown of man-hours by classification and rate;
2. A line item for overhead;
3. A line item for profit;
4. A breakdown for other direct costs;
5. A breakdown for subconsultant services;
6. Signature of certification by an authorized representative of the firm;
7. The CITY's Project Manager may request additional certifications relating to work performed.

NOTE: For approved unit cost agreements, numbers 1, 2, and 3 above may be combined and identified by services, volume and rate. Numbers 4 and 5 above shall be by breakdown costs.

D. Certification of prompt payment to subconsultants. The CONSULTANT shall certify on each invoice for payment that the charges thereon are true and correct. The submittal of such invoice shall constitute the CONSULTANT's certification that all subconsultants have incurred the charges shown on the invoice, will be paid within seven (7) days upon receipt of payment from the CITY, and have been paid for all charges shown on previous invoices.

E. Prompt release of retainage. The CONSULTANT may withhold as retainage up to five (5%) percent of a subconsultant's payment until satisfactory completion of all work items of a subcontract. "Satisfactory completion of all work items of the subcontract" shall mean when the CITY pays the CONSULTANT for the last work item of the subcontract. The CONSULTANT must release to the subconsultant any retainage withheld within seven (7) calendar days of the date the CONSULTANT receives payment from the CITY for the last work item of the subcontract.

F. Sanctions for failure to comply. Failure to comply with any of the above prompt payment provisions shall result in one or more of the following sanctions: (1) no further payments being made to the CONSULTANT until compliance is achieved; (2) the CONSULTANT being declared in default of the Contract; (3) the CITY terminating the Contract in accordance with Section VII, Paragraph (K) of this Agreement.

SECTION VII. GENERAL PROVISIONS

The CITY and the CONSULTANT mutually agree as follows:

A. OWNERSHIP OF DOCUMENTS. Basic notes, sketches, charts, and other data prepared, furnished or obtained under this Agreement will become the property of the CITY without restriction or limitation on their use. No material produced in whole or in part under this Agreement will be subject to copyright in the United States or in any other country. The CITY shall have unrestricted authority to publish, disclose, distribute, and otherwise use, in whole or in part, any reports, data, or other materials prepared under this Agreement. The CITY shall retain ownership of all plans, drawings, specifications, and related documents.

B. INFORMATION TECHNOLOGY. All program management systems, software, or information technology products developed or utilized by the CONSULTANT for the project shall be able to interface with information technology systems utilized by the CITY. All systems, software, or information technology developed for this project shall become the sole property of the CITY upon Contract completion, including any source code. No program management systems, software, or information technology products produced in whole or in part under this Agreement will be subject to copyright by the CONSULTANT. The CITY shall have unrestricted authority to publish, disclose, distribute, and otherwise use, in whole or in part, all program management systems, software, or information technology products prepared by the CONSULTANT, or its subconsultants, under this Agreement.

C. FINDINGS CONFIDENTIAL. Any reports, information, data, etc. furnished to or prepared or assembled by the CONSULTANT under this Agreement which the CITY requests to be kept as confidential will not be made available to any individual or organization by the CONSULTANT without prior written approval of the CITY.

D. REQUIREMENTS FOR CHECKING AND REVIEWING OF PLANS.

It is the CONSULTANT's responsibility to produce plans that conform with all specifications, guidelines, and requirements stated in this Agreement unless a specific deviation has been requested in writing and approved by the CITY and, if applicable, the FHWA. All plans, whether preliminary or final, submitted to the CITY, shall have been checked in their entirety for completeness, correctness, accuracy, and consistency with other details in all respects, and shall have been thoroughly reviewed by the CONSULTANT to be in compliance with these requirements prior to submission to the CITY.

The spaces provided in the title box labeled "By," "CHK'D," and "REVIEWED BY" shall be signed with the initials of the persons who performed those specific functions on that portion of the project at the time of submittal to the CITY. In the event that a print of a partially completed sheet is to be submitted, the initials may be added directly to the print rather than being entered on the original drawing.

Once plans have been submitted to the CITY, no changes shall be made unless the CITY has been notified of the specific change. However, additions to complete the plans may be made provided the requirements for checking and reviewing are applied. All prints submitted to the CITY shall have the date of submittal stamped on the title sheet.

The CITY will perform a general review of the plans only. The CITY's review does not relieve the CONSULTANT of any responsibility for the completeness, correctness, consistency, and accuracy of all information, dimensions, quantities, details, designs, and compliance with all specifications, guidelines, and requirements of this Agreement. Should any discrepancies, errors, or omissions be found at any time after submittal of the plans, corrections to plans will be made at the CONSULTANT's expense. The CONSULTANT shall not include the cost of corrections of faulty or deficient work on his invoice to the CITY.

Failure to meet any of the above requirements may result in the withholding of payment until plans are deemed acceptable in the opinion of the CITY, or may be deemed just cause for consideration of termination of this Agreement.

E. PROGRESS. The CONSULTANT shall at all times work closely with the designated representatives of the CITY and shall keep them fully advised as to the status of the work. The CONSULTANT or his authorized representative will be present at all conferences, field inspections and other meetings as may be requested by the CITY. Conferences or consultations may be called at any time by either party to this Agreement. The plans and work of the CONSULTANT will be available to the CITY and, if applicable, to appropriate representatives of the FHWA for review at all times.

F. QUALITY CONTROL. All work by CONSULTANT is to be done in a manner satisfactory to the CITY and in accordance with the established customs, practices, and procedures of the CITY, State of South Carolina, and FHWA, and in conformity with the standards adopted by the American Associations of State Highway and Transportation Officials and approved by the Secretary of Transportation as provided in 23 U.S.C. § 109, as amended. For work involving the development of plans, the CONSULTANT shall implement all necessary quality control measures to produce plans that conform to FHWA guidelines and standards. Prior to submittal to the CITY, all plans shall be thoroughly reviewed by the CONSULTANT for completeness, correctness, accuracy, and consistency with the aforementioned requirements. Plan sheets shall be initialed as applicable by both the preparer and the reviewer to indicate appropriate quality reviews have been completed. The CONSULTANT shall maintain copies of any quality control documents, including check prints, throughout the duration of the project, with them becoming part of the official file, and shall submit copies of these to the CITY upon request.

G. INSPECTION OF WORK. The CITY shall have access to and the right to inspect all project work and materials during regular business hours of the CONSULTANT. The CONSULTANT and its subcontractors shall keep and preserve all books, documents, papers, accounting records, and other evidence pertaining to costs incurred and make such materials available at its respective offices at reasonable times during the Contract period and for three years

from date of final payment under the Contract for inspection by the CITY, any authorized representative of the CITY, and if applicable, the FHWA. Copies of these materials shall be furnished by CONSULTANT if requested by CITY.

H. CHANGES IN CONTRACT. The CITY may desire the CONSULTANT to render services for changes in connection with this project in addition to that provided for by the express provisions of this Agreement. Such additional services for changes will require a contract modification, setting forth the nature and scope of such additional services and the compensation therefor, as determined by mutual agreement between the CITY and the CONSULTANT. Work under such contract modification shall not proceed until formally approved by the CITY and, if applicable, the FHWA.

I. DELAYS AND EXTENSIONS. The CONSULTANT agrees to prosecute the work continuously and diligently; and no charges or claims for damages shall be made by CONSULTANT for any delays or hindrance, from any cause whatsoever during the progress of any portion of the services specified in this Agreement. Such delays or hindrances, if any, may be compensated for by an extension of time for such reasonable period as the CITY may decide. Time extensions may be granted only for excusable delays such as delays beyond the control and without the fault or negligence of the CONSULTANT.

J. FAILURE TO MAINTAIN SATISFACTORY PROGRESS

The CONSULTANT will proceed with the work in a timely fashion, providing sufficient manpower and resources to meet the commitment to schedules, milestones, and completion dates set forth in the Contract. The CITY may monitor the progress of the work to determine if the work is progressing sufficiently to meet the commitments agreed to in the Contract.

The CITY's Project Manager may make a preliminary finding of delinquency if at any time the CONSULTANT has not met the schedules, milestones, or completion dates established in the Contract, and it appears unlikely that the work will be completed by the specified date. Upon review of the preliminary finding of delinquency, the CITY's Project Manager may issue a Preliminary Notice of Delinquency. The CONSULTANT will have 15 calendar days to present information to the CITY as to why the CONSULTANT should not be found delinquent. This information should contain a specific plan of action to meet the Contract schedules, milestones, and completion dates and/or show circumstances beyond the CONSULTANT's control that have directly affected the CONSULTANT's ability to meet the commitments in the Contract. Upon review of the information submitted, the CITY's Project Manager will make a determination regarding the CONSULTANT's delinquent status. If a determination of delinquent status is made, the CITY's Project Manager will issue a Final Notice of Delinquency. A CONSULTANT receiving a Final Notice of Delinquency may appeal within 15 calendar days to the CITY's Director of the Department of Parks for a review of the delinquent status.

A CONSULTANT receiving a Final Notice of Delinquency shall be disqualified from receiving additional work, whether in the form of a new contract or a modification of an existing

contract. The CONSULTANT shall continue in a delinquent status until the project is in compliance with the schedule, or until the work required by the Contract is completed. This disqualification will become effective at the end of the 15-day appeal period if the CONSULTANT fails to appeal or on the date of decision if the appeal is denied. A CONSULTANT disqualified under this provision shall be barred from receiving work as an individual, firm, partnership, or corporation operating under the same name or a different name as the entity disqualified.

K. TERMINATION OF CONTRACT.

(a) This Contract may be terminated by the CITY at any time for the convenience of the CITY by written notice to the CONSULTANT specifying the termination date of the Contract. In the event of such termination of the Contract by the CITY, the CONSULTANT will be compensated on a *quantum meruit* basis for its work satisfactorily performed through the termination date.

(b) The CONSULTANT also has the right to terminate this Contract if the CITY unreasonably fails to timely provide the service required of the CITY under the scope of services, or unreasonably fails to make timely payment for consultant services rendered. In the event of such termination which is not the fault of the CONSULTANT, the CITY shall pay to the CONSULTANT the compensation properly due including reasonable overhead and profit on work performed for services properly performed (prior to the effective date of the termination) and for reasonable reimbursable expenses properly incurred as a result of the termination.

(c) In the event the CONSULTANT through any cause fails to perform any of the terms, covenants, or provisions of this Contract on its part to be performed, or if it for any reason fails to make progress in work hereunder in a reasonable manner, or if the conduct of the CONSULTANT impairs or prejudices the interest of the CITY, or if the CONSULTANT violates any of the terms, covenants, or provisions of this Contract, the CITY shall have the right to terminate this Contract by giving seven (7) calendar days' notice in writing of the termination and date of such termination to the CONSULTANT. The CITY shall have the sole discretion to permit the CONSULTANT to remedy the cause of the contemplated termination without waiving the CITY's right to terminate the Contract. All drawings, specifications, and other documents relating to the design or supervision of consultant work shall be surrendered forthwith by the CONSULTANT to the CITY. The CITY may take over work to be done under this Agreement and prosecute the work to completion by contract or otherwise, and CONSULTANT shall be liable to the CITY for all reasonable cost in excess of what the CITY would have paid the CONSULTANT had there been no termination.

L. DISPUTES. In any dispute concerning a question or fact in connection with the work of this Agreement, or compensation therefor, the decision of the CITY's Director of the Department of Parks in the matter shall be final and conclusive for both parties, subject to appeal to the South Carolina Circuit Court in Charleston County within 90 days of project completion.

M. RESPONSIBILITY FOR CLAIMS AND LIABILITY. The CONSULTANT shall assume certain risks in connection with the performance of this Agreement and shall be liable for and shall indemnify and hold harmless the CITY and other agencies of government from claims and liability due to negligent acts of the CONSULTANT, its subcontractors, agents, or employees in connection with the prosecution and completion of the work covered by this Agreement.

The CONSULTANT shall, until this Agreement has been fully performed or until it has been terminated by the CITY, take out and maintain as a normal business expense, the following insurance policies:

(a) The CONSULTANT shall purchase and maintain insurance to protect against claims that may arise out of the CONSULTANT's operations under the services of this Contract. The limits shall be for the limits set forth in this Section, shall be written on an occurrence basis (except that Professional Liability shall be written on a claims made basis) and shall be in force for the duration of the Contract.

(b) The CONSULTANT's Liability Insurance shall include all major divisions of coverage and is to be based on a Commercial basis including the following:
Premises – Operations.
Independent CONSULTANT's Protective.
Products and Completed Operations.
Personal and Advertising Injury.
Contractual, including specified provisions for CONSULTANT's obligations.
Broad Form Property Damage, including Completed Operations.
Owned, Non-Owned and Hired Vehicles.

(c) Errors and Omissions. The Insurance required by this Section shall be written for the following limits or greater if required by law or other provisions in the Contract:

1. Commercial General Liability:

a. General Aggregate (per project)	$ 2,000,000
b. Products/Completed Operations	$ 1,000,000
c. Personal and Advertising Injury	$ 1,000,000
d. Each Occurrence	$ 1,000,000
e. Fire Damage	$ 50,000
f. Medical Expense (any one person)	$ 5,000

2. Business Auto Liability (including all owned, non-owned, and hired vehicles):

a. Combined Single Limit	$ 1,000,000
-OR-	
b. Bodily Injury & Property Damage (each)	$ 1,000,000

3. Workers Compensation

a. State	Statutory
b. Employer's Liability	$ 100,000 Per Accident
	$ 500,000 Disease, Policy Limit
	$100,000 Disease, Each Employee

4. Professional Liability Insurance for the duration of this Contract with a limit of

$1,000,000 per claim and annual aggregate. This policy shall remain in effect for a minimum of 12 months after the date of issuance of the final Certificate of Payment by the CONSULTANT.

(d) The aggregate Limits of the CONSULTANT's Insurance shall apply, in total for this Contract. This shall be indicated on the Certificate of Insurance as "Per Project", or in an attached policy amendment.

(e) The CITY shall be listed as the certificate holder of the CONSULTANT's Liability Insurance.

(f) There shall be no endorsements or modifications of the CGL limiting the scope of coverage for liability arising from explosion, collapse, underground property damage, or work performed by CONSULTANT.

(g) Certificates of Insurance shall be in the form of the latest edition of the ACORD 25 and shall be filed with the CITY prior to commencement of the Work. In addition to Certificates of Insurance, the CONSULTANT shall supply a written endorsement to the CONSULTANT's general liability insurance policy that names the CITY as an additional insured. The endorsement shall provide that the CONSULTANT's liability insurance policy shall be primary, and that any liability insurance of the CITY shall be secondary and noncontributory. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled unless at least thirty (30) days prior written notice has been given to the CITY.

(h) In no event shall any failure of the CITY to receive copies with sensitive information redacted or certificates of policies required under this Section or to demand receipt of such copies with sensitive information redacted or certificates prior to the CONSULTANT's commencing the Work be construed as a waiver by the CITY of the CONSULTANT's obligations to obtain insurance pursuant to this Section. The obligation to procure and maintain any insurance required by this Section is a separate responsibility of the CONSULTANT and independent of the duty to furnish a certified copy or certificate of such insurance policies. Cancellation of insurance shall be grounds for the immediate termination of the Contract.

N. GENERAL COMPLIANCE WITH LAWS. The CONSULTANT and its subcontractors shall at all times observe and comply with all Federal, State, and local laws, ordinances, and regulations affecting the conduct of the work. All applicable regulations found at 2 C.F.R § 200 and 23 C.F.R § 172 are hereby incorporated into this Agreement by reference.

O. SUBLETTING, ASSIGNMENT OR TRANSFER. The CONSULTANT shall not assign, sublet, or transfer any of the work, except as specifically provided for under the terms of this Contract, without prior written consent of the CITY. Such consent does not release or relieve the CONSULTANT, as principal, from any of its obligations and liabilities under this Agreement.

Subconsultant agreements are attached in ATTACHMENT "C" ENGINEERING FEE. All Contract provisions shall be furnished to all subconsultants and shall apply to all subconsultant agreements.

P. ETHICS ACT. By execution of this Agreement CONSULTANT certifies the CONSULTANT is in compliance with South Carolina's Ethics, Government Accountability, and Campaign Reform Act of 1991, as amended. The following statutes require special attention:

1. Offering, giving, soliciting, or receiving anything of value to influence action of public employee – Section 8-13-705;
2. Recovery of kickbacks – Section 8-13-790;
3. Offering, soliciting, or receiving money for advice or assistance of public official – Section 8-13-720;
4. Use or disclosure of confidential information – Section 8-13-725;
5. Persons hired to assist in the preparation of specifications or evaluation of bids – Section 8-13-1150;
6. Solicitation of state employees – Sections 8-13-755, 8-13-760 and 8-13-725.

Q. DRUG FREE WORK PLACE CERTIFICATION. By execution of this Agreement CONSULTANT certifies CONSULTANT will comply with all applicable provisions of The Drug-Free Workplace Act, Title 44, Chapter 107 of the South Carolina Code of Laws, as amended.

R. COVENANT AGAINST CONTINGENT FEES. The CONSULTANT warrants that it has not employed or retained any company or persons, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this Contract, and that he has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, the CITY shall have the right to annul this Contract without liability or, at its discretion, to deduct from the Contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gifts, or contingent fee.

S. OTHER CERTIFICATIONS. In addition to the certifications indicated above, the CITY and CONSULTANT shall execute the certifications contained in Exhibit "I," CERTIFICATIONS, if agreed by the parties as applicable. These certifications are hereby incorporated and specifically made a part of this Agreement.

T. TITLE VI. CIVIL RIGHTS ACT OF 1964. During the performance of this Agreement, the CONSULTANT, for itself, its assignees and successors in interest agrees as follows:

1. Compliance with Regulations:

The CONSULTANT shall comply with the regulations relative to non-discrimination in Federally-assisted programs of the United States Department of Transportation (49 C.F.R. § 21, hereinafter referred to as "Regulations"), which are herein incorporated by reference and made a part of this Agreement.

2. Non-discrimination:

The CONSULTANT, with regard to work performed by it after award and prior to completion of the Contract work, shall not discriminate on the grounds of race, religion, color, sex, age, handicap, national origin, or political affiliation in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The CONSULTANT shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the Contract covers a program set forth in Appendix B of the Regulations.

3. Solicitations for Subcontracts, including Procurements of Materials and Equipment:

In all solicitations, either by competitive bidding or negotiation made by the CONSULTANT for work to be performed under a subcontract, including procurements of materials or lease of equipment, each potential subcontractor or supplier shall be notified by the CONSULTANT of the CONSULTANT's obligations under this Agreement and the Regulations relative to non-discrimination on the grounds of race, religion, color, sex, age, handicap, national origin, or political affiliation.

4. Information and Reports:

The CONSULTANT shall provide all information and reports required by the Regulations, or directions issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the CITY to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of the CONSULTANT is in the exclusive possession of another who fails or refuses to furnish this information, the CONSULTANT shall so certify to the CITY, and shall set forth what efforts it has made to obtain the information.

5. Sanctions for Non-compliance:

In the event of the CONSULTANT's non-compliance with the non-discrimination provisions of this Contract, the CITY shall impose such contract sanctions as it may determine to be appropriate, including, but not limited to:

(a) Withholding of payments to the CONSULTANT under the Contract until the CONSULTANT complies, and/or

(b) Cancellation, termination or suspension of the Contract, in whole or in part.

6. Incorporation of Provisions:

The CONSULTANT shall include the provisions of Paragraphs 1 through 6 of this Section T in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directions issued pursuant thereto. The CONSULTANT shall take such action with respect to any subcontract or procurement as the CITY may direct as a means of enforcing such provisions, including sanctions for non-compliance. Provided, however, that in the event the CONSULTANT becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the CONSULTANT may request the CITY to enter into such litigation to protect the interests of the CITY and, in addition, the CONSULTANT may request the United States to enter into such litigation to protect the interests of the United States.

U. MINORITY BUSINESS ENTERPRISE.

(a) Policy. It is the policy of the CITY to ensure nondiscrimination in the award and administration of federally-assisted contracts and to use Disadvantaged Business Enterprises (DBEs) in all types of contracting and procurement activities according to State and Federal laws. To that end the CITY shall require CONSULTANT to comply with SCDOT's DBE program established in accordance with regulations of the United States Department of Transportation found in 49 C.F.R. § 26. This Contract is subject to the provisions of the SCDOT's DBE program and 49 C.F.R. § 26.

SCDOT utilizes the DBE Quarterly Reports and DBE Status Spreadsheet as tracking tools.

- The DBE Quarterly Report reflects quarterly and total payments to date for all DBE firms. A separate DBE Quarterly Report must be submitted for each DBE firm for every active contract even if no payments were made to DBEs during the specified reporting period.

- The DBE Status Spreadsheet reflects a summary of payments to all committed and non-committed DBE firms working on the project, and must be submitted along with the DBE Quarterly Reports.

Copies of the above referenced forms are attached and fillable documents, along with instructions, located on the SCDOT website at www.scdot.org.

The reporting quarter periods are January-March, April-June, July-September and October-December. The reports are due to the CITY's Project Manager by the 15th day of the next month following the end of each quarter. Future payments may be withheld if the DBE Quarterly Reports and the DBE Status Spreadsheet are not submitted by the established deadlines.

(b) Consultant/Subconsultant assurances. Neither the CONSULTANT, nor its subconsultants, shall discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The CONSULTANT shall carry out applicable requirements of 49 C.F.R. § 26 in the award and administration of federally-assisted contracts. Failure by the

CONSULTANT, or any of its subconsultants, to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the CITY deems appropriate. The CONSULTANT shall advise its subconsultants of these provisions by including this clause in each of its subcontracts.

(c) Quoter information. At the conclusion of this Contract, the CONSULTANT shall submit to the CITY the names and addresses of all subconsultants who quoted subcontracts for this Contract.

(d) Reports on Subconsultant payments. At the conclusion of this Contract, the CONSULTANT shall report to the CITY all payments made to subconsultants on this Contract. The report shall include the following information as to each subconsultant: the name and address of the subconsultant, and the total payments made to the subconsultant.

V. EQUAL EMPLOYMENT OPPORTUNITY. In connection with the execution of this Contract, the CONSULTANT shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. The CONSULTANT shall comply with Executive Order 11246, as amended by the Executive Order 11375, and as supplemented by Department of Labor Relations (41 C.F.R. § 60) (Appendix II to 2 C.F.R. § 200) and shall take affirmative action to ensure that applicants are employed and that employees are treated during their employment without regard to their race, religion, color, sex, or national origin. Such actions will include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay, or other forms of compensation; and selection for training, including apprenticeship.

W. PARTICIPATION BY FOREIGN CONSULTANTS AND SUBCONSULTANTS

The CITY will not consider for award any proposal submitted by any consultant, and will not consent to subletting any portions of the Contract to any subconsultant, of a foreign country during any period in which such foreign country is listed by the United States Trade Representative as discriminating against U. S. firms in conducting procurements for public works projects.

For the purpose of this Special Provision, any consultant or subconsultant who is a citizen or national of a foreign country or is controlled directly or indirectly by citizens or nationals of a foreign country, shall be considered to be a consultant or subconsultant of such foreign country.

X. COMPLIANCE CONCERNING ILLEGAL ALIENS. By execution of this Agreement the CONSULTANT as the prime consultant does hereby agree:

1. to certify its compliance with the requirements of Chapter 14 of Title 8 of the S.C. Code of Laws regarding Unauthorized Aliens and Public Employment;

2. to provide CITY with any documents required to establish such compliance upon request; and
3. to register and participate and require agreements from sub-consultants to register and participate in the federal work authorization program to verify the employment authorization of all new employees, or to employ only workers who supply the documents required pursuant to S.C. Code 8-14-20(B)(2).

Y. IRAN DIVESTMENT ACT. By execution of this Agreement, CONSULTANT certifies that CONSULTANT and all of CONSULTANT's subconsultants, contractors, subcontractors, employees, and agents are not listed on the current version of the Iran Divestment Act List and will comply with all applicable provisions of the Iran Divestment Act, Title 11, Chapter 57 of the South Carolina Code of Laws, as amended. The CITY must be notified immediately if at any time during the Contract term, the CONSULTANT or any of CONSULTANT's subconsultants, contractors, subcontractors, employees, or agents are added to the Iran Divestment Act List.

Z. SUCCESSORS AND ASSIGNS. The CITY and the CONSULTANT each binds itself, its successors, and assigns to the other party with respect to these requirements, and also agrees that neither party shall assign, sublet, or transfer its respective interest in the Agreement without the written consent of the other.

AA. DEBARMENT AND SUSPENSION. If CONSULTANT is placed on the government wide Excluded Parties List System in the System for Award Management at any time during the performance period of this Contract, the Contract may be terminated.

BB. CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT. CONSULTANT must remain in compliance with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 – 7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 – 1387).

CC. ENERGY POLICY AND CONSERVATION ACT. CONSULTANT should comply with standards and policies relating to energy efficiency contained in the Plan for State Energy Policy (S.C. Code §§ 48-52-210, et seq.).

DD. PROCUREMENT OF RECOVERED MATERIALS. CONSULTANT should comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act.

EE. EXECUTION IN COUNTERPARTS. This Agreement may be executed and delivered in counterparts, and if so executed, shall become effective when a counterpart has been executed and delivered by both Parties hereto. All counterparts taken together shall constitute one and the same Agreement and shall be fully enforceable as such. Delivery of counterparts via facsimile transmission or via email with scanned attachment shall be effective as if originals thereof were delivered.

FF. ENTIRE AGREEMENT. This Agreement with referenced exhibits, and/or attached certifications, and attachments constitutes the entire Agreement between the parties and, except for contract modifications prepared in accordance with provisions thereof, there are no collateral contracts or agreements between the parties relating to this work. The execution of this Agreement by the parties hereto represents the execution of each individual certification hereof. This Agreement and Contract is to be interpreted under the laws of the State of South Carolina.

[Signature Page to follow]

IN WITNESS WHEREOF, the parties herein have executed this Agreement as of the day and year first written above.

Signed, sealed and executed for the CONSULTANT:

HDR ENGINEERING INC. OF THE CAROLINAS

WITNESS:

By: _____
(Signature)

Name: Jonathan Henderson

Title: Vice President

Signed, sealed and executed for the CITY:

CITY OF CHARLESTON

WITNESS:

_____

By: _____
(Signature)

Name: _____

Title: _____

EXHIBIT I

CERTIFICATIONS

ENGINEER CERTIFICATION FOR
PROJECT PLANS AND SPECIFICATIONS

Consultant's Name: _____

Route Number: _____

File Number: _____

Project Number: _____

Project Description: _____

In order to advance projects in an expeditious and efficient manner, CITY hereby assigns to the above-named consulting firm, hereinafter referred to as the Undersigned, and the Undersigned accepts full responsibility for all project plan and specification reviews including the approval of all information, dimensions, quantities, details and designs involved in the preparation and production of the project plans and specifications for the above-named project. In accepting this responsibility, the undersigned makes the following certification:

THE UNDERSIGNED CERTIFIES to be a South Carolina registered engineering firm with absolute authority to accept the responsibility for the project plans and specification involved in the project; and,

THE UNDERSIGNED CERTIFIES to produce project plans and specifications that will conform with all guidelines and requirements stated in this Agreement unless a specific deviation has been requested in writing and approved by the CITY and the Federal Highway Administration (FHWA); and,

THE UNDERSIGNED CERTIFIES that all project plans and specifications will be checked in their entirety for completeness, correctness, accuracy and consistency with other details in all respects, and will be thoroughly reviewed by the undersigned consulting firm to be in compliance with the requirements in effect at the time of submission to the CITY; and,

THE UNDERSIGNED CERTIFIES that each project plan sheet submitted on this project will be signed and sealed by a South Carolina Registered Engineer; and,

THE UNDERSIGNED CERTIFIES that all of the work performed under this Contract will be performed in accordance with the special provisions and specifications, and will be performed so as to meet or exceed reasonable standard of care of the profession; and

THE UNDERSIGNED CERTIFIES that by signing and sealing the plans, the undersigned assumes full, complete and conclusive liability for all discrepancies, errors or omissions found at any time in the plans or specifications. Further, that all corrections to the plans or specifications will be made at the consultant's expense and the consultant will not include the cost of corrections of faulty or deficient work on its invoice to the CITY; and

THE UNDERSIGNED FURTHER CERTIFIES that it agrees that failure to meet any of the above requirements may be deemed just cause, at the discretion of the CITY, for withholding payment on the Contract and/or termination of the Contract, without damages due to the Undersigned by CITY.

This Engineering Certification for Project Plans and Specification is attached to and becomes part of the Agreement and project, with all terms and conditions of the Agreement and project applicable hereto.

Seal

9/11/20
Date

Firm: HDR Engineering Inc, of the Carolinas

By: [signature]

Title: Vice President

CERTIFICATION OF CONSULTANT

I hereby certify that I am a duly authorized representative of the Consultant and that neither I nor the above Consultant I here represent has:

(a) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me or the above Consultant) to solicit or secure this Agreement;

(b) agreed, as an express or implied condition for obtaining this Agreement, to employ or retain the services of any firm or person in connection with carrying out the Agreement, or

(c) paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above Consultant) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out the Contract except as here expressly stated (if any).

(d) been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department, state department or agency thereof. The Consultant further certifies full compliance with 23 CFR 633 Subpart A of the Federal Code.

I acknowledge that this certificate is to be furnished to the CITY, the Federal Highway Administration, and the U. S. Department of Transportation, and is subject to applicable State and Federal laws, both criminal and civil.

9/11/20

(Date)

(Consultant Signature)

Title: Vice President

CERTIFICATION OF CITY

I hereby certify that I am the _____ of the City of Charleston and that the above Consultant or its representative has not been required, directly or indirectly, as an express or implied condition in connection with obtaining or carrying out this Agreement to:

(a) employ or retain, or agree to employ or retain, any firm or person, or

(b) pay, or agree to pay, to any firm, person, or organization, any fee, contributions, donations, or consideration of any kind, except as here expressly stated (if any).

I acknowledge that this certificate is to be furnished to the Federal Highway Administration and U. S. Department of Transportation, and is subject to applicable State and Federal laws, both criminal and civil.

_____ _____

(City Signature)

(Date) Title: _____

Certification for Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subgrants, and contracts and subcontracts under grants, subgrants, loans, and cooperative agreements) which exceed $100,000, and that all such subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

_____ _____

(City Signature)

(Date) Title: _____

9/11/20 _____

(Date) (Consultant Signature)

ATTACHMENT "A"

SCOPE OF SERVICES

AND SCHEDULE

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PROJECT DESCRIPTION

The City of Charleston (CITY) proposes to construct a separated bicycle and pedestrian bridge across the Ashley River and adjacent to US 17. In addition, bicycle/pedestrian improvements are included at the intersection of US 17 Off Ramp to Bee Street and Lockwood Drive, the intersection of the West Ashley Greenway/Folly Road/Wesley Drive, and the intersection of West Ashley Greenway/Wappoo Drive.

The CITY is contracting with HDR Engineering Inc of the Carolinas (CONSULTANT) to complete the field surveys, geotechnical investigations, traffic studies and modeling, environmental document, permitting, conceptual road/path design, conceptual bridge design, preliminary utility report, subsurface utility engineering, and preliminary hydraulic study. Additionally, the CONSULTANT is being asked to provide support during development of RFQ/RFP procurement, design plan review, and administration during construction. This support for the CITY capital project staff is requested and needed during the preparation of the design build package and contract and administration of the project during construction.

This preliminary information is critical to the project and is required to be included in the Request for Proposals (RFP). The CONSULTANT will be required to expedite the delivery of these services.

ANTICIPATED MILESTONE PROJECT SCHEDULE

Notice-to-Proceed	September 22, 2020
Complete Surveys	November 15, 2020
Public Information Meeting	April 1, 2021
Advertise Request for Qualifications	May 1, 2021
Complete Non-programmatic Categorical Exclusion	July 1, 2021
Deliver Preliminary Hydraulic Study	July 1, 2021
Deliver Preliminary Road Plans	July 1, 2021
Deliver Preliminary Bridge Plans	July 1, 2021
Deliver Preliminary Utility Report	July 1, 2021
Subsurface Utility Report	July 1, 2021
Deliver Wetland Jurisdictional Determination	July 1, 2021
Deliver Environmental Analysis & Review	July 1, 2021
Deliver Geotechnical Baseline Report	July 1, 2021
Traffic Studies and Modeling	July 1, 2021
Issue Request for Proposals for Industry Review	August 1, 2021
Issue Final Request for Proposals (Obligation)	September 30, 2021
Submittal of Technical Proposals	December 1, 2021
Submittal of Cost Proposals	December 31, 2021
Notice of Award	February 1, 2022

QUALITY CONTROL

It is the intention of the CITY that CONSULTANTS are held responsible for their work. The CONSULTANT shall implement all necessary quality control measures to produce the required scope of work that conforms to CITY and FHWA guidelines.

The CONSULTANT shall, without additional compensation, correct all errors or deficiencies in the designs, maps, drawings, specifications and/or other services.

QUALITY ASSURANCE

CITY will perform quality assurance reviews for all deliverables under this scope. CONSULTANT will allow two weeks for CITY quality assurance reviews. CONSULTANT will address all comments and incorporate necessary revisions prior to final delivery dates in milestone schedule.

CONTRACT CHANGES

CONSULTANT shall notify CITY of any event that causes or may cause a change in the contract within fifteen (15) working days of the incident. CITY will not be responsible for incidents that remain unreported longer than the time specified above.

SUMMARY OF WORK

Task 1:	Project Organization and Management
Task 2:	Aerial mapping and Field surveys
Task 3:	Traffic Studies and Modeling
Task 4:	Environmental Services
Task 5:	Roadway & Path Design
Task 6:	Structural Design
Task 7:	Hydrology and Hydraulic Design
Task 8:	Geotechnical Services and Pavement Design
Task 9:	Utility Coordination
Task 10:	Subsurface Utility Engineering (SUE)
Task 11:	Right of Way (ROW)
Task 12:	Support during Development of RFQ & RFP
Task 13:	Support during Procurement
Task 14:	Design Plan Review and Administration
Task 15:	Construction Engineering, Inspection, and Administration

1. PROJECT ORGANIZATION AND MANAGEMENT

1.1. Project Management*

This task includes the Prime Consultant Project Manager's time for management of the project including coordination and correspondence with the CITY, coordination with subconsultants, coordination and data collection of other entities such as the Charleston County, SCDOT, FHWA, preparing meeting minutes, four (4) project site visits, and attending up to twenty (20) (2 per month) coordination meetings. The CONSULTANT will provide a summary of each status meeting.

1.2. Schedule*

The CONSULTANT will develop a flow chart of activities and a milestone schedule. The flow chart and schedule will provide the CITY with a sequential scheme of events and dates to measure the project's progress.

1.3. Progress Report*

Each month the CONSULTANT will provide a progress report along with the monthly invoice that detail the month's activities and reports any upcoming project milestones.

1.4. Project Reporting to FHWA*

Assist the CITY in reporting project progress in accordance with federal grant requirements
Attend coordination and update meetings throughout project development and delivery.

1.5. Development of Agreements*

Assist the CITY in the development of bridge operations and maintenance agreement with SCDOT.

Deliverables*:

- Twenty (20) meeting summaries
- Four (4) site visit summaries
- Schedule
- Four (4) Project Updates to FHWA
- Approximately ten (10) invoices and progress reports.
- One (1) operations and maintenance agreement

2. AERIAL MAPPING and FIELD SURVEYS

2.1. Aerial Mapping

Aerial mapping was included under a separate Small Professional Services contract with the CITY.

2.2. Field Surveys

The CONSULTANT will supplement the aerial mapping by performing field surveys as outlined below to determine accurate elevations and locations of existing facilities (e.g., utilities, roadways, bridges, and culverts) for design purposes. All surveys shall conform to the SCDOT's Preconstruction Survey Manual (latest version) and The Standards of Practice for Land Surveying in South Carolina. These services must be under the direct supervision of and certified by a registered South Carolina Professional Land Surveyor. Consultant shall employ proper quality control measures to ensure accuracy of the field

survey deliverables as these deliverables will be provided as part of the design-build contract in Attachment B of the RFP as supplemental project design criteria.

The Survey Limits will include:

- Folly Road from 100 feet south of the intersection with Albemarle Road to the merge with US 17.
- US 17 from the merge with Folly Road to 200 feet east of the off ramp to Lockwood Drive.
- US 17 off ramp to Lockwood Drive – to the intersection with Lockwood Drive and full limits of the slip ramp to Lockwood Drive Southbound.
- Lockwood Drive from the intersection with Spring Street and extending 1200 feet south along Lockwood Drive.
- Bee Street from the intersection with Lockwood Drive to the intersection with Charleston Center Drive.
- West Ashley Greenway/Folly Road/Wesley Drive Intersection. Along Folly Road from Windermere Drive to 100 feet north of the Wesley Drive Intersection. Along Wesley Drive from Folly Road 100 feet north.
- West Ashley Greenway and Wappoo Road intersection. Along Wappoo Drive from Pinckney Park Drive to Harrison Avenue.

2.2.1. Project Survey Control*

The CONSULTANT will establish Project Survey Control. The project survey control will be tied to the South Carolina State Plane coordinate system to be a basis for all surveys required on the project using the NAD83(current adjustment) horizontal datum, the NAVD88 vertical datum and the International Foot. Supplemental control will be established as needed. A minimum of (2) Project Benchmarks will be established. Additional Project Benchmarks will be established depending on project length. It is assumed that approximately **10** survey control points and **5** project benchmarks will be needed for this project.

2.2.2. Best Fit Existing Roadway Alignment (ERA)*

The CONSULTANT will establish a Best Fit Existing Roadway Alignment (ERA) based on the field survey of the existing centerline of all SCDOT and CITY roads within the project limits. If roads exist within the project limits but are outside the SCDOT or CITY Right-of-Way, best survey practices will be used to develop these rights-of-way. It is assumed that approximately **8300** feet of best fit road alignment will need to be calculated.

2.2.3. Courthouse Research*

The CONSULTANT will conduct Courthouse Research on properties, within the project limits, to obtain the most current deeds, plats, ownership information and tax map number from the County Register of Deeds. The plats and deeds will be used to create property strip maps. CONSULTANT will also obtain the most current

SCDOT record plans and other Right-of-Way information. It is assumed that approximately **56** properties will be researched for the Project and approximately **8300** linear feet of road centerline will be used to establish Right-of-Way lines.

2.2.4. Field Survey Detectable Property Monuments*

The CONSULTANT will perform reconnaissance and Field Survey Detectable Property Monuments (front monuments if sufficient numbers are found) within the project limits to facilitate the mapping of the properties from deed and/or plat information of record. The monuments that are found will be tied into the project's horizontal survey control network. This is considered a partial property survey and does not constitute a full boundary survey. It is assumed that approximately **56** properties will be within the Project limits.

2.2.5. Property Strip Map and the Existing Road Rights-of-Way*

The CONSULTANT will create a Property Strip Map and the Existing Road Rights-of-Way. Property corners found and field surveyed will be used to produce a property strip map which will show property lines calculated from existing deeds and/or plats of record. The existing right-of-way will be mapped for all SCDOT or CITY roads within the project limits utilizing the final Best Fit Existing Roadway Alignment (ERA), evidence of right-of-way (existing road features and/or found right-of-way monuments) and existing SCDOT record plans as well as other right-of-way information. The Property Strip Map is considered a partial property survey and does not constitute a full boundary survey.

2.2.6. Supplement Aerial Mapping*

CONSULTANT will perform **Supplemental Aerial Mapping** by field surveying those planimetric (2D) and topographic breakline (3D) features (such as buildings, fences, trees, poles, top bank, edge of asphalt, walls, etc.) that are obscured on the aerial mapping within the project limits. It is assumed that approximately **70** acres will need to be surveyed.

2.2.7. Drainage Feature Surveys*

CONSULTANT will perform **Drainage Feature** surveys of outfall ditches and creeks to include location and cross sections at intervals of 50 feet, for a length of no less than 400 feet up-stream and 400 down-stream as measured from the end of the drainage structure. Cross sections will extend 50 feet from the top bank of each drainage feature. Drainage surveys will include ditches upstream as well as downstream of each main drainage feature. It is assumed that approximately **800** feet of drainage features will need to be surveyed.

2.2.8. Storm Drainage Structures*

CONSULTANT will locate and field survey existing **Storm Drainage Structures** within the project limits. Information obtained will include rim and invert elevations, pipe size and pipe material. It is assumed that approximately **25** storm drainage structures will need to be surveyed.

2.2.9. Gravity Sanitary Sewer Manholes*

CONSULTANT will field survey **Gravity Sanitary Sewer Manholes** with connectivity between manholes to include rim elevations, invert elevations, type and size of pipe. It is assumed that approximately **10** gravity sanitary sewer manholes will need to be surveyed.

2.2.10. Wetland Boundaries*

Wetland boundaries were included under a separate Small Professional Services contract with the CITY.

2.2.11. Geotechnical Bore Holes*

CONSULTANT will field survey the horizontal location of **Geotechnical Bore Holes** including a ground elevation at each bore hole. It is assumed that approximately **14** geotechnical bore holes will need to be surveyed.

2.2.12. Traffic Control*

CONSULTANT will maintain appropriate signage for **Traffic Control** purposes at all times when working within or near the existing traffic areas. It is assumed that approximately **(5)** days of traffic control will be needed.

2.2.13. Bathymetric Surveys*

CONSULTANT will perform bathymetric surveys of the Ashley River. Surveys shall extend 2500 ft. downstream of the US 17 Northbound Bridge, and 2500 ft. upstream of the US 17 Southbound Bridge. The approximate 250' area between the two bridges will be surveyed.

2.2.14. Deliverables:

- One (1) digital copy of Planimetric survey data (2D) in Microstation format.
- One (1) digital copy of Topographic Breakline data (3D) in Microstation format.
- One (1) digital copy of Digital Terrain Model in Microstation format.
- One (1) digital copy of all courthouse Deeds, Plats and Property Ownership records.
- One (1) digital copy of signed and sealed Wetland Exhibit survey.
- One (1) digital copy of signed and sealed Survey Control Data sheet(s).
- Digital file name conventions will follow the SCDOT survey manual specifications.

3. TRAFFIC STUDIES AND MODELING

3.1. Field Survey*

The CONSULTANT will conduct field surveys to familiarize and document existing operating conditions within the study area. The field surveys may include digital photographs and videos of existing conditions, observations of traffic patterns, and observations of traffic movements along corridor segments.

3.2. Traffic Data Collection*

The CONSULTANT will review available traffic volume data provided by the SCDOT, including data from count stations within the study area (Stations 123, 585, and 275), existing and historic average annual daily traffic (AADT) and other data collected by or for recent projects within the study area. The CONSULTANT will also review data,

findings and conclusions from studies and plans such as the US 17 Corridor Congestion Improvement Study and the CITY's People Pedal Plan. Due to traffic impacts caused by COVID-19, the CONSULTANT shall make use of data collected as a part of recent studies, such as the US 17 Corridor Congestion Improvement Study, and will factor those counts based on the year collected to approximate a 2020 traffic volume baseline.

The CONSULTANT will acquire 24-hour ADT information from previous studies, including vehicle classification, at the following locations:

- US 17 NB off-ramp to Lockwood Drive SB, channelized right turn free-flow lane
- US 17 NB on-ramp from Lockwood Drive NB
- SC 30/James Island Connector on-ramp from Lockwood Drive SB

The CONSULTANT will acquire peak hour turning movement traffic count data and pedestrian/bicyclist crosswalk data from the US 17 Corridor Study at selected intersections within the study area. Data will be reviewed at the following locations:

- Folly Road at Windermere Boulevard
- Folly Road at Wesley Drive
- Folly Road at Albemarle Drive
- US 17 NB off ramp at Lockwood Drive and Bee Street
- US 17 SB off ramp/Spring Street at Lockwood Drive

The CONSULTANT will establish heavy vehicle percentages for use at intersections based on vehicle classification information collected at the above locations.

The CONSULTANT will obtain the most recent five years (2015 – 2019) of crash data from the SCDOT and/or the South Carolina Department of Public Safety. The crash data will consist of the segment and intersection summaries for the roadway segments, ramps, and intersections within the study area. Individual crash reports for the crashes may also be obtained to cross-check against agency coding errors and to provide more detailed information about crashes. Prior to ordering the accident data, the CONSULTANT will provide a draft copy of the accident data request to the CITY for their review and concurrence.

The CONSULTANT will obtain copies of traffic signal construction plans and currently installed traffic signal timing data sheets from the SCDOT or CITY for all signalized intersections impacted by the project.

3.3. Work Zone Traffic Control Study*

The CONSULTANT will evaluate Preliminary work zone traffic control scenarios throughout the project as needed to determine constructability and all ROW requirements. The evaluation will include items like lane widths, transition taper widths, and any geometry necessary to define temporary roadway alignments. All work zone traffic

control studies shall conform to the SCDOT'S Design Manual and Manual on Uniform Traffic Control Devices, latest revision.

Assumptions:

- Temporary pavement design is not included

3.4. Traffic Analysis*

The CONSULTANT will conduct a crash analysis incorporating the crash data and including collision diagrams, and classification of crashes along segments and at intersections. Crash classifications will be by property damage, injury and fatality accidents, and by accident type (rear-end, side-swipe, run-off-road).

The CONSULTANT will prepare traffic projections for opening and design year traffic conditions. Traffic projections will be created using historic and existing traffic volume data, information contained in the regional Travel Demand Model, historical data from SCDOT, land-use plans, and other information as appropriate.

The CONSULTANT will develop an AM and a PM model using data and concept illustrations found in the US 17 Corridor Study. Models will represent an Existing Conditions, as well as for a No-Build and a Build condition. The CONSULTANT will use Synchro/SimTraffic to develop these models and will make use of methodologies described in the Highway Capacity Manual, 6th Edition (HCM6).

The CONSULTANT will use SimTraffic to provide information on modeled queue lengths at the two signalized intersections at Lockwood at Bee Street and at Lockwood at Spring Street.

The CONSULTANT will prepare a **Traffic Analysis Study Report** summarizing the data collection activities, crash evaluation, and analysis of the proposed modification to pedestrian infrastructure at the intersection of Folly Road with Wesley Drive and Windermere Boulevard. Also included will be the results of the operational analysis on Lockwood Drive, including intersection delay, level of service (LOS) and queue length.

Recommendations may include, but are not limited to, signal phasing and/or timing modifications and lane geometry modifications.

Assumptions:

- The crash evaluation is intended to summarize crashes within the study area and to provide information for design. Highway Safety Manual Part C predictive crash analysis methodologies will not be included in the crash evaluation.
- Synchro output will make use of HCM6 methodologies. In instances of HCM6 limitations, previous versions of HCM will be used.
- No traffic counts will be acquired as part of the contract.

4. ENVIRONMENTAL SERVICES

The CONSULTANT shall be responsible for NEPA compliance in accordance with 23 CFR Parts 771 and 772, as well as any related, current/latest guidance promulgated by Federal Highway Administration (FHWA), as of the date of executed contract. In addition the CONSULTANT shall

be responsible for delineating Waters of the U.S. and completing a Preliminary Jurisdictional Determination.

4.1. Initial Field Surveys and Project Initiation

4.1.1. Desktop Survey*

The CONSULTANT shall perform a desktop survey including but not limited to: assessing readily available GIS data (soils, hydrography, National Wetlands Inventory).

Assumptions:

- No overnight stays or direct costs required.

Deliverables:

- No specific deliverables anticipated.

4.1.2. Agency Meetings*

As directed by the CITY, the CONSULTANT shall attend one Agency Coordination Effort (ACE) meeting to discuss the project. In addition, as directed by CITY, the CONSULTANT will schedule one onsite meeting with appropriate State and Federal agencies to review the proposed project, discuss any particular regulatory concerns. The CONSULTANT shall make a determination of the aquatic significance of the river, and confirm these findings with resource and regulatory agency personnel.

Assumptions:

- 1 ACE meeting presentation;
- 2 consultants to attend ACE meeting(s); and
- 1 on site agency meeting.

Deliverables:

- ACE meeting presentation and materials; and
- 2 agency meeting summaries.

4.1.3. Jurisdictional Determination

Jurisdictional determination and critical area coordination were included under a separate Small Professional Services contract with the CITY.

4.2. Environmental Analysis, Documentation, and Review

4.2.1. Geotechnical Studies Programmatic Categorical Exclusion Document*

The CONSULTANT will prepare a Programmatic Categorical Exclusion (PCE) in accordance with the National Environmental Policy Act of 1969 for the potential impacts of the geotechnical investigations. The purpose of these investigations is to provide information for preliminary design. Once the plan is developed identifying the locations of the geotechnical investigations, the

CONSULTANT will complete the PCE using the form developed by FHWA and SCDOT.

Deliverables:

- Digital copy of Programmatic CE for Geotechnical Studies

4.2.2. Non-Programmatic Categorical Exclusion Document*

In consultation with the Federal Highway Administration, the City has determined that the project can be processed as a Non-Programmatic Categorical Exclusion. The CONSULTANT shall be responsible for the preparation of a Non-Programmatic Categorical Exclusion that 1) quantifies the impacts of a conceptual alternative* and 2) identifies environmental constraints for a design build contractor using the defined NEPA Study Area in **Attachment A.*** The purpose and need for the project should be developed using the results and any recommendations of the traffic study.

Assumptions:

- CE will be written in a manner that provides flexibility for a design build contractor to select a build alternative without formal re-evaluation. The environmental document should identify environmental constraints within the study area and thresholds for environmental impact (e.g. 3 acres of wetland impact or less) that would allow the design build contractor to proceed without need for re-evaluation of the NEPA document.

Deliverables:

- Digital copies of the Non-Programmatic CE.

The Non-Programmatic CE will be comprised of the following technical studies:

1. Land Use* - The CONSULTANT will include a discussion of the existing land uses within the project study area and any future land use plans for the area.

   Deliverables:

   - No specific deliverables anticipated.

2. Farmlands* – CONSULTANT will include a discussion of farmland impacts, including a determination of the presence of prime or unique farmlands or farmlands with statewide importance. Coordination with the NRCS, including completion of Form AD-1006, and review of the alternatives pursuant to the Farmland Act will be completed.

   Deliverables:

   - No specific deliverables anticipated.

3. Cultural Resources (Historical, Archaeological)* – Investigations shall be conducted as required. and may include terrestrial archaeological survey,

underwater archaeological survey, and architectural survey. Cultural resource reports will comply with state and federal requirements. However, with findings of up to five non-significant sites, a form report format (provided by the CITY) will be utilized. All SHPO coordination shall occur through CITY.

Deliverables:

- Electronic PDF Version of Cultural Resource Report
- 8 hard copies of draft and final cultural resources report (16 total)

4. Section 4(f) / 6(f)* - CONSULTANT shall identify properties within the project corridor that are protected under Section 4(f) or Section 6(f) and the impacts of the project on the resource(s). If necessary, a Draft and Final Section 4(f) Evaluation and/or De minimus/programmatic 4(f) shall be prepared.

   Deliverables:

   - No specific deliverables anticipated.

5. Parks and Recreational Areas* – CONSULTANT shall identify these areas within the project area and the impacts of the project on the resource(s).

   Deliverables:

   - No specific deliverables anticipated.

6. Social and Economic* - CONSULTANT shall develop a description of the existing demographic, social, and land use conditions.

   Deliverables:

   - No specific deliverables anticipated.

7. Displacements* – CONSULTANT will develop a conceptual design to avoid displacements.

   Assumptions:

   - Relocation Study Report is not included

8. Environmental Justice* - CONSULTANT shall identify any low-income and/or minority areas within the general project area, using US census data and determine if there are potentially disproportionately high and adverse effects on these populations as a result of the project.

   Deliverables:

   - No specific deliverables anticipated

9. Essential Fish Habitat* - CONSULTANT shall complete field evaluation for EFH as defined by the Magnuson-Stevens Fishery Conservation and Management Act, and prepare an EFH Assessment.

   The EFH Assessment will contain:
   a. Project coordinates
   b. Description of the proposed projects including:
      i. Alignment
      ii. Anticipated construction methods and access
      iii. Existing impacts to be removed (e.g. removal of existing fill from marsh)
      iv. Detailed description of habitat present and the quality and functions of habitat, including location of tidal creeks
      v. Location maps, bridge profiles, and preliminary plans.
   c. Analysis of potential adverse effects of the project on EFH and managed species, including quantities of impacts to EFH.
   d. Avoidance, minimization, and mitigation measures including:
      i. Efforts to minimize impacts
      ii. BMP requirements
      iii. Limitation to in water work

   CITY will provide the EFH Assessment to FHWA and National Oceanic and Atmospheric Administration (NOAA) – National Marine Fisheries Service (NMFS).

   CONSULTANT will coordinate with CITY and NOAA-NMFS if design changes affect the EFH Assessment.

   <u>Deliverables:</u>
   - One (1) PDF of EFH Assessment
   - Meeting materials (PDFs) including graphics and maps, and agendas for meetings
   - Meeting minutes (PDFs)

   Meetings/Travel:
   - One (1) site visit with NOAA-NMFS on the EFH

10. Compensatory Mitigation*

    If necessary, compensatory mitigation would be provided through an appropriate mitigation bank or through the purchase of credits from an approved mitigation bank that services the area. The CITY will be responsible for acquiring mitigation credits.

11. US Coast Guard (USCG) Coordination*

    The CONSULTANT will coordinate with the FHWA, CITY, and USCG to determine the level of consultation required for the project. During the CE, the CONSULTANT will complete the USCG Bridge Permit Questionnaire and submit to the CITY.

    - Notification Package
    - Responses to public and/or agency comments

12. Hazardous Waste and Underground Storage Tanks* – In assessing the environmental liabilities associated with the proposed new right of way, the CONSULTANT shall prepare a Limited Phase I Environmental Site Assessment (ESA) Report for up to fifty (50) parcels of land (in general accordance with ASTM 1527-13). The Limited Phase I ESA Reports will not include property chain of ownership or title information, ASTM Questionnaire, or interviews with property owners. All property reconnaissance will be conducted from the public thoroughfares. Local/historical records review will be confined to minimum search distances from the project corridor limits relative to the requirements of the ASTM 1527-13. Documents such as notices of violation, individual property contamination studies, and individual property remediation reports from state and local agencies will be reviewed as available. No sampling or laboratory analysis of any kind is included within this scope of services.

    Deliverables:
    - Electronic PDF Version of Phase I; and
    - # of hard copies of Limited Phase I __1__.

13. Wetlands / Water Quality* – Following completion of the preliminary project design, the CONSULTANT shall quantify the anticipated impacts to jurisdictional waters of the U.S., and provide a qualitative discussion regarding the types of streams, wetlands, and other waters of the U.S. being impacted in the context of the adjacent and surrounding waters of the U.S., including proximity of 303(d), TMDL, ORW, tidal, and shellfish beds. If the project would be constructed in the vicinity of 303(d), TMDL, ORW, tidal, and shellfish beds, then stormwater control measures, both during construction and post-construction would be required in accordance with the CITY's MS4 Permit. The CONSULTANT shall also include a discussion regarding the overall effects to water quality.

    Deliverables:
    - No specific deliverables anticipated.

14. Threatened & Endangered Species Survey* - CONSULTANT will perform field reviews to document the presence or absence of potential habitat for federally listed threatened or endangered species. A wood stork survey was included in the small purchase agreement with the CITY. For any additional species determined to have potential habitat within the project study area, species-specific surveys will be

conducted during the U.S. Fish and Wildlife Service's designated optimal survey windows as applicable for the specific species. The results of the field reviews/surveys will be incorporated into the environmental document, generally only a Biological Assessment (BA) for Threatened and Endangered Species if the document is a CE. The CONSULTANT shall comply with Section 7 of the Endangered Species Act, and provide the appropriate reports to the CITY. If informal consultation with the USFWS is required, CITY shall be responsible for performing this part of the project development process on behalf of SCDOT. Any concessions in either the scope of work or construction activities or mitigation measures will require prior CITY approval, and once approved by USFWS, shall be included as an environmental commitment in the environmental document. Any correspondence or communication with USFWS must receive prior approval by CITY. If formal consultation is required, FHWA will initiate and handle, but the Consultant will be required to provide supplemental information.

Wood Stork Survey was included under a separate Small Professional Services contract with the CITY.

Assumptions:

- BA will be completed.

Deliverables:

- Electronic PDF Version of BA.

15. Environmental Commitment Form*

CONSULTANT will complete an Environmental Commitment Form and include it in the front of the Environmental Document. The CONSULTANT will utilize standard commitment language provided in the Environmental Commitment Form template. If a non-standard commitment is required, CONSULTANT will provide draft language to the CITY and FHWA for review and approval. The City of Charleston is responsible for the commitments.

Deliverables:

- Electronic version of Environmental Commitment Form.

4.2.3. QA/QC of Environmental Document*

CONSULTANT will follow ESO's QA/QC Guidance and complete required reviews of the environmental document.

Deliverables:

- QA/QC review checklist.

4.3. Permitting

1. US Coast Guard (USCG) Permitting*

The CONSULTANT will prepare the Section 9 Bridge Permit Application, if necessary, in accordance with the USCG's Bridge Permit Application Guide. The application will include a copy of the CE and conceptual bridge design for the preferred alternative.

The CONSULTANT will prepare and submit the application to the CITY after FHWA approval of the FONSI. The CITY will be responsible for submitting the Questionnaire and Section 9 Bridge Permit Application to the USCG, if necessary.

The CONSULTANT will be responsible for response to comments on the application, with CITY and FHWA review.

The CONSULTANT will prepare a Vessel Impact Assessment describing the following:

a. Vessels on the waterway that are engaged in emergency operations, national defense activities, or channel maintenance, and potential impacts to their operation
b. Present and prospective recreational and commercial navigation on the waterway, indicating whether the proposed project will have an impact on the safe, efficient movement of segment of the present or prospective recreational/commercial fleet operating on the waterway
c. Description of the survey methods and results.

Deliverables:

Deliverables:

- One (1) PDF of the US Coast Guard Bridge Permit Questionnaire
- One (1) PDF of the US Coast Guard Bridge Application, if necessary
- Meeting materials (PDFs) including graphics and maps, and agendas for meetings
    - Meeting minutes (PDFs)
    - One (1) PDF of the Navigation Survey Results
    - One (1) PDF of the Vessel Impact Assessment Report

Meetings:
CONSULTANT will attend two (2) meetings via phone call with the US Coast Guard and FHWA regarding bridge height and Section 9 Coast Guard permitting.

Decisions/Actions by Others:
The CITY will be responsible for submitting the HDR prepared Questionnaire and HDR prepared Section 9 Bridge Permit Application to the USCG.

2. US Army Corps of Engineers (USACE) Permitting*

The CONSULTANT is responsible for securing all permits/certifications involved with acquiring an approved USACE permit to include but not limited to Chas.

Dist. Corps of Engineers Individual Permit, Coastal Zone Consistency (CZC), Critical Area Permit (CAP), Navigational Waters, & 401 Water Quality Certification.

If a Clean Water Act permit is applicable, then the CONSULTANT shall prepare the permit application in the format specified by the Charleston District Corps of Engineers with all required supporting information.

The CONSULTANT will coordinate with the CITY to determine what type of USACE permit will be required. In the completed application, the CONSULTANT shall document all proposed impacts to Waters of the U.S. At its discretion, the City will execute the Joint State and Federal Application form as the applicant, and will designate the CONSULTANT as the City's agent in the processing of the permit application for the subject project and in furnishing supplemental information in support of the application. If a CWA Section 404/401 permit is required, this shall be in addition to the contracted scope of work.

The CONSULTANT shall submit drawings depicting the proposed jurisdictional impacts to waters of the U.S. on the subject project. The CONSULTANT shall include the surveyed or measured boundaries of jurisdictional waters to establish the proposed jurisdictional impacts.

The CONSULTANT will work with federal, state and local representatives throughout the course of the permit application process, and coordinate the submission of any additional information as requested by the respective agencies in order to facilitate permit acquisition. If requested, the CONSULTANT will provide a tour of the project corridor for representatives of the regulatory and commenting agencies.

The CONSULTANT shall also furnish supplemental information in support of the USACE Individual Permit authorization request (e.g., NEPA, Threatened & Endangered Species Report, clarification, additional information or responses to comments, etc.). The CONSULTANT will also prepare the appropriate responses to agency or public comments received as a result of the public notice or from the dissemination of an Individual Permit authorization request, as directed by the CITY. The CITY is to approve both the permit application and any of the supplemental information provided in support of the application (e.g., clarification, additional information or responses to comments, etc.), including any communication (e.g., e-mail, facsimile, phone calls, meetings, etc.), before it

is submitted to the Charleston District Corps of Engineers (or other review and regulatory agencies) on our behalf.

Deliverables:

Permit Determination Form

Individual Permit Pre-Construction Notification Package

One (1) Electronic PDF copy of the Individual Permit Notification Package

Responses to public and/or agency comments

3. SCDHEC-OCRM General Permit* – Authorization under SCDHEC-OCRM's General Permit GP-84-264 will be required for borings that occur within the Critical Area. The CONSULTANT will prepare SCDHEC-OCRM General Permit Application (Form 3903), including drawings depicting the general location and activity.

   The CONSULTANT will mail notifications to adjacent property owners within 100 feet of the proposed boring locations, as well as Charleston County.

   The CONSULTANT will prepare a public notice to be published over one day in The Charleston Post and Courier newspaper. The CONSULTANT will include a notarized affidavit from the newspaper with notice attached in the permit application.

   Prior to commencement of work, the CONSULTANT will submit a Request for Construction Placard to SCDHEC-OCRM.

   Deliverable:
   - SCDHEC-OCRM General Permit
   - SCDHEC-OCRM Construction Placard

4.4. Public Involvement*

The CONSULTANT shall be responsible for developing a public involvement plan to effectively involve the public in the project's decision-making process as outlined in SCDOT's Public Involvement Policy. The following activities are to be included in the plan:

1. Project website hosted on the CITY's website
2. Press release
3. One (1) public information meeting
4. One (1) stakeholder meeting
5. Two (2) community meetings
6. One (1) meeting with marina operators to discuss in water work and navigation restrictions during construction.

Assumptions:
- Consultant will provide content for the website

Deliverables:

- Content for website;
- 2 displays of project's conceptual design for public information meeting, stakeholder meeting, community meetings, and marina operators meeting.

5. ROADWAY/PATH DESIGN

All plans, designs, specifications and estimates shall conform to the SCDOT's standard practices for highway construction, which are based on the latest edition of the following material:

- AASHTO A Policy on Geometric Design of Highways and Streets, 2011;
- AASHTO Guide for the Development of Bicycle Facilities, 2012;
- SCDOT Standard Drawings – Latest Edition;
- SCDOT Standard Specifications for Highway Construction 2007 Edition;
- SCDOT'S Engineering Directive Memoranda and Instructional Bulletins;
- SCDOT'S Access and Roadside Management Standards (ARMS) Manual, latest edition;
- SCDOT Roadway Design Manual, 2017,
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004 and;
- Other applicable SCDOT and FHWA design material, current editions.

5.1. Conceptual Plans*

5.1.1. Prior to beginning the design, the CONSULTANT shall submit detailed design criteria for approval by the CITY. Design criteria not in compliance with AASHTO or SCDOT requirements shall be brought to the CITY's attention for evaluation of a design exception. Any changes that involve SCDOT maintained roadways or facilities will need SCDOT review and approval. Any design exceptions on SCDOT maintained roadways will need SCDOT review and approval*

5.1.2. The CONSULTANT shall prepare conceptual plans for the alternatives in order to illustrate significant design features of the project. Improvements shall include:

- Intersection safety and pedestrian improvements at Wesley Drive / Folly Road (Stantec)
- Intersection safety and pedestrian improvements at Bee St/Lockwood/US 17 offramp (Stantec)
- Intersection safety and pedestrian improvements at Wappoo Road and West Ashley Greenway (Stantec)
- Alternatives for US 17 NB Off Ramp / Bee Street/ Lockwood Drive intersection (Stantec)
- Alternatives for a bridge across the Ashley River and connections to existing pathways or intersections (HDR)

These conceptual plans will consist primarily of roll plots; typical sections and cross sections only where needed to verify the design.*

5.1.3. Conceptual cost estimates will be completed for each alternative and location*

5.2. Preliminary Road/Path Design

The CONSULTANT shall refine the conceptual plans for the preferred alternative necessary to confirm the NEPA boundaries and to aid in preparing a refined construction cost estimate and finalize design criteria.

5.2.1. Plans will include: Title sheet, Plans and profiles, Typical sections, cross sections, Existing Right of way, Proposed Right of way. Additional items that maybe needed in the preliminary plans will be included such that enough detail is provided to allow for verification of controlling criteria.*

5.2.2. Preliminary cost estimates based off of select bid item quantities will be developed for the preferred alternative.*

5.2.3. Representatives from the CITY and the CONSULTANT will perform one (1) Design Field Review (DFR) meeting during the preliminary plan development. All information gathered during the DFR will be evaluated and the plans revised to verify the NEPA boundaries, cost estimate and criteria.*

5.2.4. Respond to comments and finalization of refined roadway plans*

5.2.5. Identify preliminary right of way requirements and environmental impacts*

5.2.6. Complete design exception documentation, if needed. SCDOT approval will be needed for areas affecting SCDOT roadways.*

Deliverables

- One (1) Electronic copy of Roadway Design Criteria
- One (1) PDF file of Conceptual Roadway plans for each alternative will be provided.
- Conceptual Cost estimates
- One (1) PDF file of Preliminary Roadway plans will be provided for the preferred alternative
- Cost estimate from the preliminary plans for the preferred alternative.
- One (1) Complete Design Exception with supporting documentation (if necessary). SCDOT approval will be needed for areas affecting SCDOT roadways.

6. STRUCTURAL DESIGN

The CONSULTANT will develop conceptual (Type, Size, & Location (TSL)) bridge plans consistent with SCDOT standards including all items stipulated in Section 3.2.3 of the SCDOT Bridge Design Manual. The TSL plans will be prepared in sufficient detail and appropriate format to clearly illustrate the bridge's location, all significant design features, dimensions, and clearances. The TSL plans will include a plan and profile, elevations (showing movable spans, as applicable, in both the open and closed positions), pathway and bridge typical sections, types of superstructure and substructure, and pertinent plan and profile sheets. The

TSL plans are not intended to become a part of the information provided with the RFP, but will be submitted in an Alternatives Report for selection of preferred alternative.

Upon selection of the preferred alternative, the CONSULTANT – in coordination with the CITY – will finalize the schematic plans, specifications, and estimate for that alternative, defining the bridge design for bidding purposes in the DB procurement. In parallel, conceptual aesthetics will be defined for select bridge component details, including production of 3D renderings for visualization at both overview scale and select detail scale.

The CONSULTANT will conform to the following SCDOT and FHWA design standards in preparation of the bridge plans. During plan development, the CONSULTANT will use the most recent standards in effect at the time of the DFR.

- SCDOT Bridge Design Memoranda (to RPG Structural Engineers and Design Consultants, issued after April, 2006);
- SCDOT Bridge Design Manual, as updated per Bridge Design Memorandum DM0220;
- AASHTO LRFD Bridge Design Specifications, latest edition, including interims;
- AASHTO LRFD Movable Highway Bridge Design Specifications, latest edition, including interims
- AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges, latest edition
- SCDOT Bridge Standard Drawings and Details, latest versions;
- SCDOT Road Standard Drawings and Details, latest versions;
- SCDOT Geotechnical Design Manual, 2019, Version 2.0, with latest interims;
- SCDOT Standard Specifications for Highway Construction;
- ANSI/AASHTO/AWS D1.5 Bridge Welding Code, the latest edition, with interim revisions
- SCDOT Standard Special Provisions and Supplemental Specifications.
- South Carolina Building Code
- NFPA 70 National Electrical Code; and
- OSHA 29 CFR

The following items will be developed for the bridge design:

6.1. Preliminary Bridge Design

6.1.1. Develop preliminary design criteria for bridge structures and operations that will be necessary for the development of the alternatives. Pedestrian accommodations and aesthetic considerations to be included.*

6.1.2. Representatives from the CITY and the CONSULTANT involved in bridge design will perform a field review of the project. All information gathered during the field investigations will be evaluated and plans revised accordingly.*

6.1.3. Identify and analyze* up to three (3) main span alternatives. Likely candidates are:

6.1.3.1. High Level Fixed Spans

6.1.3.2. Vertical Lift Bridge

6.1.3.3. Second Movable Bridge Option (TBD)

6.1.3.4. Identify and analyze two (2) marsh approach span alternatives

6.1.4. Develop Preliminary Alternatives Report*

6.1.4.1. Including (but not limited to)

- Conceptual TSL bridge plans* for the bridge alternatives.
- Preliminary estimated life-cycle cost* for each alternative.
- Selection Criteria Matrix, with Discussion of Pros and Cons of each alternative.

6.1.4.2. Respond to comments from the CITY on the Alternatives Report.

6.1.4.3. Meet with the CITY to discuss alternatives.

6.1.4.4. Finalize Alternatives Report* with recommendation for the preferred option based on the CITY's input, and submit.

6.2. Conceptual Aesthetics*

6.2.1. The CONSULTANT will research and develop conceptual level aesthetic enhancements for the preferred alternative for coordination with the CITY's Board of Architecture Review (BAR). Aesthetic treatments to be considered include bridge lighting, handrails, and architectural features at movable bridge span.

6.2.2. The CONSULTANT will develop graphics and renderings for conceptual aesthetics. No more than three (3) options will be prepared for each aesthetic treatment.

6.2.3. Following the meeting with the CITY's BAR, a final aesthetics package will be prepared for inclusion in the Design Build RFP.

Deliverables:

- One (1) electronic PDF file of Preliminary Alternatives Report
- One (1) electronic PDF file of Final Alternatives Report
- One (1) electronic PDF file of the Aesthetics Package

7. HYDROLOGY AND HYDRAULIC DESIGN

All hydraulic design and documents will be in compliance with the following design criteria:

- SCDOT's Requirements for Hydraulic Design Studies, latest edition;
- SCDOT Standard Drawings;
- SCDOT Supplemental Specifications;
- SCDOT Engineering Directive Memorandums;
- SCDOT Instructional Bulletins;
- SCDOT Standard Specifications for Highway Construction;
- SCDOT Supplemental Technical Specifications;
- SCDOT Preconstruction Advisory Memorandums;
- City of Charleston Stormwater Design Manual, latest edition;

- FEMA Regulations, 44CFR Chapter 1;
- The State Stormwater and Sediment and Erosion Control Regulations administered by DHEC, 26 S.C. Code Ann. Regs. 72-405 (Supp. 1995) et seq.;
- South Carolina State Water Law;
- AASHTO "Highway Drainage Guidelines" dated 2007;
- AASHTO "Drainage Manual", 2014 first edition;
- SCDOT "Stormwater Quality Design Manual" latest edition;
- SCDOT Hydraulic Design Bulletins;
- SCDHEC NPDES MS4 permit #SCS040001; and
- SCDHEC NPDES Construction Permit #SCR160000.

7.1. Roadway Drainage*

7.1.1. Perform a hydrological study of the watershed(s) using existing topographic maps, information gathered from the field investigation(s) and available information from federal, state and local agencies.

7.1.2. Perform hydraulic analyses for pre- and post-developed conditions on the crossline drainage structures based on the appropriate route designation. Check the crossline drainage structures for roadway overtopping using the 100-yr storm event. Tailwater conditions must be taken into consideration.

7.1.3. Coordinate potential impacts from the proposed project on pre-development peak flow rates and total runoff volume. Prepare conceptual design alternatives for reducing post-development flow rates and total runoff volume to pre-development levels in accordance with CITY standards. This task item is specifically for non-bridge areas.

7.1.4. The CONSULTANT will development a preliminary design assessment of the bridge surface drainage. Alternatives for collecting bridge surface runoff will be coordinated with the preliminary bridge design. The CONSULTANT will evaluate the need for best management practices to collect and provide water quality treatment to the bridge runoff. Potential areas for best management practices will be identified and documented as part of the environmental studies and preliminary design.

7.1.5. Identify all floodways and flood hazard areas and identify significant drainage features that encroach upon these areas.

7.2. Bridge Hydraulics Modeling

7.2.1. Perform hydrologic and hydraulic riverine and tidal analyses for the bridge alternatives crossing Ashley River in accordance with SCDOT's design criteria (utilizing two-dimensional surge and wave modeling software) to determine the waterway opening requirements and analyze the structure(s) for the 1% AEP (100-year) and 0.2% AEP (500- year) events.*

7.2.2. The CONSULTANT shall develop an ADCIRC based model. Bathymetric surveys 2500' upstream and downstream of the existing alignment shall be obtained for use in the model. *

7.2.3. The CONSULTANT will establish the 100-year maximum wave crest elevations across the bridge employing methodologies consistent with AASHTO's "Guide Specifications for Bridges Vulnerable to Coastal Storms" to determine the required clearances and wave forces for the bridge alternatives. Calculate the wave forces based

on the bridge ends being set at 1% AEP surge plus wave height plus freeboard as discussed in the Hydraulic Requirements.*

7.2.4. Hydraulic modeling will examine the proposed alternatives. Bridge geometry will be determined for each alternative. The modeling will be conducted in conformance with the guidelines detailed in SCDOT's "Requirements for Hydraulic Design Studies" consistent with a Level 3 Analysis to determine the minimum low steel and in conformance with the guidelines detailed in AASHTO's "Guide Specifications for Bridges Vulnerable to Coastal Storms". As already stated, bridge geometry must be determined but ultimately the only required data is the low steel and the determination of the pier location constraints. Consultant to coordinate with Coast Guard to determine minimum elevation of low chord over the shipping channel.*

7.2.5. Development of Bridge Hydraulics Report following SCDOT Guidelines.

Deliverables:

- One (1) PDF copy of the Conceptual Roadway Drainage Design Report
- One (1) PDF copy of the Hydraulic Design and Risk Assessment Report
- One (1) PDF copy of the Bridge Hydraulics Report

Assumptions:

- No FEMA Report will be required.

8. GEOTECHNICAL SERVICES AND PAVEMENT DESIGN

The scope of services outlined below for field exploration, laboratory testing, and limited engineering analysis/reporting will be performed for the project. Pavement design and investigation will be performed by the CONSULTANT. All associated field investigations and pavement borings for new pavement design will be performed by CONSULTANT. The following design standards will apply.

- 2007 SCDOT Standard Specifications for Highway Construction.
- SCDOT Standard Supplemental Specifications and Special Provisions.
- 2019 SCDOT Geotechnical Design Manual (GDM), 2019, Version 2.0.
- SCDOT Bridge Design Memorandum to RPG Structural Engineers and Design CONSULTANTs, issued after April, 2006
- AASHTO Standard Specifications for Highway Bridges, 17th Edition
- AASHTO LRFD Bridge Design Specifications, 7th Edition, with interims.
- LFRD Guide for Specifications for Pedestrian Bridges
- SCDOT Pavement Design Guide

Assumptions

- The CONSULTANT developed a preliminary geotechnical boring location plan to facilitate collaboration with the CITY regarding frequency and location of the test locations associated with the subsurface investigation scope herein. The preliminary geotechnical boring location plan as modified based upon collaboration with the CITY is the primary basis for subsurface investigation scope herein;
- The subsurface investigation associated with the bridge will be performed

during the day. The bridge end bent borings and the bridge approach/roadway embankment boring will be performed using low ground pressure/floating (marsh buggy) equipment. The interior bent boring will be performed from the water using a barge.

- The pavement borings and geophysical investigation will be performed with traffic control and adhere to the hourly lane closure restrictions for US 17.
- Property permissions to perform the borings outside of CITY and SCDOT right of way will be obtained by the CITY.
- CONSULTANT will develop and submit programmatic NEPA CE for soil borings.
- CONSULTANT will provide boring locations and details regarding access to the borings needed for development of the NEPA CE for soil borings.

8.1. Geotechnical Field Exploration*

8.1.1. CONSULTANT shall submit a detailed subsurface investigation plan prior to the commencement of field operations. The plan shall consist of proposed boring locations within the project corridor as well as the following items:

- Description of the soil stratification anticipated;
- Description of the proposed testing types;
- Depth of tests
- Location of tests.

8.1.2. Test locations shall be located in the field using GPS survey equipment. Once field work has been completed, all test locations shall be surveyed for State Plane coordinates.

8.1.3. Borings and Soundings: Soil Test Borings (STB), Seismic Piezocone Penetration Test soundings (SCPTu), and a MASW 2D seismic survey will be performed in general accordance with Chapters 4 and 5 of the GDM. A total of ten (10) STBs (2 marine and 8 marsh based) and four (4) SCTPu soundings will be performed as follows:

8.1.4. Marine Based borings

- Two (2) STBs to 200 feet for bridge foundations (assume @ 500' spacing for a 1,500-foot long bridge)
- Assume thirty (30) feet of water from barge to ground surface within river.

8.1.5. Marsh/Land Based borings

- Two (2) STBs to 150 feet for bridge foundations (one near each abutment)
- Two (2) STBs to 100 feet for bridge approach embankments at 100-ft from each bridge end
- Four (4) STBs to 60 feet for embankment design or potential retaining walls.
- Four (4) SCPTu soundings to 125 feet will be performed to explore the approach embankment areas of the proposed bridge (no more than 5 feet from the location of each bridge end bent and approach embankment STB).

8.1.6. All STBs and soundings shall be performed to the depths indicated or refusal below the ground surface/mudline, whichever applies.

8.1.7. All STBs shall be advanced using rotary wash drilling techniques and include Standard Penetration Tests (SPT). SPTs shall be performed continuously in the upper 10 feet

using a 24-inch spoon and on 5-foot centers thereafter to the boring termination or refusal depth. Refusal is defined as drilling tool and SPT refusal (N-value of 50 blows per 1 inch).

8.1.8. Geophysical testing using a 2D Multi-Channel Analysis of Surface Waves (MASW) to a minimum depth of 100 feet aiming to produce an approximate 200-foot seismic survey profile adjacent to one end of the proposed bridge will be performed.

8.1.9. If soft, fine-grained cohesive soils are encountered during the subsurface investigation, five (5) auger probes to 80 feet with four (4) undisturbed samples from each probe (total of 20),will be obtained

8.1.10. Over-water access (barges) will be required to maneuver the drilling rig and advance test borings for bridge interior bents. A mobilization and per-day rate for the barge subcontractor will apply.

8.1.11. On land STBs and SCPT soundings will be performed from a marsh buggy mounted rig.

8.1.12. Pavement coring of existing pavement with bulk sample collection from existing soil will be performed for pavement design purposes. Core thickness shall be reported. Assume three (3) cores with 5.0' soil sampling through asphalt pavement and patching the resulting core holes, and two (2) bulk samples.

8.1.13. It is the responsibility of the CONSULTANT to obtain necessary permits to access each test hole location. Prior to commencing field work, the CONSULTANT shall clear all utilities located at the project site. Locating and protecting utilities before and during field work is the responsibility of the CONSULTANT.

8.1.14. Groundwater table measurements will be taken immediately following and 24-hour after boring completion.

8.1.15. Boreholes will be backfilled with drill cuttings or clean soil.

8.1.16. CONSULTANT shall perform and submit the results of SPT hammer energy measurements for any drill rig used on this project.

8.2. Field Operations Items*

The following items are deemed necessary to complete the field work as proposed:

8.2.1. Drill Crew & Equipment Mobilization to site

8.2.2. Marsh Buggy Drilling Equipment

8.2.3. Marsh mats/plywood and equipment to locate/relocate marsh buggy for drilling access

8.2.4. Barge/equipment mobilization

8.2.5. Barge placement and drill platform setup

8.2.6. Push-boat rental with captain and crew & drill platform and support equipment rental

8.2.7. Barge days –

8.2.8. Difficult boring location access (20 hours STB, 20 hours SCPT)

8.2.9. Rotary Wash Drilling - 1,140 LF (400 LF from barge + 740 LF from land)

8.2.10. Auger Borings – 400 LF

8.2.11. Undisturbed (Shelby Tube) Soil Sampling – 20 Samples

8.2.12. Setting steel drilling casing – On land and over Water (400 LF for marine borings + 740 LF for land based borings)

8.2.13. Geophysical Testing using 2D MASW – 1 test

8.2.14. Per Diem days

8.2.15. Lodging days

8.2.16. Mileage

8.3. Laboratory Testing*

All soil samples will be sealed in appropriate containers and transported to the CONSULTANT's AASHTO accredited laboratory for index and strength tests. Laboratory investigation is to include, as estimation, the following:

8.3.1. Ninety (90) Natural Moisture Content tests;

8.3.2. Ninety (90) Moisture-Plasticity Relationship Determination (Atterberg Limits);

8.3.3. Ninety (90) Grain Size Distribution with wash No.200;

8.3.4. Five (5) Organic content tests;

8.3.5. Six (6) Corrosion Series (including pH, Sulfate, Chloride & Resistivity) for the proposed bridge;

8.3.6. Twenty (20) UD preparations;

8.3.7. Four (4) Consolidation tests

8.3.8. Eight (8) Unconsolidated Undrained Triaxial Shear Strength tests

8.3.9. Ten (10) Consolidated Undrained Triaxial Shear Strength tests with pore water pressure measurements

8.3.10. Classification tests consisting of Grain Size Distribution with Wash No 200 sieve, Atterberg Limits, and Natural Moisture Content shall be conducted on each undisturbed sample and each bulk sample. Consolidated Undrained Triaxial testing with pore pressure measurements shall be performed on samples remolded to 95% of the Standard Proctor maximum dry density for each bulk sample. These tests have been accounted for in the quantities above.

8.4. Preliminary Geotechnical Baseline Report*

The Preliminary Geotechnical Baseline Report will be prepared by the **CONSULTANT** in general accordance with the procedures outlined in the GDM.

8.5. Preliminary Geotechnical Seismic Characterization*

The **CONSULTANT** will perform limited geotechnical analyses required to assess the static and seismic subsurface conditions relative to the existing roadway embankment stability. The preliminary geotechnical calculations will consist of settlement calculations, liquefaction potential calculations, and slope stability analyses.

The **CONSULTANT** will submit the shear wave velocity profile generated from the MASW and SCPT testing to the SCDOT for development of the horizontal Acceleration Design Response Spectrum (ADRS) curves. Information from the ADRS curves will be used as input into the liquefaction calculations and the seismic slope stability analyses.

The **CONSULTANT** will also perform limited analysis of seismic hazard mitigation options.

8.6. Site-Specific Seismic Response Analysis (SSRA)*

The **CONSULTANT** will perform a site-specific seismic response analysis in coordination with the CITY and only if the criteria in GDM Section 12.9 that require such a study are met.

Deliverables

- Geotechnical Base Line Report - One (1) electronic pdf copy of the Geotechnical Base Line Report for the entire project (roadway and bridge) will be submitted. All activities in preparation of the geotechnical base line report shall be conducted in general accordance with the procedures outlined in the GDM and respective bridge design memo. The report will also include the results of the preliminary geotechnical seismic characterization. The report will be prepared in accordance with GDM and applicable Bridge Design Memo guidelines.
- Site-Specific Response Analysis Report – Subject to the CITY's approval for the performance of the study, one (1) electronic pdf of the Site-Specific Response Analysis Report will be submitted.

9. UTILITY COORDINATION

General Responsibilities

The CONSULTANT shall have the responsibility of coordinating the Project development with all utilities that may be affected. All utility relocations shall be handled in accordance with the SCDOT's "A Policy for Accommodating Utilities on Highway Rights of Way" and the Code of Federal Regulations, Title 23, Chapter 1, Subchapter G, part 645, subparts A & B.

These services shall be performed by individuals skilled and experienced in utility coordination services.

The CONSULTANT shall work with designers of the Project to avoid conflicts with utilities and minimize impacts where conflicts cannot be avoided. This may include, but is not limited to, utilizing all available utility data, whether obtained from SUE services, as-built plans, or provided by the SCDOT or some other source. The CONSULTANT will be expected to

determine all utility conflict points, including all work to properly analyze each conflict point, and make recommendations for resolution of the conflict.

The utility company shall not begin their relocation work until authorized in writing by the SCDOT.

The CONSULTANT shall prepare and maintain a Utility Conflict Matrix (UCM) in order to track each utility within the project limits during the life of the Project.

Scope of Services

Project tasks below that are identified with an asterisk (*) are tasks which are expected to be assigned man-hours. All estimated direct costs for specific project tasks will require supporting documentation.

9.1. Early Utility Coordination

Project Preliminary Review (*): The CONSULTANT shall coordinate with the SCDOT Program Manager to collect and review available project plans and the proposed scope of construction.

Utility Introduction Letter (*): (Required) The CONSULTANT shall develop a Utility Introduction Letter for each utility company. This letter shall be populated by the CONSULTANT with the utility company's information (to include the company's contact person, mailing address, telephone number and appropriate email address) and electronically sent to the SCDOT State Utility Engineer for signature and mailing.

Utility Record Collection and Review (*): The CONSULTANT shall initiate early coordination with all utility companies that are located within the Project limits. Coordination shall include, but shall not be limited to, contacting each utility company to advise the company of the proposed Project, obtaining copies of as-built plans for the existing utility facilities (if available), perform a review of utility as-built plans and determine the utility company's requirements for the relocation of their facilities.

Site Visit (*): The CONSULTANT shall perform a site visit for a visual inventory of existing utilities within the proposed project limits. If it is determined by the SCDOT that an in-depth SUE mapping investigation will not be performed, the CONSULTANT is encouraged to use the "One Call" design ticket service provided by SC811 prior to their Site Visit.

Coordination Meeting with Utility Companies (*): The CONSULTANT shall coordinate and conduct a preliminary review meeting with the utility companies (if deemed necessary) for the completion of Early Utility Coordination.

SUE Mapping Recommendation (*): The CONSULTANT shall develop a SUE recommendation for the project dependent on the information gathered and the projected level of Utility Coordination expected for the Project as directed by the SCDOT Program Manager.

Utility Clearance Separation Values (*): (Project Specific Task) The CONSULTANT shall determine the minimum vertical and horizontal separation values required by each utility.

These values will provide the SCDOT Program Manager vertical and horizontal clearance design criteria during preliminary project development.

Early Utility Coordination Email (*): The CONSULTANT shall prepare and send the Early Utility Coordination Email to the SCDOT Program Manager, SCDOT Utility Office and the District Utility Coordinator. Email to be used as an informal summary of the Early Utility Coordination tasks.

Deliverables:

The CONSULTANT shall prepare and submit to the Department an Early Utility Coordination Email within 30 days after receiving the Notice to Proceed (NTP) which includes:

- List of all utility companies and contact information within the project limits.
- Utility Introduction Letter (Required).
- Early assessment of each Utility Company's facilities located within project limits.
- Utility Companies Coordination Meeting Notes.
- SUE Mapping Recommendation.
- Utility Clearance Separation Values.

9.2. Preliminary Utility Coordination

Initial Plan Distribution (*): The CONSULTANT shall provide the utility company with preliminary design plans as soon as the plans have reached a level of completeness adequate to allow the company to begin understanding the Project impacts.

Coordination Meeting with Utility Companies (*): The CONSULTANT shall coordinate and conduct a review meeting with the utility companies to assess and explain the impact of the Project to the company. The SCDOT's Program Manager, Resident Construction Engineer (RCE), Resident Maintenance Engineer (RME), District Utility Coordinator and Utilities Manager (or designee) shall be included in this meeting.

Collection and Review of Prior Right Documentation (*): The CONSULTANT shall request the prior rights documents for each utility company's facilities. If there is a dispute over prior rights with a utility, the CONSULTANT shall be responsible for resolving the dispute and making a recommendation to the SCDOT. The CONSULTANT shall meet with the SCDOT's Program Manager to present the prior rights information gathered. This information must be sufficient for the SCDOT's Program Manager to certify the extent of the utility company's prior rights. The SCDOT shall have final approval authority as to the determination of whether the utility company has prior rights.

Preliminary Utility Report (*): The CONSULTANT shall prepare the Preliminary Utility Report.

Progress Review Meeting (*): The CONSULTANT shall conduct a progress review meeting with the SCDOT Program Manager.

Deliverables:

- The CONSULTANT shall prepare and submit to the Department a Preliminary Utility Report which includes:

- List of all utility companies and contact information within the project limits.
- Utility Company Coordination Meeting Notes.
- Preliminary recommendation as to the extent of each utility company's prior rights.
- Preliminary assessment of the impact to each utility company, including costs (for those utilities with prior rights), as can best be determined at the time.
- Information on existing SCDOT ITS infrastructure. Utility companies will be informed that intersections at the interchanges, no overhead lines will be allowed due to the possibility of future signals.
- Recommendations for In-Contract Utility Relocations.
- Recommendations for early Utility Relocations prior to the start of construction.
- Preliminary Utility Report to be delivered in an electronic format (pdf).

9.3. Constructability Review Meeting *

The CONSULTANT shall plan and conduct a Constructability Review Meeting with all utility companies in order to discuss any conflicts with proposed utility relocations vs. roadway construction work and any conflicts between various utilities. SCDOT's Program Manager, Resident Construction Engineer (RCE), Resident Maintenance Engineer (RME), District Utility Coordinator and Utilities Manager (or designee) shall be invited to the meeting.

10. SUBSURFACE UTILITY ENGINEERING (SUE)

10.1. SUE Work*

The CONSULTANT shall perform work in two phases. The first phase consists of designating services (Quality Level B, C and D; no level A is anticipated). For the purpose of this Agreement, "designate" shall be defined as indicating, by marking, the presence and approximate horizontal position of the subsurface utilities by the use of geophysical prospecting techniques. The second phase consists of test hole services (Quality Level A). For the purpose of this Agreement, "locate" means to obtain the accurate horizontal and vertical position of the subsurface utilities by excavating a test hole. The CONSULTANT shall provide these services as an aide in the design of right-of-way and construction plans for the project. Before SUE work commences the plan shall to be coordinated with the CITY project manager. Consultant shall employ proper quality control measures to ensure accuracy of the SUE deliverables as these deliverables will be provided as part of the design-build contract in Attachment B of the RFP as supplemental project design criteria.

Unless specifically stated otherwise, the CONSULTANT shall adhere to the ASCE Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data (CI/ASCE 38-02).

10.2. Designating Services*

- Provide all equipment, personnel and supplies necessary for the completion of Quality Level 'C' information for approximately 7,000 LF of underground utilities.*
- Provide all equipment, personnel and supplies necessary for the completion of

Quality Level 'B' information for approximately 26,000 LF of underground utilities.*

- Provide all equipment, personnel and supplies necessary for the accurate recording of information for approximately 60 aerial pole utilities.*
- Conduct appropriate records and as-built plans research and investigate site conditions.*
- Obtain all necessary permits from city, county, state or any other municipal jurisdictions to allow CONSULTANT personnel to work within the existing streets, roads and rights-of-way.*
- Designate the approximate horizontal position of existing utilities by paint markings in accordance with the APWA Uniform Color Code scheme along the utility and at all bends in the line in order to establish the trend of the line. All utilities shall be designated as well as their corresponding lateral lines up to the point of distribution, existing right-of-way limits, or whichever is specifically requested and scoped for each individual project.*
- All utilities shall be designated as well as their corresponding lateral lines up to the point of distribution, existing right-of-way limits, or whichever is specifically requested and scoped for each individual project.
- Service lines are excluded from this scope with the following exception:
    - Gas service lines 1" or greater to be designated up to the project limits or gas meter, whichever is encountered first.
    - Underground Telecommunication service lines, Power service lines and Water service lines 2" or greater servicing multi-family dwellings, industrial facilities, commercial buildings or health care facilities in which disturbance to the "service line" would have a negative financial and/or safety effect.
- Survey designating marks, which shall be referenced to project control provided by the surveyor of record.*
- Draft survey information using SCDOT CADD guidelines for Subsurface Utility Engineering consultants (latest version).*
- Final review and seal of all appropriate work by a professional engineer and/or land surveyor licensed in South Carolina in responsible charge of the project.*
- When requested, provide reasonable assistance to the CONSULTANT in obtaining plans showing the project limits, alignment, centerline, rights-of-way limits (existing and proposed), project controls and other data for selected projects.
- Provide notification to CITY and key SCDOT District personnel concerning the upcoming SUE services to be provided by the CONSULTANT.

Deliverables:

- Provide in current SCDOT CADD standard of designation (SUE Quality Level C, B & Aerial) data e-files tied to project survey control for Utility Coordination Sheets.*

11. RIGHT OF WAY

11.1. Right of Way Acquisition Services*

11.1.1. The CONSULTANT shall perform all right-of-way acquisition services in accordance with the following tasks for up to ten (10) parcels requiring acquisition

or permissions and relocation if need:

11.1.2. Perform all title searches for properties which must be acquired to construct the project and provide to the DEPARTMENT a Preliminary and Final Certificate of Title signed by a licensed South Carolina attorney (as required by the SCDOT's Right of Way Manual). Titles certificates shall advise all names of any parties that should be included for payments, and if the investigation reveals that condemnation is necessary to clear title, it shall provide names of all parties that should be served with condemnation, provide recording information for those parties who have an interest in the property and advise whether or not advertisement is required. Preliminary title abstracts must be provided prior to the property being appraised.

11.1.3. All offers of just compensation will be based on a written approved appraisal unless prior approval is given to the Contractor by CITY. If CITY decides to utilize cost estimate offers, CITY will prepare the cost estimates and provide Contractor with the approved right of way cost estimate. CITY may allow offers to be made based on the cost estimates on tracts estimated to be $20,000 or less and determined by CITY to be a non-complicated. In the event the cost estimate offer is rejected by the property owner, a written appraisal shall be required.

CITY will be responsible for reviewing and approving all appraisals and setting just compensation. Appraisals will be reviewed and released within 15 business days of receipt. If appraisal review cannot be completed within 15 days because of deficiencies of the appraisal, the Right of Way Consultant will be notified immediately of the appraisal status. CITY will provide appraisal reviews complying with the technical review guidelines of SCDOT Right of Way Appraisal Manual. The review appraiser will be an CITY staff appraiser or a review appraiser from SCDOT's approved list. CITY will be responsible for review appraiser costs.

11.1.4. Acquire in accordance with all state laws and regulations, both Federal and State, and in the name of the CITY, the right of way necessary to construct the project. Title shall be in fee simple absolute and have a recordable warranty deed unless otherwise authorized by the CITY. The title shall be filed, within seven (7) days of payment to the landowner, in the ROD office in Richland County and the original file stamped instrument will be returned to the CITY. The CONSULTANT is responsible for all cost associated with recording of the deeds.The Consultant shall submit Deed for property owner payment within 30 days of the execution date on the Deed. If this is not possible, the Consultant must submit in writing to SCDOT the reasoning and a new proposed resolve date.

11.1.5. Prepare exhibits in accordance with SCDOT's exhibit preparation guide.

11.1.6. In the event of condemnation the necessary documents as required by the Eminent Domain Procedure Act Sections 28-2-10 et. Seg., South Carolina Code of Laws (1976) as amended will be prepared and submitted electronically to the County's attorney as direct, for the attorney to file the case with the Clerk of Court. The procedure for Condemnation shall be by way of trial after rejection of the amount tendered as provided in Section 28-2-240.

11.1.7. Retain all records dealing with property acquisition and all other costs associated with this project for three (3) years after the final acquisition for the project.

11.1.8. CONSULTANT is responsible for establishing and maintaining Quality Control and Quality Assurance procedures for the entire right of way acquisition process.The Consultant Shall return all corrections to SCDOT within 15 business days from date of returned to the Consultant.

11.2. Evaluation of Marina Operations*

11.2.1. Determine recommended minimum fairway width based on industry guidance.

11.2.2. Review proposed bridge alignment and available survey data and tidal data.

11.2.3. Review dredging records for marina, if available.

11.2.4. Site visit to marina, discussion with marina staff regarding facilities and standard operations.

11.2.5. Develop conceptual alternatives with supporting figures

- Modify bridge alignment
- Modify marina layout
- Modify marina operations
- ROW purchase

11.2.6. Develop summary memorandum.

12. DEVELOPMENT OF THE RFQ/RFP

12.1. Development of the RFQ*

CONSULTANT, with support from the CITY, shall develop the RFQ to follow SCDOT Design-Build RFQ format to include the following sections:

- Introduction
- Project Information and Procurement Overview
- Contents of Statement of Qualifications (SOQ)
- Evaluation Process
- SOQ Submittal Requirements
- Procurement Phase 2
- Conflict of Interest
- Miscellaneous

12.1.1. Coordinate with the CITY to determine minimum qualifications to be met for design/build teams to be considered.

12.1.2. Develop project Risk Matrix and categorize project risks as High, Moderate,

and Low. Describe why the risk is critical, indicate what impact it will have on the project, and discuss mitigation strategies.

12.1.3. Organize and provide answers to RFQ questions.

12.1.4. Development of one (1) RFQ addendum.

12.1.5. Support CITY in review of SOQ's and determination of short-listed design-build teams.

12.2. Development of the RFP for Industry Reviw, Final RFP and Addenda*

CONSULTANT, with support from the CITY, shall develop the RFP for Industry Review, Final RFP and addenda to follow SCDOT Design-Build RFP format, including the following sections:

12.2.1 RFP Instructions Section:

- Purpose of RFP
- Project Overview
- General Instructions
- Proposal Development and Submittal
- Evaluation of Proposals
- Selection of Contractor
- General Information
- Milestone Schedule
- Cost Proposal Bid Form
- Non-Collusion Certification
- Equal Employment Opportunity Certification
- Stipend Acknowledgement Form
- Stipend Agreement
- Bid Bond Form

12.2.2 Attachment A – Agreement

12.2.2.1 Exhibit 1 – Cost Proposal Bid Form
12.2.2.2 Exhibit 2 – Schedule of Values
12.2.2.3 Exhibit 3 – Scope of Work
12.2.2.4 Exhibit 4 – Design Criteria

- Roadway
- Structure
- Electrical
- Architectural
- Mechanical
- Hydrology
- Geotechnical
- Traffic
- Environmental

- Project Design Deliverables

12.2.1.2 Exhibit 5 – Special Provisions

12.2.3 Attachment B – Supplemental Project Design Criteria

12.2.4 Project Information Package

12.2.5 Develop Final RFP

12.2.6 Develop five (5) addenda to Final RFP

13. PROCUREMENT

CONSULTANT shall lead the following tasks with support from the CITY during the procurement of the design-build project:

13.1. Compile, coordinate with the CITY, and respond to RFP for Industry Review and Final RFP questions and clarifications.*

13.2. Provide technical review and recommendations during reviews of Alternative Technical Concept (ATCs)*. Review by SCDOT for roadways and/or facilities maintained by SCDOT.

13.3. Provide review of Technical Proposal roadway, bridge, and maintenance of traffic plans.* Reviews by SCDOT for portions of roadways and/or facilities maintained by SCDOT.

13.4. Provide review and analysis of bid packages to confirm whether costs – item level and overall – are reasonable.*

13.5. Support CITY in evaluation of proposals and selection of design-build contractor.*

14. DESIGN PLAN REVIEW AND ADMINISTRATION

The CONSULTANT shall facilitate design reviews using Bluebeam in accordance with the contract schedule.

The Consultant shall review plans and submittals to verify Contractor's compliance with project criteria, applicable permits and regulatory agencies requirements. Any non-compliance to the design criteria found during the review will be recorded through review comments. Major non-compliance issues discovered during the design review process shall be reported to the CITY immediately. The CONSULTANT will review any changes to design criteria proposed by the Contractor and advise the CITY as to the appropriateness of these changes, including cost and schedule implications to the project. The CONSULTANT is expected to act as an extension of CITY staff and provide possible solutions to issues which arise during design and construction of the project.

The CONSULTANT shall provide a Project Manager/Design Manager that will be responsible for the day-to-day administration of the reviews. The Project Manager/Design Manager will be responsible for ensuring an appropriate level of review for all phases and disciplines of the project.

The CONSULTANT shall provide a Document Control Manager that will be responsible for keeping a full and complete set of records in the form of a Submittals Matrix which shall

indicate dates of receipt and submittal of all design reviews, status of review comments, and dates of comment resolution.

The CONSULTANT may use the Contractor's design calculations when necessary to support the review of the submittals. Routine reviews do not involve independent analyses or calculations to verify the Contractor's work. On an as-needed basis and when approved by the CITY, the CONSULTANT shall: (1) Perform independent analyses when an apparent issue arises on a design element that requires verification of the design calculations; (2) Review the revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction; (3) Review and comment on Shop Plans, Working Drawings, and miscellaneous submittals (RFIs, NCRs, Issue Papers, Technical Special Provisions, and Design Exceptions/Variances).

The CONSULTANT will have a maximum of fifteen business days to complete their initial review and provide comments to Design-Build Contractor and notify the CITY. A business day is considered Monday-Friday not including CITY observed holidays.

The CONSULTANT shall participate in Partnering Meetings with the Design-Build Contractor and shall represent the CITY in Design Coordination Meetings. One-day Partnering Meetings will be held in Charleston, SC. Two-hour Design Coordination Meetings will be held in Charleston, SC or may be accessed via telephone conference call. The CONSULTANT shall attend meetings relating to review, approval and implementation of the Contractor's design.

Review Tasks

Project tasks identified below with an asterisk (*) are expected to be assigned man-hours. Numbers are a total for both sites combined unless otherwise indicated. Specific tasks are enumerated below.

14.1. Project Organization and Management Responsibilities

A. Facilitate Design Review Process*
   i. Create and Manage Submittal and Release for Construction (RFC) folders in ProjectWise. The City does not have ProjectWise; we understand that HDR will provide the City with access.
   ii. Create and Manage Bluebeam session for each submittal
   iii. Manage schedule of design reviews according to the Contract
   iv. Facilitate exchange of comments and responses

B. Manage design reviews including review of comments and communication and coordination with design review team, design-build team, and CITY.*
C. Review Contractor's Contract Deliverables Matrix and Design Review Submittal Schedule*
D. Review and verify Contractor's Quality Control Plan for design, drawings, and specifications *
E. Prepare and submit thirty six (36) Invoices to the CITY. *
F. Miscellaneous Submittals *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) non-conformance report (NCRs)
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

G. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

H. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with the CITY, FHWA, Contractor, and others (assume the *PM/ Design Manager* will attend)
ii. Attend twenty (20) two-hour Design Coordination Meetings (assume PM/Design Manager will attend)
iii. Attend two (2) four-hour Regulatory Agency Meetings (assume PM/Design Manager and one (1) environmental staff will attend)
iv. Attend two (2) Utility Coordination Meetings (assume the PM/Design Manager will attend)

14.2. Roadway/Path Design Review Responsibilities

A. Roadway/Path Design reviews will occur for the following phases:*

i. Preliminary Plans
ii. Right of Way Plans
iii. Final Plans

B. Environmental reviews will occur for the following phases:*

i. Preliminary Plans
ii. Right of Way Plans
iii. Final Plans

C. Additional reviews are anticipated on the following miscellaneous submittals: *

i. Review and provide recommendations on forty (40) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers

iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.3. Structural Design Review Responsibilities

A. The following plan reviews will occur as noted in the Anticipated Submittal Section: *

i. Preliminary Approach Structure Plans
ii. Final Approach Structure Plans
iii. Preliminary Movable Span (Structural, Mechanical, and Electrical)
iv. Final Movable Span (Structural, Mechanical, and Electrical)

B. Shop Plan Reviews *

i. Two (2) packages of Prestressed Concrete Girder Shop Plans and Design Calculations
ii. Two (2) packages of Steel Superstructure (Girders, Floorbeams, Stringers) Shop Drawings, Erection Plan, and Design Calculations
iii. Four (4) packages of main (bascule or lift) pier shop drawings (bar lists, assembly, precasting (if applicable)
iv. Two (2) packages of Foundations Construction Drawings and Design Calculations
v. Two (2) packages of Mechanical Systems Shop Drawings
vi. Two (2) packages of Electrical Systems Shop Drawings
vii. Two (2) packages of other bridge component Shop Plans: SIP Formwork, Bearings, Steel Diaphragms, Expansion Joints, Armor Plates, etc.
viii. Four (4) packages of MSE Wall Shop Plans and Design Calculations.

C. Working Drawing Reviews *

i. Four (4) packages of Temporary Shoring Plans and Design Calculations
ii. Two (2) packages of Erection Plans

D. Miscellaneous Submittals Review *

i. Review and provide recommendations on twenty (20) Requests for Information
ii. Review and provide recommendations on three (3) NCRs
iii. Review and provide recommendations on three (3) Issue Papers
iv. Review and provide recommendations on two (2) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform two (2) independent analyses.

E. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction* It is assumed that eight (8) design modifications will be initiated.*

F. Meetings *
i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.4. Movable Span Structural, Mechanical, Electrical, & Facilities Design Review Responsibilities

A. Design plan reviews will occur as noted below:*

i. Preliminary Movable Span (Structural, Mechanical, Electrical, and Facilities)
ii. Final Movable Span (Structural, Mechanical, Electrical, and Facilities)

B. Shop Plan Reviews *

i. Structural
a. Two (2) packages of Movable Span Foundations construction drawings and design calculations
b. Four (4) packages of Movable Span pier shop drawings and design calculations (bar lists, assembly, precasting if applicable)
c. Seven (7) packages of Structural Steel (Towers, Girders, Floorbeams, Stringers, Armored Joints, Live Load Bearings, Machinery Supports) shop drawings and design calculations

d. Five (5) packages of other movable bridge component Shop Plans and design calculations: Counterweights, FRP Deck, Platform/Stair Access System.
e. Two (2) packages of Fender Construction Drawings and Design Calculations

ii. Mechanical
a. Two (2) packages of Drive Machinery Drawings and Design Calculations
b. Two (2) packages of Locking Mechanism Drawings and Design Calculations
c. Three (3) packages of System-Specific Machinery Drawings and Design Calculations

iii. Electrical
a. Two (2) packages of Power Distribution Drawings and Design Calculations
b. Two (2) packages of Control Systems Drawings and Design Calculations
c. One (1) package of Cross-Channel Communications and Power Drawings and Design Calculations
d. One (1) package of System-Specific Electrical Drawings and Calculations

iv. Facilities
a. Two (2) packages of Fire and Security Drawings and Design Calculations
b. Three (3) packages of Electrical Drawings and Design Calculations
c. Three (3) packages of Structural Drawings and Design Calculations
d. Three (3) packages of Architectural Drawings and Design Calculations
e. One (1) package of Plumbing Drawings and Design Calculations
f. One (1) package of HVAC Drawings and Calculations

C. Working Drawing Reviews *

i. Twelve (12) packages of temporary structural works (formwork, temporary work platforms, cofferdams, water work plans, crane usage plans, etc.)
ii. Two (2) packages of Erection Plans

D. Miscellaneous Submittals Review *

i. Balance Calculations
ii. O&M Manuals
iii. Four (4) Mechanical Installation Procedures
iv. Two (2) Mechanical Shop Test Procedures
v. One (1) Electrical Installation Procedure
vi. Four (4) Electrical Shop Test Procedures

vii. One (1) Mechanical/Electrical Functional Checkout Procedure
viii. Review and provide recommendations on One Hundred (100) Requests for Information (Structural)
ix. Review and provide recommendations on Twenty-Five (25) Requests for Information (Mechanical)
x. Review and provide recommendations on Twenty-Five (25) Requests for Information (Electrical)
xi. Review and provide recommendations on Twenty-Five (25) Requests for Information (Facilities)
xii. Review and provide recommendations on eight (8) NCR's (Structural)
xiii. Review and provide recommendations on two (2) NCR's (Mechanical)
xiv. Review and provide recommendations on two (2) NCR's (Electrical)
xv. Review and provide recommendations on two (2) NCR's (Facilities)
xvi. Review and provide recommendations on ten (10) Issue Papers
xvii. Strain Gauge Balance Report
xviii. Review and provide recommendations on four (4) Technical Special Provisions (1 document for each discipline)
xix. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform ten (10) independent analyses.

E. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction* It is assumed that sixteen (16) design modifications will be initiated.*

F. Meetings *
i. Prepare for and attend one (1) eight-hour Partnering Meeting, including travel and prep, with the CITY, Contractor, and others
ii. Ten (10) two-hour Design Coordination Meetings (average 2 attendees each)
iii. One (1) Construction Kick-off Meeting
iv. Twenty-five (25) two-hour Construction Coordination Meetings (average 2 attendees each)
v. Ten (10) on-site Construction Progress Meetings

G. Shop/Site Inspections *
i. Three (3) Mechanical shop inspections
ii. Four (4) Electrical shop inspections
iii. Six (6) Structural shop inspections
iv. Six (6) Mechanical site inspections
v. Six (6) Electrical site inspections
vi. Twelve (12) Structural site inspections
vii. Two (2) Mechanical Functional Check-out site inspections (Initial, and Follow-up)

viii. Two (2) Electrical Functional Check-out site inspections (Initial, and Follow-up)

14.5. Hydraulic Design Review Responsibilities

A. Hydraulic Design reviews performed for the entire project limits for each site*

i. Preliminary Roadway Plans and Preliminary Roadway Drainage Report
ii. Preliminary Bridge Plans and Preliminary Bridge Hydraulic Design Report for Ashley River
iii. Right of Way Plans (Roadway/Path) and Final Roadway Drainage Report
iv. Final Bridge Plans and Final Bridge Hydraulic Design Report for Ashley River
v. Final Roadway/Path Plans

B. Additional Project-wide reviews will include: *

i. Signed, completed copy of the SCDHEC Notice of Intent (NOI)
ii. No Impact, CLOMR and LOMR, Ashley River

C. Miscellaneous Submittal Reviews will include (numbers are a total for both sites combined): *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform two (2) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

i. Prepare for and attend one (1) eight (8)-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.6. Geotechnical Design Review Responsibilities

A. The following plan reviews will occur as noted in the Anticipated Submittal Section: *

   i. Preliminary Roadway Geotechnical Reports
   ii. Final Roadway Geotechnical Engineering Reports, including Roadway and Roadway Structures
   iii. Preliminary Bridge Geotechnical Report
   iv. Final Bridge Geotechnical Engineering Report
   v. Geotechnical Bridge Plan Sheets
   vi. Geotechnical Roadway Plan Sheets
   vii. Two (2) sets of Foundation Installation Plans
   viii. Two (2) sets of Foundation Testing Reports

B. Working Drawing Reviews *

   i. Four (4) packages of Temporary Shoring Plans and Design Calculations

C. Miscellaneous Submittals Reviews will include:*

   i. Review and provide recommendations on thirty (30) Requests for Information
   ii. Review and provide recommendations on six (6) NCRs
   iii. Review and provide recommendations on six (6) Issue Papers
   iv. Review and provide recommendations on four (4) Technical Special Provisions
   v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

   i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
   ii. Attend ten (10) two-hour Design Coordination Meetings

14.7. Traffic Engineering Review Responsibilities

A. Traffic reviews will occur for the plan submittals noted below:

i. Permanent Pavement Marking Plans *
ii. Permanent Signing Plans *
iii. Permanent Lighting Plans *
iv. As Built Signing Plans *
v. As Built Lighting Plans *
vi. Traffic Signal Plans *
vii. As Built Traffic Signal Plans *
viii. Traffic Management Plan *
ix. Conceptual Work Zone Traffic Control Plans*
x. Work Zone Traffic Control Plans *

B. Miscellaneous Submittals Reviews will include: *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

C. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

D. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

15. CONSTRUCTION ENGINEERING, INSPECTION AND ADMINISTRATION (CEI&A)

If this task is needed the scope and fee will be under a contract modification.

ATTACHMENT "B"

SERVICES OF THE CITY

The CITY agrees to provide to the CONSULTANT, and at no cost to the CONSULTANT, the following upon request:

1. Access to and use of all reports, data and information in possession of the CITY which may prove pertinent to the work set forth herein.
2. Existing Policies and Procedures of the CITY with reference to geometrics, standards, specifications and methods pertaining to all phases of the CONSULTANT's work.

ATTACHMENT "C"

ENGINEERING FEE

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 1
MFE Version 2.46

Project Information

Project Name	**Ashley River Pedestrian Bridge**
Project Phase or Segment	**DB Prepraration Services**
Project Location	**Charleston**
CM Number/Descriptor	**CP-2007**
Contract Designation	

Labor Multipliers

Overhead Rate	**150.81 %**	*a*
FCCM Rate	**0.57 %**	*b*
Profit Rate	**10.00 %**	*c*
Combined Multiplier	**2.7646**	*(1 + a)*(1 + c) + b*

Consultant Information

Firm Name	**HDR**
Certified DBE ?	No
Reviewer Name	
Submittal Date	**September 10, 2020**
Estimate Type	**Prime Consultant**

Staff Classifications

All staff classifications and base rates should be entered on "Setup 2"

Non-salary Direct Expenses

Expense descriptions, units and unit rates should be entered on "Setup 3"

Task Identification

Active	Number	Description
✓	01	**Project Organization and Management**
✓	02	**Aerial Mapping and Field Surveys**
✓	03	**Traffic Studies and Modeling**
✓	04	**Environmental Services**
✓	05	**Roadway and Path Design**
✓	06	**Structural Design**
✓	07	**Hydrology and Hydraulic Design**
✓	08	**Geotechnical Services and Pavement Design**
✓	09	**Utility Coordination**
✓	10	**Subsurface Utility Engineering**
✓	11	**Right of Way**
✓	12	**Development of RFQ and RFP**
✓	13	**Procurement**
✓	14	**Design Plan Review and Administration**
	15	CE&I
	16	
	17	
	18	
	19	
	20	

Subconsultant Roster

Subconsultant	Certified DBE ?
Alta	
Bihl	**Yes**
Atlantic South	**Yes**
Cornerstone	**Yes**
McKim & Creed	
Stantec	
DESA	**Yes**
Mid Atlantic Drilling	**Yes**
Soil Consultants	**Yes**
Providence Engineering Consultants	**Yes**

Details of subconsultant involvement should be added on "Setup 4"

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	**Task 10**
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 2
MFE Version 2.46

Staff Classifications and Rates

Ashley River Pedestrian Bridge (DB Prepraration Services)

DIRECT SALARY RATE SCHEDULE

Staff Classification	Base Rate	Loaded*	Rate	Employee Name	Rate	Employee Name	Rate	Employee Name
Principal	$ 93.63	$ 258.85	$ 93.63	David Kinard	$ -		$ -	
Sr Project Manager	$ -	$ -	$ -		$ -		$ -	
Project Manager	$ 69.48	$ 192.09	$ 69.48	Michael Darby	$ -		$ -	
Sr Transportation Engineer	$ 63.41	$ 175.30	$ 63.41	Phillip Hutcherson	$ -		$ -	
Transportation Engineer	$ 37.99	$ 105.03	$ 37.99	Lee Tupper	$ -		$ -	
Jr Transportation Engineer/EIT	$ 31.32	$ 86.59	$ 31.32	Fedora Nwachukwu	$ -		$ -	
Sr. Structural Engineer	$ 81.11	$ 224.24	$ 89.40	Herb Protin	$ 84.19	Greg Harrell	$ 69.73	George Nickels
Structural Engineer	$ 59.00	$ 163.11	$ 59.00	Tim Strickland	$ -		$ -	
Jr. Structural Engineer/EIT	$ 36.39	$ 100.60	$ 41.44	Phil Monticciolo	$ 35.92	Stephanie Santrich	$ 31.81	Elie Haddad
Sr Hydraulic Engineer	$ 68.00	$ 187.99	$ 68.00	Ed Owens	$ -		$ -	
Hydraulic Engineer	$ 55.00	$ 152.05	$ 55.00	Tom Miller	$ -		$ -	
Jr. Hydraulic Engineer/EIT	$ 35.00	$ 96.76	$ 35.00	Cole Pierce	$ -		$ -	
Sr. Geotechnical Engineer	$ 68.80	$ 190.21	$ 61.53	Lila Leon	$ 76.07	Sanjoy Chakraborty	$ -	
Geotechnical Engineer	$ 47.46	$ 131.21	$ 46.02	Kenny Bussey	$ 48.89	Anil Varri	$ -	
Jr. Geotechnical Engineer/EIT	$ 32.09	$ 88.72	$ 32.61	Zach Bruce	$ 31.56	Phillip Grainger	$ -	
Sr Traffic Engineer	$ 61.19	$ 169.17	$ 61.19	Josh Johnson	$ -		$ -	
Traffic Engineer	$ 44.31	$ 122.50	$ 44.31	Graham Malone	$ -		$ -	
Jr Traffic Engineer/EIT	$ 30.90	$ 85.43	$ 30.90	Bekah Payne	$ -		$ -	
Sr. Utilities Engineer	$ -	$ -	$ -		$ -		$ -	
Utilities Engineer	$ -	$ -	$ -		$ -		$ -	
Utilities Coordinator	$ -	$ -	$ -		$ -		$ -	
Sr Electrical Engineer	$ 75.62	$ 209.06	$ 95.00	Raphael Costa	$ 63.20	David Noveu	$ 68.66	Yetunde Adelekan
Electrical Engineer	$ 48.35	$ 133.67	$ 50.40	Farid Amador	$ 48.08	Chuanyue Shen	$ 46.57	Samir Abde
Jr Electrical Engineer/EIT	$ 37.61	$ 103.98	$ 36.06	Chad Ingram	$ 34.03	Carlos Larco	$ 42.74	Anton Matevski
Sr Transportation Planner	$ -	$ -	$ -		$ -		$ -	
Transportation Planner	$ -	$ -	$ -		$ -		$ -	
Jr. Transportation Planner	$ -	$ -	$ -		$ -		$ -	
Transportation Modeler	$ -	$ -	$ -		$ -		$ -	
Project Economist	$ -	$ -	$ -		$ -		$ -	
Sr Landscape Architect	$ -	$ -	$ -		$ -		$ -	
Landscape Architect	$ -	$ -	$ -		$ -		$ -	
Sr Architect	$ 70.00	$ 193.52	$ 70.00		$ -		$ -	
Architect	$ -	$ -	$ -		$ -		$ -	
Sr Land Surveyor	$ -	$ -	$ -		$ -		$ -	
Land Surveyor	$ -	$ -	$ -		$ -		$ -	
Jr Land Surveyor/LSIT	$ -	$ -	$ -		$ -		$ -	
Sr. Environmental Specialist	$ 69.70	$ 192.69	$ 69.70	Jennifer Pearson	$ -		$ -	
Environmental Specialist	$ 46.69	$ 129.08	$ 43.37	Erica Wadl	$ 50.00	Jeanne Barnes	$ -	
Jr. Environmental Specialist	$ 31.96	$ 88.36	$ 31.96	Miles Spenrath	$ -		$ -	
Principal Investigator	$ -	$ -	$ -		$ -		$ -	
Project Historian	$ -	$ -	$ -		$ -		$ -	
Project Architectural Historian	$ 45.00	$ 124.41	$ 45.00	Jessica Forbes	$ -		$ -	
Project Archaeologist	$ 47.00	$ 129.94	$ 47.00	Josh Fletcher	$ -		$ -	
Project Geologist	$ 40.89	$ 113.04	$ 35.31	Jared Crenshaw	$ 46.47	Bret Watkins	$ -	
Project Biologist	$ -	$ -	$ -		$ -		$ -	
Project Wetlands Ecologist	$ -	$ -	$ -		$ -		$ -	
Project Laboratory Director	$ -	$ -	$ -		$ -		$ -	
Project Laboratory Technician	$ -	$ -	$ -		$ -		$ -	
Sr. Engineering Technician	$ 48.65	$ 134.50	$ 48.65	Joe Rath	$ -		$ -	
Engineering Technician	$ 36.15	$ 99.94	$ 40.51	Chas Wolfe	$ 31.78	Wesley Shuecraft	$ -	
Jr. Engineering Technician	$ -	$ -	$ -		$ -		$ -	
Sr Structural Engineering Technician	$ -	$ -	$ -		$ -		$ -	
Structural Engineering Technician	$ 40.00	$ 110.58	$ 40.00		$ -		$ -	
Sr Permitting Technician	$ -	$ -	$ -		$ -		$ -	
Permitting Technician	$ -	$ -	$ -		$ -		$ -	
Sr Survey Technician	$ -	$ -	$ -		$ -		$ -	
Survey Technician	$ -	$ -	$ -		$ -		$ -	
Jr Survey Technician	$ -	$ -	$ -		$ -		$ -	
Sr. GIS Technician	$ -	$ -	$ -		$ -		$ -	
GIS Technician	$ -	$ -	$ -		$ -		$ -	
Jr. GIS Technician	$ -	$ -	$ -		$ -		$ -	
Sr. Administrative Assistant	$ -	$ -	$ -		$ -		$ -	
Administrative Assistant	$ 36.78	$ 101.68	$ 36.78	Karen Watterson	$ -		$ -	
Office Manager	$ -	$ -	$ -		$ -		$ -	
Controller/Accountant	$ -	$ -	$ -		$ -		$ -	
Survey Crew Chief	$ -	$ -	$ -		$ -		$ -	
Survey Instrument Man	$ -	$ -	$ -		$ -		$ -	
Survey Rodman	$ -	$ -	$ -		$ -		$ -	
SUE Crew Manager	$ -	$ -	$ -		$ -		$ -	
SUE Technician	$ -	$ -	$ -		$ -		$ -	
Drill Rig Crew Manager	$ -	$ -	$ -		$ -		$ -	
Drill Rig Technician	$ -	$ -	$ -		$ -		$ -	
Sr. Certified Inspector	$ -	$ -	$ -		$ -		$ -	
Certified Inspector	$ -	$ -	$ -		$ -		$ -	
Jr. Certified Inspector	$ -	$ -	$ -		$ -		$ -	
Sr ROW Specialist	$ -	$ -	$ -		$ -		$ -	
ROW Abstractor	$ -	$ -	$ -		$ -		$ -	
ROW Appraiser	$ -	$ -	$ -		$ -		$ -	
Information Technology Specialist	$ -	$ -	$ -		$ -		$ -	
Graphics Designer	$ 34.21	$ 94.58	$ 38.17	Erin Koch	$ 30.25	Stefani Wilkens	$ -	
Public Involvement Specialist	$ 43.00	$ 118.88	$ 43.00	Samantha Dubay	$ -		$ -	
Sr Mechanical Engineer	$ 79.41	$ 219.54	$ 77.63	Mike Carlton	$ 70.00	Stephen Grabowski	$ 90.61	Paul Jakubicki
Mechanical Engineer	$ 47.40	$ 131.04	$ 45.69	Diana Jandreski	$ 49.10	Matt Cassera	$ -	
Jr Aerial Mapper	$ -	$ -	$ -		$ -		$ -	

* Effective "Loaded" Hourly Rate (Base Rate x "Combined Multiplier") Provided for information only

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 3
MFE Version 2.46

Non-salary Direct Expense Rates

Ashley River Pedestrian Bridge (DB Prepraration Services)

DIRECT NON-LABOR COSTS SCHEDULE

Expense Description	Unit Cost	Unit	Unit (plural)	Backup	Notes
Per Diem, with Overnight Stay	$ 55.00	day	days		
Per Diem, without Overnight Stay	$ 40.00	day	days		
Lodging	$ 108.00	night	nights		
Mileage	$ 0.58	mile	miles		
Shipping, Standard	$ 10.00	shipment	shipments		
Shipping, Overnight	$ 50.00	shipment	shipments		
Printing, B&W 8.5 x 11	$ 0.08	each	each		
Printing, Color 8.5 x 11	$ 0.25	each	each		
Printing, B&W 11 x 17	$ 0.15	each	each		
Printing, Color 11 x 17	$ 0.50	each	each		
Public Meeting Venue Rental	$ 500.00	each	each		
Public Meeting Boards	$ 100.00	each	each		
PAN	$ 64,000.00	LS	LS		
Tidewater Atlantic	$ 12,413.24	LS	LS		
	$ -				
	$ -	day	days		
	$ -	day	days		
	$ -				
	$ -	test hole	test holes		
	$ -	LF	LF		
	$ -	LF	LF		
	$ -	LF	LF		
	$ -	pole	LF		
	$ -	manhole	manholes		
	$ -				
	$ -	day	days		
	$ -	day	days		
	$ -	day	days		
	$ -				
	$ -	LS	LS		
	$ -	LS	LS		
	$ -				
	$ -	LS	LS		
	$ -				
Pyramid (2D MASW Testing)	$ 7,117.00	LS	LS		
	$ -				
	$ -				
	$ -				
	$ -				
	$ -				
	$ -				
	$ -				
	$ -				
	$ -				

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 4
MFE Version 2.46

Subconsultant Involvement by Task

Ashley River Pedestrian Bridge (DB Prepraration Services)

Task

	01 Project Organization and Management	02 Aerial Mapping and Field Surveys	03 Traffic Studies and Modeling	04 Environmental Services	05 Roadway and Path Design	06 Structural Design	07 Hydrology and Hydraulic Design	08 Geotechnical Services and Pavement Design	09 Utility Coordination	10 Subsurface Utility Engineering	11 Right of Way	12 Development of RFQ and RFP	13 Procurement	14 Design Plan Review and Administration	15 CE&I						Count
Alta				x	x							x	x	x							5
Bihl			x	x								x		x							4
Atlantic South					x				x												2
Cornerstone		x																			1
McKim & Creed		x								x											2
Stantec					x		x														2
DESA				x																	1
Mid Atlantic Drilling								x													1
Soil Consultants								x													1
Providence Engineering Consultants				x								x	x	x							4
																					23

Brief Description of Subconsultant Role & Responsibilites for the Project

Alta	
Bihl	
Atlantic South	
Cornerstone	
McKim & Creed	
Stantec	
DESA	
Mid Atlantic Drilling	
Soil Consultants	
Providence Engineering Consultants	

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
01	Project Organization and Management	$ 136,599.41	$ 1,049.25	$ -	$ 137,648.66	6.9%
02	Aerial Mapping and Field Surveys	$ -	$ -	$ 126,320.09	$ 126,320.09	6.3%
03	Traffic Studies and Modeling	$ 33,578.58	$ 118.00	$ 7,143.55	$ 40,840.13	2.0%
04	Environmental Services	$ 172,131.80	$ 15,523.24	$ 19,679.60	$ 207,334.64	10.3%
05	Roadway and Path Design	$ 37,305.14	$ 394.25	$ 98,535.06	$ 136,234.45	6.8%
06	Structural Design	$ 131,176.09	$ 2,018.50	$ -	$ 133,194.59	6.6%
07	Hydrology and Hydraulic Design	$ 53,569.53	$ 357.25	$ 20,775.59	$ 74,702.37	3.7%
08	Geotechnical Services and Pavement Design	$ 91,352.77	$ 10,821.00	$ 205,405.00	$ 307,578.77	15.3%
09	Utility Coordination	$ -	$ -	$ 35,339.35	$ 35,339.35	1.8%
10	Subsurface Utility Engineering	$ -	$ -	$ 50,820.00	$ 50,820.00	2.5%
11	Right of Way	$ 14,292.81	$ 64,569.10	$ -	$ 78,861.91	3.9%
12	Development of RFQ and RFP	$ 40,608.88	$ 708.50	$ 103,101.11	$ 144,418.49	7.2%
13	Procurement	$ 77,292.85	$ -	$ 45,745.22	$ 123,038.07	6.1%
14	Design Plan Review and Administration	$ 359,196.93	$ -	$ 53,701.17	$ 412,898.10	20.6%
15	CE&I	$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
	Totals	$1,147,104.79	$ 95,559.09	$ 766,565.74	$2,009,229.62	

HDR

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
01	Project Organization and Management	$ 49,410.00	$ 74,515.24	$ 12,392.53	$ 281.64	$ 136,599.41	$ 1,049.25	$ 137,648.66
02	Aerial Mapping and Field Surveys	$ -	$ -	$ -	$ -	$ -	$ -	$ -
03	Traffic Studies and Modeling	$ 12,145.86	$ 18,317.18	$ 3,046.31	$ 69.23	$ 33,578.58	$ 118.00	$ 33,696.58
04	Environmental Services	$ 62,262.60	$ 93,898.21	$ 15,616.09	$ 354.90	$ 172,131.80	$ 15,523.24	$ 187,655.04
05	Roadway and Path Design	$ 13,493.82	$ 20,350.03	$ 3,384.38	$ 76.91	$ 37,305.14	$ 394.25	$ 37,699.39
06	Structural Design	$ 47,448.32	$ 71,556.81	$ 11,900.51	$ 270.45	$ 131,176.09	$ 2,018.50	$ 133,194.59
07	Hydrology and Hydraulic Design	$ 19,376.88	$ 29,222.28	$ 4,859.92	$ 110.45	$ 53,569.53	$ 357.25	$ 53,926.78
08	Geotechnical Services and Pavement Design	$ 33,043.64	$ 49,833.11	$ 8,287.67	$ 188.35	$ 91,352.77	$ 10,821.00	$ 102,173.77
09	Utility Coordination	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	Subsurface Utility Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -
11	Right of Way	$ 5,169.92	$ 7,796.75	$ 1,296.67	$ 29.47	$ 14,292.81	$ 64,569.10	$ 78,861.91
12	Development of RFQ and RFP	$ 14,688.82	$ 22,152.22	$ 3,684.11	$ 83.73	$ 40,608.88	$ 708.50	$ 41,317.38
13	Procurement	$ 27,957.96	$ 42,163.39	$ 7,012.15	$ 159.35	$ 77,292.85	$ -	$ 77,292.85
14	Design Plan Review and Administration	$ 129,926.80	$ 195,942.60	$ 32,586.95	$ 740.58	$ 359,196.93	$ -	$ 359,196.93
15	CE&I	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Totals	$ 414,924.62	$ 625,747.82	$ 104,067.29	$ 2,365.06	$ 1,147,104.79	$ 95,559.09	$ 1,242,663.88
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
HDR	$ 1,242,663.88		$ -
Alta	$ 44,335.01		$ -
Bihl	$ 42,616.06	100.0%	$ 42,616.06
Atlantic South	$ 46,212.04	100.0%	$ 46,212.04
Cornerstone	$ 103,222.91	100.0%	$ 103,222.91
McKim & Creed	$ 73,917.18		$ -
Stantec	$ 96,884.90		$ -
DESA	$ 7,500.00	100.0%	$ 7,500.00
Mid Atlantic Drilling	$ 160,000.00	100.0%	$ 160,000.00
Soil Consultants	$ 45,405.00	100.0%	$ 45,405.00
Providence Engineering Consultants	$ 146,472.64	100.0%	$ 146,472.64
	Total DBE Qualifying Fee		$ 551,428.65
	Percentage of Fee Total		27.4%

Fee Summary

A - Direct Labor	$	414,924.62
B - Overhead [A x 1.5081]	$	625,747.82
C - Profit [(A+B) x 0.1]	$	104,067.29
D - FCCM [A x 0.0057]	$	2,365.06
E - Labor Total	$	1,147,104.79
F - Total Non-Salary Direct Expenses	$	95,559.09
G - Subconsultant Fees	$	766,565.74
Fee Total	$	2,009,229.62

fee total less profit $1,905,162.33

Prepared by _____

Subconsultant Fee Summary

Subconsultant Fees Broken Down by Task

Task	Alta	Bihl	Atlantic South	Cornerstone	McKim & Creed	Stantec	DESA	Mid Atlantic Drilling	Soil Consultants	Providence Engineering Consultants	Total
01	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
02	$ -	$ -	$ -	$ 103,222.91	$ 23,097.18	$ -	$ -	$ -	$ -	$ -	$ 126,320.09
03	$ -	$ 7,143.55	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,143.55
04	$ 6,182.29	$ 2,650.47	$ -	$ -	$ -	$ -	$ 7,500.00	$ -	$ -	$ 3,346.84	$ 19,679.60
05	$ 11,553.06	$ -	$ 10,872.69	$ -	$ -	$ 76,109.31	$ -	$ -	$ -	$ -	$ 98,535.06
06	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
07	$ -	$ -	$ -	$ -	$ -	$ 20,775.59	$ -	$ -	$ -	$ -	$ 20,775.59
08	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 160,000.00	$ 45,405.00	$ -	$ 205,405.00
09	$ -	$ -	$ 35,339.35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,339.35
10	$ -	$ -	$ -	$ -	$ 50,820.00	$ -	$ -	$ -	$ -	$ -	$ 50,820.00
11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	$ 6,761.93	$ 8,060.87	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 88,278.31	$ 103,101.11
13	$ 6,761.93	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 38,983.29	$ 45,745.22
14	$ 13,075.80	$ 24,761.17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,864.20	$ 53,701.17
15	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
16	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
18	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
20	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Totals	$ 44,335.01	$ 42,616.06	$ 46,212.04	$ 103,222.91	$ 73,917.18	$ 96,884.90	$ 7,500.00	$ 160,000.00	$ 45,405.00	$ 146,472.64	$ 766,565.74

(G)

Fee Breakdown by Firm

HDR	$	1,242,663.88	61.8%
Alta	$	44,335.01	2.2%
Bihl	$	42,616.06	2.1%
Atlantic South	$	46,212.04	2.3%
Cornerstone	$	103,222.91	5.1%
McKim & Creed	$	73,917.18	3.7%
Stantec	$	96,884.90	4.8%
DESA	$	7,500.00	0.4%
Mid Atlantic Drilling	$	160,000.00	8.0%
Soil Consultants	$	45,405.00	2.3%
Providence Engineering Consultants	$	146,472.64	7.3%
Project Totals	$	2,009,229.62	

Project Manhour Summary

Staff Classification	Project Manhour Totals by Classification	Percentage of Total Hours	Task 01 Project Organization and Management	02 Aerial Mapping and Field Surveys	03 Traffic Studies and Modeling	04 Environmental Services	05 Roadway and Path Design	06 Structural Design	07 Hydrology and Hydraulic Design	08 Geotechnical Services and Pavement Design	09 Utility Coordination	10 Subsurface Utility Engineering	11 Right of Way	12 Development of RFQ and RFP	13 Procurement	14 Design Plan Review and Administration	15 CE&I
Project Totals by Task	7221		716		322	1364	332	856	374	711			80	202	384	1880	
Principal	78	1.1%	64											6	8		
Sr. Project Manager																	
Project Manager	1105	15.3%	512			84	14	24	6	5			16	64	120	260	
Sr. Transportation Engineer	352	4.9%	16				58						64	18	56	140	
Transportation Engineer	256	3.5%					76									180	
Jr. Transportation Engineer/EIT	144	2.0%					144										
Sr. Structural Engineer	810	11.2%	16					120						36	96	540	
Structural Engineer	236	3.3%						236									
Jr. Structural Engineer/EIT	184	2.5%						184									
Sr. Hydraulic Engineer	188	2.6%	8						80					8	12	80	
Hydraulic Engineer	292	4.0%							172							120	
Jr. Hydraulic Engineer/EIT	116	1.6%							116								
Sr. Geotechnical Engineer	546	7.6%	8							186				20	12	320	
Geotechnical Engineer	88	1.2%								88							
Jr. Geotechnical Engineer/EIT	184	2.5%								184							
Sr. Traffic Engineer	30	0.4%			30												
Traffic Engineer	96	1.3%			96												
Jr. Traffic Engineer/EIT	196	2.7%			196												
Sr. Utilities Engineer																	
Utilities Engineer																	
Utilities Coordinator																	
Sr. Electrical Engineer	160	2.2%						28						12	20	100	
Electrical Engineer	36	0.5%						36									
Jr. Electrical Engineer/EIT																	
Sr. Transportation Planner																	
Transportation Planner																	
Jr. Transportation Planner																	
Transportation Modeler																	
Project Economist																	
Sr. Landscape Architect																	
Landscape Architect																	
Sr. Architect	60	0.8%						36						12	12		
Architect																	
Sr. Land Surveyor																	
Land Surveyor																	
Jr. Land Surveyor/LSIT																	
Sr. Environmental Specialist	300	4.2%	32			188								12	28	40	
Environmental Specialist	296	4.1%				296											
Jr. Environmental Specialist	236	3.3%				236											
Principal Investigator																	
Project Historian																	
Project Architectural Historian	84	1.2%				84											

Project Manhour Summary

Staff Classification	Project Manhour Totals by Classification	Percentage of Total Hours	Task 01 Project Organization and Management	02 Aerial Mapping and Field Surveys	03 Traffic Studies and Modeling	04 Environmental Services	05 Roadway and Path Design	06 Structural Design	07 Hydrology and Hydraulic Design	08 Geotechnical Services and Pavement Design	09 Utility Coordination	10 Subsurface Utility Engineering	11 Right of Way	12 Development of RFQ and RFP	13 Procurement	14 Design Plan Review and Administration	15 CEI
Project Totals by Task	**7221**		716		322	1364	332	856	374	711			80	202	384	1880	
Project Archaeologist	48	0.7%				48											
Project Geologist	180	2.5%								180							
Project Biologist																	
Project Wetlands Ecologist																	
Project Laboratory Director																	
Project Laboratory Technician																	
Sr. Engineering Technician																	
Engineering Technician	108	1.5%					40			68							
Jr. Engineering Technician																	
Sr. Structural Engineering Technician																	
Structural Engineering Technician	128	1.8%						128									
Sr. Permitting Technician																	
Permitting Technician																	
Sr. Survey Technician																	
Survey Technician																	
Jr. Survey Technician																	
Sr. GIS Technician																	
GIS Technician																	
Jr. GIS Technician																	
Sr. Administrative Assistant																	
Administrative Assistant	80	1.1%	60			20											
Office Manager																	
Controller/Accountant																	
Survey Crew Chief																	
Survey Instrument Man																	
Survey Rodman																	
SUE Crew Manager																	
SUE Technician																	
Drill Rig Crew Manager																	
Drill Rig Technician																	
Sr. Certified Inspector																	
Certified Inspector																	
Jr. Certified Inspector																	
Sr. ROW Specialist																	
ROW Abstractor																	
ROW Appraiser																	
Information Technology Specialist																	
Graphics Designer	268	3.7%				268											
Public Involvement Specialist	140	1.9%				140											
Sr. Mechanical Engineer	160	2.2%						28						12	20	100	
Mechanical Engineer	36	0.5%						36									
Jr Aerial Mapper																	

Non-salary Direct Expense Summary

Expense Description	Total Units		Total Cost	01 Project Organization and Management	02 Aerial Mapping and Field Surveys	03 Traffic Studies and Modeling	04 Environmental Services	05 Roadway and Path Design	06 Structural Design	07 Hydrology and Hydraulic Design	08 Geotechnical Services and Pavement Design	09 Utility Coordination	10 Subsurface Utility Engineering	11 Right of Way	12 Development of RFQ and RFP	13 Procurement	14 Design Plan Review and Administration	15 CE&I					
Per Diem, with Overnight Stay	49	days	$ 2,695.00	X			X	X	X	X	X			X	X								
Per Diem, without Overnight Stay	2	days	$ 80.00								X												
Lodging	49	nights	$ 5,292.00	X			X	X	X	X	X			X	X								
Mileage	3950	miles	$ 2,271.25	X		X	X	X	X	X	X			X	X								
Shipping, Standard	13	shipments	$ 130.00	X		X	X			X													
Shipping, Overnight		shipments	$ -																				
Printing, B&W 8.5 x 11	2020	each	$ 161.60	X		X	X		X	X				X	X								
Printing, Color 8.5 x 11	520	each	$ 130.00	X		X	X		X	X				X									
Printing, B&W 11 x 17	760	each	$ 114.00	X		X	X	X	X	X				X	X								
Printing, Color 11 x 17	310	each	$ 155.00	X		X	X	X	X	X				X									
Public Meeting Venue Rental	1	each	$ 500.00				X																
Public Meeting Boards	5	each	$ 500.00				X																
PAN	1	LS	$ 64,000.00											X									
Tidewater Atlantic	1	LS	$ 12,413.24				X																
			$ -																				
		days	$ -																				
		days	$ -																				
			$ -																				
		test holes	$ -																				
		LF	$ -																				
		LF	$ -																				
		LF	$ -																				
		LF	$ -																				
		manholes	$ -																				
			$ -																				
		days	$ -																				
		days	$ -																				
		days	$ -																				
			$ -																				
		LS	$ -																				
		LS	$ -																				
			$ -																				
		LS	$ -																				
			$ -																				
Pyramid (2D MASW Testing)	1	LS	$ 7,117.00								X												
			$ -																				
			$ -																				
			$ -																				
			$ -																				
			$ -																				
			$ -																				
			$ -																				
			$ -																				
			$ -																				
			$ -																				
Preliminary Geotechnical Investigation			$ -																				
Final Geotechnical Investigation			$ -																				

Total Non-salary Direct Expenses $ 95,559.09

Direct Salary Rate Schedule Certificate

Staff Classification	Average Hourly Wage Rate	Employee Name	Hourly Wage Rate	Employee Name	Hourly Wage Rate	Employee Name	Hourly Wage Rate
Principal	$ 93.63	David Kinard	$ 93.63		$ -		$ -
Sr Project Manager	$ -		$ -		$ -		$ -
Project Manager	$ 69.48	Michael Darby	$ 69.48		$ -		$ -
Sr Transportation Engineer	$ 63.41	Phillip Hatcherson	$ 63.41		$ -		$ -
Transportation Engineer	$ 37.99	Lee Tupper	$ 37.99		$ -		$ -
Jr Transportation Engineer/EIT	$ 31.32	Fedora Nwachukwu	$ 31.32		$ -		$ -
Sr. Structural Engineer	$ 81.11	Herb Fretin	$ 89.40	Greg Harrell	$ 84.19	George Nickels	$ 69.73
Structural Engineer	$ 59.00	Tim Strickland	$ 59.00		$ -		$ -
Jr. Structural Engineer/EIT	$ 36.39	Phil Monticciolo	$ 41.44	Stephanie Santrich	$ 35.92	Elie Haddad	$ 31.81
Sr Hydraulic Engineer	$ 68.00	Ed Owens	$ 68.00		$ -		$ -
Hydraulic Engineer	$ 55.00	Tom Miller	$ 55.00		$ -		$ -
Jr Hydraulic Engineer/EIT	$ 35.00	Cole Pierce	$ 35.00		$ -		$ -
Sr. Geotechnical Engineer	$ 68.80	Lila Leon	$ 61.53	Sanjoy Chakraborty	$ 76.07		$ -
Geotechnical Engineer	$ 47.46	Kenny Busset	$ 46.02	Anil Varri	$ 48.89		$ -
Jr. Geotechnical Engineer/EIT	$ 32.09	Zach Bruce	$ 32.61	Phillip Grainger	$ 31.56		$ -
Sr Traffic Engineer	$ 61.19	Josh Johnson	$ 61.19		$ -		$ -
Traffic Engineer	$ 44.31	Graham Malone	$ 44.31		$ -		$ -
Jr Traffic Engineer/EIT	$ 30.90	Bekah Payne	$ 30.90		$ -		$ -
Sr. Utilities Engineer	$ -		$ -		$ -		$ -
Utilities Engineer	$ -		$ -		$ -		$ -
Utilities Coordinator	$ -		$ -		$ -		$ -
Sr Electrical Engineer	$ 75.62	Raphael Costa	$ 95.00	David Neves	$ 63.20	Yetunde Adelekan	$ 68.66
Electrical Engineer	$ 48.35	Farid Amador	$ 50.40	Chuanyue Shen	$ 48.08	Samir Abdo	$ 46.57
Jr Electrical Engineer/EIT	$ 37.61	Chad Ingram	$ 36.06	Carlos Larco	$ 34.03	Anton Matievski	$ 42.74
Sr. Transportation Planner	$ -		$ -		$ -		$ -
Transportation Planner	$ -		$ -		$ -		$ -
Jr. Transportation Planner	$ -		$ -		$ -		$ -
Transportation Modeler	$ -		$ -		$ -		$ -
Project Economist	$ -		$ -		$ -		$ -
Sr Landscape Architect	$ -		$ -		$ -		$ -
Landscape Architect	$ -		$ -		$ -		$ -
Sr Architect	$ 70.00		$ 70.00		$ -		$ -
Architect	$ -		$ -		$ -		$ -
Sr Land Surveyor	$ -		$ -		$ -		$ -
Land Surveyor	$ -		$ -		$ -		$ -
Jr Land Surveyor/LSIT	$ -		$ -		$ -		$ -
Sr. Environmental Specialist	$ 69.70	Jennifer Pearson	$ 69.70		$ -		$ -
Environmental Specialist	$ 46.69	Erica Wadl	$ 43.37	Jeanne Barnes	$ 50.00		$ -
Jr. Environmental Specialist	$ 31.96	Miles Speerath	$ 31.96		$ -		$ -
Principal Investigator	$ -		$ -		$ -		$ -
Project Historian	$ -		$ -		$ -		$ -
Project Architectural Historian	$ 45.00	Jessica Forbes	$ 45.00		$ -		$ -
Project Archaeologist	$ 47.00	Josh Fletcher	$ 47.00		$ -		$ -
Project Geologist	$ 40.89	Jared Crenshaw	$ 35.31	Bret Watkins	$ 46.47		$ -
Project Biologist	$ -		$ -		$ -		$ -
Project Wetlands Ecologist	$ -		$ -		$ -		$ -
Project Laboratory Director	$ -		$ -		$ -		$ -
Project Laboratory Technician	$ -		$ -		$ -		$ -
Sr. Engineering Technician	$ 48.65	Joe Rath	$ 48.65		$ -		$ -
Engineering Technician	$ 36.15	Chas Wolfe	$ 40.51		$ 31.78		$ -
Jr. Engineering Technician	$ -		$ -		$ -		$ -
Sr Structural Engineering Technician	$ -		$ -		$ -		$ -
Structural Engineering Technician	$ 40.00		$ 40.00		$ -		$ -
Sr Permitting Technician	$ -		$ -		$ -		$ -
Permitting Technician	$ -		$ -		$ -		$ -
Sr Survey Technician	$ -		$ -		$ -		$ -
Survey Technician	$ -		$ -		$ -		$ -
Jr Survey Technician	$ -		$ -		$ -		$ -
Sr. GIS Technician	$ -		$ -		$ -		$ -
GIS Technician	$ -		$ -		$ -		$ -
Jr. GIS Technician	$ -		$ -		$ -		$ -
Sr Administrative Assistant	$ -		$ -		$ -		$ -
Administrative Assistant	$ 36.78	Karen Watterson	$ 36.78		$ -		$ -
Office Manager	$ -		$ -		$ -		$ -
Controller/Accountant	$ -		$ -		$ -		$ -
Survey Crew Chief	$ -		$ -		$ -		$ -
Survey Instrument Man	$ -		$ -		$ -		$ -
Survey Rodman	$ -		$ -		$ -		$ -
SUE Crew Manager	$ -		$ -		$ -		$ -
SUE Technician	$ -		$ -		$ -		$ -
Drill Rig Crew Manager	$ -		$ -		$ -		$ -
Drill Rig Technician	$ -		$ -		$ -		$ -
Sr Certified Inspector	$ -		$ -		$ -		$ -
Certified Inspector	$ -		$ -		$ -		$ -
Jr. Certified Inspector	$ -		$ -		$ -		$ -
Sr ROW Specialist	$ -		$ -		$ -		$ -
ROW Abstractor	$ -		$ -		$ -		$ -
ROW Appraiser	$ -		$ -		$ -		$ -
Information Technology Specialist	$ -		$ -		$ -		$ -
Graphics Designer	$ 34.21	Erin Koch	$ 38.17	Stefani Wilkens	$ 30.25		$ -
Public Involvement Specialist	$ 43.00	Samantha Dubay	$ 43.00		$ -		$ -
Sr Mechanical Engineer	$ 79.41	Mike Carlton	$ 77.63	Stephen Grabowski	$ 70.00	Paul Jakubucki	$ 90.61
Mechanical Engineer	$ 47.40	Diana Jandreski	$ 45.69	Matt Cassera	$ 49.10		$ -
Jr Aerial Mapper	$ -		$ -		$ -		$ -

Consultant hereby certifies that the hourly wage rate shown is the actual rate paid the employee as of the submittal of this schedule. Consultant further acknowledges that:

a) the rates listed have been in effect for 30 days prior to this submittal (any exceptions should be identified on this schedule), and
b) any accepted changes to rates (including direct salary rates [DSR], escalated salary rates [ESR], overhead [OH] rates, and/or FCCM rates) will be limited by contract not to exceed (NTE) amounts.

Certified By

Title

Effective Date

Direct Non-Labor Costs Schedule Certificate

Expense Description		Unit Cost	Unit	Additional Backup Provided?	Note
Per Diem, with Overnight Stay	$	55.00	day		
Per Diem, without Overnight Stay	$	40.00	day		
Lodging	$	108.00	night		
Mileage	$	0.575	mile		
Shipping, Standard	$	10.00	shipment		
Shipping, Overnight	$	50.00	shipment		
Printing, B&W 8.5 x 11	$	0.08	each		
Printing, Color 8.5 x 11	$	0.25	each		
Printing, B&W 11 x 17	$	0.15	each		
Printing, Color 11 x 17	$	0.50	each		
Public Meeting Venue Rental	$	500.00	each		
Public Meeting Boards	$	100.00	each		
PAN	$	64,000.00	LS		
Tidewater Atlantic	$	12,413.240	LS		
	$	-			
	$	-	day		
	$	-	day		
	$	-			
	$	-	test hole		
	$	-	LF		
	$	-	LF		
	$	-	LF		
	$	-	pole		
	$	-	manhole		
	$	-			
	$	-	day		
	$	-	day		
	$	-	day		
	$	-			
	$	-	LS		
	$	-	LS		
	$	-			
	$	-	LS		
	$	-			
Pyramid (2D MASW Testing)	$	7,117.00	LS		
	$	-			
	$	-			
	$	-			
	$	-			
	$	-			
	$	-			
	$	-			
	$	-			
	$	-			

The allowability of costs is dependent upon the standards in the Code of Federal Regulations (CFR) Title 48 - Federal Acquisition Regulations System (FARS), Part 31, "Contractor Cost Principles and Procedures."

Consultant hereby certifies that the direct non-labor rates charged to Agency projects shall be no greater than the lowest rates charged to other public or private clients, up to the rates listed above.

Certified By:
Title:
Effective Date:

Task 01: Project Organization and Management

Manhours

Staff Classification	Principal	Project Manager	Sr Transportation Engineer	Sr Structural Engineer	Sr Hydraulic Engineer	Sr Geotechnical Engineer	Sr Environmental Specialist	Administrative Assistant	.	.	Manhour Totals	
Manhour Totals by Classification	64	512	16	16	8	8	32	60			**716**	
Sub-task												
1.1 Project Management	40	288						24			352	49.2%
1.2 Schedule		40					16	8			64	8.9%
1.3 Progress Reports		24	16	16	8	8	16	4			92	12.8%
1.4 Project Reporting to FHWA	8	40									48	6.7%
1.5 Development of Agreements	16	120						24			160	22.3%

Task 01: Project Organization and Management

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
1.1	Project Management	352	Assumes 18 months through selection of design build contractor - PM for design reviews included i
1.2	Schedule	64	Creation of initial schedule and monthly updates as needed
1.3	Progress Reports	92	Monthly progress reports to be included with invoicing
1.4	Project Reporting to FHWA	48	Support city with required reporting to FHWA
1.5	Development of Agreements	160	Support city with agreements with SCDOT, County, FHWA as needed

Task 01: Project Organization and Management

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Principal	64	$ 93.63	$ 5,992.32	$ 9,037.02	$ 1,502.93	$ 34.16	$ 16,566.43
Project Manager	512	$ 69.48	$ 35,573.76	$ 53,648.79	$ 8,922.26	$ 202.77	$ 98,347.58
Sr. Transportation Engineer	16	$ 63.41	$ 1,014.56	$ 1,530.06	$ 254.46	$ 5.78	$ 2,804.86
Sr. Structural Engineer	16	$ 81.11	$ 1,297.76	$ 1,957.15	$ 325.49	$ 7.40	$ 3,587.80
Sr. Hydraulic Engineer	8	$ 68.00	$ 544.00	$ 820.41	$ 136.44	$ 3.10	$ 1,503.95
Sr. Geotechnical Engineer	8	$ 68.80	$ 550.40	$ 830.06	$ 138.05	$ 3.14	$ 1,521.65
Sr. Environmental Specialist	32	$ 69.70	$ 2,230.40	$ 3,363.67	$ 559.41	$ 12.71	$ 6,166.19
Administrative Assistant	60	$ 36.78	$ 2,206.80	$ 3,328.08	$ 553.49	$ 12.58	$ 6,100.95
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	**716**		**$ 49,410.00 (A)**	**$ 74,515.24 (B)**	**$ 12,392.53 (C)**	**$ 281.64 (D)**	**$ 136,599.41 (E)**

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	250	miles	@	$ 0.575	per mile	$ 143.75
Shipping, Standard	5	shipments	@	$ 10.00	per shipment	$ 50.00
Printing, B&W 8.5 x 11	100	each	@	$ 0.08	per each	$ 8.00
Printing, Color 8.5 x 11	50	each	@	$ 0.25	per each	$ 12.50
Printing, B&W 11 x 17	50	each	@	$ 0.15	per each	$ 7.50
Printing, Color 11 x 17	25	each	@	$ 0.50	per each	$ 12.50
Per Diem, with Overnight Stay	5	days	@	$ 55.00	per day	$ 275.00
Lodging	5	nights	@	$ 108.00	per night	$ 540.00
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 1,049.25 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor		$ 49,410.00
B	Overhead	[A x 1.5081]	$ 74,515.24
C	Profit	[(A+B) x 0.1]	$ 12,392.53
D	FCCM	[A x 0.0057]	$ 281.64
E	Labor Total		$ 136,599.41
F	Non-salary Direct Expenses		$ 1,049.25
G	Subconsultant Fees		$ -
		Task Total	$ 137,648.66

$137,648.66

Task 02: Aerial Mapping and Field Surveys

Manhours

Staff Classification	Project Manager	Transportation Engineer	Hydraulic Engineer	-	-	-	-	-	-	-	Manhour Totals	
Manhour Totals by Classification												
Sub-task												
2.2 Field Surveys												
2.2.1 Project Survey Control												
2.2.2 Best Fit ERA												
2.2.3 Courthouse Research												
2.2.4 Field Survey Detectable Property Monuments												
2.2.5 Property Strip Map and Existing Road ROW												
2.2.6 Supplemental Aerial Mapping												
2.2.7 Drainage Feature Surveys												
2.2.8 Storm Drainage Structures												
2.2.9 Gravity Sanitary Sewer Manholes												
2.2.10 Wetland Boundaries												
2.2.11 Geotechnical Bore Holes												
2.2.12 Traffic Control												
2.2.13 Bathymetric Surveys												

Task 02: Aerial Mapping and Field Surveys

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
2.2	Field Surveys		Coordination w/ McKim & Creed and Cornerstone included in Task 1
2.2.1	Project Survey Control		
2.2.2	Best Fit ERA		
2.2.3	Courthouse Research		
2.2.4	Field Survey Detectable Property Monuments		
2.2.5	Property Strip Map and Existing Road ROW		
2.2.6	Supplemental Aerial Mapping		
2.2.7	Drainage Feature Surveys		
2.2.8	Storm Drainage Structures		
2.2.9	Gravity Sanitary Sewer Manholes		
2.2.10	Wetland Boundaries		
2.2.11	Geotechnical Bore Holes		
2.2.12	Traffic Control		
2.2.13	Bathymetric Surveys		

Task 02: Aerial Mapping and Field Surveys

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager		$ 69.48	$ -	$ -	$ -	$ -	$ -
Transportation Engineer		$ 37.99	$ -	$ -	$ -	$ -	$ -
Hydraulic Engineer		$ 55.00	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor			$ - (A)	$ - (B)	$ - (C)	$ - (D)	$ - (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ 103,222.91	
	McKim & Creed	$ 23,097.18	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ 126,320.09 (G)

Fee Summary for Task

A	Direct Labor	$ -
B	Overhead [A x 1.5081]	$ -
C	Profit [(A+B) x 0.1]	$ -
D	FCCM [A x 0.0057]	$ -
E	Labor Total	$ -
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ 126,320.09
	Task Total	$ 126,320.09

$126,320.09

Task 03: Traffic Studies and Modeling

Manhours

Staff Classification	Sr Traffic Engineer	Traffic Engineer	Jr Traffic Engineer/EIT	,	,	,	,	,	,	,	Manhour Totals	
Manhour Totals by Classification	30	96	196								**322**	
Sub-task												
3.1 Field Survey		8	8								16	5.0%
3.2 Traffic Data Collection		8	18								26	8.1%
3.3 Work Zone Traffic Control Study	10	24	48								82	25.5%
3.4 Traffic Analysis	20	56	122								198	61.5%

Task 03: Traffic Studies and Modeling

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
3.1	Field Survey	16	One day visit to site
3.2	Traffic Data Collection	26	Review of existing studies and extracting best available data
3.3	Work Zone Traffic Control Study	82	Study at 4 sites
3.4	Traffic Analysis	198	

Task 03: Traffic Studies and Modeling

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Sr. Traffic Engineer	30	$ 61.19	$ 1,835.70	$ 2,768.42	$ 460.41	$ 10.46	$ 5,074.99
Traffic Engineer	96	$ 44.31	$ 4,253.76	$ 6,415.10	$ 1,066.89	$ 24.25	$ 11,760.00
Jr. Traffic Engineer/EIT	196	$ 30.90	$ 6,056.40	$ 9,133.66	$ 1,519.01	$ 34.52	$ 16,743.59
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	**322**		**$ 12,145.86 (A)**	**$ 18,317.18 (B)**	**$ 3,046.31 (C)**	**$ 69.23 (D)**	**$ 33,578.58 (E)**

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	100	miles	@	$ 0.575	per mile	$ 57.50
Shipping, Standard	2	shipments	@	$ 10.00	per shipment	$ 20.00
Printing, B&W 8.5 x 11	100	each	@	$ 0.08	per each	$ 8.00
Printing, Color 8.5 x 11	50	each	@	$ 0.25	per each	$ 12.50
Printing, B&W 11 x 17	50	each	@	$ 0.15	per each	$ 7.50
Printing, Color 11 x 17	25	each	@	$ 0.50	per each	$ 12.50
Per Diem, with Overnight Stay		days	@	$ 55.00	per day	$ -
Lodging		nights	@	$ 108.00	per night	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 118.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ 7,143.55	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ 7,143.55 (G)

Fee Summary for Task

A	Direct Labor	$	12,145.86
B	Overhead [A x 1.5081]	$	18,317.18
C	Profit [(A+B) x 0.1]	$	3,046.31
D	FCCM [A x 0.0057]	$	69.23
E	Labor Total	$	33,578.58
F	Non-salary Direct Expenses	$	118.00
G	Subconsultant Fees	$	7,143.55
	Task Total	$	40,840.13

$40,840.13

Task 04: Environmental Services

Manhours

Staff Classification	Project Manager	Sr Environmental Specialist	Environmental Specialist	Jr Environmental Specialist	Project Architectural Historian	Project Archaeologist	Graphics Designer	Public Involvement Specialist	Administrative Assistant	.	Manhour Totals	
Manhour Totals by Classification	84	188	296	236	84	48	268	140	20		**1364**	
Sub-task												
4.1 Initial Field Surveys and Project Initiation												
4.1.1 Desktop Survey			4				8				12	0.9%
4.1.2 Agency Meetings	4	22	8								34	2.5%
4.1.3 Jurisdictional Determination												
4.2 Environmental Analysis, Documentation, & Review												
4.2.1 Geotechnical Studies PCE		8	24								32	2.3%
4.2.2 Non-Programmatic CE	2	24	40	16	4	4	24				114	8.4%
1 Land Use			4								4	0.3%
2 Farmlands			2								2	0.1%
3 Cultural Resources		8			80	44	40				172	12.6%
4 Section 4(f)/6(f)		4	16	48			20				88	6.5%
5 Parks and Rec				2							2	0.1%
6 Social and Economic			2	4			2				8	0.6%
7 Displacements				2							2	0.1%
8 Environmental Justice			2	8			2				12	0.9%
9 Essential Fish Habitat		16	40				16				72	5.3%
10 Compensatory Mitigation		8	2								10	0.7%
11 USCG Coordination	8	12		40			12				72	5.3%
12 Haz Waste/UST		4	40	8			4				56	4.1%
13 Wetlands/Water Quality			2	4							6	0.4%
14 Threatened and Endangered Species		4	16	24			8				52	3.8%
15 Environmental Commitment Form		2	8								10	0.7%
4.2.3 QA/QC of Environmental Document	16	16									32	2.3%
4.30 Permitting												
1 USCG Permit	8	12		40			12				72	5.3%
2 USACE Permit	4	8	24	40			24				100	7.3%
3 SCDHEC OCRM Permit	2	16	30				16				64	4.7%
4.40 Public Involvement	40	24	32				80	140	20		336	24.6%

Task 04: Environmental Services

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
4.1 Initial Field Surveys and Project Initiation		
4 1 1 Desktop Survey	12	
4.1.2 Agency Meetings	34	
4 1 3 Jurisdictional Determination		Completed in pre-work
4.2 Environmental Analysis, Documentation, & Review		
4 2 1 Geotechnical Studies PCE	32	
4.2.2 Non-Programmatic CE	114	
1 Land Use	4	
2 Farmlands	2	
3 Cultural Resources	172	
4 Section 4(f)/6(f)	88	
5 Parks and Rec	2	
6 Social and Economic	8	
7 Displacements	2	
8 Environmental Justice	12	
9 Essential Fish Habitat	72	
10 Compensatory Mitigation	10	
11 USCG Coordination	72	
12 Haz Waste/UST	56	
13 Wetlands/Water Quality	6	
14 Threatened and Endangered Species	52	
15 Environmental Commitment Form	10	
4.2.3 QA/QC of Environmental Document	32	
4 30 Permitting		
1 USCG Permit	72	
2 USACE Permit	100	
3 SCDHEC OCRM Permit	64	
4 40 Public Involvement	336	

Task 04: Environmental Services

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	84	$ 69.48	$ 5,836.32	$ 8,801.75	$ 1,463.81	$ 33.27	$ 16,135.15
Sr Environmental Specialist	188	$ 69.70	$ 13,103.60	$ 19,761.54	$ 3,286.51	$ 74.69	$ 36,226.34
Environmental Specialist	296	$ 46.69	$ 13,820.24	$ 20,842.30	$ 3,466.25	$ 78.78	$ 38,207.57
Jr Environmental Specialist	236	$ 31.96	$ 7,542.56	$ 11,374.93	$ 1,891.75	$ 42.99	$ 20,852.23
Project Architectural Historian	84	$ 45.00	$ 3,780.00	$ 5,700.62	$ 948.06	$ 21.55	$ 10,450.23
Project Archaeologist	48	$ 47.00	$ 2,256.00	$ 3,402.27	$ 565.83	$ 12.86	$ 6,236.96
Graphics Designer	268	$ 34.21	$ 9,168.28	$ 13,826.68	$ 2,299.50	$ 52.26	$ 25,346.72
Public Involvement Specialist	140	$ 43.00	$ 6,020.00	$ 9,078.76	$ 1,509.88	$ 34.31	$ 16,642.95
Administrative Assistant	20	$ 36.78	$ 735.60	$ 1,109.36	$ 184.50	$ 4.19	$ 2,033.65
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	1364		$ 62,262.60 (A)	$ 93,898.21 (B)	$ 15,616.09 (C)	$ 354.90 (D)	$ 172,131.80 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	500	miles	@	$ 0.575	per mile	$ 287.50
Shipping, Standard	5	shipments	@	$ 10.00	per shipment	$ 50.00
Printing, B&W 8.5 x 11	500	each	@	$ 0.08	per each	$ 40.00
Printing, Color 8.5 x 11	250	each	@	$ 0.25	per each	$ 62.50
Printing, B&W 11 x 17	100	each	@	$ 0.15	per each	$ 15.00
Printing, Color 11 x 17	50	each	@	$ 0.50	per each	$ 25.00
Per Diem, with Overnight Stay	10	days	@	$ 55.00	per day	$ 550.00
Lodging	10	nights	@	$ 108.00	per night	$ 1,080.00
Public Meeting Venue Rental	1	each	@	$ 500.00	per each	$ 500.00
Public Meeting Boards	5	each	@	$ 100.00	per each	$ 500.00
Tidewater Atlantic	1	LS	@	$ 12,413.24	per LS	$ 12,413.24
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 15,523.24 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ 6,182.29	
yes	Bihl	$ 2,650.47	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ 7,500.00	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ 3,346.84	

Task Totals for Subconsultant Involvement $ 19,679.60 (G)

Fee Summary for Task

A	Direct Labor	$ 62,262.60
B	Overhead [A x 1.5081]	$ 93,898.21
C	Profit [(A+B) x 0.1]	$ 15,616.09
D	FCCM [A x 0.0057]	$ 354.90
E	Labor Total	$ 172,131.80
F	Non-salary Direct Expenses	$ 15,523.24
G	Subconsultant Fees	$ 19,679.60
	Task Total	$ 207,334.64

$207,334.64

Task 05: Roadway and Path Design

Manhours

Staff Classification	Project Manager	Sr Transportation Engineer	Transportation Engineer	Jr Transportation Engineer/EIT	Engineering Technician	-	-	-	-	-	Manhour Totals	
Manhour Totals by Classification	14	58	76	144	40						332	
Sub-task												
5.1 Conceptual Plans												
5 1.1 Detailed Design Criteria		4		8							12	3.6%
5.1.2 Conceptual Plans	4	16	24	40	16						100	30.1%
5 1 3 Conceptual Cost Estimates	2	4	8	16							30	9.0%
5.2 Preliminary Road/Path Plans												
5 2 1 Preparation of Preliminary Plans	4	16	24	40	16						100	30.1%
5.2.2 Preliminary Cost Estimate	2	4	8	16							30	9.0%
5 2 3 DFR		8									8	2.4%
5.2.4 Comment Response/Revision	2	4	12	16	8						42	12.7%
5 2 5 Preliminary ROW/Environmental impacts		2		8							10	3.0%
5.2.6 Design Exceptions												

Task 05: Roadway and Path Design

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
5.1 Conceptual Plans		
5.1.1 Detailed Design Criteria	12	
5.1.2 Conceptual Plans	100	Scroll plots of 2 alternatives
5.1.3 Conceptual Cost Estimates	30	2 alternatives
5.2 Preliminary Road/Path Plans		
5.2.1 Preparation of Preliminary Plans	100	HDR performing design of path from West Ashley to Lockwood - Stantec designing intersections
5.2.2 Preliminary Cost Estimate	30	Preferred alternative
5.2.3 DFR	8	1 attendee
5.2.4 Comment Response/Revision	42	
5.2.5 Preliminary ROW/Environmental impacts	10	
5.2.6 Design Exceptions		Hours for design exceptions included in Stantec fee

Task 05: Roadway and Path Design

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	14	$ 69.48	$ 972.72	$ 1,466.96	$ 243.97	$ 5.54	$ 2,689.19
Sr Transportation Engineer	58	$ 63.41	$ 3,677.78	$ 5,546.46	$ 922.42	$ 20.96	$ 10,167.62
Transportation Engineer	76	$ 37.99	$ 2,887.24	$ 4,354.25	$ 724.15	$ 16.46	$ 7,982.10
Jr Transportation Engineer/EIT	144	$ 31.32	$ 4,510.08	$ 6,801.65	$ 1,131.17	$ 25.71	$ 12,468.61
Engineering Technician	40	$ 36.15	$ 1,446.00	$ 2,180.71	$ 362.67	$ 8.24	$ 3,997.62
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	332		$ 13,493.82 (A)	$ 20,350.03 (B)	$ 3,384.38 (C)	$ 76.91 (D)	$ 37,305.14 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	250	miles	@	$ 0.575	per mile	$ 143.75
Shipping, Standard		shipments	@	$ 10.00	per shipment	$ -
Printing, B&W 8.5 x 11		each	@	$ 0.08	per each	$ -
Printing, Color 8.5 x 11		each	@	$ 0.25	per each	$ -
Printing, B&W 11 x 17	250	each	@	$ 0.15	per each	$ 37.50
Printing, Color 11 x 17	100	each	@	$ 0.50	per each	$ 50.00
Per Diem, with Overnight Stay	1	days	@	$ 55.00	per day	$ 55.00
Lodging	1	nights	@	$ 108.00	per night	$ 108.00
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salnry Direct Expenses $ 394.25 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ 11,553.06	
yes	Bihl	$ -	
yes	Atlantic South	$ 10,872.69	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ 76,109.31	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ 98,535.06 (G)

Fee Summary for Task

A	Direct Labor		$ 13,493.82
B	Overhead	[A x 1.5081]	$ 20,350.03
C	Profit	[(A+B) x 0.1]	$ 3,384.38
D	FCCM	[A x 0.0057]	$ 76.91
E	Labor Total		$ 37,305.14
F	Non-salary Direct Expenses		$ 394.25
G	Subconsultant Fees		$ 98,535.06
		Task Total	$ 136,234.45

$136,234.45

Task 06: Structural Design

Manhours

Staff Classification	Project Manager	Sr Structural Engineer	Structural Engineer	Jr Structural Engineer/EIT	Sr Electrical Engineer	Electrical Engineer	Sr Mechanical Engineer	Mechanical Engineer	Structural Engineering Technician	Sr Architect	Manhour Totals	
Manhour Totals by Classification	24	120	236	184	28	36	28	36	128	36	**856**	
Sub-task												
6.1.1 Preliminary Design Criteria	4	8	8		4		4			8	36	4.2%
6.1.2 Design Field Review		8									8	0.9%
6.1.3 Analyze Bridge Alternatives	4	24	96	56	8	12	8	12			220	25.7%
6.1.4 Alternatives Report (Prelim & Final)	8	56	108	96	16	24	16	24	64	12	424	49.5%
6.20 Conceptual Aesthetics	8	24	24	32					64	16	168	19.6%

Task 06: Structural Design

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
6.1.1	Preliminary Design Criteria	36	Movable Span
6.1.2	Design Field Review	8	Two attendees
6.1.3	Analyze Bridge Alternatives	220	2 alts - fixed and movable
6.1.4	Alternatives Report (Prelim & Final)	424	2 alts - fixed and movable
6.20	Conceptual Aesthetics	168	2 alts - fixed and movable

Task 06: Structural Design

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	24	$ 69.48	$ 1,667.52	$ 2,514.79	$ 418.23	$ 9.50	$ 4,610.04
Sr Structural Engineer	120	$ 81.11	$ 9,733.20	$ 14,678.64	$ 2,441.18	$ 55.48	$ 26,908.50
Structural Engineer	236	$ 59.00	$ 13,924.00	$ 20,998.78	$ 3,492.28	$ 79.37	$ 38,494.43
Jr Structural Engineer/EIT	184	$ 36.39	$ 6,695.76	$ 10,097.88	$ 1,679.36	$ 38.17	$ 18,511.17
Sr Electrical Engineer	28	$ 75.62	$ 2,117.36	$ 3,193.19	$ 531.06	$ 12.07	$ 5,853.68
Electrical Engineer	36	$ 48.35	$ 1,740.60	$ 2,625.00	$ 436.56	$ 9.92	$ 4,812.08
Sr. Mechanical Engineer	28	$ 79.41	$ 2,223.48	$ 3,353.23	$ 557.67	$ 12.67	$ 6,147.05
Mechanical Engineer	36	$ 47.40	$ 1,706.40	$ 2,573.42	$ 427.98	$ 9.73	$ 4,717.53
Structural Engineering Technician	128	$ 40.00	$ 5,120.00	$ 7,721.47	$ 1,284.15	$ 29.18	$ 14,154.80
Sr Architect	36	$ 70.00	$ 2,520.00	$ 3,800.41	$ 632.04	$ 14.36	$ 6,966.81
Task Totals for Labor	856		$ 47,448.32 (A)	$ 71,556.81 (B)	$ 11,900.51 (C)	$ 270.45 (D)	$ 131,176.09 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	500	miles	@	$ 0.575	per mile	$ 287.50
Shipping, Standard		shipments	@	$ 10.00	per shipment	$ -
Printing, B&W 8.5 x 11	200	each	@	$ 0.08	per each	$ 16.00
Printing, Color 8.5 x 11	100	each	@	$ 0.25	per each	$ 25.00
Printing, B&W 11 x 17	150	each	@	$ 0.15	per each	$ 22.50
Printing, Color 11 x 17	75	each	@	$ 0.50	per each	$ 37.50
Per Diem, with Overnight Stay	10	days	@	$ 55.00	per day	$ 550.00
Lodging	10	nights	@	$ 108.00	per night	$ 1,080.00
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 2,018.50 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor	$ 47,448.32
B	Overhead [A x 1.5081]	$ 71,556.81
C	Profit [(A+B) x 0.1]	$ 11,900.51
D	FCCM [A x 0.0057]	$ 270.45
E	Labor Total	$ 131,176.09
F	Non-salary Direct Expenses	$ 2,018.50
G	Subconsultant Fees	$ -
	Task Total	$ 133,194.59

$133,194.59

Task 07: Hydrology and Hydraulic Design

Manhours

Staff Classification	Project Manager	Sr Hydraulic Engineer	Hydraulic Engineer	Jr Hydraulic Engineer/EIT	-	-	-	-	-	-	Manhour Totals	
Manhour Totals by Classification	6	80	172	116							374	
Sub-task												
7.10 Roadway drainage design report (Stantec)												
7.20 Bridge hydraulics report												
7.2.1 Hydrologic and Hydraulic Analysis		28	44	44							116	31.0%
7.2.2 ADCIRC Modeling		16	56	32							104	27.8%
7.2.3 Determination of Wave Heights		8	20	20							48	12.8%
7.2.4 Hydraulic Design and Risk Assessment Report	2	16	32								50	13.4%
7.2.5 Bridge Hydraulics Report	4	12	20	20							56	15.0%

Task 07: Hydrology and Hydraulic Design

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
7.10	Roadway drainage design report (Stantec)		Performed by Stantec
7.20	**Bridge hydraulics report**		
7.2.1	Hydrologic and Hydraulic Analysis	116	
7 2 2	ADCIRC Modeling	104	
7.2.3	Determination of Wave Heights	48	
7 2 4	Hydraulic Design and Risk Assessment Report	50	
7.2.5	Bridge Hydraulics Report	56	

Task 07: Hydrology and Hydraulic Design

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	6	$ 69.48	$ 416.88	$ 628.70	$ 104.56	$ 2.38	$ 1,152.52
Sr Hydraulic Engineer	80	$ 68.00	$ 5,440.00	$ 8,204.06	$ 1,364.41	$ 31.01	$ 15,039.48
Hydraulic Engineer	172	$ 55.00	$ 9,460.00	$ 14,266.63	$ 2,372.66	$ 53.92	$ 26,153.21
Jr Hydraulic Engineer/EIT	116	$ 35.00	$ 4,060.00	$ 6,122.89	$ 1,018.29	$ 23.14	$ 11,224.32
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	374		$ 19,376.88 (A)	$ 29,222.28 (B)	$ 4,859.92 (C)	$ 110.45 (D)	$ 53,569.53 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	250	miles	@	$ 0.575	per mile	$ 143.75
Shipping, Standard	1	shipments	@	$ 10.00	per shipment	$ 10.00
Printing, B&W 8.5 x 11	100	each	@	$ 0.08	per each	$ 8.00
Printing, Color 8.5 x 11	50	each	@	$ 0.25	per each	$ 12.50
Printing, B&W 11 x 17	50	each	@	$ 0.15	per each	$ 7.50
Printing, Color 11 x 17	25	each	@	$ 0.50	per each	$ 12.50
Per Diem, with Overnight Stay	1	days	@	$ 55.00	per day	$ 55.00
Lodging	1	nights	@	$ 108.00	per night	$ 108.00
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 357.25 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ 20,775.59	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ 20,775.59 (G)

Fee Summary for Task

A	Direct Labor		$ 19,376.88
B	Overhead [A x 1.5081]		$ 29,222.28
C	Profit [(A+B) x 0.1]		$ 4,859.92
D	FCCM [A x 0.0057]		$ 110.45
E	Labor Total		$ 53,569.53
F	Non-salary Direct Expenses		$ 357.25
G	Subconsultant Fees		$ 20,775.59
		Task Total	$ 74,702.37

$74,702.37

Task 08: Geotechnical Services and Pavement Design

Manhours

Staff Classification	Project Manager	Sr Geotechnical Engineer	Geotechnical Engineer	Jr Geotechnical Engineer/EIT	Project Geologist	Engineering Technician	Administrative Assistant	,	,	,	Manhour Totals	
Manhour Totals by Classification	5	186	88	184	180	68					**711**	
Sub-task												
8.10 Geotechnical Field Exploration	1	16			160	4					181	25.5%
8.30 Laboratory Testing	1	8	8	16							33	4.6%
8.40 Preliminary Geotechnical Baseline Report	1	36	48	48	4	40					177	24.9%
8.50 Preliminary Geotechnical Seismic Characterization	1	24	24	32							81	11.4%
8.60 Site-Specific Seismic Response Analysis Study	1	102	8	88	16	24					239	33.6%

Estimate for this task prepared by L. Leon

Task 08: Geotechnical Services and Pavement Design

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
8.10	Geotechnical Field Exploration	181	
8.30	Laboratory Testing	33	
8.40	Preliminary Geotechnical Baseline Report	177	
8.50	Preliminary Geotechnical Seismic Characterization	81	
8.60	Site-Specific Seismic Response Analysis Study	239	

Estimate for this task prepared by L. Leon

Task 08: Geotechnical Services and Pavement Design

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	5	$ 69.48	$ 347.40	$ 523.91	$ 87.13	$ 1.98	$ 960.42
Sr Geotechnical Engineer	186	$ 68.80	$ 12,796.80	$ 19,298.85	$ 3,209.57	$ 72.94	$ 35,378.16
Geotechnical Engineer	88	$ 47.46	$ 4,176.48	$ 6,298.55	$ 1,047.50	$ 23.81	$ 11,546.34
Jr Geotechnical Engineer/EIT	184	$ 32.09	$ 5,904.56	$ 8,904.67	$ 1,480.92	$ 33.66	$ 16,323.81
Project Geologist	180	$ 40.89	$ 7,360.20	$ 11,099.92	$ 1,846.01	$ 41.95	$ 20,348.08
Engineering Technician	68	$ 36.15	$ 2,458.20	$ 3,707.21	$ 616.54	$ 14.01	$ 6,795.96
Administrative Assistant		$ 36.78	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	711		$ 33,043.64 (A)	$ 49,833.11 (B)	$ 8,287.67 (C)	$ 188.35 (D)	$ 91,352.77 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Per Diem, with Overnight Stay	18	days	@	$ 55.00	per day	$ 990.00
Lodging	18	nights	@	$ 108.00	per night	$ 1,944.00
Mileage	1,200	miles	@	$ 0.575	per mile	$ 690.00
Per Diem, without Overnight Stay	2	days	@	$ 40.00	per day	$ 80.00
Pyramid (2D MASW Testing)	1	LS	@	$ 7,117.00	per LS	$ 7,117.00
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -
Task Total for Non-salary Direct Expenses						$ 10,821.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ 160,000.00	
yes	Soil Consultants	$ 45,405.00	
yes	Providence Engineering Consultants	$ -	
Task Totals for Subconsultant Involvement		$ 205,405.00 (G)	

Fee Summary for Task

A	Direct Labor	$ 33,043.64
B	Overhead [A x 1.5081]	$ 49,833.11
C	Profit [(A+B) x 0.1]	$ 8,287.67
D	FCCM [A x 0.0057]	$ 188.35
E	Labor Total	$ 91,352.77
F	Non-salary Direct Expenses	$ 10,821.00
G	Subconsultant Fees	$ 205,405.00
	Task Total	$ 307,578.77

$307,578.77

Estimate for this task prepared by L. Leon

Task 09: Utility Coordination

Manhours

Staff Classification	Project Manager	Sr Transportation Engineer	-	-	-	-	-	-	-	-	Manhour Totals	
Manhour Totals by Classification												
Sub-task												
9.10 Utility Coordination												
9.20 Preliminary Utility Coordination												
9.30 Constructability Review Meeting												

Task 09: Utility Coordination

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
9.10	Utility Coordination		Coordination hours included in Task 1
9.20	Preliminary Utility Coordination		
9.30	Constructability Review Meeting		

Task 09: Utility Coordination

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager		$ 69.48	$ -	$ -	$ -	$ -	$ -
Sr Transportation Engineer		$ 63.41	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor			$ - (A)	$ - (B)	$ - (C)	$ - (D)	$ - (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ 35,339.35	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ 35,339.35 (G)

Fee Summary for Task

A	Direct Labor	$	-
B	Overhead [A x 1.5081]	$	-
C	Profit [(A+B) x 0.1]	$	-
D	FCCM [A x 0.0057]	$	-
E	Labor Total	$	-
F	Non-salary Direct Expenses	$	-
G	Subconsultant Fees	$	35,339.35
	Task Total	$	35,339.35

$35,339.35

Task 10: Subsurface Utility Engineering

Manhours

Staff Classification	Project Manager	Sr Transportation Engineer	-	-	-	-	-	-	-	-	Manhour Totals	
Manhour Totals by Classification												
Sub-task												
10.10 SUE Work												
10.20 Designating Services												

Task 10: Subsurface Utility Engineering

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
10.10 SUE Work		Coordination hours included in Task 1
10.20 Designating Services		

Task 10: Subsurface Utility Engineering

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager		$ 69.48	$ -	$ -	$ -	$ -	$ -
Sr Transportation Engineer		$ 63.41	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor			$ - (A)	$ - (B)	$ - (C)	$ - (D)	$ - (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ 50,820.00	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ 50,820.00 (G)

Fee Summary for Task

A	Direct Labor	$	-
B	Overhead [A x 1.5081]	$	-
C	Profit [(A+B) x 0.1]	$	-
D	FCCM [A x 0.0057]	$	-
E	Labor Total	$	-
F	Non-salary Direct Expenses	$	-
G	Subconsultant Fees	$	50,820.00
	Task Total	$	50,820.00

$50,820.00

Task 11: Right of Way

Manhours

Staff Classification	Project Manager	Sr Transportation Engineer	,	,	,	,	,	,	,	,	Manhour Totals
Manhour Totals by Classification	16	64									**80**

Sub-task												
Right of Way												
Evaluation of Manna Operations	16	64									80	100.0%

Task 11: Right of Way

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
Right of Way		Coordination hours included in task 1
Evaluation of Marina Operations	80	one day site visit by 2 staff, development of 4 recommendatiosn and memo

Task 11: Right of Way

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	16	$ 69.48	$ 1,111.68	$ 1,676.52	$ 278.82	$ 6.34	$ 3,073.36
Sr Transportation Engineer	64	$ 63.41	$ 4,058.24	$ 6,120.23	$ 1,017.85	$ 23.13	$ 11,219.45
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	**80**		$ 5,169.92 (A)	$ 7,796.75 (B)	$ 1,296.67 (C)	$ 29.47 (D)	$ 14,292.81 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	400	miles	@	$ 0.575	per mile	$ 230.00
Shipping, Standard		shipments	@	$ 10.00	per shipment	$ -
Printing, B&W 8.5 x 11	20	each	@	$ 0.08	per each	$ 1.60
Printing, Color 8.5 x 11	20	each	@	$ 0.25	per each	$ 5.00
Printing, B&W 11 x 17	10	each	@	$ 0.15	per each	$ 1.50
Printing, Color 11 x 17	10	each	@	$ 0.50	per each	$ 5.00
Per Diem, with Overnight Stay	2	days	@	$ 55.00	per day	$ 110.00
Lodging	2	nights	@	$ 108.00	per night	$ 216.00
PAN	1	LS	@	$ 64,000.00	per LS	$ 64,000.00
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 64,569.10 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	**Direct Labor**	$	5,169.92
B	**Overhead [A x 1.5081]**	$	7,796.75
C	**Profit [(A+B) x 0.1]**	$	1,296.67
D	**FCCM [A x 0.0057]**	$	29.47
E	**Labor Total**	$	14,292.81
F	**Non-salary Direct Expenses**	$	64,569.10
G	**Subconsultant Fees**	$	-
	Task Total	$	78,861.91

$78,861.91

Task 12: Development of RFQ and RFP

Manhours

Staff Classification	Principal	Project Manager	Sr Transportation Engineer	Sr Structural Engineer	Sr Hydraulic Engineer	Sr Geotechnical Engineer	Sr Environmental Specialist	Sr Mechanical Engineer	Sr Electrical Engineer	Sr Architect	Manhour Totals	
Manhour Totals by Classification	6	64	18	38	8	20	12	12	12	12	**202**	
Sub-task												
12.10 Development of the RFQ	2	16	8	8							34	16.8%
12.20 Development of the RFP for Industry Review, Final RFP an	4	48	10	30	8	20	12	12	12	12	168	83.2%

Task 12: Development of RFQ and RFP

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
12.10	Development of the RFQ	34	
12.20	Development of the RFP for Industry Review, Final RFP and Addenda	168	

Task 12: Development of RFQ and RFP

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Principal	6	$ 93.63	$ 561.78	$ 847.22	$ 140.90	$ 3.20	$ 1,553.10
Project Manager	64	$ 69.48	$ 4,446.72	$ 6,706.10	$ 1,115.28	$ 25.35	$ 12,293.45
Sr Transportation Engineer	18	$ 63.41	$ 1,141.38	$ 1,721.32	$ 286.27	$ 6.51	$ 3,155.48
Sr Structural Engineer	38	$ 81.11	$ 3,082.18	$ 4,648.24	$ 773.04	$ 17.57	$ 8,521.03
Sr Hydraulic Engineer	8	$ 68.00	$ 544.00	$ 820.41	$ 136.44	$ 3.10	$ 1,503.95
Sr Geotechnical Engineer	20	$ 68.80	$ 1,376.00	$ 2,075.15	$ 345.12	$ 7.84	$ 3,804.11
Sr Environmental Specialist	12	$ 69.70	$ 836.40	$ 1,261.37	$ 209.78	$ 4.77	$ 2,312.32
Sr Mechanical Engineer	12	$ 79.41	$ 952.92	$ 1,437.10	$ 239.00	$ 5.43	$ 2,634.45
Sr Electrical Engineer	12	$ 75.62	$ 907.44	$ 1,368.51	$ 227.60	$ 5.17	$ 2,508.72
Sr Architect	12	$ 70.00	$ 840.00	$ 1,266.80	$ 210.68	$ 4.79	$ 2,322.27
Task Totals for Labor	**202**		$ 14,688.82 (A)	$ 22,152.22 (B)	$ 3,684.11 (C)	$ 83.73 (D)	$ 40,608.88 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	500	miles	@	$ 0.575	per mile	$ 287.50
Shipping, Standard		shipments	@	$ 10.00	per shipment	$ -
Printing, B&W 8.5 x 11	1,000	each	@	$ 0.08	per each	$ 80.00
Printing, Color 8.5 x 11		each	@	$ 0.25	per each	$ -
Printing, B&W 11 x 17	100	each	@	$ 0.15	per each	$ 15.00
Printing, Color 11 x 17		each	@	$ 0.50	per each	$ -
Per Diem, with Overnight Stay	2	days	@	$ 55.00	per day	$ 110.00
Lodging	2	nights	@	$ 108.00	per night	$ 216.00
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -
Task Total for Non-salary Direct Expenses						$ 708.50 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ 6,761.93	
yes	Bihl	$ 8,060.87	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ 88,278.31	
Task Totals for Subconsultant Involvement		$ 103,101.11 (G)	

Fee Summary for Task

A	Direct Labor	$ 14,688.82
B	Overhead [A x 1.5081]	$ 22,152.22
C	Profit [(A+B) x 0.1]	$ 3,684.11
D	FCCM [A x 0.0057]	$ 83.73
E	Labor Total	$ 40,608.88
F	Non-salary Direct Expenses	$ 708.50
G	Subconsultant Fees	$ 103,101.11
	Task Total	$ 144,418.49

$144,418.49

Task 13: Procurement

Manhours

Staff Classification	Principal	Project Manager	Sr Transportation Engineer	Sr Structural Engineer	Sr Hydraulic Engineer	Sr Geotechnical Engineer	Sr Environmental Specialist	Sr Mechanical Engineer	Sr Electrical Engineer	Sr Architect	Manhour Totals	
Manhour Totals by Classification	8	120	56	96	12	12	28	20	20	12	**384**	
Sub-task												
13.10 Respond to RFP Questions	2	40	12	24	6	6	6	6	6	6	114	29.7%
13.20 Technical Assistance During Review of ATCs	2	40	12	24	6	6	6	6	6	6	114	29.7%
13.30 Review Technical Proposal		16	16	16			16				64	16.7%
13.40 Review and Analysis of Bid Packages		8	8	16				8	8		48	12.5%
13.50 Evaluation of Proposals	4	16	8	16							44	11.5%

Task 13: Procurement

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
13.10	Respond to RFP Questions	114	Assume 120 questions (40 from each short listed team)
13.20	Technical Assistance During Review of ATCs	114	30 ATC's - 10 from each short listed team
13.30	Review Technical Proposal	64	Review of 3 sets of plans from short listed teams
13.40	Review and Analysis of Bid Packages	48	Review of 3 bid packages
13.50	Evaluation of Proposals	44	Assume 3 proposals to evaluate

Task 13: Procurement

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Principal	8	$ 93.63	$ 749.04	$ 1,129.63	$ 187.87	$ 4.27	$ 2,070.81
Project Manager	120	$ 69.48	$ 8,337.60	$ 12,573.93	$ 2,091.15	$ 47.52	$ 23,050.20
Sr. Transportation Engineer	56	$ 63.41	$ 3,550.96	$ 5,355.20	$ 890.62	$ 20.24	$ 9,817.02
Sr Structural Engineer	96	$ 81.11	$ 7,786.56	$ 11,742.91	$ 1,952.95	$ 44.38	$ 21,526.80
Sr. Hydraulic Engineer	12	$ 68.00	$ 816.00	$ 1,230.61	$ 204.66	$ 4.65	$ 2,255.92
Sr Geotechnical Engineer	12	$ 68.80	$ 825.60	$ 1,245.09	$ 207.07	$ 4.71	$ 2,282.47
Sr. Environmental Specialist	28	$ 69.70	$ 1,951.60	$ 2,943.21	$ 489.48	$ 11.12	$ 5,395.41
Sr Mechanical Engineer	20	$ 79.41	$ 1,588.20	$ 2,395.16	$ 398.34	$ 9.05	$ 4,390.75
Sr. Electrical Engineer	20	$ 75.62	$ 1,512.40	$ 2,280.85	$ 379.33	$ 8.62	$ 4,181.20
Sr Architect	12	$ 70.00	$ 840.00	$ 1,266.80	$ 210.68	$ 4.79	$ 2,322.27
Task Totals for Labor	384		$ 27,957.96 (A)	$ 42,163.39 (B)	$ 7,012.15 (C)	$ 159.35 (D)	$ 77,292.85 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ 6,761.93	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ 38,983.29	
	Task Totals for Subconsultant Involvement	$ 45,745.22 (G)	

Fee Summary for Task

A	Direct Labor	$ 27,957.96
B	Overhead [A x 1.5081]	$ 42,163.39
C	Profit [(A+B) x 0.1]	$ 7,012.15
D	FCCM [A x 0.0057]	$ 159.35
E	Labor Total	$ 77,292.85
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ 45,745.22
	Task Total	$ 123,038.07

$123,038.07

Task 14: Design Plan Review and Administration

Manhours

Staff Classification	Project Manager	Sr Transportation Engineer	Transportation Engineer	Sr Hydraulic Engineer	Hydraulic Engineer	Sr Structural Engineer	Sr Electrical Engineer	Sr Mechanical Engineer	Sr Geotechnical Engineer	Sr. Environmental Specialist	Manhour Totals	
Manhour Totals by Classification	260	140	180	80	120	540	100	100	320	40	**1880**	
Sub-task												
14.10 Project Organization and Management Responsibilities	260										260	13.8%
14.20 Roadway/Path Design Review Responsibilities		100	100							8	208	11.1%
14.30 Structural Design Review Responsibilities						340				8	348	18.5%
14.40 Movable Span Structure, Mechanical, Electrical&Facilities						200	100	100		8	408	21.7%
14.50 Hydaulic Design Review Responsibilities				80	120					8	208	11.1%
14.60 Geotechnical Design Review Responsibilities									320	8	328	17.4%
14.70 Traffic Engineering Review Responsibilities		40	80								120	6.4%

Task 14: Design Plan Review and Administration

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
14.10	Project Organization and Management Responsibilities	260	
14.20	Roadway/Path Design Review Responsibilities	208	
14.30	Structural Design Review Responsibilities	348	
14.40	Movable Span Structure, Mechanical, Electrical&Facilities Design Rev	408	
14.50	Hydaulic Design Review Responsibilities	208	
14.60	Geotechnical Design Review Responsibilties	328	
14.70	Traffic Engineering Review Responsibilities	120	

Task 14: Design Plan Review and Administration

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	260	$ 69.48	$ 18,064.80	$ 27,243.52	$ 4,530.83	$ 102.97	$ 49,942.12
Sr. Transportation Engineer	140	$ 63.41	$ 8,877.40	$ 13,388.01	$ 2,226.54	$ 50.60	$ 24,542.55
Transportation Engineer	180	$ 37.99	$ 6,838.20	$ 10,312.69	$ 1,715.09	$ 38.98	$ 18,904.96
Sr. Hydraulic Engineer	80	$ 68.00	$ 5,440.00	$ 8,204.06	$ 1,364.41	$ 31.01	$ 15,039.48
Hydraulic Engineer	120	$ 55.00	$ 6,600.00	$ 9,953.46	$ 1,655.35	$ 37.62	$ 18,246.43
Sr. Structural Engineer	540	$ 81.11	$ 43,799.40	$ 66,053.88	$ 10,985.33	$ 249.66	$ 121,088.27
Sr. Electrical Engineer	100	$ 75.62	$ 7,562.00	$ 11,404.25	$ 1,896.63	$ 43.10	$ 20,905.98
Sr. Mechanical Engineer	100	$ 79.41	$ 7,941.00	$ 11,975.82	$ 1,991.68	$ 45.26	$ 21,953.76
Sr. Geotechnical Engineer	320	$ 68.80	$ 22,016.00	$ 33,202.33	$ 5,521.83	$ 125.49	$ 60,865.65
Sr. Environmental Specialist	40	$ 69.70	$ 2,788.00	$ 4,204.58	$ 699.26	$ 15.89	$ 7,707.73
Task Totals for Labor	**1880**		**$ 129,926.80 (A)**	**$ 195,942.60 (B)**	**$ 32,586.95 (C)**	**$ 740.58 (D)**	**$ 359,196.93 (E)**

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ 13,075.80	
yes	Bihl	$ 24,761.17	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ 15,864.20	

Task Totals for Subconsultant Involvement $ 53,701.17 (G)

Fee Summary for Task

A	Direct Labor	$ 129,926.80
B	Overhead [A x 1.5081]	$ 195,942.60
C	Profit [(A+B) x 0.1]	$ 32,586.95
D	FCCM [A x 0.0057]	$ 740.58
E	Labor Total	$ 359,196.93
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ 53,701.17
	Task Total	$ 412,898.10

$412,898.10

Alta Planning & Design

4. ENVIRONMENTAL SERVICES

The CONSULTANT shall be responsible for NEPA compliance in accordance with 23 CFR Parts 771 and 772, as well as any related, current/latest guidance promulgated by Federal Highway Administration (FHWA), as of the date of executed contract.

4.1. Environmental Analysis, Documentation, and Review

4.1.1. Non-Programmatic Categorical Exclusion Document*

In consultation with the Federal Highway Administration, the SCDOT has determined that the project can be processed as a Non-Programmatic Categorical Exclusion. The CONSULTANT shall be responsible for the preparation of a Non-Programmatic Categorical Exclusion that 1) quantifies the impacts of a conceptual alternative* and 2) identifies environmental constraints for a design build contractor using the defined NEPA Study Area.*

1. Purpose and Need - CONSULTANT will outline background that led to initiation of proposed action. A description of the need for the action, along with specific components (i.e. goals, objectives, benefits to be gained by the public, etc.) will be included.
2. Proposed Facility - CONSULTANT will prepare description of proposed the roadway facility/improvements, anticipated LOS, logical termini, etc.
4. Alternatives - CONSULTANT will complete an alternatives analysis, including a discussion of all alternatives considered and a detailed discussion of reasonable alternatives considered and basis of elimination.

<u>Deliverables:</u>

- Word documents as needed for inclusion in CE documentation.

5. ROADWAY/PATH DESIGN

All plans, designs, specifications and estimates shall conform to the SCDOT's standard practices for highway construction, which are based on the latest edition of the following material:

- AASHTO A Policy on Geometric Design of Highways and Streets, 2011;
- AASHTO Guide for the Development of Bicycle Facilities, 2012;
- SCDOT Standard Drawings – Latest Edition; SCDOT Standard Specifications for Highway Construction 2007 Edition;
- SCDOT'S Engineering Directive Memoranda and Instructional Bulletins;
- SCDOT'S Access and Roadside Management Standards (ARMS) Manual, latest edition;
- SCDOT Roadway Design Manual, 2017,
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 1st Edition and;

- Other applicable SCDOT and FHWA design material, current editions.

5.1. Conceptual Plans*

5.1.1. The CONSULTANT shall review conceptual plans for the alternatives to provide feedback on bike-ped improvements at each location. Improvement locations include:*

- Intersection safety and pedestrian improvements at Wesley Drive / Folly Road
- Intersection safety and pedestrian improvements at Wappoo Road and West Ashley Greenway
- Alternatives for the Greenway to traverse from its current termini at Albemarle/Croghan Spur to the proposed path behind the condominiums on the southeast corner of Folly/Albemarle intersection.
- Alternatives for US 17 NB Off Ramp / Bee Street/ Lockwood Drive intersection
- Alternatives for a bridge across the Ashley River and connections to existing pathways or intersections

5.2. Preliminary Road/Path Design

5.2.1. The CONSULTANT shall review 30% plans for the selected alternative at each improvement location to provide feedback on bike-ped improvements at each location.

5.3. Deliverables

- One (1) electronic PDF of review of conceptual plans.
- One (1) electronic PDF of review of 30% plans.

12. SUPPORT DURING DEVELOPMENT OF THE RFQ/RFP

12.1. CONSULTANT shall provide support, as needed, for the following tasks while the CITY is developing the Design-Build RFQ and RFP:

- Develop project Risk Matrix and categorize project risks as High, Moderate, and Low. Describe why the risk is critical, indicate what impact it will have on the project, and discuss mitigation strategies.*
- Develop Project Design Criteria for each discipline for the RFP.*
  - Roadway
  - Traffic
- Provide assistance with Development of project-specific special provisions.*

13. SUPPORT DURING PROCUREMENT

13.1. CONSULTANT shall provide support, as needed, for the following tasks during the procurement of the design-build project:

- Provide assistance to respond to the RFP for Industry Review and Final RFP questions and clarifications.*
- Provide technical assistance during reviews of ATCs.*

14. DESIGN PLAN REVIEW AND ADMINISTRATION

The CONSULTANT shall facilitate design reviews using Bluebeam in accordance with the contract schedule.

The Consultant shall review plans and submittals to verify Contractor's compliance with project criteria, applicable permits and regulatory agencies requirements. Any non-compliance to the design criteria found during the review will be recorded through review comments. Major non-compliance issues discovered during the design review process shall be reported to the CITY immediately. The CONSULTANT will review any changes to design criteria proposed by the Contractor and advise the CITY as to the appropriateness of these changes, including cost and schedule implications to the project. The CONSULTANT is expected to act as an extension of CITY staff and provide possible solutions to issues which arise during design and construction of the project.

The CONSULTANT shall provide a Project Manager/Design Manager that will be responsible for the day-to-day administration of the reviews. The Project Manager/Design Manager will be responsible for ensuring an appropriate level of review for all phases and disciplines of the project.

The CONSULTANT shall provide a Document Control Manager that will be responsible for keeping a full and complete set of records in the form of a Submittals Matrix which shall indicate dates of receipt and submittal of all design reviews, status of review comments, and dates of comment resolution.

The CONSULTANT may use the Contractor's design calculations when necessary to support the review of the submittals. Routine reviews do not involve independent analyses or calculations to verify the Contractor's work. On an as-needed basis and when approved by the CITY, the CONSULTANT shall: (1) Perform independent analyses when an apparent issue arises on a design element that requires verification of the design calculations; (2) Review the revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction; (3) Review and comment on Shop Plans, Working Drawings, and miscellaneous submittals (RFIs, NCRs, Issue Papers, Technical Special Provisions, and Design Exceptions/Variances).

The CONSULTANT will have a maximum of fifteen business days to complete their initial review and provide comments to Design-Build Contractor, and notify the CITY. A business day is considered Monday-Friday not including CITY observed holidays.

The CONSULTANT shall participate in Partnering Meetings with the Design-Build Contractor and shall represent the CITY in Design Coordination Meetings. One-day Partnering Meetings will be held in Charleston, SC. Two-hour Design Coordination Meetings will be held in Charleston, SC or may be accessed via telephone conference call. The CONSULTANT shall attend meetings relating to review, approval and implementation of the Contractor's design.

14.1 Roadway/Path Design Review Responsibilities

A. Roadway/Path Design reviews will occur for the following phases:*

i. Preliminary Plans
ii. Right of Way Plans
iii. Final Plans

B. Additional reviews are anticipated on the following miscellaneous submittals: *

i. Review and provide recommendations on five (5) Requests for Information
ii.
iii.
iv. Review and provide recommendations on one (1) Technical Special Provisions
v.

C. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that one (1) design modification will be initiated.*

D. Meetings *

i. Attend ten (10) two-hour Design Coordination Meetings

14.2 Traffic Engineering Review Responsibilities

A. Traffic reviews will occur for both of the two (2) plan submittals noted in the Anticipated Project Segmentation and Submittal Section:

i. Permanent Pavement Marking Plans *
ii. Permanent Signing Plans *
iii. Permanent Lighting Plans *
iv. As Built Signing Plans *
v. As Built Lighting Plans *
vi. Traffic Signal Plans *
vii. As Built Traffic Signal Plans *

E. Additional reviews are anticipated on the following miscellaneous submittals: *

vi. Review and provide recommendations on five (5) Requests for Information

vii. Review and provide recommendations on one (1) Technical Special Provisions

F. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that one (1) design modification will be initiated.*

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
04	Environmental Services	$ 6,182.29	$ -	$ -	$ 6,182.29	13.9%
05	Roadway & Path Design	$ 11,553.06	$ -	$ -	$ 11,553.06	26.1%
12	Support During Development of RFQ/RFP	$ 6,761.93	$ -	$ -	$ 6,761.93	15.3%
13	Support During Procurement	$ 6,761.93	$ -	$ -	$ 6,761.93	15.3%
15	Roadway & Path Design Review	$ 13,075.80	$ -	$ -	$ 13,075.80	29.5%
	Totals	$ 44,335.01	$ -	$ -	$ 44,335.01	

Alta Planning + Design, Inc.

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
04	Environmental Services	$ 1,945.40	$ 3,674.86	$ 562.03	$ -	$ 6,182.29	$ -	$ 6,182.29
05	Roadway & Path Design	$ 3,635.44	$ 6,867.34	$ 1,050.28	$ -	$ 11,553.06	$ -	$ 11,553.06
12	Support During Development of RFQ/RFP	$ 2,127.80	$ 4,019.41	$ 614.72	$ -	$ 6,761.93	$ -	$ 6,761.93
13	Support During Procurement	$ 2,127.80	$ 4,019.41	$ 614.72	$ -	$ 6,761.93	$ -	$ 6,761.93
15	Roadway & Path Design Review	$ 4,114.60	$ 7,772.49	$ 1,188.71	$ -	$ 13,075.80	$ -	$ 13,075.80
	Totals	$ 13,951.04	$ 26,353.51	$ 4,030.46	$ -	$ 44,335.01	$ -	$ 44,335.01
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
Alta Planning + Design, Inc.	$ 44,335.01		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Sum: $44,335.01		
	Total DBE Qualifying Fee		$ -
	Percentage of Fee Total		

Fee Summary

A - Direct Labor	$	13,951.04
B - Overhead [A x 1.889]	$	26,353.51
C - Profit [(A+B) x 0.1]	$	4,030.46
D - FCCM [A x 0]	$	-
E - Labor Total	$	44,335.01
F - Total Non-Salary Direct Expenses	$	-
G - Subconsultant Fees	$	-
Fee Total	$	44,335.01

fee total less profit $40,304.55

Prepared by: _____

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

04

Task 04: Environmental Services

Manhours

Staff Classification	Principal	Project Manager	Sr Traffic Engineer	Sr Transportation Planner	Jr Transportation Planner	Transportation Planner	Traffic Engineer									Manhour Totals
Manhour Totals by Classification	4	8			40	12										64
Sub-task																
4.1.1 Non Programmatic Categorical Exclusion Document	4	8			40	12										64 (100.0%)
Purpose and Need																
Proposed Facility																
Alternatives																

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
4.1.1 Non Programmatic Categorical Exclusion Document	64	
Purpose and Need		
Proposed Facility		
Alternatives		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (188.9%)	Profit (10.0%)	FCCM	Labor Total
Principal	4	$ 63.87	$ 255.48	$ 482.60	$ 73.81	$ -	$ 811.89
Project Manager	8	$ 35.67	$ 285.36	$ 539.05	$ 82.44	$ -	$ 906.85
Sr Traffic Engineer		$ 68.72	$ -	$ -	$ -	$ -	$ -
Sr Transportation Planner		$ 44.52	$ -	$ -	$ -	$ -	$ -
Jr. Transportation Planner	40	$ 26.00	$ 1,040.00	$ 1,964.56	$ 300.46	$ -	$ 3,305.02
Transportation Planner	12	$ 30.38	$ 364.56	$ 688.65	$ 105.32	$ -	$ 1,158.53
Traffic Engineer		$ 49.04	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	64		$ 1,945.40 (A)	$ 3,674.86 (B)	$ 562.03 (C)	$ - (D)	$ 6,182.29 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses				$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 1,945.40
B	Overhead [A x 1.889]	$ 3,674.86
C	Profit [(A+B) x 0.1]	$ 562.03
D	FCCM [A x 0]	$ -
E	Labor Total	$ 6,182.29
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 6,182.29

$6,182.29

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

05

Task 05: Roadway & Path Design

Manhours

Staff Classification	Principal	Project Manager	Sr Traffic Engineer	Sr Transportation Planner	Jr Transportation Planner	Transportation Planner	Traffic Engineer									Manhour Totals
Manhour Totals by Classification	20	20	6	16	20											82
Sub-task																
5.10 Conceptual Plans	20	20	6	16	20											82 100.0%
5.1.1 Review of conceptual plans																
5.20 Preliminary Road																
5.2.1 Review of preliminary plans																

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
5.10 Conceptual Plans	82	
5.1.1 Review of conceptual plans		
5.20 Preliminary Road		
5.2.1 Review of preliminary plans		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 188.9%	Profit 16.00%	FCCM	Labor Total
Principal	20	$ 63.87	$ 1,277.40	$ 2,413.01	$ 369.04	$ -	$ 4,059.45
Project Manager	20	$ 35.67	$ 713.40	$ 1,347.61	$ 206.10	$ -	$ 2,267.11
Sr Traffic Engineer	6	$ 68.72	$ 412.32	$ 778.87	$ 119.12	$ -	$ 1,310.31
Sr Transportation Planner	16	$ 44.52	$ 712.32	$ 1,345.57	$ 205.79	$ -	$ 2,263.68
Jr Transportation Planner	20	$ 26.00	$ 520.00	$ 982.28	$ 150.23	$ -	$ 1,652.51
Transportation Planner		$ 30.38	$ -	$ -	$ -	$ -	$ -
Traffic Engineer		$ 49.04	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	**82**		**$ 3,635.44 (A)**	**$ 6,867.34 (B)**	**$ 1,050.28 (C)**	**$ - (D)**	**$ 11,553.06 (E)**

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses				$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Tnsk

A	Direct Labor	$ 3,635.44
B	Overhead [A x 1.889]	$ 6,867.34
C	Profit [(A+B) x 0.1]	$ 1,050.28
D	FCCM [A x 0]	$ -
E	Labor Total	$ 11,553.06
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	**$ 11,553.06**

$11,553.06

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

12

Task 12: Support During Development of RFQ/RFP

Manhours

Staff Classification	Principal	Project Manager	Sr. Traffic Engineer	Sr. Transportation Planner	Jr. Transportation Planner	Transportation Planner	Traffic Engineer									Manhour Totals
Manhour Totals by Classification	10	10	10	10												40
Sub-task																
12.10 Risk Matrix	10	10	10	10												40 100.0%
12.20 Develop Design Criteria																
12.30 Scope of Work																
12.40 Project Specific Special Provisions																

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
12.10 Risk Matrix	40	
12.20 Develop Design Criteria		
12.30 Scope of Work		
12.40 Project Specific Special Provisions		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 188.9%	Profit 10.0%	FCCM	Labor Total
Principal	10	$ 63.87	$ 638.70	$ 1,206.50	$ 184.52	$ -	$ 2,029.72
Project Manager	10	$ 35.67	$ 356.70	$ 673.81	$ 103.05	$ -	$ 1,133.56
Sr. Traffic Engineer	10	$ 68.72	$ 687.20	$ 1,298.12	$ 198.53	$ -	$ 2,183.85
Sr. Transportation Planner	10	$ 44.52	$ 445.20	$ 840.98	$ 128.62	$ -	$ 1,414.80
Jr. Transportation Planner		$ 26.00	$ -	$ -	$ -	$ -	$ -
Transportation Planner		$ 30.38	$ -	$ -	$ -	$ -	$ -
Traffic Engineer		$ 49.04	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	40		$ 2,127.80 (A)	$ 4,019.41 (B)	$ 614.72 (C)	$ - (D)	$ 6,761.93 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses				$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 2,127.80
B	Overhead [A x 1.889]	$ 4,019.41
C	Profit [(A+B) x 0.1]	$ 614.72
D	FCCM [A x 0]	$ -
E	Labor Total	$ 6,761.93
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 6,761.93

$6,761.93

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

13

Task 13: Support During Procurement

Manhours

Staff Classification	Principal	Project Manager	Sr Traffic Engineer	Sr Transportation Planner	Jr Transportation Planner	Transportation Planner	Traffic Engineer									Manhour Totals
Manhour Totals by Classification	10	10	10	10												40
Sub-task																
13.10 Respond to RFP Questions	10	10	10	10												40	100.0%
13.20 Technical Assistance During Review of ATCs																

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
13.10 Respond to RFP Questions	40	
13.20 Technical Assistance During Review of ATCs		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 188.90%	Profit 10.00%	FCCM	Labor Total
Principal	10	$ 63.87	$ 638.70	$ 1,206.50	$ 184.52	$ -	$ 2,029.72
Project Manager	10	$ 35.67	$ 356.70	$ 673.81	$ 103.05	$ -	$ 1,133.56
Sr. Traffic Engineer	10	$ 68.72	$ 687.20	$ 1,298.12	$ 198.53	$ -	$ 2,183.85
Sr Transportation Planner	10	$ 44.52	$ 445.20	$ 840.98	$ 128.62	$ -	$ 1,414.80
Jr. Transportation Planner		$ 26.00	$ -	$ -	$ -	$ -	$ -
Transportation Planner		$ 30.38	$ -	$ -	$ -	$ -	$ -
Traffic Engineer		$ 49.04	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	40		$ 2,127.80 (A)	$ 4,019.41 (B)	$ 614.72 (C)	$ - (D)	$ 6,761.93 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses				$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 2,127.80
B	Overhead [A x 1.889]	$ 4,019.41
C	Profit [(A+B) x 0.1]	$ 614.72
D	FCCM [A x 0]	$ -
E	Labor Total	$ 6,761.93
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 6,761.93

$6,761.93

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

15

Task 15: Roadway & Path Design Review

Manhours

Staff Classification	Principal	Project Manager	Sr Traffic Engineer	Sr Transportation Planner	Jr Transportation Planner	Transportation Planner	Traffic Engineer									Manhour Totals
Manhour Totals by Classification	15	25	20	20												80
Sub-task																
A Roadway Design Reviews	15	25	20	20												80	100.0%
i Preliminary Plans																	
ii ROW Plans																	
iii Final Plans																	
C Miscellaneous Submittals																	
i RFIs (5)																	
iv Technical Special Provisions (1)																	
D Revised Drawings/Contractor Changes (1)																	
E Meetings																	
ii Design Coordination Meetings (10)																	

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
A Roadway Design Reviews	80	
i Preliminary Plans		
ii ROW Plans		
iii Final Plans		
C Miscellaneous Submittals		
i RFIs (5)		
iv Technical Special Provisions (1)		
D Revised Drawings/Contractor Changes (1)		
E Meetings		
ii Design Coordination Meetings (10)		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 188.90%	Profit 10.00%	FCCM	Labor Total
Principal	15	$ 63.87	$ 958.05	$ 1,809.76	$ 276.78	$ -	$ 3,044.59
Project Manager	25	$ 35.67	$ 891.75	$ 1,684.52	$ 257.63	$ -	$ 2,833.90
Sr Traffic Engineer	20	$ 68.72	$ 1,374.40	$ 2,596.24	$ 397.06	$ -	$ 4,367.70
Sr Transportation Planner	20	$ 44.52	$ 890.40	$ 1,681.97	$ 257.24	$ -	$ 2,829.61
Jr Transportation Planner		$ 26.00	$ -	$ -	$ -	$ -	$ -
Transportation Planner		$ 30.38	$ -	$ -	$ -	$ -	$ -
Traffic Engineer		$ 49.04	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	**80**		**$ 4,114.60 (A)**	**$ 7,772.49 (B)**	**$ 1,188.71 (C)**	**$ - (D)**	**$ 13,075.80 (E)**

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
			Task Total for Non-salary Direct Expenses	**$ - (F)**

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
	Task Totals for Subconsultant Involvement	**$ - (G)**	

Fee Summary for Task

A	Direct Labor	$ 4,114.60
B	Overhead [A x 1.889]	$ 7,772.49
C	Profit [(A+B) x 0.1]	$ 1,188.71
D	FCCM [A x 0]	$ -
E	Labor Total	$ 13,075.80
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 13,075.80

$13,075.80

Atlantic South

5. ROADWAY/PATH DESIGN

All plans, designs, specifications and estimates shall conform to the SCDOT's standard practices for highway construction, which are based on the latest edition of the following material:

- AASHTO A Policy on Geometric Design of Highways and Streets, 2011;
- AASHTO Guide for the Development of Bicycle Facilities, 2012;
- SCDOT Standard Drawings – Latest Edition;
- SCDOT Standard Specifications for Highway Construction 2007 Edition;
- SCDOT'S Engineering Directive Memoranda and Instructional Bulletins;
- SCDOT'S Access and Roadside Management Standards (ARMS) Manual, latest edition;
- SCDOT Roadway Design Manual, 2017,
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004 and;
- Other applicable SCDOT and FHWA design material, current editions.

5.1. Conceptual Plans*

5.1.1. Prior to beginning the design, the CONSULTANT shall submit detailed design criteria for approval by the CITY. Design criteria not in compliance with AASHTO or SCDOT requirements shall be brought to the CITY's attention for evaluation of a design exception. Any changes that involve SCDOT maintained roadways or facilities will need SCDOT review and approval. Any design exceptions on SCDOT maintained roadways will need SCDOT review and approval*

5.1.2. The CONSULTANT shall prepare conceptual plans for the alternatives in order to illustrate significant design features of the project. Improvements shall include:

- Alternatives for connecting West Ashley Greenway along Albemarle Drive.

These conceptual plans will consist primarily of roll plots; typical sections and cross sections only where needed to verify the design.*

5.1.3. Conceptual cost estimates will be completed for each alternative and location*

5.2. Preliminary Road/Path Design

The CONSULTANT shall refine the conceptual plans for the preferred alternative necessary to confirm the NEPA boundaries and to aid in preparing a refined construction cost estimate and finalize design criteria.

5.2.1. Plans will include: Title sheet, Plans and profiles, Typical sections, cross sections, Existing Right of way, Proposed Right of way. Additional items that maybe needed in the preliminary plans will be included such that enough detail is provided to allow for verification of controlling criteria.*

5.2.2. Preliminary cost estimates based off of select bid item quantities will be developed for the preferred alternative.*

5.2.3. Representatives from the CITY and the CONSULTANT will perform one (1) Design

Field Review (DFR) meeting during the preliminary plan development. All information gathered during the DFR will be evaluated and the plans revised to verify the NEPA boundaries, cost estimate and criteria.*

5.2.4. Respond to comments and finalization of refined roadway plans*

5.2.5. Identify preliminary right of way requirements and environmental impacts*

Deliverables

- One (1) Electronic copy of Roadway Design Criteria
- One (1) PDF file of Conceptual Roadway plans for each alternative will be provided.
- Conceptual Cost estimates
- One (1) PDF file of Preliminary Roadway plans will be provided for the preferred alternative
- Cost estimate from the preliminary plans for the preferred alternative.

9. UTILITY COORDINATION

General Responsibilities

The CONSULTANT shall have the responsibility of coordinating the Project development with all utilities that may be affected. All utility relocations shall be handled in accordance with the SCDOT's "A Policy for Accommodating Utilities on Highway Rights of Way" and the Code of Federal Regulations, Title 23, Chapter 1, Subchapter G, part 645, subparts A & B.

These services shall be performed by individuals skilled and experienced in utility coordination services.

The CONSULTANT shall work with designers of the Project to avoid conflicts with utilities and minimize impacts where conflicts cannot be avoided. This may include, but is not limited to, utilizing all available utility data, whether obtained from SUE services, as-built plans, or provided by the SCDOT or some other source. The CONSULTANT will be expected to determine all utility conflict points, including all work to properly analyze each conflict point, and make recommendations for resolution of the conflict.

The utility company shall not begin their relocation work until authorized in writing by the SCDOT.

The CONSULTANT shall prepare and maintain a Utility Conflict Matrix (UCM) in order to track each utility within the project limits during the life of the Project.

Scope of Services

Project tasks below that are identified with an asterisk (*) are tasks which are expected to be assigned man-hours. All estimated direct costs for specific project tasks will require supporting documentation.

9.1. Early Utility Coordination

Project Preliminary Review (*): The CONSULTANT shall coordinate with the SCDOT Program Manager to collect and review available project plans and the proposed scope of construction.

Utility Introduction Letter (*): (Required) The CONSULTANT shall develop a Utility Introduction Letter for each utility company. This letter shall be populated by the CONSULTANT with the utility company's information (to include the company's contact person, mailing address, telephone number and appropriate email address) and electronically sent to the SCDOT State Utility Engineer for signature and mailing.

Utility Record Collection and Review (*): The CONSULTANT shall initiate early coordination with all utility companies that are located within the Project limits. Coordination shall include, but shall not be limited to, contacting each utility company to advise the company of the proposed Project, obtaining copies of as-built plans for the existing utility facilities (if available), perform a review of utility as-built plans and determine the utility company's requirements for the relocation of their facilities.

Site Visit (*): The CONSULTANT shall perform a site visit for a visual inventory of existing utilities within the proposed project limits. If it is determined by the SCDOT that an in-depth SUE mapping investigation will not be performed, the CONSULTANT is encouraged to use the "One Call" design ticket service provided by SC811 prior to their Site Visit.

Coordination Meeting with Utility Companies (*): The CONSULTANT shall coordinate and conduct a preliminary review meeting with the utility companies (if deemed necessary) for the completion of Early Utility Coordination.

SUE Mapping Recommendation (*): The CONSULTANT shall develop a SUE recommendation for the project dependent on the information gathered and the projected level of Utility Coordination expected for the Project as directed by the SCDOT Program Manager.

Utility Clearance Separation Values (*): (Project Specific Task) The CONSULTANT shall determine the minimum vertical and horizontal separation values required by each utility. These values will provide the SCDOT Program Manager vertical and horizontal clearance design criteria during preliminary project development.

Early Utility Coordination Email (*): The CONSULTANT shall prepare and send the Early Utility Coordination Email to the SCDOT Program Manager, SCDOT Utility Office and the District Utility Coordinator. Email to be used as an informal summary of the Early Utility Coordination tasks.

Deliverables:

The CONSULTANT shall prepare and submit to the Department an Early Utility Coordination Email within 30 days after receiving the Notice to Proceed (NTP) which includes:

- List of all utility companies and contact information within the project limits.
- Utility Introduction Letter (Required).
- Early assessment of each Utility Company's facilities located within project limits.
- Utility Companies Coordination Meeting Notes.

- SUE Mapping Recommendation.
- Utility Clearance Separation Values.

9.2. Preliminary Utility Coordination

Initial Plan Distribution (*): The CONSULTANT shall provide the utility company with preliminary design plans as soon as the plans have reached a level of completeness adequate to allow the company to begin understanding the Project impacts.

Coordination Meeting with Utility Companies (*): The CONSULTANT shall coordinate and conduct a review meeting with the utility companies to assess and explain the impact of the Project to the company. The SCDOT's Program Manager, Resident Construction Engineer (RCE), Resident Maintenance Engineer (RME), District Utility Coordinator and Utilities Manager (or designee) shall be included in this meeting.

Collection and Review of Prior Right Documentation (*): The CONSULTANT shall request the prior rights documents for each utility company's facilities. If there is a dispute over prior rights with a utility, the CONSULTANT shall be responsible for resolving the dispute and making a recommendation to the SCDOT. The CONSULTANT shall meet with the SCDOT's Program Manager to present the prior rights information gathered. This information must be sufficient for the SCDOT's Program Manager to certify the extent of the utility company's prior rights. The SCDOT shall have final approval authority as to the determination of whether the utility company has prior rights.

Preliminary Utility Report (*): The CONSULTANT shall prepare the Preliminary Utility Report.

Progress Review Meeting (*): The CONSULTANT shall conduct a progress review meeting with the SCDOT Program Manager.

Deliverables:

- The CONSULTANT shall prepare and submit to the Department a Preliminary Utility Report which includes:
- List of all utility companies and contact information within the project limits.
- Utility Company Coordination Meeting Notes.
- Preliminary recommendation as to the extent of each utility company's prior rights.
- Preliminary assessment of the impact to each utility company, including costs (for those utilities with prior rights), as can best be determined at the time.
- Information on existing SCDOT ITS infrastructure. Utility companies will be informed that intersections at the interchanges, no overhead lines will be allowed due to the possibility of future signals.
- Recommendations for In-Contract Utility Relocations.
- Recommendations for early Utility Relocations prior to the start of construction.
- Preliminary Utility Report to be delivered in an electronic format (pdf).

9.3. Constructability Review Meeting *

The CONSULTANT shall plan and conduct a Constructability Review Meeting with all utility companies in order to discuss any conflicts with proposed utility relocations vs. roadway construction work and any conflicts between various utilities. SCDOT's Program Manager, Resident Construction Engineer (RCE), Resident Maintenance Engineer (RME), District Utility Coordinator and Utilities Manager (or designee) shall be invited to the meeting.

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 1

MFE Version 3 0 9

Project Information

Project Name	**Ashley River Bike-Pedestrian Bridge**
Project Phase or Segment	**Design Build Prep and Design Review**
Project Location	**Charleston, SC**
CM Number/Descriptor	**0**
Contract Designation	**0**

Labor Multipliers

Overhead Rate	**123.00 %**	*a*
FCCM Rate	**0.00 %**	*b*
Profit Rate	**10.00 %**	*c*
Combined Multiplier	**2.4530**	*(1 + a)*(1 + c) + b*

Consultant Information

Firm Name	**Atlantic South**
Certified DBE ?	**Yes**
Reviewer Name	**0**
Submittal Date	**September 4, 2020**
Estimate Type	**Subconsultant**

Staff Classifications

All staff classifications and base rates should be entered on "Setup 2"

Non-salary Direct Expenses

Expense descriptions, units and unit rates should be entered on "Setup 3"

Task Identification

	Number	Description
	01	Project Organization and Management (inactive)
	02	Aerial Mapping & Field Surveys (inactive)
	03	Traffic Studies & Modeling (inactive)
	04	Environmental Services (inactive)
✓	**05**	**Roadway & Path Design**
	06	Structural Design (inactive)
	07	Hydrology & Hydraulic Design (inactive)
	08	Geotechnical Services (inactive)
✓	**09**	**Utility Coordination**
	10	Subsurface Utility Engineering (SUE) (inactive)
	11	Right of Way (inactive)
	12	Support During Development of RFQ/RFP (inactive)
	13	Support During Procurement (inactive)
	14	Design Plan Review Organization & Management (inactive)
	15	Roadway & Path Design Review (inactive)
	16	Structural Design Review (inactive)
	17	Hydraulic Design Review (inactive)
	18	Geotechnical Design Review (inactive)
	19	Traffic Engineering Review (inactive)
	20	Design Contingency (inactive)
	21	0
	22	0
	23	0
	24	0
	25	0

Subconsultant Roster

Subconsultant	Certified DBE ?
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	

Details of subconsultant involvement should be added on "Setup 4"

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	-
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

05

Task 05: Roadway & Path Design

Manhours

Staff Classification	Project Manager	Sr. Transportation Engineer	Transportation Engineer	Jr. Transportation Engineer EIT	Engineering Technician	.	.	.	.	.	.	.	.	.	.	Manhour Totals	
Manhour Totals by Classification	12	26	0	60	0	0	0	0	0	0	0	0	0	0	0	98	
Sub-task																	
5.10 Conceptual Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.1.1 Design Criteria	2	2	0	2	0	0	0	0	0	0	0	0	0	0	0	6	6.1%
5.1.2 Preparation of Conceptual Plans	0	8	0	20	0	0	0	0	0	0	0	0	0	0	0	28	28.6%
5.1.3 Conceptual Cost Estimates	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0	6	6.1%
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.20 Preliminary Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.2.1 Preparation of Preliminary Plans	0	8	0	16	0	0	0	0	0	0	0	0	0	0	0	24	24.5%
5.2.2 Preliminary Cost Estimates	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0	6	6.1%
5.2.3 Design Field Review Meeting	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4	4.1%
5.2.4 Finalize Preliminary Road Plans	0	6	0	12	0	0	0	0	0	0	0	0	0	0	0	18	18.4%
5.2.5 ROW and Environmental Impacts	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0	6	6.1%
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Task Notes

General Task Notes

0

0

0

Sub-task	Manhour Totals	Notes
5.10 Conceptual Plans	0	0
5.1.1 Design Criteria	6	0
5.1.2 Preparation of Conceptual Plans	28	0
5.1.3 Conceptual Cost Estimates	6	0
0.00 0	0	0
5.20 Preliminary Road	0	0
5.2.1 Preparation of Preliminary Plans	24	0
5.2.2 Preliminary Cost Estimates	6	0
5.2.3 Design Field Review Meeting	4	0
5.2.4 Finalize Preliminary Road Plans	18	0
5.2.5 ROW and Environmental Impacts	6	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

05

Task 05: Roadway & Path Design

0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0

Fee Determination for Labor

	Staff Classification	Hours	Rate	Direct Labor	Overhead 123.00%	Profit 10.00%	FCCM 0.00%		Labor Total
	Project Manager	12	$ 67.30	$ 807.60	$ 993.35	$ 180.10	$ -	0	$ 1,981.05
	Sr Transportation Engineer	26	$ 67.30	$ 1,749.80	$ 2,152.25	$ 390.21	$ -	0	$ 4,292.26
	Transportation Engineer	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	Jr Transportation Engineer EIT	60	$ 31.25	$ 1,875.00	$ 2,306.25	$ 418.13	$ -	0	$ 4,599.38
	Engineering Technician	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
DBE% 100%	Task Totals for Labor	98	0	$ 4,432.40 (A)	$ 5,451.85 (B)	$ 988.44 (C)	$ - (D)	0	$ 10,872.69 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
	Task Totals for Subconsultant Involvement	$ - (G)	0

Fee Summary for Task

A	Direct Labor	$ 4,432.40
B	Overhead [A x 1.23]	$ 5,451.85
C	Profit [(A+B) x 0.1]	$ 988.44
D	FCCM [A x 0]	$ -
E	Labor Total	$ 10,872.69
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 10,872.69

$10,872.69

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

09

Task 09: Utility Coordination

Manhours

Sub-task	Staff Classification	Project Manager	Utilities Coordinator	.	.	.	.	.	.	.	.	.	.	.	.	.	Manhour Totals	
	Manhour Totals by Classification	114	214	0	0	0	0	0	0	0	0	0	0	0	0	0	328	
9.30	Preliminary Review Meeting w/ Utility Companies	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.2%
9.40	Research of Utility Owners	20	40	0	0	0	0	0	0	0	0	0	0	0	0	0	60	18.3%
9.50	Initial Joint Utility Coordination Meeting & Summary	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2.4%
9.80	Prior Rights Documentation	80	160	0	0	0	0	0	0	0	0	0	0	0	0	0	240	73.2%
9.90	Preliminary Utility Report	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	16	4.9%
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Task Notes

General Task Notes

0

0

0

Sub-task		Manhour Totals	Notes
9.30	Preliminary Review Meeting w/ Utility Companies	4	0
9.40	Research of Utility Owners	60	0
9.50	Initial Joint Utility Coordination Meeting & Summary	8	0
9.80	Prior Rights Documentation	240	0
9.90	Preliminary Utility Report	16	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

09

Task 09: Utility Coordination

0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0

Fee Determination for Labor

	Staff Classification	Hours	Rate	Direct Labor	Overhead	Profit	FCCM		Labor Total
					123.00%	10.00%	0.00%		
	Project Manager	114	$ 67.30	$ 7,672.20	$ 9,436.81	$ 1,710.90	$ -	0	$ 18,819.91
	Utilities Coordinator	214	$ 31.25	$ 6,687.50	$ 8,225.63	$ 1,491.31	$ -	0	$ 16,404.44
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
DBE%									
100%	Task Totals for Labor	328	0	$ 14,359.70	$ 17,662.44	$ 3,202.21	$ -	0	$ 35,224.35
				(A)	(B)	(C)	(D)		(E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	200	miles	@	$ 0.575	per mile	$ 115.00
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 115.00
(F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$0.00	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
	Task Totals for Subconsultant Involvement	$ - (G)	0

Fee Summary for Task

A	Direct Labor	$ 14,359.70
B	Overhead [A x 1.23]	$ 17,662.44
C	Profit [(A+B) x 0.1]	$ 3,202.21
D	FCCM [A x 0]	$ -
E	Labor Total	$ 35,224.35
F	Non-salary Direct Expenses	$ 115.00
G	Subconsultant Fees	$ -
	Task Total	$ 35,339.35

$35,339.35

Bihl Engineering

Bihl Engineering has been requested to provide the services listed below in conjunction with the Ashley River Bike Ped Bridge Design Build Preparation Services as a subconsultant to HDR.

3. TRAFFIC STUDIES AND MODELING

3.1. Traffic Study Support and QC

The CONSULTANT will assist HDR with existing and historical information related to recent traffic studies performed in the area

The CONSULTANT will provide an independent QC review of the Traffic Analysis Study Report.

4. ENVIRONMENTAL SERVICES

4.1. Public Involvement*

The CONSULTANT shall be responsible for participating in public involvement meetings as detailed below:

1. One (1) public information meeting
2. One (1) stakeholder meeting
3. Two (2) community meetings

12. SUPPORT DURING DEVELOPMENT OF THE RFQ/RFP

12.1. CONSULTANT shall provide support, as needed, for the following tasks while the CITY is developing the Design-Build RFQ and RFP:

- Develop Project Design Criteria for each discipline for the RFP.*
  - Traffic Signals
- Provide assistance with Development of project-specific special provisions.*

19. DESIGN PLAN REVIEW AND ADMINISTRATION

The CONSULTANT shall facilitate design reviews using Bluebeam in accordance with the contract schedule.

The Consultant shall review plans and submittals to verify Contractor's compliance with project criteria, applicable permits and regulatory agencies requirements. Any non-compliance to the design criteria found during the review will be recorded through review comments. Major non-compliance issues discovered during the design review process shall be reported to the CITY immediately. The CONSULTANT will review any changes to design criteria proposed by the Contractor and advise the CITY as to the appropriateness of these changes, including cost and schedule implications to the project. The CONSULTANT is expected to

act as an extension of CITY staff and provide possible solutions to issues which arise during design and construction of the project.

The CONSULTANT may use the Contractor's design calculations when necessary to support the review of the submittals. Routine reviews do not involve independent analyses or calculations to verify the Contractor's work. On an as-needed basis and when approved by the CITY, the CONSULTANT shall: (1) Perform independent analyses when an apparent issue arises on a design element that requires verification of the design calculations; (2) Review the revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction; (3) Review and comment on Shop Plans, Working Drawings, and miscellaneous submittals (RFIs, NCRs, Issue Papers, Technical Special Provisions, and Design Exceptions/Variances).

The CONSULTANT will have a maximum of fifteen business days to complete their initial review and provide comments to Design-Build Contractor, and notify the CITY. A business day is considered Monday-Friday not including CITY observed holidays.

The CONSULTANT shall participate in Partnering Meetings with the Design-Build Contractor and shall represent the CITY in Design Coordination Meetings. One-day Partnering Meetings will be held in Charleston, SC. Two-hour Design Coordination Meetings will be held in Charleston, SC or may be accessed via telephone conference call. The CONSULTANT shall attend meetings relating to review, approval and implementation of the Contractor's design.

Review Tasks

Project tasks identified below with an asterisk (*) are expected to be assigned man-hours. Numbers are a total for both sites combined unless otherwise indicated. Specific tasks are enumerated below.

Traffic Engineering Review Responsibilities

A. Traffic reviews will occur for both of the two (2) plan submittals noted in the Anticipated Project Segmentation and Submittal Section:

   i. Permanent Pavement Marking Plans *
   ii. Permanent Signing Plans *
   iii. Permanent Lighting Plans *
   iv. As Built Signing Plans *
   v. As Built Lighting Plans *
   vi. Traffic Signal Plans *
   vii. As Built Traffic Signal Plans *
   viii. Traffic Management Plan *
   ix. Conceptual Work Zone Traffic Control Plans*
   x. Work Zone Traffic Control Plans *

B. Miscellaneous Submittals Reviews will include: *

i. Review and provide recommendations on five (5) Requests for Information
ii. Review and provide recommendations on one (1) Technical Special Provisions

C. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that two (1) design modifications will be initiated.*

D. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meeting, including travel and prep, with CITY, Contractor, and others
ii. Attend five (5) two-hour Design Coordination Meetings

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 1

MFE Version 3 0 9

Project Information

Project Name	**Ashley River Bike-Pedestrian Bridge**
Project Phase or Segment	**Design Build Prep and Design Review**
Project Location	**Charleston, SC**
CM Number/Descriptor	
Contract Designation	

Consultant Information

Firm Name	**Bihl**
Certified DBE ?	Yes
Reviewer Name	
Submittal Date	
Estimate Type	**Subconsultant**

Task Identification

	Number	Description
	01	Project Organization and Management (inactive)
	02	Aerial Mapping & Field Surveys (inactive)
✓	**03**	**Traffic Studies & Modeling**
✓	**04**	**Environmental Services**
	05	Roadway & Path Design (inactive)
	06	Structural Design (inactive)
	07	Hydrology & Hydraulic Design (inactive)
	08	Geotechnical Services (inactive)
	09	Utility Coordination (inactive)
	10	Subsurface Utility Engineering (SUE) (inactive)
	11	Right of Way (inactive)
✓	**12**	**Support During Development of RFQ/RFP**
	13	Support During Procurement (inactive)
	14	Design Plan Review Organization & Management (inactive)
	15	Roadway & Path Design Review (inactive)
	16	Structural Design Review (inactive)
	17	Hydraulic Design Review (inactive)
	18	Geotechnical Design Review (inactive)
✓	**19**	**Traffic Engineering Review**
	20	Design Contingency (inactive)
	21	
	22	
	23	
	24	
	25	

Labor Multipliers

Overhead Rate	**122.58 %**	*a*
FCCM Rate	**0.33 %**	*b*
Profit Rate	**10.00 %**	*c*
Combined Multiplier	**2.4517**	*(1 - a)*(1 - c) - b*

Staff Classifications

All staff classifications and base rates should be entered on "Setup 2"

Non-salary Direct Expenses

Expense descriptions, units and unit rates should be entered on "Setup 3"

Subconsultant Roster

Subconsultant	Certified DBE ?

Details of subconsultant involvement should be added on "Setup 4"

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	-
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
03	Traffic Studies & Modeling	$ 7,143.55	$ -	$ -	$ 7,143.55	16.8%
04	Environmental Services	$ 2,650.47	$ -	$ -	$ 2,650.47	6.2%
12	Support During Development of RFQ/RFP	$ 8,060.87	$ -	$ -	$ 8,060.87	18.9%
19	Traffic Engineering Review	$ 24,761.17	$ -	$ -	$ 24,761.17	58.1%
	Totals	$ 42,616.06	$ -	$ -	$ 42,616.06	

Bihl

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
03	Traffic Studies & Modeling	$ 2,913.73	$ 3,571.65	$ 648.55	$ 9.62	$ 7,143.55	$ -	$ 7,143.55
04	Environmental Services	$ 1,081.08	$ 1,325.19	$ 240.63	$ 3.57	$ 2,650.47	$ -	$ 2,650.47
12	Support During Development of RFQ/RFP	$ 3,287.90	$ 4,030.30	$ 731.82	$ 10.85	$ 8,060.87	$ -	$ 8,060.87
19	Traffic Engineering Review	$ 10,099.67	$ 12,380.18	$ 2,247.99	$ 33.33	$ 24,761.17	$ -	$ 24,761.17
	Totals	$ 17,382.38	$ 21,307.32	$ 3,868.99	$ 57.37	$ 42,616.06	$ -	$ 42,616.06
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
Bihl	$ 42,616.06	100.0%	$ 42,616.06
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Sum: $42,616.06		
	Total DBE Qualifying Fee		$ 42,616.06
	Percentage of Fee Total		100.0%

Fee Summary

A - Direct Labor	$	17,382.38
B - Overhead [A x 1.2258]	$	21,307.32
C - Profit [(A+B) x 0.1]	$	3,868.99
D - FCCM [A x 0.0033]	$	57.37
E - Labor Total	$	42,616.06
F - Total Non-Salary Direct Expenses	$	-
G - Subconsultant Fees	$	-
Fee Total	$	42,616.06

fee total less profit $38,747.07

Prepared by: _____

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

03

Task 03: Traffic Studies & Modeling

Manhours

Staff Classification	Project Manager	Sr Traffic Engineer	Traffic Engineer	Sr Transportation Engineer	Administrative Assistant											Manhour Totals
Manhour Totals by Classification		17	30	5												52
Sub-task																
3.10 Traffic Study Support and QC		17	30	5												52 100.0%

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
3.10 Traffic Study Support and QC	52	

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 122.58%	Profit 10.00%	FCCM 0.33%	Labor Total
Project Manager		$ -	$ -	$ -	$ -	$ -	$ -
Sr Traffic Engineer	17	$ 90.09	$ 1,531.53	$ 1,877.35	$ 340.89	$ 5.05	$ 3,754.82
Traffic Engineer	30	$ 37.74	$ 1,132.20	$ 1,387.85	$ 252.01	$ 3.74	$ 2,775.80
Sr Transportation Engineer	5	$ 50.00	$ 250.00	$ 306.45	$ 55.65	$ 0.83	$ 612.93
Administrative Assistant		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
BHL's 100% Task Totals for Labor	52		$ 2,913.73 (A)	$ 3,571.65 (B)	$ 648.55 (C)	$ 9.62 (D)	$ 7,143.55 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses				$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
	Task Totals for Subconsultant Involvement	$ - (G)	

Fee Summary for Task

A	Direct Labor	$	2,913.73
B	Overhead [A x 1.2258]	$	3,571.65
C	Profit [(A+B) x 0.1]	$	648.55
D	FCCM [A x 0.0033]	$	9.62
E	Labor Total	$	7,143.55
F	Non-salary Direct Expenses	$	-
G	Subconsultant Fees	$	-
	Task Total	$	7,143.55

$7,143.55

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

04

Task 04: Environmental Services

Manhours

Staff Classification	Project Manager	Sr. Traffic Engineer	Traffic Engineer	Sr Transportation Engineer	Administrative Assistant											Manhour Totals	
Manhour Totals by Classification		12														12	
Sub-task																	
4.1.1 Public Information Meeting		4														4	33.3%
4.1.2 Stakeholder Meeting		3														3	25.0%
4.1.3 Community Meetings		5														5	41.7%
4.30 Public Involvement																	
4.3.1 Project Website																	
4.3.2 Press Release																	
4.3.3 Public Information Meeting																	
4.3.4 Stakeholder Meeting																	
4.3.5 Community Meetings																	
4.3.6 Marina Operator Meeting																	

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
4.1.1 Public Information Meeting	4	
4.1.2 Stakeholder Meeting	3	
4.1.3 Community Meetings	5	
4.30 Public Involvement		
4.3.1 Project Website		
4.3.2 Press Release		
4.3.3 Public Information Meeting		
4.3.4 Stakeholder Meeting		
4.3.5 Community Meetings		
4.3.6 Marina Operator Meeting		

Fee Determination for Labor

DBE%	Staff Classification	Hours	Rate	Direct Labor	Overhead 122.58%	Profit 10.00%	FCCM 0.33%	Labor Total
	Project Manager		$ -	$ -	$ -	$ -	$ -	$ -
	Sr Traffic Engineer	12	$ 90.09	$ 1,081.08	$ 1,325.19	$ 240.63	$ 3.57	$ 2,650.47
	Traffic Engineer		$ 37.74	$ -	$ -	$ -	$ -	$ -
	Sr Transportation Engineer		$ 50.60	$ -	$ -	$ -	$ -	$ -
	Administrative Assistant		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
100%	**Task Totals for Labor**	12		$ 1,081.08 (A)	$ 1,325.19 (B)	$ 240.63 (C)	$ 3.57 (D)	$ 2,650.47 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
			Task Total for Non-salary Direct Expenses	$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
	Task Totals for Subconsultant Involvement	$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 1,081.08
B	Overhead [A x 1.2258]	$ 1,325.19
C	Profit [(A+B) x 0.1]	$ 240.63
D	FCCM [A x 0.0033]	$ 3.57
E	Labor Total	$ 2,650.47
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 2,650.47

$2,650.47

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Task 12: Support During Development of RFQ/RFP

Manhours

Staff Classification	Project Manager	Sr Traffic Engineer	Traffic Engineer	Sr Transportation Engineer	Administrative Assistant											Manhour Totals	
Manhour Totals by Classification		10	50	10												70	
Sub-task																	
12.1.3 Develop Design Criteria		5	30	5												40	57.1%
12.1.5 Special Provisions		5	20	5												30	42.9%

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
12.1.3 Develop Design Criteria	40	
12.1.5 Special Provisions	30	

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 122.58%	Profit 10.00%	FCCM 0.33%	Labor Total
Project Manager		$ -	$ -	$ -	$ -	$ -	$ -
Sr Traffic Engineer	10	$ 90.09	$ 900.90	$ 1,104.32	$ 200.52	$ 2.97	$ 2,208.71
Traffic Engineer	50	$ 37.74	$ 1,887.00	$ 2,313.08	$ 420.01	$ 6.23	$ 4,626.32
Sr Transportation Engineer	10	$ 50.00	500.00	$ 612.90	$ 111.29	$ 1.65	$ 1,225.84
Administrative Assistant		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
DBE*: 100% Task Totals for Labor	70		$ 3,287.90 (A)	$ 4,030.30 (B)	$ 731.82 (C)	$ 10.85 (D)	$ 8,060.87 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses				$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$	3,287.90
B	Overhead [A x 1.2258]	$	4,030.30
C	Profit [(A+B) x 0.1]	$	731.82
D	FCCM [A x 0.0033]	$	10.85
E	Labor Total	$	8,060.87
F	Non-salary Direct Expenses	$	-
G	Subconsultant Fees	$	-
	Task Total	$	8,060.87

$8,060.87

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

19

Task 19: Traffic Engineering Review

Manhours

Sub-task	Project Manager	Sr Traffic Engineer	Traffic Engineer	Sr Transportation Engineer	Administrative Assistant											Manhour Totals	
Manhour Totals by Classification		63	100	13												176	
A Traffic Reviews																	
i. Permanent Pavement Marking Plans		2	6													8	4.5%
ii Permanent Signing Plans		2	6													8	4.5%
iii. Permanent Lighting Plans																	
iv As Built Signing Plans		4	8													12	6.8%
v As Built Lighting Plans																	
vi Traffic Signal Plans		4	8													12	6.8%
vii. As Built Traffic Signal Plans		4	8													12	6.8%
viii Traffic Management Plan		5	15													20	11.4%
ix. Conceptual Work Zone Traffic Control Plans		3	10													13	7.4%
x Work Zone Traffic Control Plans		3	10													13	7.4%
B Miscellaneous Submittals																	
i RFIs (15)		3	6	3												12	6.8%
ii. NCRs (3)																	
iii. Issue Papers (3)																	
iv. Technical Special Provisions (2)		8	8	5												21	11.9%
v Independent Analyses (4)																	
C Revised Drawings/Contractor Changes (2)		4	15	5												24	13.6%
D Meetings																	
i. Partnering Meeting (1)		8														8	4.5%
ii Design Coordination Meetings (5)		13														13	7.4%

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
A Traffic Reviews		
i. Permanent Pavement Marking Plans	8	
ii Permanent Signing Plans	8	
iii. Permanent Lighting Plans		
iv As Built Signing Plans	12	
v As Built Lighting Plans		
vi Traffic Signal Plans	12	
vii. As Built Traffic Signal Plans	12	
viii Traffic Management Plan	20	
ix. Conceptual Work Zone Traffic Control Plans	13	
x Work Zone Traffic Control Plans	13	
B Miscellaneous Submittals		
i RFIs (15)	12	
ii. NCRs (3)		
iii. Issue Papers (3)		
iv. Technical Special Provisions (2)	21	
v Independent Analyses (4)		
C Revised Drawings/Contractor Changes (2)	24	
D Meetings		
i. Partnering Meeting (1)	8	
ii Design Coordination Meetings (5)	13	

Fee Determination for Labor

	Staff Classification	Hours	Rate	Direct Labor	Overhead 122.58%	Profit 10.00%	FCCM 0.33%	Labor Total
	Project Manager		$ -	$ -	$ -	$ -	$ -	$ -
	Sr Traffic Engineer	63	$ 90.09	$ 5,675.67	$ 6,957.24	$ 1,263.29	$ 18.73	$ 13,914.93
	Traffic Engineer	100	$ 37.74	$ 3,774.00	$ 4,626.17	$ 840.02	$ 12.45	$ 9,252.64
	Sr Transportation Engineer	13	$ 50.00	$ 650.00	$ 796.77	$ 144.68	$ 2.15	$ 1,593.60
	Administrative Assistant		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
DBE% 100%	Task Totals for Labor	176		$ 10,099.67 (A)	$ 12,380.18 (B)	$ 2,247.99 (C)	$ 33.33 (D)	$ 24,761.17 (E)

Non-salary Direct Expenses

19

Task 19: Traffic Engineering Review

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses			$	- (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$	10,099.67
B	Overhead [A x 1.2258]	$	12,380.18
C	Profit [(A+B) x 0.1]	$	2,247.99
D	FCCM [A x 0.0033]	$	33.33
E	Labor Total	$	24,761.17
F	Non-salary Direct Expenses	$	-
G	Subconsultant Fees	$	-
	Task Total	$	24,761.17

$24,761.17

Cornerstone

Cornerstone has been requested to provide the services listed below in conjunction with the Ashley River Bike Ped Bridge Design Build Preparation Services as a subconsultant to HDR.

2. AERIAL MAPPING and FIELD SURVEYS

2.1. Aerial Mapping

Aerial mapping was included under a separate Small Professional Services contract with the CITY.

2.2. Field Surveys

The CONSULTANT will supplement the aerial mapping by performing field surveys as outlined below to determine accurate elevations and locations of existing facilities (e.g., utilities, roadways, bridges, and culverts) for design purposes. All surveys shall conform to the SCDOT's Preconstruction Survey Manual (latest version) and The Standards of Practice for Land Surveying in South Carolina. These services must be under the direct supervision of and certified by a registered South Carolina Professional Land Surveyor. Consultant shall employ proper quality control measures to ensure accuracy of the field survey deliverables as these deliverables will be provided as part of the design-build contract in Attachment B of the RFP as supplemental project design criteria.

The Survey Limits will include:

- Folly Road from 100 feet south of the intersection with Albemarle Road to the merge with US 17.
- US 17 from the merge with Folly Road to 200 feet east of the off ramp to Lockwood Drive.
- US 17 off ramp to Lockwood Drive – to the intersection with Lockwood Drive and full limits of the slip ramp to Lockwood Drive Southbound.
- Lockwood Drive from the intersection with Spring Street and extending 1200 feet south along Lockwood Drive.
- Bee Street from the intersection with Lockwood Drive to the intersection with Charleston Center Drive.
- West Ashley Greenway/Folly Road/Wesley Drive Intersection.
- West Ashley Greenway/Wappoo Road

2.2.1. Project Survey Control*

The CONSULTANT will establish Project Survey Control. The project survey control will be tied to the South Carolina State Plane coordinate system to be a basis for all surveys required on the project using the NAD83(current adjustment) horizontal datum, the NAVD88 vertical datum and the International Foot. Supplemental control will be established as needed. A minimum of (2) Project Benchmarks will be established. Additional Project Benchmarks will be established

depending on project length. It is assumed that approximately **10** survey control points and **5** project benchmarks will be needed for this project.

2.2.2. Best Fit Existing Roadway Alignment (ERA)*

The CONSULTANT will establish a Best Fit Existing Roadway Alignment (ERA) based on the field survey of the existing centerline of all SCDOT and CITY roads within the project limits. If roads exist within the project limits but are outside the SCDOT or CITY Right-of-Way, best survey practices will be used to develop these rights-of-way. It is assumed that approximately **9000** feet of best fit road alignment will need to be calculated.

2.2.3. Courthouse Research*

The CONSULTANT will conduct Courthouse Research on properties, within the project limits, to obtain the most current deeds, plats, ownership information and tax map number from the County Register of Deeds. The plats and deeds will be used to create property strip maps. CONSULTANT will also obtain the most current SCDOT record plans and other Right-of-Way information. It is assumed that approximately **56** properties will be researched for the Project and approximately **8300** linear feet of road centerline will be used to establish Right-of-Way lines.

2.2.4. Field Survey Detectable Property Monuments*

The CONSULTANT will perform reconnaissance and Field Survey Detectable Property Monuments (front monuments if sufficient numbers are found) within the project limits to facilitate the mapping of the properties from deed and/or plat information of record. The monuments that are found will be tied into the project's horizontal survey control network. This is considered a partial property survey and does not constitute a full boundary survey. It is assumed that approximately **56** properties will be within the Project limits.

2.2.5. Property Strip Map and the Existing Road Rights-of-Way*

The CONSULTANT will create a Property Strip Map and the Existing Road Rights-of-Way. Property corners found and field surveyed will be used to produce a property strip map which will show property lines calculated from existing deeds and/or plats of record. The existing right-of-way will be mapped for all SCDOT or CITY roads within the project limits utilizing the final Best Fit Existing Roadway Alignment (ERA), evidence of right-of-way (existing road features and/or found right-of-way monuments) and existing SCDOT record plans as well as other right-of-way information. The Property Strip Map is considered a partial property survey and does not constitute a full boundary survey.

2.2.6. Supplement Aerial Mapping*

CONSULTANT will perform **Supplemental Aerial Mapping** by field surveying those planimetric (2D) and topographic breakline (3D) features (such as buildings, fences, trees, poles, top bank, edge of asphalt, walls, etc.) that are obscured on the aerial mapping within the project limits. It is assumed that approximately **50** acres will need to be surveyed.

2.2.7. Drainage Feature Surveys*

CONSULTANT will perform **Drainage Feature** surveys of outfall ditches and creeks to include location and cross sections at intervals of 50 feet, for a length of no less than 400 feet up-stream and 400 down-stream as measured from the end of the drainage structure. Cross sections will extend 50 feet from the top bank of each drainage feature. Drainage surveys will include ditches upstream as well as downstream of each main drainage feature. It is assumed that approximately **800** feet of drainage features will need to be surveyed.

2.2.8. Storm Drainage Structures*

CONSULTANT will locate and field survey existing **Storm Drainage Structures** within the project limits. Information obtained will include rim and invert elevations, pipe size and pipe material. It is assumed that approximately **25** storm drainage structures will need to be surveyed.

2.2.9. Gravity Sanitary Sewer Manholes*

CONSULTANT will field survey **Gravity Sanitary Sewer Manholes** with connectivity between manholes to include rim elevations, invert elevations, type and size of pipe. It is assumed that approximately **10** gravity sanitary sewer manholes will need to be surveyed.

2.2.10. Wetland Boundaries*

Wetland boundaries were included under a separate Small Professional Services contract with the CITY.

2.2.11. Geotechnical Bore Holes*

CONSULTANT will field survey the horizontal location of **Geotechnical Bore Holes** including a ground elevation at each bore hole. It is assumed that approximately **17** geotechnical bore holes will need to be surveyed.

2.2.12. Traffic Control*

CONSULTANT will maintain appropriate signage for **Traffic Control** purposes at all times when working within or near the existing traffic areas. It is assumed that approximately **(5)** days of traffic control will be needed.

2.2.13. Deliverables:

- One (1) digital copy of Planimetric survey data (2D) in Microstation format.
- One (1) digital copy of Topographic Breakline data (3D) in Microstation format.
- One (1) digital copy of Digital Terrain Model in Microstation format.
- One (1) digital copy of all courthouse Deeds, Plats and Property Ownership records.
- One (1) digital copy of signed and sealed Wetland Exhibit survey.
- One (1) digital copy of signed and sealed Survey Control Data sheet(s).
- Digital file name conventions will follow the SCDOT survey manual specifications.

Manhour and Fee Estimate Overview

MFE Version 3 0 9

Project Information

Project Name	**Ashley River Bike-Pedestrian Bridge**
Project Phase or Segment	**Design Build Prep and Design Review**
Project Location	**Charleston, SC**
CM Number/Descriptor	
Contract Designation	

Consultant Information

Firm Name	**Cornerstone Surveying & Engineering, Inc.**
Certified DBE ?	Yes
Prepared by	
Effective Date	
Estimate Type	**Subconsultant**

Labor Multipliers

Overhead Rate	**142.81%**	*a*
FCCM Rate		*b*
Profit Rate	**10.00%**	*c*
Combined Multiplier	**2.6709**	*(1 - a)*(1 - c) - b*

Task Identification

	Number	Description
	01	Project Organization and Management
✓	02	Aerial Mapping & Field Surveys
	03	Traffic Studies & Modeling
	04	Environmental Services
	05	Roadway & Path Design
	06	Structural Design
	07	Hydrology & Hydraulic Design
	08	Geotechnical Services
	09	Utility Coordination
	10	Subsurface Utility Engineering (SUE)
	11	Right of Way
	12	Support During Development of RFQ/RFP
	13	Support During Procurement
	14	Design Plan Review Organization & Management
	15	Roadway & Path Design Review
	16	Structural Design Review
	17	Hydraulic Design Review
	18	Geotechnical Design Review
	19	Traffic Engineering Review
	20	Design Contingency
	21	
	22	
	23	
	24	
	25	

Subconsultant Roster

Subconsultant	Certified DBE ?

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	-
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
02	Aerial Mapping & Field Surveys	$ 98,847.91	$ 4,375.00	$ -	$ 103,222.91	100.0%
	Totals	$ 98,847.91	$ 4,375.00	$ -	$ 103,222.91	

Cornerstone Surveying & Engineering, Inc.

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
02	Aerial Mapping & Field Surveys	$ 37,009.07	$ 52,852.66	$ 8,986.18	$ -	$ 98,847.91	$ 4,375.00	$ 103,222.91
	Totals	$ 37,009.07	$ 52,852.66	$ 8,986.18	$ -	$ 98,847.91	$ 4,375.00	$ 103,222.91
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
Cornerstone Surveying & Engineering, In	$ 103,222.91	100.0%	$ 103,222.91
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Sum: $103,222.91		
	Total DBE Qualifying Fee		$ 103,222.91
	Percentage of Fee Total		100.0%

Fee Summary

A - Direct Labor	$	37,009.07
B - Overhead [A x 1.4281]	$	52,852.66
C - Profit [(A+B) x 0.1]	$	8,986.18
D - FCCM [A x 0]	$	-
E - Labor Total	$	98,847.91
F - Total Non-Salary Direct Expenses	$	4,375.00
G - Subconsultant Fees	$	-
Fee Total	$	103,222.91

fee total less profit $94,236.73

Prepared by: _____

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

02

Task 02: Aerial Mapping & Field Surveys

Manhours

Sub-task	Staff Classification	Project Manager	Sr Traffic Engineer	Traffic Engineer	Jr Traffic Engineer EIT	Land Surveyor	Survey Crew Chief	Survey Instrument Man	Survey Rodman								Manhour Totals	
	Manhour Totals by Classification					279	425	425	305								1434	
2.2.1	Project Survey Control					10	30	30	30								100	7.0%
2.2.2	Best Fit Existing Roadway Alignment (ERA)					100	160	160	160								580	40.4%
2.2.3	Courthouse Research					28											28	2.0%
2.2.4	Field Survey Detectable Property Monuments					20	60	60									140	9.8%
2.2.5	Property Strip Map					60											60	4.2%
2.2.6	Supplement Aerial Mapping					40	60	60	60								220	15.3%
2.2.7	Drainage Feature					5	20	20	20								65	4.5%
2.2.8	Storm Drainage Structures					5	25	25	25								80	5.6%
2.2.9	Gravity Sanitary Sewer Manholes					2	10	10	10								32	2.2%
2.2.10	Wetland Boundaries (Previously Surveyed)																	
2.2.11	Geotechnical Bore Holes					4	20	20									44	3.1%
2.2.12	Traffic Control					5	40	40									85	5.9%
2.2.13	Bridge Structures																	
2.2.14	Bathymetric Surveys																	

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
2.2.1	Project Survey Control	100	
2.2.2	Best Fit Existing Roadway Alignment (ERA)	580	
2.2.3	Courthouse Research	28	
2.2.4	Field Survey Detectable Property Monuments	140	
2.2.5	Property Strip Map	60	
2.2.6	Supplement Aerial Mapping	220	
2.2.7	Drainage Feature	65	
2.2.8	Storm Drainage Structures	80	
2.2.9	Gravity Sanitary Sewer Manholes	32	
2.2.10	Wetland Boundaries (Previously Surveyed)		
2.2.11	Geotechnical Bore Holes	44	
2.2.12	Traffic Control	85	
2.2.13	Bridge Structures		
2.2.14	Bathymetric Surveys		

Fee Determination for Labor

DBE*	Staff Classification	Hours	Rate	Direct Labor	Overhead 142.81%	Profit 16.60%	FCCM	Labor Total
	Project Manager		$ -	$ -	$ -	$ -	$ -	$ -
	Sr Traffic Engineer		$ -	$ -	$ -	$ -	$ -	$ -
	Traffic Engineer		$ -	$ -	$ -	$ -	$ -	$ -
	Jr Traffic Engineer/EIT		$ -	$ -	$ -	$ -	$ -	$ -
	Land Surveyor	279	$ 50.33	$ 14,042.07	$ 20,053.48	$ 3,409.56	$ -	$ 37,505.11
	Survey Crew Chief	425	$ 24.21	$ 10,289.25	$ 14,694.08	$ 2,498.33	$ -	$ 27,481.66
	Survey Instrument Man	425	$ 17.63	$ 7,492.75	$ 10,700.40	$ 1,819.32	$ -	$ 20,012.47
	Survey Rodman	305	$ 17.00	$ 5,185.00	$ 7,404.70	$ 1,258.97	$ -	$ 13,848.67
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
100%	**Task Totals for Labor**			$ 37,009.07 (A)	$ 52,852.66 (B)	$ 8,986.18 (C)	$ - (D)	$ 98,847.91 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Per Diem, with Overnight Stay		days	@	$ 71.00	per day	$ -
Per Diem, without Overnight Stay		days	@	$ 53.25	per day	$ -
Lodging		nights	@	$ 164.00	per night	$ -
Mileage	5,000	miles	@	$ 0.575	per mile	$ 2,875.00
Traffic Control		nights	@	$ 3,500.00	per night	$ -
Scanner		days	@	$ 1,000.00	per day	$ -
Boat	3	days	@	$ 500.00	per day	$ 1,500.00
				Task Total for Non-salary Direct Expenses		$ 4,375.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours

Fee Summary for Task

A	**Direct Labor**	$ 37,009.07

02

Task 02: Aerial Mapping & Field Surveys

$	-
$	-
$	-
$	-
$	-
$	-
$	-
$	-

Task Totals for Subconsultant Involvement (G)

B	Overhead [A x 1.4281]	$	52,852.66
C	Profit [(A+B) x 0.1]	$	8,986.18
D	FCCM [A x 0]	$	-
E	Labor Total	$	98,847.91
F	Non-salary Direct Expenses	$	4,375.00
G	Subconsultant Fees		
	Task Total	$	103,222.91

$103,222.91

DESA

DESA will provide the services highlighted in blue below.

4. ENVIRONMENTAL SERVICES

The CONSULTANT shall be responsible for NEPA compliance in accordance with 23 CFR Parts 771 and 772, as well as any related, current/latest guidance promulgated by Federal Highway Administration (FHWA), as of the date of executed contract. In addition the CONSULTANT shall be responsible for delineating Waters of the U.S. and completing a Preliminary Jurisdictional Determination.

4.1. Public Involvement*

The CONSULTANT shall be responsible for developing a public involvement plan to effectively involve the public in the project's decision-making process as outlined in SCDOT's Public Involvement Policy. The following activities are to be included in the plan:

1. ~~Project website hosted on the CITY's website~~
2. ~~Press release~~
3. One (1) public information meeting (DESA PROVIDING STAFF, LOGISTICAL SUPPORT, & COMMENT SUMMARY)
4. One (1) stakeholder meeting(DESA PROVIDING STAFF & LOGISTICAL SUPPORT)
5. Two (2) community meetings (DESA PROVIDING STAFF & LOGISTICAL SUPPORT)
6. ~~One (1) meeting with marina operators to discuss in water work and navigation restrictions during construction.~~

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 1
MFE Version 2.46

Project Information

Project Name	Ashley River Pedestrian Bridge
Project Phase or Segment	DB Prepraration Services
Project Location	Charleston
CM Number/Descriptor	
Contract Designation	

Labor Multipliers

Overhead Rate	125.00 %	*a*
FCCM Rate		*b*
Profit Rate	10.00 %	*c*
Combined Multiplier	2.4750	*(1 + a)*(1 + c) + b*

Consultant Information

Firm Name	DESA
Certified DBE ?	Yes
Reviewer Name	
Submittal Date	September 11, 2020
Estimate Type	Subconsultant

Staff Classifications

All staff classifications and base rates should be entered on "Setup 2"

Non-salary Direct Expenses

Expense descriptions, units and unit rates should be entered on "Setup 3"

Task Identification

Active	Number	Description
	01	Project Organization and Management
	02	Field Surveys (Supplemental)
	03	Traffic Studies and Modeling
✓	04	Environmental Services
	05	Roadway and Path Design
	06	Structural Design
	07	Hydrology and Hydraulic Design
	08	Geotechnical Services
	09	Utility Coordination
	10	SUE
	11	Right of Way
	12	Development of RFQ and RFP
	13	Procurement
	14	Design Plan Review and Administration
	15	CE&I
	16	
	17	
	18	
	19	
	20	

Subconsultant Roster

Subconsultant	Certified DBE ?

Details of subconsultant involvement should be added on "Setup 4"

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	Task 10
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
01	Project Organization and Management	$ -	$ -	$ -	$ -	-
02	Field Surveys (Supplemental)	$ -	$ -	$ -	$ -	-
03	Traffic Studies and Modeling	$ -	$ -	$ -	$ -	-
04	Environmental Services	$ 7,316.10	$ 183 90	$ -	$ 7,500.00	100.0%
05	Roadway and Path Design	$ -	$ -	$ -	$ -	-
06	Structural Design	$ -	$ -	$ -	$ -	-
07	Hydrology and Hydraulic Design	$ -	$ -	$ -	$ -	-
08	Geotechnical Services	$ -	$ -	$ -	$ -	-
09	Utility Coordination	$ -	$ -	$ -	$ -	-
10	SUE	$ -	$ -	$ -	$ -	-
11	Right of Way	$ -	$ -	$ -	$ -	-
12	Development of RFQ and RFP	$ -	$ -	$ -	$ -	-
13	Procurement	$ -	$ -	$ -	$ -	-
14	Design Plan Review and Administration	$ -	$ -	$ -	$ -	-
15	CE&I	$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
	Totals	$ 7,316 10	$ 183 90	$ -	$ 7,500 00	

DESA

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
01	Project Organization and Management	$ -	$ -	$ -	$ -	$ -	$ -	$ -
02	Field Surveys (Supplemental)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
03	Traffic Studies and Modeling	$ -	$ -	$ -	$ -	$ -	$ -	$ -
04	Environmental Services	$ 2,956 00	$ 3,695 00	$ 665 10	$ -	$ 7,316 10	$ 183 90	$ 7,500 00
05	Roadway and Path Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
06	Structural Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
07	Hydrology and Hydraulic Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
08	Geotechnical Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -
09	Utility Coordination	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	SUE	$ -	$ -	$ -	$ -	$ -	$ -	$ -
11	Right of Way	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	Development of RFQ and RFP	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	Procurement	$ -	$ -	$ -	$ -	$ -	$ -	$ -
14	Design Plan Review and Administration	$ -	$ -	$ -	$ -	$ -	$ -	$ -
15	CE&I	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Totals	$ 2,956 00	$ 3,695 00	$ 665 10	$ -	$ 7,316 10	$ 183 90	$ 7,500 00
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
DESA	$ 7,500.00	100.0%	$ 7,500.00
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Total DBE Qualifying Fee		$ 7,500 00
	Percentage of Fee Total		100.0%

Fee Summary

A - Direct Labor	$	2,956.00
B - Overhead [A x 1.25]	$	3,695.00
C - Profit [(A+B) x 0.1]	$	665.10
D - FCCM [A x 0]	$	-
E - Labor Total	$	7,316.10
F - Total Non-Salary Direct Expenses	$	183.90
G - Subconsultant Fees	$	-
Fee Total	$	7,500.00

fee total less profit $6,834 90

Prepared by _____

Task 04: Environmental Services

Manhours

Staff Classification	Sr Public Involvement Coordinator	Public Involvement Coordinator	-	-	-	-	-	-	-	-	Manhour Totals	
Manhour Totals by Classification	42	40									82	
Sub-task												
4.1.3 Public Information Meeting	4	4									8	9.8%
Logistical Planning/Coordination/Materials	15	14									29	35.4%
4.1.4 Stakeholder Meeting	4	4									8	9.8%
Logistical Planning/Coordination/Materials	10	10									20	24.4%
4.1.5 Community Meeting (x2)	4	4									8	9.8%
Logistical Planning/Coordination/Materials	5	4									9	11.0%

Task 04: Environmental Services

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
4.1.3	Public Information Meeting	8	
	Logistical Planning/Coordination/Materials	29	
4.1.4	Stakeholder Meeting	8	
	Logistical Planning/Coordination/Materials	20	
4.1.5	Community Meeting (x2)	8	
	Logistical Planning/Coordination/Materials	9	

Task 04: Environmental Services

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 125.00%	Profit 10.00%	FCCM	Labor Total
Sr. Public Involvement Coordinator	42	$ 38.00	$ 1,596.00	$ 1,995.00	$ 359.10	$ -	$ 3,950.10
Public Involvement Coordinator	40	$ 34.00	$ 1,360.00	$ 1,700.00	$ 306.00	$ -	$ 3,366.00
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
DBE% 100% Task Totals for Labor	82		$ 2,956.00 (A)	$ 3,695.00 (B)	$ 665.10 (C)	$ - (D)	$ 7,316.10 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	300	miles	@	$ 0.575	per mile	$ 172.50
Printing (11x17)	114	eachs	@	$ 0.10	per each	$ 11.40
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -
Task Total for Non-salary Direct Expenses						$ 183.90 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$	2,956.00
B	Overhead [A x 1.25]	$	3,695.00
C	Profit [(A+B) x 0.1]	$	665.10
D	FCCM [A x 0]	$	-
E	Labor Total	$	7,316.10
F	Non-salary Direct Expenses	$	183.90
G	Subconsultant Fees	$	-
	Task Total	$	7,500.00

$7,500.00

McKim & Creed

2. AERIAL MAPPING and FIELD SURVEYS

2.1. Aerial Mapping

Aerial mapping was included under a separate Small Professional Services contract with the CITY.

2.2. Field Surveys

All surveys shall conform to the SCDOT's Preconstruction Survey Manual (latest version) and The Standards of Practice for Land Surveying in South Carolina. These services must be under the direct supervision of and certified by a registered South Carolina Professional Land Surveyor. Consultant shall employ proper quality control measures to ensure accuracy of the field survey deliverables as these deliverables will be provided as part of the design-build contract in Attachment B of the RFP as supplemental project design criteria.

The Survey Limits will include:

- Folly Road from 100 feet south of the intersection with Albemarle Road to the merge with US 17.
- Albemarle Road from the intersection with Folly road, south to 100' to the south of the intersection with Croghan Spur.
- US 17 from the merge with Folly Road to 200 feet east of the off ramp to Lockwood Drive.
- US 17 off ramp to Lockwood Drive – to the intersection with Lockwood Drive and full limits of the slip ramp to Lockwood Drive Southbound.
- Lockwood Drive from the intersection with Spring Street and extending 1200 feet south along Lockwood Drive.
- Bee Street from the intersection with Lockwood Drive to the intersection with Charleston Center Drive.
- West Ashley Greenway/Folly Road/Wesley Drive Intersection.
- West Ashley Greenway/Wappoo Road

2.2.14. Bathymetric Surveys*

CONSULTANT will perform bathymetric surveys of the Ashley River. Surveys shall extend 2500 ft. downstream of the US 17 Northbound Bridge, and 2500 ft. upstream of the US 17 Southbound Bridge. The approximate 250' area between the two bridges will be surveyed.

2.2.15. Survey Coordination and File Compilation*

CONSULTANT will combine survey files from field surveying subconsultant, aerial mapping and bathymetric surveys. Combined files will include planimetric survey, topographic breakline data, and digital terrain model.

2.2.16. Deliverables:

- One (1) digital copy of Planimetric survey data (2D) in Microstation format.

- One (1) digital copy of Topographic Breakline data (3D) in Microstation format.
- One (1) digital copy of Digital Terrain Model in Microstation format.
- Digital file name conventions will follow the SCDOT survey manual specifications.

10. SUBSURFACE UTILITY ENGINEERING (SUE)

10.1. SUE Work

The CONSULTANT shall perform designating services (Quality Level B, C and D) for the areas described in the Survey Limits detailed under Section 2.2. Field Survey. For the purpose of this Agreement, "designate" shall be defined as indicating, by marking, the presence and approximate horizontal position of the subsurface utilities by the use of geophysical prospecting techniques. The CONSULTANT shall provide these services as an aide in the design of right-of-way and construction plans for the project. Before SUE work commences the plan shall to be coordinated with the CITY project manager. Consultant shall employ proper quality control measures to ensure accuracy of the SUE deliverables as these deliverables will be provided as part of the design-build contract in Attachment B of the RFP as supplemental project design criteria.

Unless specifically stated otherwise, the CONSULTANT shall adhere to the ASCE Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data (CI/ASCE 38-02).

10.2. Designating Services

- Provide all equipment, personnel and supplies necessary for the completion of Quality Level 'C' information for approximately 7,000 LF of underground utilities.*
- Provide all equipment, personnel and supplies necessary for the completion of Quality Level 'B' information for approximately 26,000 LF of underground utilities.*
- Provide all equipment, personnel and supplies necessary for the accurate recording of information for approximately **60** aerial pole utilities.*
- Conduct appropriate records and as-built plans research and investigate site conditions.*
- Obtain all necessary permits from city, county, state or any other municipal jurisdictions to allow CONSULTANT personnel to work within the existing streets, roads and rights-of-way.*
- Designate the approximate horizontal position of existing utilities by paint markings in accordance with the APWA Uniform Color Code scheme along the utility and at all bends in the line in order to establish the trend of the line. All utilities shall be designated as well as their corresponding lateral lines up to the point of distribution, existing right-of-way limits, or whichever is specifically requested and scoped for each individual project.*
- Survey designating marks, which shall be referenced to project control provided by the surveyor of record.*
- Draft survey information using SCDOT CADD guidelines for Subsurface Utility Engineering consultants (latest version).*
- Final review and seal of all appropriate work by a professional engineer and/or land surveyor licensed in South Carolina in responsible charge of the project.*

- When requested, provide reasonable assistance to the CONSULTANT in obtaining plans showing the project limits, alignment, centerline, rights-of-way limits (existing and proposed), project controls and other data for selected projects.
- Provide notification to CITY and key SCDOT District personnel concerning the upcoming SUE services to be provided by the CONSULTANT.

10.3. Deliverables:

- Provide in current SCDOT CADD standard of designation (SUE Quality Level C, B & Aerial) data e-files tied to project survey control for Utility Coordination Sheets.*

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 1

MFE Version 3 0 9

Project Information

Project Name	**Ashley River Bike-Pedestrian Bridge**
Project Phase or Segment	**Design Build Prep and Design Review**
Project Location	**Charleston, SC**
CM Number/Descriptor	
Contract Designation	

Consultant Information

Firm Name	**McKim & Creed**
Certified DBE ?	No
Reviewer Name	
Submittal Date	
Estimate Type	**Subconsultant**

Task Identification

	Number	Description
	01	Project Organization and Management (inactive)
✓	02	**Aerial Mapping & Field Surveys**
	03	Traffic Studies & Modeling (inactive)
	04	Environmental Services (inactive)
	05	Roadway & Path Design (inactive)
	06	Structural Design (inactive)
	07	Hydrology & Hydraulic Design (inactive)
	08	Geotechnical Services (inactive)
	09	Utility Coordination (inactive)
✓	10	**Subsurface Utility Engineering (SUE)**
	11	Right of Way (inactive)
	12	Support During Development of RFQ/RFP (inactive)
	13	Support During Procurement (inactive)
	14	Design Plan Review Organization & Management (inactive)
	15	Roadway & Path Design Review (inactive)
	16	Structural Design Review (inactive)
	17	Hydraulic Design Review (inactive)
	18	Geotechnical Design Review (inactive)
	19	Traffic Engineering Review (inactive)
	20	Design Contingency (inactive)
	21	
	22	
	23	
	24	
	25	

Labor Multipliers

Overhead Rate	**180.84 %**	*a*
FCCM Rate	**0.59 %**	*b*
Profit Rate	**10.00 %**	*c*
Combined Multiplier	**3.0951**	*(1 + a)*(1 + c) + b*

Staff Classifications

All staff classifications and base rates should be entered on "Setup 2"

Non-salary Direct Expenses

Expense descriptions, units and unit rates should be entered on "Setup 3"

Subconsultant Roster

Subconsultant	Certified DBE ?

Details of subconsultant involvement should be added on "Setup 4"

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	-
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
02	Aerial Mapping & Field Surveys	$ 19,842.08	$ 3,255.10	$ -	$ 23,097.18	31.2%
03	Traffic Studies & Modeling (inactive)	$132950.57 (i)	$17375 (i)	$0 (i)	$150325.57 (i)	
10	Subsurface Utility Engineering (SUE)	$ -	$ 50,820.00	$ -	$ 50,820.00	68.8%
	Totals	$ 19,842.08	$ 54,075.10	$ -	$ 73,917.18	

McKim & Creed

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
02	Aerial Mapping & Field Surveys	$ 6,410.72	$ 11,593.14	$ 1,800.40	$ 37.82	$ 19,842.08	$ 3,255.10	$ 23,097.18
03	Traffic Studies & Modeling (inactive)	$42954.62 (i)	$77679.14 (i)	$12063.38 (i)	$253.43 (i)	$132950.57 (i)	$17375 (i)	$150325.57 (i)
10	Subsurface Utility Engineering (SUE)	$ -	$ -	$ -	$ -	$ -	$ 50,820.00	$ 50,820.00
	Totals	$ 6,410.72	$ 11,593.14	$ 1,800.40	$ 37.82	$ 19,842.08	$ 54,075.10	$ 73,917.18
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
McKim & Creed	$ 73,917.18		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Sum: $73,917.18		
	Total DBE Qualifying Fee		$ -
	Percentage of Fee Total		

Fee Summary

A - Direct Labor	$	**6,410.72**
B - Overhead [A x 1.8084]	$	**11,593.14**
C - Profit [(A+B) x 0.1]	$	**1,800.40**
D - FCCM [A x 0.0059]	$	**37.82**
E - Labor Total	$	**19,842.08**
F - Total Non-Salary Direct Expenses	$	**54,075.10**
G - Subconsultant Fees	$	**-**
Fee Total	$	**73,917.18**

fee total less profit $72,116.78

Prepared by: _____

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

02

Task 02: Aerial Mapping & Field Surveys

Manhours

Staff Classification	Project Manager	Sr Land Surveyor	Jr Land Surveyor I,SIT	Sr Survey Technician	Survey Technician	Survey Crew Chief	Survey Instrument Man	Survey Rodman	Administrative Assistant							Manhour Totals	
Manhour Totals by Classification	11	8		69	50	40	40		5							223	
Sub-task																	
2.10 Aerial Mapping	3			19												22	9.9%
2.2.14 Bathymetric Surveys	8			10	50	40	40		5							153	68.6%
2.2.15 Survey Coordination and File Compilation		8		40												48	21.5%

Estimate for this task prepared by Nick Miguez

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
2.10 Aerial Mapping	22	Hydrographic survey of river is pre-determined corridor
2.2.14 Bathymetric Surveys	153	Merging, Ladar, Hydorgraphic,SUE and Convential Survey Data
2.2.15 Survey Coordination and File Compilation	48	Aerial Mapping and processing of additioard stand alone intersections

Estimate for this task prepared by Nick Miguez

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (180.84%)	Profit (16.00%)	FCCM (0.59%)	Labor Total
Project Manager	11	$ 47.81	$ 525.91	$ 951.06	$ 147.70	$ 3.10	$ 1,627.77
Sr Land Surveyor	8	$ 49.90	399.20	$ 721.91	$ 112.11	$ 2.36	$ 1,235.58
Jr. Land Surveyor I, SIT		$ 32.52	$ -	$ -	$ -	$ -	$ -
Sr Survey Technician	69	$ 34.99	2,414.31	$ 4,366.04	$ 678.04	$ 14.24	$ 7,472.63
Survey Technician	50	$ 23.79	$ 1,187.50	$ 2,151.09	$ 334.06	$ 7.02	$ 3,681.67
Survey Crew Chief	40	$ 27.00	$ 1,080.00	$ 1,953.07	$ 303.31	$ 6.37	$ 3,342.75
Survey Instrument Man	40	$ 17.92	$ 716.80	$ 1,296.26	$ 201.31	$ 4.23	$ 2,218.60
Survey Rodman		$ 15.75	$ -	$ -	$ -	$ -	$ -
Administrative Assistant	5	$ 17.00	$ 85.00	$ 153.71	$ 23.87	$ 0.50	$ 263.08
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor			$ 6,410.72 (A)	$ 11,593.14 (B)	$ 1,800.40 (C)	$ 37.82 (D)	$ 19,842.08 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Per Diem, with Overnight Stay	4	days	@	$ 71.00	per day	$ 284.00
Lodging	4	nights	@	$ 164.00	per night	$ 656.00
Mileage	548	miles	@	$ 0.575	per mile	$ 315.10
Boat	4	days	@	$ 500.00	per day	$ 2,000.00
				Task Total for Non-salary Direct Expenses		$ 3,255.10 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
	Task Totals for Subconsultant Involvement	(G)	

Estimate for this task prepared by Nick Miguez

Fee Summary for Task

A	Direct Labor		$ 6,410.72
B	Overhead [A x 1.8084]		$ 11,593.14
C	Profit [(A+B) x 0.1]		$ 1,800.40
D	FCCM [A x 0.0059]		$ 37.82
E	Labor Total		$ 19,842.08
F	Non-salary Direct Expenses		$ 3,255.10
G	Subconsultant Fees		
		Task Total	$ 23,097.18

$23,097.18

10

Task 10: Subsurface Utility Engineering (SUE)

Manhours

Staff Classification	Project Manager															Manhour Totals
Manhour Totals by Classification	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sub-task																
10.10 Designating (see direct expenses)																

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
10.10 Designating (see direct expenses)		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (80.84%)	Profit (10.06%)	FCCM (0.59%)	Labor Total
Project Manager		$ 47.81	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor			$ - (A)	$ - (B)	$ - (C)	$ - (D)	$ - (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	1,600	miles	@	$ 0.575	per mile	$ 920.00
Quality Level B	26,000	feet	@	$ 1.60	per foot	$ 41,600.00
Quality Level C	7,000	feet	@	$ 0.65	per foot	$ 4,550.00
Utility Poles	60	each	@	$ 62.50	per each	$ 3,750.00
				Task Total for Non-salary Direct Expenses		$ 50,820.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$	-
B	Overhead [A x 1.8084]	$	-
C	Profit [(A+B) x 0.1]	$	-
D	FCCM [A x 0.0059]	$	-
E	Labor Total	$	-
F	Non-salary Direct Expenses	$	50,820.00
G	Subconsultant Fees	$	-
	Task Total	$	50,820.00

$50,820.00

Mid Atlantic Drilling

Mid-Atlantic Drilling, Inc.
PO Box 315 Carolina Beach NC 28428
(910) 458-5020
Cost Estimate

Date: August 3, 2020

Project Name: Ashley River Pedestrian Bridge

Project Number:

Project Location: Charleston, SC

Client: HDR, Inc.

Client Contact: Lila Leion, PE, PhD

QUANTITY	UNITS	DESCRIPTON	UNIT PRICE	LINE TOTAL
4	Each	Mobilization & Demobilization (per trucking company)	$5,000.00	$20,000.00
8	Daily	Barge (SPT) 2@200ft	$5,000.00	$40,000.00
12	Daily	Marsh Buggy (SPT) 740ft	$5,000.00	$60,000.00
7	Daily	Marsh Buggy (CPT) 500ft	$5,000.00	$35,000.00
	Daily	Downtime day rate caused by inclement weather	$2,500.00	TBD
2	Each	*Local low boy to move buggy to other side of bridge*	$2,500.00	$5,000.00
		Estimated Total		**$160,000.00**

**Please Read below before signing/accepting cost estimate:*

- ***The day rate is in an estimated time given to complete the anticipated scope of work, if more time is needed once on site to complete the original scope this will be addressed at that time, if client agrees to continue at the $5000.00 per day rate our services will continue, if not our services will end. If additional work is added once on site the day rate of $5000.00 per day will be charged accordingly. A day Rate of $2500.00 will be charged for down time due to inclement weather.***
- ***Day Rate Includes: Mobilization & Demobilization for Mid-Atlantic Drillings crew(s) subsistence, drilling, stand by time (safety meetings), difficult moving, etc. What is not included will be listed (if known) in the cost estimate such as cranes, boom trucks, trucking companies for hauling larger equipment. Such equipment may be needed once onsite that was not anticipated prior to mobilizing. If additional equipment is needed and paid by Mid-Atlantic the cost will be passed along to the client with an additional 20% surcharge, unless paid by client directly.***
- ***Day rate conditions: our day rate begins from the time we leave Wilmington NC till we return, the day rate includes Mondays (or start day) when our crew(s) will be traveling to the site and on Fridays or (return /end day) to Wilmington to arrive home at a reasonable hour (5:00pm) This is put into place since the mob/demob is included into the day rate.***
- ***Crews are not required to work more then 10 hours straight time per day (lunch breaks are mandatory)***
- **Utilities must be called in and cleared by our client before our arrival either by a private locate company or by the states locate center.**
- **Payment within 90 days of invoice submittal**
- price is subject to change

To accept this quotation & terms sign here & return:

*(Name & Title)*_____

Please Print Name & Date: _____

M.A.D.
MID-ATLANTIC DRILLING

Project ID:
County:

South Carolina Department of Transportation

Date Prep.:
Prepared By:
Org:

ON-CALL GEOTECHNICAL COST ESTIMATE

Type Work (FIELD)	Procedure	Procedure Description	Pay Unit	Quantity	Unit Rates	Total Cost
Mobilization						
a. Truck/Trailer Drill Rig and Crew			$ per mile		$0.00	$0.00
b. Track/Rubber-Tire ATV Drill Rig and Crew; and barge mobilized over land			$ per mile		$0.00	$0.00
c. Barge mobilized over water			$ per hour		$0.00	$0.00
Use of All-terrain Vehicle			$ per day		$0.00	$0.00
Use of Swamp/Marsh Buggy			$ per day	19	$5,000.00	$95,000.00
Crane			$ per hour		$0.00	$0.00
Barge						
a. small			$ per day		$0.00	$0.00
b. large			$ per day	8	$5,000.00	$40,000.00
Difficult Moving/ Standby/ Expendables			$ per hour		$0.00	$0.00
Private Utility Locating			$ per hour		$0.00	$0.00
Traffic Control						
a. Shoulder work > 15 ft.			$ per day		$0.00	$0.00
b. Shoulder work 1-15 ft.			$ per day		$0.00	$0.00
c. Lane Closure			$ per day		$0.00	$0.00
d. Freeway/Expressway Shoulder Closure			$ per day		$0.00	$0.00
e. Freeway/Expressway Lane Closure			$ per day		$0.00	$0.00
Light Plant			$ per day		$0.00	$0.00
Bridge Deck Coring			$ per hole		$0.00	$0.00
Pavement Coring			$ per hole		$0.00	$0.00
Survey Crew and Equipment			$ per hour		$0.00	$0.00
Hand Clearing			$ per hour		$0.00	$0.00
Mechanized Clearing			$ per hour		$0.00	$0.00
Auger Probes or Wash Borings			$ per foot		$0.00	$0.00
Soil Test Borings on Land with Standard Penetration Testing (SPT-N)	AASHTO T206, AASHTO T306 (ASTM D1586, ASTM D6151, ASTM D4633)	Standard Method of Test for Penetration Test & Split Barrel Sampling of Soils				
a. Borings from ground surface to a depth of 150 feet			$ per foot		$0.00	$0.00
b. Borings from 150 feet to 250 feet			$ per foot		$0.00	$0.00
c. Borings from 250 feet to 550 feet	ASTM D2113	Triple-Tube Soil Coring	$ per foot		$0.00	$0.00

Project Name: **Date:**

Project ID:

Soil Test Borings Over Water with Standard Penetration Testing (SPT-N)	AASHTO T206 (ASTM D1586, ASTM D4633)	Standard Method of Test for Penetration Test & Split Barrel Sampling of Soils	$ per foot		$0.00	$0.00
Standard Penetration Tests (Additional)	AASHTO T206 (ASTM D1586)	Standard Method of Test for Penetration Test & Split Barrel Sampling of Soils	$ per test		$0.00	$0.00
Piezocone Penetration Test (CPTu)	ASTM D 5778	Standard Test Method for Electronic Friction Cone and Piezocone Penetration Testing of Soils	$ per foot		$0.00	$0.00
CPTu Seismic Test	ASTM D 7400	Standard Test Methods for Downhole Seismic Testing	$ per test		$0.00	$0.00
CPTu Pore Pressure Dissipation Test			$ per hour		$0.00	$0.00
Field Vane Shear Tests	AASHTO T223 (ASTM D2573)	Standard Method of Test for Field Vane Shear Test in Cohesive Soil	$ per test		$0.00	$0.00
Flat Plate Dilatometer Testing	ASTM D6635	Standard Test Method for Performing the Flat Plate Dilatometer	$ per foot		$0.00	$0.00
Double-Ring Infiltrometer Test	ASTM D 3385	Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer	$ per test		$0.00	$0.00
Manual (Hand) Auger Borings			$ per hour		$0.00	$0.00
Dynamic Cone Penetrometer Tests	Sowers & Hedges, 1966 (ASTM D6951)	Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications	$ per hour		$0.00	$0.00
Disturbed (Bulk) Soil Samples			$ per sample		$0.00	$0.00
Test Pits			$ per hour		$0.00	$0.00
Undisturbed (Shelby Tube) Soil Sampling						
a. 3" tube (Fixed Head Sampler)	AASHTO T207 (ASTM D1587)	Standard Method of Test for Thin Walled Tube Sampling of Soils	$ per attempted sample		$0.00	$0.00
b. 3" tube (Alternative Sampler)	AASHTO T207 (ASTM D1587, ASTM D6519)	Standard Method of Test for Thin Walled Tube Sampling of Soils	$ per attempted sample		$0.00	$0.00
Rock Coring						
a. Rock Coring from ground surface to a depth of 150 feet	AASHTO T225 (ASTM D2113)	Standard Method of Test for Diamond Core Drilling for Site Investigation	$ per foot		$0.00	$0.00
b. Rock Coring from 150 feet to 500 feet	AASHTO T225 (ASTM D2113)	Standard Method of Test for Diamond Core Drilling for Site Investigation	$ per foot		$0.00	$0.00
c. Rock Coring from ground surface to a depth of 150 feet for seismic downhole testing	AASHTO T225 (ASTM D2113)	Standard Method of Test for Diamond Core Drilling for Site Investigation	$ per foot		$0.00	$0.00
Casing						
a. 4" PVC			$ per foot		$0.00	$0.00
b. 4" Steel			$ per foot		$0.00	$0.00

Project Name: **Date:**

Project ID:

Grout Seal of Test Holes (SPT, CPT, DMT, auger/wash borings, geophysical holes, rock core holes)			$ per foot		$0.00	$0.00
Geophysical Testing using Spectral Analysis of Surface Waves/Multi-channel Analysis of Surface Waves/Refraction Microtremor			$ per test		$0.00	$0.00
Geophysical Testing using Downhole Methods	ASTM D7400	Standard Test Methods for Downhole Seismic Testing	$ per test		$0.00	$0.00
Geophysical Testing using Suspension Logging methods	ASTM D5753	Standard Guide for Planning and Conducting Borehole Geophysical Logging	$ per foot		$0.00	$0.00
Specialized Geophysical Testing (Crosshole Shear Wave Velocity Method, Seismic Refraction, field Electric Resistivity, Seismic Reflectivity, Gamma/Spontaneous Potential, Ground Penetrating Radar, Optical/Acoustic Televiewer, etc.)	AASHTO/ASTM	Applicable AASHTO or ASTM procedure and manufacturer's instruction for equipment in use.			$0.00	$0.00
Installation and Monitoring of geotech. Instr. (inclinometers, piezometers, settlement plates, vibration monitoring, etc.)	AASHTO/ASTM	Applicable AASHTO or ASTM procedure and manufacturer's instruction for equipment in use.			$0.00	$0.00

SUBTOTAL = $135,000.00
% of TOTAL = 100.00

Project Name: **Date:**

Project ID:

Type Work (LAB)	Procedure	Procedure Description	Pay Unit	Quantity	Unit Rates	Total Cost
UD Preparation			$ each		$0.00	$0.00
Moisture Content	AASHTO T265 (ASTM D2216)	Standard Method of Test for Laboratory Determination of Moisture Content of Soils	$ each		$0.00	$0.00
Atterberg Limits	AASHTO T89 AASHTO T90 (ASTM D4318)	Standard Method of Test for Determining the Liquid Limit of Soils And Determining the Plastic Limit and Plasticity Index of Soils	$ each		$0.00	$0.00
Shrinkage Limits	AASHTO T92 (ASTM D4933)	Standard Method of test for Determining the Shrinkage Factors of Soils	$ each		$0.00	$0.00
Swell Test	AASHTO T258	Standard Method of Test for Determining Expansive Soils	$ each		$0.00	$0.00
Grain Size Analysis						
a. Wash 200	AASHTO T11 (ASTM D1140)	Standard Method of Test for Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing	$ each		$0.00	$0.00
b. Grain Size	ASTM D6913	Standard Method of Test for Particle Size Analysis of Soils	$ each		$0.00	$0.00
c. Hydrometer	ASTM D7928	Standard Method of Test for Particle Size Analysis of Soils	$ each		$0.00	$0.00
d. Elutriation	SC T-34	Mechanical Analysis of Soils (Elutriation Method)	$ each		$0.00	$0.00
Percentage of Fractured Particles in Coarse Aggregates	ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregates	$ per bulk sample		$0.00	$0.00
Specific Gravity	AASHTO T100 (ASTM D854)	Standard Method of Test for Specific Gravity of Soils	$ each		$0.00	$0.00
Unit Weight						
a. Standard Proctor	AASHTO T99 (ASTM D698)	Standard Method of Test for Moisture-Density Relations of Soils Using a 5.5 lb. Rammer and a 12-in. Drop	$ each		$0.00	$0.00
b. Modified Proctor	AASHTO T180 (ASTM D1557)	Standard Method of Test for Moisture-Density Relations of Soils Using a 10 lb. Rammer and an 18-in. Drop	$ each		$0.00	$0.00
c. Maximum Index Density and Unit Weight of Soils	ASTM D4253	Standard Method of Test for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table	$ each		$0.00	$0.00

Project Name: **Date:**

Project ID:

d. Minimum Index Density and Unit Weight of Soils	ASTM D4254	Standard Method of Test for Minimum Index Density and Unit Weight of Soils Using and Calculation of Relative Density	$ each		$0.00	$0.00
California Bearing Ratio	AASHTO T193 (ASTM D1883)	Standard Method of Test for The California Bearing Ratio	$ each		$0.00	$0.00
Unconfined Compressive Strength of Cohesive Soil	AASHTO T208 (ASTM D2166)	Standard Method of Test for Unconfined Compressive Strength of Cohesive Soil	$ each		$0.00	$0.00
Compressive Strength of Rock Cores	ASTM D7012	Standard Test for Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures	$ each		$0.00	$0.00
LA Abrasion						
a. Small-Size Coarse Aggregate	ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Low Angeles Machine	$ each		$0.00	$0.00
b. Large-Size Coarse Aggregate	ASTM C535	Standard Test Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Low Angeles Machine	$ each		$0.00	$0.00
Soundness of Aggregates	ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	$ each		$0.00	$0.00
Permeability Test						
a. Constant Head	AASHTO T215	Standard Method of Test for Permeability of Granular Soils (Constant Head)	$ each		$0.00	$0.00
b. Falling Head	ASTM D5856	Standard Test Method for Measurement of Hydraulic Conductivity of Porous Material Using a Rigid-wall, Compaction-mold Permeameter	$ each		$0.00	$0.00
c. Flexible Wall	ASTM D5084	Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Material Using a Flexible Wall Permeameter	$ each		$0.00	$0.00
Ignition Loss	SC T-36	Procedure for Determining % Ignition Loss of Inorganic Soils	$ each		$0.00	$0.00
Triaxial Shear						
a. Unconsolidated Undrained (UU)	AASHTO T296 (ASTM D2850)	Standard Method of Test for Unconsolidated, Undrained Compression Strength of Cohesive Soils in Triaxial Compression	$ each		$0.00	$0.00

Project Name:
Project ID:

Date:

b. Consolidated Undrained with pore pressure measurement (CU w/pp)	AASHTO T297 (ASTM D4767)	Standard Method of Test for Consolidated, Undrained Triaxial Compression Test on Cohesive Soils	$ each		$0.00	$0.00
c. Consolidated Drained (CD)	ASTM D7181	Standard Test Method for Consolidated Drained Triaxial Compression Test for Soils	$ each		$0.00	$0.00
Resonant Column	ASTM D4015	Standard Test Methods for Modulus and Damping of Soils by Resonant-Column Method	$ each		$0.00	$0.00
Torsional Shear						
a. Drained Residual Shear Strength	ASTM D6467	Standard Test Method for Torsional Ring Shear Test to Determine Drained Residual Shear Strength of Cohesive Soils	$ each		$0.00	$0.00
b. Drained Fully Softened Shear Strength	ASTM D7608	Standard Test Method for Torsional Ring Shear Test to Determine Drained Fully Softened Shear Strength and Nonlinear Strength Envelop of Cohesive Soils (using normally consolidated specimen) for Slopes with No Preexisting Shear Surface	$ each		$0.00	$0.00
Direct Shear	AASHTO T236 (ASTM D3080)	Standard Method of Test for Direct Shear Test of Soils Under Consolidated Drained Conditions	$ each		$0.00	$0.00
Consolidation						
a. Consolidation Test (16 load increments)	AASHTO T216 (ASTM D 2435)	Standard Method of Test for One Dimensional Consolidation Properties of Soils	$ each		$0.00	$0.00
b. Additional load increments			$ each		$0.00	$0.00
c. Additional test time			$ per day		$0.00	$0.00
Organic Content	AASHTO T267 (ASTM D2974)	Standard Method of Test for Determination of Organic Content in Soils by Loss on Ignition	$ each		$0.00	$0.00
pH						
a. soil	AASHTO T289 (ASTM G51)	Standard Method of Test for Determining pH of Soil for Use in Corrosion Testing	$ each		$0.00	$0.00
b. water	ASTM D1293	Standard Test Methods for pH of Water	$ each		$0.00	$0.00
Chloride Content						
a. soil	AASHTO T291	Standard Method of Test for Determining Water-Soluble Chloride Ion Content in Soil	$ each		$0.00	$0.00
b. water	ASTM D512	Standard Test Methods for Chloride Ion in Water	$ each		$0.00	$0.00
Sulfate Content						

Project Name: **Date:**

Project ID:

a. soil	AASHTO T290 (ASTM C1580)	Standard Method of Test for Determining Water-Soluble Sulfate Ion Content in Soil	$ each		$0.00	$0.00
b. water	ASTM D516	Standard Test Methods for Sulfate Ion in Water	$ each		$0.00	$0.00
Resistivity						
a. soil	AASHTO T288	Standard Method of Test for Determining Minimum Laboratory Soil Resistivity	$ each		$0.00	$0.00
b. water	ASTM D1125	Standard Test Methods for Electrical Conductivity and Resistivity of Water	$ each		$0.00	$0.00
Bituminous Mixture Extraction	SC-T-75	Standard Method of Test for Determination of Asphalt Binder Content for Asphalt Paving Mixtures by the Ignition Oven	$ each		$0.00	$0.00
Aggregate Sieve Analysis	SC-T-4	Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates	$ each		$0.00	$0.00
PLM asbestos Bulk Sample Analysis	EPA 600	Method for the Determination of Asbestos in Bulk Building Materials	$ each		$0.00	$0.00
TEM Asbestos Bulk Sample Analysis	ASTM D 6281	Standard Test Method for Airborne Asbestos Concentration in Ambient and Indoor Atmospheres as Determined by Transmission Electron Microscopy Direct Transfer (TEM)	$ each		$0.00	$0.00
XRF Analysis of Lead	Per SCDHEC Regulatory Requirements	Determining Lead Content	$ per day		$0.00	$0.00
Total Lead Analysis	Per SCDHEC Regulatory Requirements	Determining Lead Content	$ each		$0.00	$0.00

SUBTOTAL = $0.00
% of TOTAL = 0.00

Project Name:

Project ID:

Date:

Hourly Rate Schedule			Pay Unit	Quantity	Unit Rates	Total Cost
Senior Principal			$ per hour		$0.00	$0.00
Principal/Project Manager			$ per hour		$0.00	$0.00
Senior Geotechnical Engineer			$ per hour		$0.00	$0.00
Geotechnical Engineer			$ per hour		$0.00	$0.00
Junior Geotechnical Professional			$ per hour		$0.00	$0.00
Project Geologist			$ per hour		$0.00	$0.00
Engineering Technician			$ per hour		$0.00	$0.00
Senior Environmental Specialist			$ per hour		$0.00	$0.00
Environmental Specialist			$ per hour		$0.00	$0.00
Graphics Designer			$ per hour		$0.00	$0.00
Administrative Assistant			$ per hour		$0.00	$0.00
Lodging			$ per day		$0.00	$0.00
Meals			$ per day		$0.00	$0.00
Travel			$ per mile		$0.00	$0.00
Outside Services Associated with Field and Laboratory Work	AASHTO/ASTM	Applicable AASHTO or ASTM procedure and manufacturer's instruction for equipment in use.			$0.00	$0.00
					SUBTOTAL =	**$0.00**
					% of TOTAL =	**0.00**
					GRAND TOTAL =	**$135,000.00**

PAN

PAN, Inc. has been requested to provide the services listed below in conjunction with the Ashley River Bike Ped Bridge Design Build Preparation Services as a subconsultant to HDR.

11. RIGHT OF WAY

11.1. Right of Way Acquisition Services

11.1.1. The **CONSULTANT** shall perform all right-of-way acquisition services in accordance with the following tasks for up to ten (10) parcels requiring acquisition or permissions and relocation if need:

11.1.2. Perform all title searches for properties which must be acquired to construct the project and provide to the DEPARTMENT a Preliminary and Final Certificate of Title signed by a licensed South Carolina attorney (as required by the **SCDOT**'s Right of Way Manual). Titles certificates shall advise all names of any parties that should be included for payments, and if the investigation reveals that condemnation is necessary to clear title, it shall provide names of all parties that should be served with condemnation, provide recording information for those parties who have an interest in the property and advise whether or not advertisement is required. Preliminary title abstracts must be provided prior to the property being appraised.*

11.1.3. All offers of just compensation will be based on a written approved appraisal unless prior approval is given to the Contractor by CITY. If CITY decides to utilize cost estimate offers, CITY will prepare the cost estimates and provide Contractor with the approved right of way cost estimate. CITY may allow offers to be made based on the cost estimates on tracts estimated to be $20,000 or less and determined by CITY to be a non-complicated. In the event the cost estimate offer is rejected by the property owner, a written appraisal shall be required.
CITY will be responsible for reviewing and approving all appraisals and setting just compensation. Appraisals will be reviewed and released within 15 business days of receipt. If appraisal review cannot be completed within 15 days because of deficiencies of the appraisal, the Right of Way Consultant will be notified immediately of the appraisal status. CITY will provide appraisal reviews complying with the technical review guidelines of SCDOT Right of Way Appraisal Manual. The review appraiser will be an CITY staff appraiser or a review appraiser from SCDOT's approved list. CITY will be responsible for review appraiser costs.

11.1.4. Acquire in accordance with all state laws and regulations, both Federal and State, and in the name of the **CITY**, the right of way necessary to construct the project. Title shall be in fee simple absolute and have a recordable warranty deed unless otherwise authorized by the **CITY**. The title shall be filed, within seven (7) days of payment to the landowner, in the ROD office in Richland County and the original file stamped instrument will be returned to the **CITY**. The **CONSULTANT** is responsible for all cost associated with recording of the deeds.*The Consultant shall submit Deed for property owner payment within 30 days of the execution date on the Deed. If this is not possible, the Consultant must submit in writing to SCDOT the reasoning and a new proposed resolve date.

11.1.5. Prepare exhibits in accordance with **SCDOT**'s exhibit preparation guide.*

11.1.6. In the event of condemnation the necessary documents as required by the Eminent Domain Procedure Act Sections 28-2-10 et. Seg., South Carolina Code of Laws (1976) as amended will be prepared and submitted electronically to the County's attorney as direct, for the attorney to file the case with the Clerk of Court. The procedure for Condemnation shall be by way of trial after rejection of the amount tendered as provided in Section 28-2-240.

11.1.7. Retain all records dealing with property acquisition and all other costs associated with this project for three (3) years after the final acquisition for the project.

11.1.8. **CONSULTANT** is responsible for establishing and maintaining Quality Control and Quality Assurance procedures for the entire right of way acquisition process.*The Consultant Shall return all corrections to SCDOT within 15 business days from date of returned to the Consultant.

PAN
Property Acquisitions & Negotiations

Ashley River Crossing
Fee Proposal
August 7, 2020

Negotiations: 10 Tracts @ $3,500.00 per tract =	$35,000.00
Title Work: 10 Tracts @ $450.00 per tract =	$ 4,500.00
Appraisals: 10 Tracts @ $2,000.00 per tract =	$20,000.00
*Appraisal Review: 10 Tracts @ $450.00 per tract =	$4,500.00
Total =	**$64,000.00**

*Appraisal reviews may not be necessary if no federal money is involved

David S. Link
PAN, Inc.

5179 Sunset Boulevard – Lexington, SC 29072 – (803) 708-4721

Providence Engineering Consultants

PEC will provide the services highlighted in blue below.

1. ENVIRONMENTAL SERVICES

The CONSULTANT shall be responsible for NEPA compliance in accordance with 23 CFR Parts 771 and 772, as well as any related, current/latest guidance promulgated by Federal Highway Administration (FHWA), as of the date of executed contract. In addition the CONSULTANT shall be responsible for delineating Waters of the U.S. and completing a Preliminary Jurisdictional Determination.

4.1. Public Involvement*

The CONSULTANT shall be responsible for developing a public involvement plan to effectively involve the public in the project's decision-making process as outlined in SCDOT's Public Involvement Policy. The following activities are to be included in the plan:

1. ~~Project website hosted on the CITY's website~~
2. ~~Press release~~
3. One (1) public information meeting (PEC PROVIDING STAFF)
4. One (1) stakeholder meeting(PEC PROVIDING STAFF)
5. Two (2) community meetings
6. ~~One (1) meeting with marina operators to discuss in water work and navigation restrictions during construction.~~

12. DEVELOPMENT OF THE RFQ/RFP

12.1. Development of the RFQ*

CONSULTANT, with support from the CITY, shall develop the RFQ to follow SCDOT Design-Build RFQ format to include the following sections:

- Introduction
- Project Information and Procurement Overview
- Contents of Statement of Qualifications (SOQ)
- Evaluation Process
- SOQ Submittal Requirements
- Procurement Phase 2
- Conflict of Interest
- Miscellaneous

12.1.1. Coordinate with the CITY to determine minimum qualifications to be met for design/build teams to be considered.

12.1.2. Develop project Risk Matrix and categorize project risks as High, Moderate, and Low. Describe why the risk is critical, indicate what impact it will have on the project, and discuss mitigation strategies. (PEC RISK ANALYSIS LIMITED TO ROADWAY RELATED ITEMS)

12.1.3. Organize and provide answers to RFQ questions.

12.1.4. Development of one (1) RFQ addendum.

12.1.5. Support CITY in review of SOQ's and determination of short-listed design-build teams.

12.2. Development of the RFP for Industry Reviw, Final RFP and Addenda*

CONSULTANT, with support from the CITY, shall develop the RFP for Industry Review, Final RFP and addenda to follow SCDOT Design-Build RFP format, including the following sections:

12.2.1 RFP Instructions Section:

- Purpose of RFP
- Project Overview
- General Instructions
- Proposal Development and Submittal
- Evaluation of Proposals
- Selection of Contractor
- General Information
- Milestone Schedule
- Cost Proposal Bid Form
- Non-Collusion Certification
- Equal Employment Opportunity Certification
- Stipend Acknowledgement Form
- Stipend Agreement
- Bid Bond Form

12.2.2 Attachment A – Agreement

12.2.2.1 Exhibit 1 – Cost Proposal Bid Form

12.2.2.2 Exhibit 2 – Schedule of Values (PEC ROADWAY ONLY)

12.2.2.3 Exhibit 3 – Scope of Work (PEC ROADWAY ONLY)

12.2.2.4 Exhibit 4 – Design Criteria

- Roadway
- Structure
- Electrical
- Architectural
- Mechanical
- Hydrology
- Geotechnical
- Traffic
- Environmental
- Project Design Deliverables

12.2.1.2 Exhibit 5 – Special Provisions (PEC WILL PREPARE ROADWAY RELATED SPECIAL PROVISIONS ONLY)

12.2.3 Attachment B – Supplemental Project Design Criteria (PEC LIMITED TO ROADWAY DESIGN CRITERIA ONLY)

12.2.4 Project Information Package
12.2.5 Develop Final RFP
12.2.6 Develop five (5) addenda to Final RFP

13. PROCUREMENT

CONSULTANT shall lead the following tasks with support from the CITY during the procurement of the design-build project:

13.1. Compile, coordinate with the CITY, and respond to RFP for Industry Review and Final RFP questions and clarifications.* (PEC WILL PROVIDE RESPONSES TO ROADWAY RELATED QUESTIONS AND WILL CONSOLIDATE RESPONSES PREPARED BY OTHERS FOR OTHER ITEMS

13.2. Provide technical review and recommendations during reviews of Alternative Technical Concept (ATCs)*. Review by SCDOT for roadways and/or facilities maintained by SCDOT. (PEC LIMITED TO ROADWAY ONLY)

13.3. Provide review of Technical Proposal roadway, bridge, and maintenance of traffic plans.* Reviews by SCDOT for portions of roadways and/or facilities maintained by SCDOT. (PEC LIMITED TO ROADWAY & MOT ONLY)

13.4. Provide review and analysis of bid packages to confirm whether costs – item level and overall – are reasonable.* (PEC LIMITED TO ROADWAY ELEMENTS ONLY)

13.5. Support CITY in evaluation of proposals and selection of design-build contractor.*

14. DESIGN PLAN REVIEW AND ADMINISTRATION

The CONSULTANT shall facilitate design reviews using Bluebeam in accordance with the contract schedule. (PEC WILL REVIEW ROADWAY RELATED DESIGN SUBMITTALS)

The Consultant shall review plans and submittals to verify Contractor's compliance with project criteria, applicable permits and regulatory agencies requirements. Any non-compliance to the design criteria found during the review will be recorded through review comments. Major non-compliance issues discovered during the design review process shall be reported to the CITY immediately. The CONSULTANT will review any changes to design criteria proposed by the Contractor and advise the CITY as to the appropriateness of these changes, including cost and schedule implications to the project. The CONSULTANT is expected to act as an extension of CITY staff and provide possible solutions to issues which arise during design and construction of the project.

The CONSULTANT shall provide a Project Manager/Design Manager that will be responsible for the day-to-day administration of the reviews. The Project Manager/Design Manager will

be responsible for ensuring an appropriate level of review for all phases and disciplines of the project.

The CONSULTANT shall provide a Document Control Manager that will be responsible for keeping a full and complete set of records in the form of a Submittals Matrix which shall indicate dates of receipt and submittal of all design reviews, status of review comments, and dates of comment resolution.

The CONSULTANT may use the Contractor's design calculations when necessary to support the review of the submittals. Routine reviews do not involve independent analyses or calculations to verify the Contractor's work. On an as-needed basis and when approved by the CITY, the CONSULTANT shall: (1) Perform independent analyses when an apparent issue arises on a design element that requires verification of the design calculations; (2) Review the revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction; (3) Review and comment on Shop Plans, Working Drawings, and miscellaneous submittals (RFIs, NCRs, Issue Papers, Technical Special Provisions, and Design Exceptions/Variances).

The CONSULTANT will have a maximum of fifteen business days to complete their initial review and provide comments to Design-Build Contractor and notify the CITY. A business day is considered Monday-Friday not including CITY observed holidays.

The CONSULTANT shall participate in Partnering Meetings with the Design-Build Contractor and shall represent the CITY in Design Coordination Meetings. One-day Partnering Meetings will be held in Charleston, SC. Two-hour Design Coordination Meetings will be held in Charleston, SC or may be accessed via telephone conference call. The CONSULTANT shall attend meetings relating to review, approval and implementation of the Contractor's design.

Review Tasks

Project tasks identified below with an asterisk (*) are expected to be assigned man-hours. Numbers are a total for both sites combined unless otherwise indicated. Specific tasks are enumerated below.

14.1. Project Organization and Management Responsibilities

A. Facilitate Design Review Process*
   i. Create and Manage Submittal and Release for Construction (RFC) folders in ProjectWise. The City does not have ProjectWise; we understand that HDR will provide the City with access.
   ii. Create and Manage Bluebeam session for each submittal
   iii. Manage schedule of design reviews according to the Contract
   iv. Facilitate exchange of comments and responses

B. Manage design reviews including review of comments and communication and coordination with design review team, design-build team, and CITY.*
C. Review Contractor's Contract Deliverables Matrix and Design Review Submittal Schedule*

D. Review and verify Contractor's Quality Control Plan for design, drawings, and specifications *
E. Prepare and submit thirty six (36) Invoices to the CITY. *
F. Miscellaneous Submittals *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) non-conformance report (NCRs)
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

G. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

H. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with the CITY, FHWA, Contractor, and others (assume the *PM/ Design Manager* will attend)
ii. Attend twenty (20) two-hour Design Coordination Meetings (assume PM/Design Manager will attend)
iii. Attend two (2) four-hour Regulatory Agency Meetings (assume PM/Design Manager and one (1) environmental staff will attend)
iv. Attend two (2) Utility Coordination Meetings (assume the PM/Design Manager will attend)

14.2. Roadway/Path Design Review Responsibilities

A. Roadway/Path Design reviews will occur for the following phases:*

i. Preliminary Plans
ii. Right of Way Plans
iii. Final Plans

B. Environmental reviews will occur for the following phases:*

i. Preliminary Plans
ii. Right of Way Plans
iii. Final Plans

C. Additional reviews are anticipated on the following miscellaneous submittals: *

i. Review and provide recommendations on forty (40) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.3. Structural Design Review Responsibilities

A. The following plan reviews will occur as noted in the Anticipated Submittal Section: *

i. Preliminary Approach Structure Plans
ii. Final Approach Structure Plans
iii. Preliminary Movable Span (Structural, Mechanical, and Electrical)
iv. Final Movable Span (Structural, Mechanical, and Electrical)

B. Shop Plan Reviews *

i. Two (2) packages of Prestressed Concrete Girder Shop Plans and Design Calculations
ii. Two (2) packages of Steel Superstructure (Girders, Floorbeams, Stringers) Shop Drawings, Erection Plan, and Design Calculations
iii. Four (4) packages of main (bascule or lift) pier shop drawings (bar lists, assembly, precasting (if applicable)
iv. Two (2) packages of Foundations Construction Drawings and Design Calculations
v. Two (2) packages of Mechanical Systems Shop Drawings
vi. Two (2) packages of Electrical Systems Shop Drawings

vii. Two (2) packages of other bridge component Shop Plans: SIP Formwork, Bearings, Steel Diaphragms, Expansion Joints, Armor Plates, etc.
viii. Four (4) packages of MSE Wall Shop Plans and Design Calculations.

C. Working Drawing Reviews *

i. Four (4) packages of Temporary Shoring Plans and Design Calculations
ii. Two (2) packages of Erection Plans

D. Miscellaneous Submittals Review *

i. Review and provide recommendations on twenty (20) Requests for Information
ii. Review and provide recommendations on three (3) NCRs
iii. Review and provide recommendations on three (3) Issue Papers
iv. Review and provide recommendations on two (2) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform two (2) independent analyses.

E. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction* It is assumed that eight (8) design modifications will be initiated.*

F. Meetings *
i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.4. Movable Span Structural, Mechanical, Electrical, & Facilities Design Review Responsibilities

A. Design plan reviews will occur as noted below:*

i. Preliminary Movable Span (Structural, Mechanical, Electrical, and Facilities)
ii. Final Movable Span (Structural, Mechanical, Electrical, and Facilities)

B. Shop Plan Reviews *

i. Structural

a. Two (2) packages of Movable Span Foundations construction drawings and design calculations
b. Four (4) packages of Movable Span pier shop drawings and design calculations (bar lists, assembly, precasting if applicable)
c. Seven (7) packages of Structural Steel (Towers, Girders, Floorbeams, Stringers, Armored Joints, Live Load Bearings, Machinery Supports) shop drawings and design calculations
d. Five (5) packages of other movable bridge component Shop Plans and design calculations: Counterweights, FRP Deck, Platform/Stair Access System.
e. Two (2) packages of Fender Construction Drawings and Design Calculations

ii. Mechanical
a. Two (2) packages of Drive Machinery Drawings and Design Calculations
b. Two (2) packages of Locking Mechanism Drawings and Design Calculations
c. Three (3) packages of System-Specific Machinery Drawings and Design Calculations

iii. Electrical
a. Two (2) packages of Power Distribution Drawings and Design Calculations
b. Two (2) packages of Control Systems Drawings and Design Calculations
c. One (1) package of Cross-Channel Communications and Power Drawings and Design Calculations
d. One (1) package of System-Specific Electrical Drawings and Calculations

iv. Facilities
a. Two (2) packages of Fire and Security Drawings and Design Calculations
b. Three (3) packages of Electrical Drawings and Design Calculations
c. Three (3) packages of Structural Drawings and Design Calculations
d. Three (3) packages of Architectural Drawings and Design Calculations
e. One (1) package of Plumbing Drawings and Design Calculations
f. One (1) package of HVAC Drawings and Calculations

C. Working Drawing Reviews *

i. Twelve (12) packages of temporary structural works (formwork, temporary work platforms, cofferdams, water work plans, crane usage plans, etc.)
ii. Two (2) packages of Erection Plans

D. Miscellaneous Submittals Review *

i. Balance Calculations
ii. O&M Manuals
iii. Four (4) Mechanical Installation Procedures
iv. Two (2) Mechanical Shop Test Procedures
v. One (1) Electrical Installation Procedure
vi. Four (4) Electrical Shop Test Procedures
vii. One (1) Mechanical/Electrical Functional Checkout Procedure
viii. Review and provide recommendations on One Hundred (100) Requests for Information (Structural)
ix. Review and provide recommendations on Twenty-Five (25) Requests for Information (Mechanical)
x. Review and provide recommendations on Twenty-Five (25) Requests for Information (Electrical)
xi. Review and provide recommendations on Twenty-Five (25) Requests for Information (Facilities)
xii. Review and provide recommendations on eight (8) NCR's (Structural)
xiii. Review and provide recommendations on two (2) NCR's (Mechanical)
xiv. Review and provide recommendations on two (2) NCR's (Electrical)
xv. Review and provide recommendations on two (2) NCR's (Facilities)
xvi. Review and provide recommendations on ten (10) Issue Papers
xvii. Strain Gauge Balance Report
xviii. Review and provide recommendations on four (4) Technical Special Provisions (1 document for each discipline)
xix. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform ten (10) independent analyses.

E. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction* It is assumed that sixteen (16) design modifications will be initiated.*

F. Meetings *
i. Prepare for and attend one (1) eight-hour Partnering Meeting, including travel and prep, with the CITY, Contractor, and others
ii. Ten (10) two-hour Design Coordination Meetings (average 2 attendees each)
iii. One (1) Construction Kick-off Meeting
iv. Twenty-five (25) two-hour Construction Coordination Meetings (average 2 attendees each)
v. Ten (10) on-site Construction Progress Meetings

G. Shop/Site Inspections *
i. Three (3) Mechanical shop inspections

ii. Four (4) Electrical shop inspections
iii. Six (6) Structural shop inspections
iv. Six (6) Mechanical site inspections
v. Six (6) Electrical site inspections
vi. Twelve (12) Structural site inspections
vii. Two (2) Mechanical Functional Check-out site inspections (Initial, and Follow-up)
viii. Two (2) Electrical Functional Check-out site inspections (Initial, and Follow-up)

14.5. Hydraulic Design Review Responsibilities

A. Hydraulic Design reviews performed for the entire project limits for each site*

i. Preliminary Roadway Plans and Preliminary Roadway Drainage Report
ii. Preliminary Bridge Plans and Preliminary Bridge Hydraulic Design Report for Ashley River
iii. Right of Way Plans (Roadway/Path) and Final Roadway Drainage Report
iv. Final Bridge Plans and Final Bridge Hydraulic Design Report for Ashley River
v. Final Roadway/Path Plans

B. Additional Project-wide reviews will include: *

i. Signed, completed copy of the SCDHEC Notice of Intent (NOI)
ii. No Impact, CLOMR and LOMR, Ashley River

C. Miscellaneous Submittal Reviews will include (numbers are a total for both sites combined): *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform two (2) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

i. Prepare for and attend one (1) eight (8)-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.6. Geotechnical Design Review Responsibilities

A. The following plan reviews will occur as noted in the Anticipated Submittal Section: *

i. Preliminary Roadway Geotechnical Reports
ii. Final Roadway Geotechnical Engineering Reports, including Roadway and Roadway Structures
iii. Preliminary Bridge Geotechnical Report
iv. Final Bridge Geotechnical Engineering Report
v. Geotechnical Bridge Plan Sheets
vi. Geotechnical Roadway Plan Sheets
vii. Two (2) sets of Foundation Installation Plans
viii. Two (2) sets of Foundation Testing Reports

B. Working Drawing Reviews *

i. Four (4) packages of Temporary Shoring Plans and Design Calculations

C. Miscellaneous Submittals Reviews will include:*

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.7. Traffic Engineering Review Responsibilities

A. Traffic reviews will occur for the plan submittals noted below:

i. Permanent Pavement Marking Plans *
ii. Permanent Signing Plans *
iii. Permanent Lighting Plans *
iv. As Built Signing Plans *
v. As Built Lighting Plans *
vi. Traffic Signal Plans *
vii. As Built Traffic Signal Plans *
viii. Traffic Management Plan *
ix. Conceptual Work Zone Traffic Control Plans*
x. Work Zone Traffic Control Plans *

B. Miscellaneous Submittals Reviews will include: *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

C. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

D. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

15. CONSTRUCTION ENGINEERING, INSPECTION AND ADMINISTRATION (CEI&A)

If this task is needed the scope and fee will be under a contract modification.

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
01	Project Organization and Management	$ -	$ -	$ -	$ -	-
02	Field Surveys (Supplemental)	$ -	$ -	$ -	$ -	-
03	Traffic Studies and Modeling	$ -	$ -	$ -	$ -	-
04	Environmental Services	$ 3,172.84	$ 174.00	$ -	$ 3,346.84	2.3%
05	Roadway and Path Design	$ -	$ -	$ -	$ -	-
06	Structural Design	$ -	$ -	$ -	$ -	-
07	Hydrology and Hydraulic Design	$ -	$ -	$ -	$ -	-
08	Geotechnical Services	$ -	$ -	$ -	$ -	-
09	Utility Coordination	$ -	$ -	$ -	$ -	-
10	SUE	$ -	$ -	$ -	$ -	-
11	Right of Way	$ -	$ -	$ -	$ -	-
12	Development of RFQ and RFP	$ 88,046.31	$ 232.00	$ -	$ 88,278.31	60.3%
13	Procurement	$ 38,867.29	$ 116.00	$ -	$ 38,983.29	26.6%
14	Design Plan Review and Administration	$ 15,864.20	$ -	$ -	$ 15,864.20	10.8%
15	CE&I	$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
	Totals	$ 145,950.64	$ 522.00	$ -	$ 146,472.64	

Providence Engineering Consultants, LLC

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
01	Project Organization and Management	$ -	$ -	$ -	$ -	$ -	$ -	$ -
02	Field Surveys (Supplemental)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
03	Traffic Studies and Modeling	$ -	$ -	$ -	$ -	$ -	$ -	$ -
04	Environmental Services	$ 1,153.76	$ 1,730.64	$ 288.44	$ -	$ 3,172.84	$ 174.00	$ 3,346.84
05	Roadway and Path Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
06	Structural Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
07	Hydrology and Hydraulic Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
08	Geotechnical Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -
09	Utility Coordination	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	SUE	$ -	$ -	$ -	$ -	$ -	$ -	$ -
11	Right of Way	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	Development of RFQ and RFP	$ 32,016.84	$ 48,025.26	$ 8,004.21	$ -	$ 88,046.31	$ 232.00	$ 88,278.31
13	Procurement	$ 14,133.56	$ 21,200.34	$ 3,533.39	$ -	$ 38,867.29	$ 116.00	$ 38,983.29
14	Design Plan Review and Administration	$ 5,768.80	$ 8,653.20	$ 1,442.20	$ -	$ 15,864.20	$ -	$ 15,864.20
15	CE&I	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Totals	$ 53,072.96	$ 79,609.44	$ 13,268.24	$ -	$ 145,950.64	$ 522.00	$ 146,472.64
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
Providence Engineering Consultants, LLC	$ 146,472.64	100.0%	$ 146,472.64
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
Total DBE Qualifying Fee			$ 146,472.64
Percentage of Fee Total			100.0%

Fee Summary

A - Direct Labor	$	53,072.96
B - Overhead [A x 1.5]	$	79,609.44
C - Profit [(A+B) x 0.1]	$	13,268.24
D - FCCM [A x 0]	$	-
E - Labor Total	$	145,950.64
F - Total Non-Salary Direct Expenses	$	522.00
G - Subconsultant Fees	$	-
Fee Total	$	146,472.64

fee total less profit $133,204.40

Prepared by _____

Task 04: Environmental Services

Manhours

Staff Classification	Principal	Sr Transportation Engineer									Manhour Totals	
Manhour Totals by Classification	8	8									16	
Sub-task												
4.1.3 Public Information Meeting	4	4									8	50.0%
Logistical Planning/Coordination/Materials												
Setup & Breakdown												
Comment Analysis & Reporting												
4.1.4 Stakeholder Meeting	4	4									8	50.0%
Logistical Planning/Coordination/Materials												
4.1.5 Community Meeting (x2)												
Logistical Planning/Coordination/Materials												

Task 04: Environmental Services

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
4.1.3	Public Information Meeting	8	
	Logistical Planning/Coordination/Materials		
	Setup & Breakdown		
	Comment Analysis & Reporting		
4.1.4	Stakeholder Meeting	8	
	Logistical Planning/Coordination/Materials		
4.1.5	Community Meeting (x2)		
	Logistical Planning/Coordination/Materials		

Task 04: Environmental Services

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.00%	Profit 10.00%	FCCM	Labor Total
Principal	8	$ 72.11	$ 576.88	$ 865.32	$ 144.22	$ -	$ 1,586.42
Sr Transportation Engineer	8	$ 72.11	$ 576.88	$ 865.32	$ 144.22	$ -	$ 1,586.42
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
DBE% 100% Task Totals for Labor	16		$ 1,153.76 (A)	$ 1,730.64 (B)	$ 288.44 (C)	$ - (D)	$ 3,172.84 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	300	miles	@	$ 0.580	per mile	$ 174.00
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 174.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor	$ 1,153.76
B	Overhead [A x 1.5]	$ 1,730.64
C	Profit [(A+B) x 0.1]	$ 288.44
D	FCCM [A x 0]	$ -
E	Labor Total	$ 3,172.84
F	Non-salary Direct Expenses	$ 174.00
G	Subconsultant Fees	$ -
	Task Total	$ 3,346.84

$3,346.84

Task 12: Development of RFQ and RFP

Manhours

Staff Classification	Sr Transportation Engineer										Manhour Totals	
Manhour Totals by Classification	444										**444**	
Sub-task												
12.1.0 Develop RFQ	32										32	7.2%
12.1.1 Determine Proposer Qualifications Requirements	8										8	1.8%
12.1.2 Risk Matrix	24										24	5.4%
12.1.3 Respond to RFQ Questions	24										24	5.4%
12.1.4 RFQ Addendum	16										16	3.6%
12.1.5 SOQ Evaluation	40										40	9.0%
12.1.6 Address FHWA Comments on RFQ Docs	4										4	0.9%
12.2.1 Develop RFP	80										80	18.0%
12.2.2 Attachment A	80										80	18.0%
12.2.3 Attachment B	24										24	5.4%
12.2.4 Project Information Package	16										16	3.6%
12.2.5 Final RFP	32										32	7.2%
12.2.6 RFP Addenda (5)	40										40	9.0%
12.2.7 Address FHWA Comments on RFP Docs	24										24	5.4%

Task 12: Development of RFQ and RFP

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
12.1.0 Develop RFQ	32	
12.1.1 Determine Proposer Qualifications Requirements	8	
12.1.2 Risk Matrix	24	PEC risk analysis is limited to Roadway related items
12.1.3 Respond to RFQ Questions	24	
12.1.4 RFQ Addendum	16	
12.1.5 SOQ Evaluation	40	
12.1.6 Address FHWA Comments on RFQ Docs	4	
12.2.1 Develop RFP	80	PEC is limited to Roadway design criteria and Roadway related specifications
12.2.2 Attachment A	80	PEC is limited to Roadway design criteria and Roadway related specifications
12.2.3 Attachment B	24	
12.2.4 Project Information Package	16	
12.2.5 Final RFP	32	
12.2.6 RFP Addenda (5)	40	
12.2.7 Address FHWA Comments on RFP Docs	24	

Task 12: Development of RFQ and RFP

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.00%	Profit 10.00%	FCCM	Labor Total
Sr. Transportation Engineer	444	$ 72.11	$ 32,016.84	$ 48,025.26	$ 8,004.21	$ -	$ 88,046.31
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
DBE% 100% Task Totals for Labor	444		$ 32,016.84 (A)	$ 48,025.26 (B)	$ 8,004.21 (C)	$ - (D)	$ 88,046.31 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	400	miles	@	$ 0.580	per mile	$ 232.00
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 232.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor	$ 32,016.84
B	Overhead [A x 1.5]	$ 48,025.26
C	Profit [(A+B) x 0.1]	$ 8,004.21
D	FCCM [A x 0]	$ -
E	Labor Total	$ 88,046.31
F	Non-salary Direct Expenses	$ 232.00
G	Subconsultant Fees	$ -
	Task Total	$ 88,278.31

$88,278.31

Task 13: Procurement

Manhours

Staff Classification	Sr Transportation Engineer										Manhour Totals	
Manhour Totals by Classification	196										196	
Sub-task												
13.10 Respond to RFP Questions	36										36	18.4%
13.20 Technical Assistance During Review of ATCs	48										48	24.5%
13.30 Review Technical Proposal	48										48	24.5%
13.40 Review and Analysis of Bid Packages	24										24	12.2%
13.50 Evaluation of Proposals	40										40	20.4%

Task 13: Procurement

Task Notes

General Task Notes

PEC reviews and responses are limited to roadway related items. Fee assumes that Others will provide reviews, comments, and responses to proposer questions for all other items.

Sub-task	Manhour Totals	Notes
13.10 Respond to RFP Questions	36	Assumes 3 Proposers at 12 Hours for Q&A with Each
13.20 Technical Assistance During Review of ATCs	48	Assumes 3 Proposers at 16 Hours for ATC Review for Each. PEC Roadway Only
13.30 Review Technical Proposal	48	Assumes 3 Proposers at 16 Hours for Review of Each
13.40 Review and Analysis of Bid Packages	24	Assumes 3 Proposers with 8 Hours for Review of Each
13.50 Evaluation of Proposals	40	Assumes 3 Proposals and Participation in Eval Committee Meeting

Task 13: Procurement

Fee Determination for Labor

DBE%	Staff Classification	Hours	Rate	Direct Labor	Overhead 150.00%	Profit 10.00%	FCCM	Labor Total
	Sr. Transportation Engineer	196	$ 72.11	$ 14,133.56	$ 21,200.34	$ 3,533.39	$ -	$ 38,867.29
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
100%	Task Totals for Labor	196		$ 14,133.56 (A)	$ 21,200.34 (B)	$ 3,533.39 (C)	$ - (D)	$ 38,867.29 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	200	miles	@	$ 0.580	per mile	$ 116.00
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 116.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor	$	14,133.56
B	Overhead [A x 1.5]	$	21,200.34
C	Profit [(A+B) x 0.1]	$	3,533.39
D	FCCM [A x 0]	$	-
E	Labor Total	$	38,867.29
F	Non-salary Direct Expenses	$	116.00
G	Subconsultant Fees	$	-
	Task Total	$	38,983.29

$38,983.29

Task 14: Design Plan Review and Administration

Manhours

Staff Classification	Sr Transportation Engineer										Manhour Totals	
Manhour Totals by Classification	80										80	
Sub-task												
14.10 Project Organization and Management Responsibilities												
14.20 Roadway/Path Design Review Responsibilities	80										80	100.0%
14.30 Structural Design Review Responsibilities												
14.40 Movable Span Structure, Mechanical, Electrical&Facilities												
14.50 Hydaulic Design Review Responsibilities												
14.60 Geotechnical Design Review Responsibilities												
14.70 Traffic Engineering Review Responsibilities												

Task 14: Design Plan Review and Administration

Task Notes

General Task Notes

Fee assumes that Others will consolidate reviewer comments and coordinate with the DB Contractor.

Sub-task		Manhour Totals	Notes
14.10	Project Organization and Management Responsibilities		
14.20	Roadway/Path Design Review Responsibilities	80	PEC will provide QA review of preliminary, right of way, and final roadway plans
14.30	Structural Design Review Responsibilities		
14.40	Movable Span Structure, Mechanical, Electrical&Facilities Design Rev		
14.50	Hydaulic Design Review Responsibilities		
14.60	Geotechnical Design Review Responsibilities		
14.70	Traffic Engineering Review Responsibilities		

Task 14: Design Plan Review and Administration

Fee Determination for Labor

DBE%	Staff Classification	Hours	Rate	Direct Labor	Overhead 150.00%	Profit 10.00%	FCCM	Labor Total
	Sr. Transportation Engineer	80	$ 72.11	$ 5,768.80	$ 8,653.20	$ 1,442.20	$ -	$ 15,864.20
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
100%	Task Totals for Labor	80		$ 5,768.80 (A)	$ 8,653.20 (B)	$ 1,442.20 (C)	$ - (D)	$ 15,864.20 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor	$	5,768.80
B	Overhead [A x 1.5]	$	8,653.20
C	Profit [(A+B) x 0.1]	$	1,442.20
D	FCCM [A x 0]	$	-
E	Labor Total	$	15,864.20
F	Non-salary Direct Expenses	$	-
G	Subconsultant Fees	$	-
	Task Total	$	15,864.20

$15,864.20

Pyramid

August 3, 2020

Lila Leon, P.E., Ph.D.
HDR, Inc.
1122 Lady St., #1100
Columbia, SC 29201
Via email to: Lila.Leon@hdrinc.com

SUBJECT: **MASW Survey Cost Proposal**
Ashely River Pedestrian Bridge
US-17 North, West of Ashley River
Charleston, South Carolina

Ms. Leon:

We are pleased to provide this proposal to HDR, Inc. (HDR) to perform a Multi-Channel Analysis of Surface Waves (MASW) 2D seismic survey along US-17 North on the western side of the Ashley River Bridge in Charleston, SC. The MASW survey will be conducted to evaluate geologic conditions across the project site; specifically, to characterize subsurface geological conditions and shear wave velocities down to approximately 100 feet below ground surface. Due to the apparent presence of utilities in the shoulder, the survey will be conducted in the right line of US-17 North. As such, traffic control will be required to close the lane and, due to lane closure restrictions, the work will need to be conducted at night.

SCOPE OF WORK

MASW Methodology

The MASW survey records surface wave seismic data and converts the data into approximate shear wave velocity values. Variations in the shear wave velocities can be used to interpret changes in stratigraphy and transitions from overburden into bedrock. The 2D MASW survey will be conducted using twenty-four, 4.5 Hz geophones connected to a Geometrics 24-Channel Geode seismograph. The geophones and cable will be attached to a "landstreamer," which allows field personnel to rapidly move the entire geophone array at one time during the survey testing.

The MASW transect will consist of one spread of 24 geophones spaced 8 feet apart. This spacing should result in a depth penetration of 100+ feet below the ground surface, depending on geologic conditions and background noise. The sound source will consist of a 20-pound sledgehammer placed 16 feet from the first geophone. The geophone spread for the 2D transect will begin with the center of the 24-geophone array positioned at the beginning of the 200-foot line requested by HDR. The location of the proposed MASW Transect can be seen on the attached **figure**. To collect the 2D transect, a single "shot" will be recorded, providing a 1D profile of shear wave velocity at the center of the geophone spread. The entire spread will then be shifted 8 feet beyond the last geophone using the landstreamer, and another shot will be performed. This procedure will continue until the 200-foot length has been covered. This proposed cross-section would result in a total of 26 individual shots.

It is estimated that the 2D MASW testing will be completed in one field day. The seismic data will be processed using SurfSeis software developed by the Kansas Geological Survey. Apparent depth versus shear wave velocity profiles will be generated for the survey line using the SurfSeis processing program. Pyramid will analyze the 2D cross-section to interpret the depth and thickness of geologic units along the area surveyed.

GPS locations will be recorded at the start and end of the MASW transect. A figure will be provided depicting interpretive lines representing the depth of each geologic unit identified on the transect. The MASW

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503 Industrial Ave • Greensboro, NC 27406
Phone (336)335-3174 • Fax (336)691-0648 • Toll Free (866)545-9507
Email: Info@pyramidenvironmental.com
www.pyramidenvironmental.com

information will also be combined with all geologic logs recorded by the HDR borings to more accurately interpret the velocity thresholds observed in the results.

LIMITATIONS

Although the MASW surveys can be conducted across asphalt, unreinforced concrete, grass and soil surfaces, steel reinforced concrete can interfere with data quality and accuracy. The spread of geophones must be placed in relatively undisturbed soil or on flat ground/asphalt and cannot be placed in surface soils that have recently been disturbed or loosely graded. Background noise can affect the quality of data depending on its proximity and severity during the tests. The test cannot be performed across abrupt changes in topography, such as steps or shear drop-offs. A significant enough velocity contrast must exist between the geologic units discussed above to accurately delineate their depths and thicknesses based on the seismic results.

SCHEDULE & REPORT

We plan to conduct this work upon your approval and when our equipment and personnel are available. Preliminary results will be emailed to HDR following the fieldwork. The report may be submitted within 15 business days following the completion of the fieldwork. The report will include:

- Site photographs.
- A location map showing the MASW transect location.
- 2D cross-section image of the MASW transect performed, including interpretive lines delineating the surfaces of geologic units.
- A spreadsheet containing 1D shear wave velocity results for each MASW shot performed.

COST ESTIMATE

The attached cost spreadsheet provides details of the cost estimates to perform this work. The costs are based upon the scope of work and assumptions described in this proposal and include all field equipment, personnel and reporting expenses.

PYRAMID GEOPHYSICS

8/3/20 Lump Sum Cost Estimate - Geophysical Services

Client : **HDR, Inc.**
1122 Lady St., #1100
Columbia, SC 29201
Attn: Lila Leon, P.E., Ph.D.

Pyramid Environmental
503 Industrial Avenue
Greensboro, NC 27406
Project Manager: Eric Cross, P.G

Site: **Ashley River Pedestrian Bridge**
US-17 North, West of Ashley River
Charleston, SC

Scope of Work
One 2D MASW Test Spanning 200 ft.

		UNIT	QUANTITY	COST	TOTAL
	Geophysical Survey Costs				
1.000	Mileage	$/mile	550	$ 0.58	$ 319.00
1.010	Meals (2 staff)	$/day	2	$ 55.00	$ 110.00
1.020	Lodging (2 staff)	$/day	2	$ 94.00	$ 188.00
1.030	Traffic Control	lump sum	1	$ 2,500.00	$ 2,500.00
1.040	MASW 2D Cross Section Test Spanning 200-Feet	$/day	1	$ 2,500.00	$ 2,500.00
1.050	Data Reduction and Report	lump sum	1	$ 1,500.00	$ 1,500.00

TOTAL ESTIMATE **$7,117.00**

Pyramid Environmental & Engineering, P.C.
Phone - (336) 335-3174 / Fax - (336) 691-0648

BASIS OF COMPENSATION & AGREEMENT

The basis of compensation for the geophysical services outlined above is as follows:

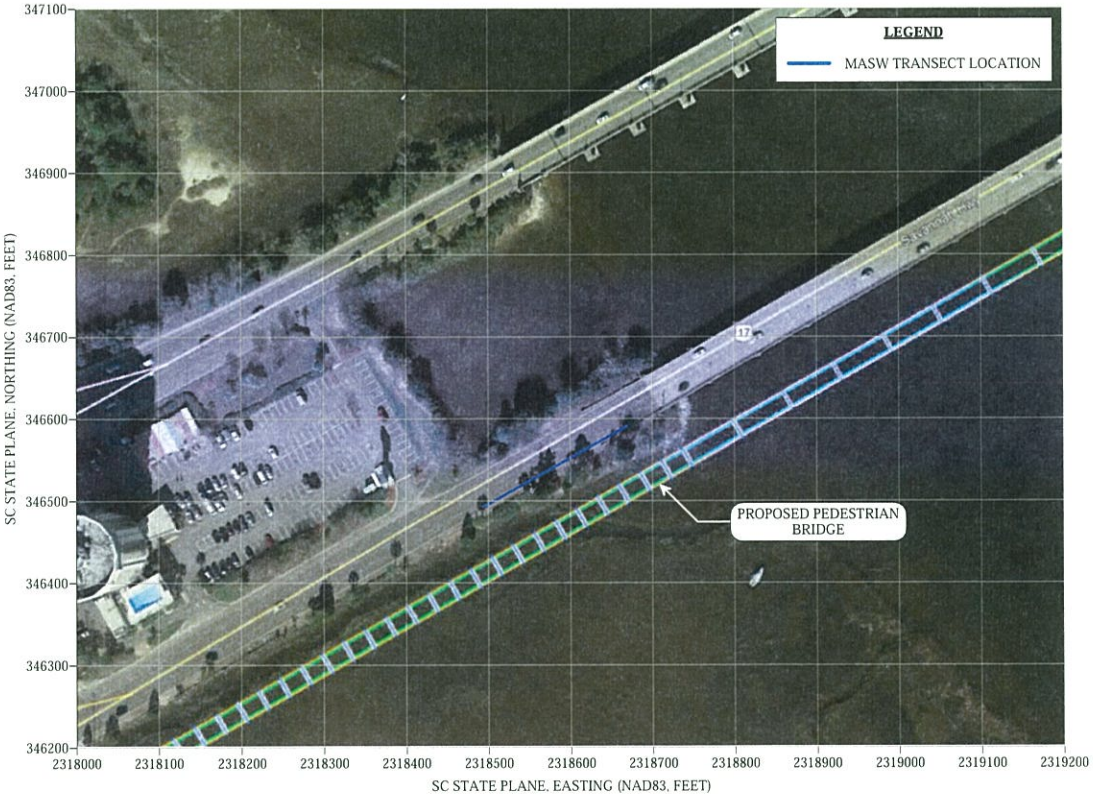
HDR shall pay Pyramid Environmental for services rendered in this cost proposal **the attached lump sum amount of $7,117.00** to conduct the geophysical survey at the project site in South Carolina. This proposal shall remain in effect for sixty days.

The work described in this proposal will be performed under a service agreement between HDR and Pyramid or a work order issued from HDR. We look forward to working with you on this project. Please call if you have any questions or need additional information.

Sincerely,

Eric Cross, P.G.
Senior Geophysicist

PROPOSED MASW TRANSECT LOCATION



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PYRAMID GEOPHYSICS	503 INDUSTRIAL AVENUE GREENSBORO, NC 27406 (336) 335-3174 (p) (336) 691-0648 (f) License # C1251 Eng. / License # C257 Geology	**ASHLEY RIVER PEDESTRIAN BRIDGE -** **PROPOSED MASW TRANSECT LOCATION** CHARLESTON, SC	DATE 8/3/2020	CLIENT HDR, INC.
				FIGURE 1

Soil Consultants, Inc.

SCI | SOIL CONSULTANTS, INC.
Engineers and Geologists
Since 1951

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

August 3, 2020

HDR Engineering of the Carolinas, Inc.
1122 Lady Street, Suite 1100
Columbia, SC 29201

Attention: Ms. Lila Leon, PE, PhD
E: lila.leon@hdrinc.com

Reference: Proposal for Construction Materials Testing Services
Ashley River Pedestrian Bridge
Charleston, SC

SCI Proposal No. 12-20-259

Dear Ms. Leon,

Soil Consultants, Inc. (SCI) is pleased to submit this proposal to provide construction materials testing services for the Ashley River Pedestrian Bridge project located in Charleston, SC. We prepared our proposal using information provided in a July 31, 2020 email to Mr. Ron Austin, PE of SCI and our review of the *Ashley River Pedestrian Bridge - Pavement Coring and Lab Testing* document provided by HDR.

Soil Consultants, Inc. is certified by SCDOT as a DBE and SBE firm, by Charleston County as SBE, and by the City of Charleston as WBE. Services provided by SCI may be applicable to your project's DBE/SBE participation levels.

Scope of Services

1. We will perform asphalt coring at three locations selected by HDR within the proposed construction area. The asphalt will be cored with a 6" diameter steel bit and hand-auger borings will be advanced to depths of approximately 5 feet. Hand auger boring depths may be adjusted as appropriate based on soil conditions encountered. The cored locations will be backfilled with soil cuttings, 789 stone, and topped with asphalt cold patch material.

2. Based on our experience with other projects in the area, the asphalt thickness could be over 12" and not compatible with a coring machine. If the asphalt thickness is greater than 12", SCI will require a drill rig to core through the asphalt. The drill rig will then remain on site and provide continuous sampling up to a maximum of 5 ft depth as requested. We have provided the fees associated with drill rig mobilization in Table 3. Please note that additional traffic control and light plants may be necessary if additional days are required. Additionally, when using a drill rig to core through the asphalt, the asphalt core will likely be damaged. SCI will only be able to obtain a total thickness if lieu of normal core length measurements & pictures.

3. In accordance with South Carolina state law, we assume that HDR will notify SC811 so that existing underground public utilities can be located prior to performing the cores and hand auger borings.

4. Laboratory testing will be performed on samples selected by HDR to aid in soil classification and to measure engineering properties. It is our understanding that all samples will be delivered to SCI laboratory by HDR personnel. Laboratory testing is expected to include the following:
    - Ninety (90) Natural Moisture Content tests (ASTM D2216)
    - Ninety (90) Moisture-Plasticity Relationship Determination (Atterberg Limits) (ASTM D4318)
    - Ninety (90) Grain Size Distribution with wash No.200 (ASTM D1140)
    - Five (5) Organic content tests (ASTM D2974)
    - Six (6) Corrosion Series (including pH, Sulfate, Chloride & Resistivity) for the proposed bridge (AASHTO T289, T290, T291, & T288)
    - Twenty (20) UD preparations
    - Four (4) Consolidation tests (ASTM D2435)
    - Eight (8) Unconsolidated Undrained Triaxial Shear Strength tests (ASTM D2850)
    - Ten (10) Consolidated Undrained Triaxial Shear Strength tests with pore water pressure measurement (ASTM D4767)
    - Two California Bearing Ratio (CBR) w/ Standard Effort (ASTM D1833)
    - Two Moisture Density Relationship (Standard Proctor) (ASTM D698)

HDR Engineering of the Carolinas, Inc. will provide:

1. Approximate coring locations staked/marked in the field.
2. Permitting, coordination, and access rights to each coring location.
3. Utility clearances, as needed, for the coring locations.

<u>Fee Estimate</u>

Estimated fees to provide the outlined services with the noted conditions and under the terms included in the Soil Consultants, Inc. Terms and Conditions to the *Agreement for Testing and Inspection Services* are presented in Tables 1 through 3. Presented estimated fees are neither a not-to-exceed quotation nor a lump sum quotation.

Estimated fees are based on our review of the testing scope outlined by our discussions. The quoted fees are for the presented number of trips, hours per trip, and number of samples/tests. Actual quantities may vary from those estimated and are contingent upon contractor schedules and test scheduling efficiency, over which we have no influence. Invoices will be issued based on services rendered, subject to the noted conditions, and may differ from this estimate.

Quoted fees include standard report distribution via the Soil Consultants, Inc. report system. Quoted fees do not include uploading reports to project specific software, access to project specific software, training for project specific software, or acquisition of project specific software.

Table 1 – Asphalt Coring (with Coring Machine)							
SCDOT Asphalt Coring	**Trips**	**Units/ Trip**	**Quantity**	**Unit**	**Unit Rate**	**Extension**	**Subtotal**
**Estimate 1 trip at 10 hours for 2 technicians to perform asphalt coring and soil sampling. Assume night-time work required due to lane closure restrictions.*							
**Estimate total of 3 asphalt cores and 3 patches.*							
Senior Technician - overtime	1	10	10	hour	$ 112.50	$ 1,125.00	
Technician - overtime	1	10	10	hour	$ 82.50	$ 825.00	
Trip Charge	1	1	1	each	$ 20.00	$ 20.00	
Asphalt Coring, ASTM D5361	1	3	3	each	$ 75.00	$ 225.00	
Coring Machine & Generator	1	1	1	day	$ 155.00	$ 155.00	
Patch Cored Location w/ Asphalt Cold Patch			3	each	$ 10.00	$ 30.00	
Core preparation - asphalt			3	each	$ 50.00	$ 150.00	
Thickness of Asphalt Cores, D3439			3	each	$ 40.00	$ 120.00	
Subcontracted Traffic Control Services	1	1	1	day	$ 2,500.00	$ 2,500.00	
Light Plant Rental	1	1	1	day	$ 135.00	$ 135.00	
Estimated Fees - SCDOT Asphalt Coring							**$ 5,285.00**
SUBTOTAL – Asphalt Coring (with Coring Machine)							**$ 5,285.00**

Table 2 – Laboratory Testing Services							
Laboratory Testing	**Trips**	**Units/ Trip**	**Quantity**	**Unit**	**Unit Rate**	**Extension**	**Subtotal**
Atterberg Limits (ASTM D4318)		90	90	each	$ 80.00	$ 7,200.00	
California Bearing Ratio (ASTM D1883)		2	2	each	$ 510.00	$ 1,020.00	
Moisture Content (ASTM D2216)		90	90	each	$ 13.00	$ 1,170.00	
Organic Content (ASTM D2974)		5	5	each	$ 68.00	$ 340.00	
Particle Size (ASTM D422) dry sieve, wash 200, no hydrometer		90	90	each	$ 85.00	$ 7,650.00	
Standard Proctor (ASTM D 698, Method A)		2	2	each	$ 135.00	$ 270.00	
UD Preparation		20	20	each	$ 130.00	$ 2,600.00	
Consolidation (16 load increments), ASTM D2435		4	4	each	$ 950.00	$ 3,800.00	

Table 2 – Laboratory Testing Services							
Unconsolidated Undrained Triaxial (ASTM D2850)		8	8	each	$ 520.00	$ 4,160.00	
Consolidated Undrained Triaxial (ASTM D4767)		10	10	each	$ 950.00	$ 9,500.00	
Resistivity (Laboratory), ASTM G187		6	6	each	$ 130.00	$ 780.00	
pH Test (Laboratory), ASTM D4972		6	6	each	$ 45.00	$ 270.00	
Chloride Content (AASHTO T291)		6	6	each	$ 100.00	$ 600.00	
Sulfate Content (AASHTO T290)		6	6	each	$ 90.00	$ 540.00	
						Estimated Fees - Laboratory Testing	**$ 39,900.00**
						SUBTOTAL – Laboratory Testing Services	**$ 39,900.00**

Table 3 – Coring (with Drill Rig)					
Field Services	**Quantity**	**Unit**	**Rate**	**Fee**	**Subtotal**
Cut and Patch Asphalt	3	each	$ 100.00	$ 300.00	
Mobilization and Transportation of SPT Drill Rig (Truck)	1	each	$ 650.00	$ 650.00	
Traffic Control (Subcontracted)	1	day	$ 2,500.00	$ 2,500.00	
Truck Drill Rig and 2-Man Crew (8 hr day)	1	day	$ 1,650.00	$ 1,650.00	
Light Plant Rental	1	day	$ 135.00	$ 135.00	
				Subtotal - Field Services	$ 5,235.00
Laboratory Testing Services	**Quantity**	**Unit**	**Rate**	**Fee**	**Subtotal**
Core preparation - asphalt	3	each	$ 50.00	$ 150.00	
Thickness of Asphalt Cores, D3439	3	each	$ 40.00	$ 120.00	
				Subtotal - Laboratory Services	$ 270.00
				SUBTOTAL – Coring (with Drill Rig)	**$ 5,505.00**

Table 4 – Estimated Fee Task Summary	
Task	**Estimated Fee**
Asphalt Coring with Coring Machine	$ 5,285.00
Laboratory Testing	$ 39,900.00
Total Estimated Fees	**$ 45,185.00**
Asphalt Coring with Drill Rig ***(if applicable)***	$ 5,505.00

Noted conditions for our service include:

1. Services are scheduled by calling the Materials Testing department at 843.723.4539. We request 48-hour notice.
2. Fees for field work are computed from time of departure to time of return to the laboratory, subject to the minimum charges outlined herein.
3. Trip charges are levied for each trip required to complete the requested service.
4. Trip charges do not include gate charges, parking fees, or other fees that may be required to access the site. These incidental fees will be invoiced as incurred.
5. All field inspections for materials testing require a 3-hour minimum charge during SCI regular business hours and require a minimum 4-hour charge outside of SCI regular business hours.
6. Regular time for materials testing is defined as within SCI regular business hours: between 7 am and 4 pm Monday through Friday, excluding holidays.
7. Overtime is defined as all time before and after regular business hours Monday through Friday, all time on weekends, and all time on holidays.
8. Overtime rates of 1.5 times the appropriate personnel rate will be applicable and invoiced for all services provided outside of SCI regular business working hours and for all services provided on weekends. Overtime rates of 2.0 times the appropriate personnel rate will be applicable and invoiced for all field and laboratory services provided on holidays.
9. For in-house laboratory services requested after SCI regular business hours, on weekends, or on holidays, personnel overtime rates will apply in addition to the laboratory service unit rate. A minimum charge of 2-hours personnel overtime rate will apply for in-house laboratory services performed after SCI regular business hours, on weekends, or on holidays, with actual personnel time invoiced if greater than 2 hours.
10. Quoted fees are for standard turnaround. If expedited service is required, additional fees will be levied.
11. Standby time or lost time, resulting through no fault of SCI, will be invoiced at the appropriate unit rates.
12. Estimated pricing does not include costs for re-tests due to failure.
13. Payment terms are net 30 days – 1.5% finance charge per month on all outstanding accounts over 30 days.
14. Payments made with credit cards (Visa and MasterCard) are subject to a 3% convenience fee.
15. Quoted fees include standard report distribution defined as one electronic copy to parties designated by the Client when the work is authorized. Report issuance is via the Soil Consultants, Inc. report system. Quoted fees do not include uploading reports to project specific software, access to project specific software, training for project specific software, or acquisition of project specific software. Additional fees will be levied if required.
16. Fees and conditions offered in this proposal will remain in force and effect for 60 days from the proposal date. If the proposal has not been accepted by execution and returned within the 60-day period, Soil Consultants, Inc. reserves the right to revise any service scope, fee, and/or condition to the proposal.

17. After contract acceptance, quoted unit rates are valid for the remainder of the calendar year 2020 unless noted. Soil Consultants, Inc. reserves the right to levy unit rate increases for services provided in subsequent calendar years.

Authorization

To authorize our services with the outlined scope, fees, and noted conditions, execute the attached *Agreement for Testing and Inspection Services* with the accompanying *Terms and Conditions* and return them to us via email. The *Agreement for Testing and Inspection Services* requires signature, date, and printed name. The *Terms and Conditions* require initials and date. Return of the *Agreement* page constitutes acceptance of our proposal, *Agreement* and *Terms and Conditions*.

If you have exceptions to our proposal, *Agreement*, or *Terms and Conditions*, please note your exceptions and return the full document. Once the exceptions have been resolved by agreement in writing, Soil Consultants, Inc. will consider the contract to be executed.

We appreciate the opportunity to present this proposal. If we may be of further assistance, please call.

Sincerely,
Soil Consultants, Inc.

Taylor O. Johnson
Project Manager

M. Brian Johnson
President

Attachments

Agreement for Testing and Inspection Services

Stantec

Stantec has been requested to provide the services listed below in conjunction with the Ashley River Bike Ped Bridge Design Build Preparation Services as a subconsultant to HDR.

5. ROADWAY/PATH DESIGN

All plans, designs, specifications and estimates shall conform to the SCDOT's standard practices for highway construction, which are based on the latest edition of the following material:

- AASHTO A Policy on Geometric Design of Highways and Streets, 2011;
- AASHTO Guide for the Development of Bicycle Facilities, 2012;
- SCDOT Standard Drawings – Latest Edition; SCDOT Standard Specifications for Highway Construction 2007 Edition;
- SCDOT'S Engineering Directive Memoranda and Instructional Bulletins;
- SCDOT'S Access and Roadside Management Standards (ARMS) Manual, latest edition;
- SCDOT Roadway Design Manual, 2017,
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 1st Edition and;
- Other applicable SCDOT and FHWA design material, current editions.

5.1. Conceptual Plans*

5.1.1. Prior to beginning the design, the CONSULTANT shall submit detailed design criteria for approval by the CITY. Design criteria not in compliance with AASHTO or SCDOT requirements shall be brought to the CITY's attention for evaluation of a design exception.*

5.1.2. The CONSULTANT shall prepare conceptual plans for the alternatives in order to illustrate significant design features of the project. Improvements shall include:

- Intersection safety and pedestrian improvements at Wappoo Road and West Ashley Greenway

- Intersection safety and pedestrian improvements at Wesley Drive / Folly Road
- Alternatives for US 17 NB Off Ramp / Bee Street/ Lockwood Drive intersection

These conceptual plans will consist primarily of roll plots, typical sections and cross sections only where needed to verify the design.*

5.1.3. Conceptual cost estimates will be completed for each alternative and location*

5.2. Preliminary Road/Path Design

The CONSULTANT shall refine the conceptual plans for the preferred alternative necessary to confirm the NEPA boundaries and to aid in preparing a refined construction cost estimate and finalize design criteria.

5.2.1. Plans will include: Title sheet, Plans and profiles, Typical sections, Existing Right of way, Proposed Right of way, Cross Sections*

5.2.2. Preliminary cost estimates based off of select bid item quantities will be developed for the preferred alternative.*

5.2.3. Representatives from the CITY and the CONSULTANT will perform one (1) Design Field Review (DFR) meeting during the preliminary plan development. All information gathered during the DFR will be evaluated and the plans revised to verify the NEPA boundaries, cost estimate and criteria.*

5.2.4. Respond to comments and finalization of refined roadway plans*

5.2.5. Identify preliminary right of way requirements and environmental impacts*

5.2.6. Complete design exception documentation, if needed*

5.3. Deliverables

- One (1) Electronic copy of Roadway Design Criteria
- One (1) PDF file of Conceptual Roadway plans for each alternative will be provided.
- Conceptual Cost estimates
- One (1) PDF file of Preliminary Roadway plans will be provided for the preferred alternative
- Cost estimate from the preliminary plans for the preferred alternative.
- One (1) Complete Design Exception with supporting documentation (if necessary)

7. HYDROLOGY AND HYDRAULIC DESIGN

All hydraulic design and documents will be in compliance with the following design criteria:

- SCDOT's Requirements for Hydraulic Design Studies, latest edition;
- SCDOT Standard Drawings;
- SCDOT Supplemental Specifications;
- SCDOT Engineering Directive Memorandums;
- SCDOT Instructional Bulletins;
- SCDOT Standard Specifications for Highway Construction;
- SCDOT Supplemental Technical Specifications;
- SCDOT Preconstruction Advisory Memorandums;
- City of Charleston Stormwater Design Manual, latest edition;
- FEMA Regulations, 44CFR Chapter 1;
- The State Stormwater and Sediment and Erosion Control Regulations administered by DHEC, 26 S.C. Code Ann. Regs. 72-405 (Supp. 1995) et seq.;
- South Carolina State Water Law;
- AASHTO "Highway Drainage Guidelines" dated 2007;
- AASHTO"Drainage Manual", 2014 first edition;
- SCDOT "Stormwater Quality Design Manual" latest edition;
- SCDHEC NPDES MS4 permit #SCS040001; and

- SCDHEC NPDES Construction Permit #SCR160000.

7.1. Roadway Drainage*

7.1.1. Perform a hydrological study of the watershed(s) using existing topographic maps, information gathered from the field investigation(s) and available information from federal, state and local agencies.

7.1.2. Perform hydraulic analyses for pre- and post-developed conditions on the crossline drainage structures based on the appropriate route designation. Check the crossline drainage structures for roadway overtopping using the 100-yr storm event. Tailwater conditions must be taken into consideration.

7.1.3. Coordinate potential impacts from the proposed project on pre-development peak flow rates and total runoff volume. Prepare conceptual design alternatives for reducing post-development flow rates and total runoff volume to pre-development levels in accordance with CITY standards. This task item is specifically for non-bridge areas.

7.2. Deliverables:

- One (1) PDF copy of the Conceptual Roadway Drainage Design Report

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
05	Roadway & Path Design	$ 75,973.31	$ 136.00	$ -	$ 76,109.31	78.6%
07	Hydrology & Hydraulic Design	$ 20,775.59	$ -	$ -	$ 20,775.59	21.4%
	Totals	$ 96,748.90	$ 136.00	$ -	$ 96,884.90	

Stantec

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
05	Roadway & Path Design	$ 25,698.98	$ 43,217.45	$ 6,891.64	$ 165.24	$ 75,973.31	$ 136.00	$ 76,109.31
07	Hydrology & Hydraulic Design	$ 7,027.62	$ 11,818.21	$ 1,884.58	$ 45.18	$ 20,775.59	$ -	$ 20,775.59
	Totals	$ 32,726.60	$ 55,035.66	$ 8,776.22	$ 210.42	$ 96,748.90	$ 136.00	$ 96,884.90
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
Stantec	$ 96,884.90		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Sum: $96,884.90		
	Total DBE Qualifying Fee		$ -
	Percentage of Fee Total		

Fee Summary

A - Direct Labor	$	32,726.60
B - Overhead [A x 1.68168]	$	55,035.66
C - Profit [(A+B) x 0.1]	$	8,776.22
D - FCCM [A x 0.00643]	$	210.42
E - Labor Total	$	96,748.90
F - Total Non-Salary Direct Expenses	$	136.00
G - Subconsultant Fees	$	-
Fee Total	$	96,884.90

fee total less profit $88,108.68

Prepared by: _____

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

05

Task 05: Roadway & Path Design

Manhours

Staff Classification	Project Manager	Sr. Transportation Engineer	Transportation Engineer	Jr. Transportation Engineer EIT	Engineering Technician											Manhour Totals	
Manhour Totals by Classification	38	126	430													594	
Sub-task																	
5.10 Conceptual Plans																	
5.1.1 Design Criteria	2	6														8	1.3%
5.1.2 Preparation of Conceptual Plans	12	30	120													162	27.3%
5.1.3 Conceptual Cost Estimates	2	8	20													30	5.1%
5.20 Preliminary Road																	
5.2.1 Preparation of Preliminary Plans	12	48	200													260	43.8%
5.2.2 Preliminary Cost Estimates		6	16													22	3.7%
5.2.3 Design Field Review Meeting	6		6													12	2.0%
5.2.4 Finalize Preliminary Road Plans	2	16	60													78	13.1%
5.2.5 ROW and Environmental Impacts		4	8													12	2.0%
5.2.6 Design Exceptions (If required)	2	8														10	1.7%

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
5.10 Conceptual Plans		
5.1.1 Design Criteria	8	
5.1.2 Preparation of Conceptual Plans	162	roll plots, typ sects, and cross sects
5.1.3 Conceptual Cost Estimates	30	
5.20 Preliminary Road		
5.2.1 Preparation of Preliminary Plans	260	title, plan, profiles, typ sects, r/w
5.2.2 Preliminary Cost Estimates	22	
5.2.3 Design Field Review Meeting	12	
5.2.4 Finalize Preliminary Road Plans	78	
5.2.5 ROW and Environmental Impacts	12	
5.2.6 Design Exceptions (If required)	10	

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 168.17%	Profit 10.00%	FCCM 0.64%	Labor Total
Project Manager	38	$ 72.12	$ 2,740.56	$ 4,608.74	$ 734.93	$ 17.62	$ 8,101.85
Sr. Transportation Engineer	126	$ 58.67	$ 7,392.42	$ 12,431.68	$ 1,982.41	$ 47.53	$ 21,854.04
Transportation Engineer	430	$ 36.20	$ 15,566.00	$ 26,177.03	$ 4,174.30	$ 100.09	$ 46,017.42
Jr. Transportation Engineer/EIT		$ 32.12	$ -	$ -	$ -	$ -	$ -
Engineering Technician		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	594		$ 25,698.98 (A)	$ 43,217.45 (B)	$ 6,891.64 (C)	$ 165.24 (D)	$ 75,973.31 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	100	miles	@	$ 0.575	per mile	$ 57.50
Full Size Plots, 22 x 36	50	sheets	@	$ 1.25	per sheet	$ 62.50
Half Size Plots, 12 x 18	50	sheets	@	$ 0.32	per sheet	$ 16.00
				Task Total for Non-salary Direct Expenses		$ 136.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
	Task Totals for Subconsultant Involvement	$ - (G)	

Fee Summary for Task

A	Direct Labor	$	25,698.98
B	Overhead [A x 1.68168]	$	43,217.45
C	Profit [(A+B) x 0.1]	$	6,891.64
D	FCCM [A x 0.00643]	$	165.24
E	Labor Total	$	75,973.31
F	Non-salary Direct Expenses	$	136.00
G	Subconsultant Fees	$	-
	Task Total	$	76,109.31

$76,109.31

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

07

Task 07: Hydrology & Hydraulic Design

Manhours

Staff Classification	Project Manager	Sr Hydraulic Engineer	Hydraulic Engineer	Jr Hydraulic Engineer EIT												Manhour Totals
Manhour Totals by Classification	12	48		114												174
Sub-task																
7.10 Roadway Drainage	8	32		74												114 65.5%
7.1.1 Conceptual Roadway Drainage Design Report	4	16		40												60 34.5%

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
7.10 Roadway Drainage	114	
7.1.1 Conceptual Roadway Drainage Design Report	60	

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 118.17%	Profit 10.00%	FCCM 0.64%	Labor Total
Project Manager	12	$ 72.12	$ 865.44	$ 1,455.39	$ 232.08	$ 5.56	$ 2,558.47
Sr Hydraulic Engineer	48	$ 57.39	$ 2,754.72	$ 4,632.56	$ 738.73	$ 17.71	$ 8,143.72
Hydraulic Engineer		$ -	$ -	$ -	$ -	$ -	$ -
Jr Hydraulic Engineer/EIT	114	$ 29.89	$ 3,407.46	$ 5,730.26	$ 913.77	$ 21.91	$ 10,073.40
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	174		$ 7,027.62 (A)	$ 11,818.21 (B)	$ 1,884.58 (C)	$ 45.18 (D)	$ 20,775.59 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses				$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor		$ 7,027.62
B	Overhead [A x 1.68168]		$ 11,818.21
C	Profit [(A+B) x 0.1]		$ 1,884.58
D	FCCM [A x 0.00643]		$ 45.18
E	Labor Total		$ 20,775.59
F	Non-salary Direct Expenses		$ -
G	Subconsultant Fees		$ -
		Task Total	$ 20,775.59

$20,775.59

Tidewater Atlantic

Technical Proposal for:

A Submerged Cultural Resource Remote Sensing Survey of the Ashley River Bike and Pedestrian Bridge Construction Corridor Charleston, South Carolina

Submitted to:

HDR, Inc.
4400 Leeds Avenue, Suite 450
North Charleston, South Carolina 29405-7547

Submitted by:

Tidewater Atlantic Research, Inc.
P. O. Box 2494
Washington, North Carolina 27889

Submittal Date:

26 June 2020

Introduction

HDR, Inc.(HDR) of Charleston, South Carolina is working with the City of Charleston to design, permit and construct a bicycle and pedestrian bridge over the Ashley River. In order to determine the proposed project's possible effects on potentially significant submerged cultural resources, HDR requested technical and cost proposals for a systematic magnetic and acoustic survey of the bridge corridor. The Phase I remote-sensing survey proposed by Tidewater Atlantic Research, Inc. (TAR) of Washington, North Carolina is designed to locate and identify any submerged cultural resources within the project construction footprint. Data generated by the survey will support identification of magnetic anomalies and acoustic image targets that could represent potentially significant submerged cultural resources.

The investigation proposed by TAR conforms to the survey requirements of the South Carolina State Historic Preservation Office (SHPO) and recommendations of the South Carolina Institute of Archaeology and Anthropology (SCIAA). Analysis of the magnetic and acoustic data will provide accurate and reliable identification, assessment, and documentation of submerged cultural resources in the project Area of Potential Effect (APE). All potentially significant magnetic anomalies and acoustic targets will be evaluated in terms of eligibility criteria established in compliance with the National Historic Preservation Act of 1966, as amended, and the Archaeological and Historic Preservation Act of 1979, as amended.

Results of the proposed investigation will provide HDR with the archaeological data essential for complying with submerged cultural resource legislation and regulations. Each archaeological and historical resource will be evaluated and assessed. The need for additional investigation or testing to determine appropriate measures for avoidance and preservation of the resource, or mitigation that might be required in the event that avoidance is not an option, will also be addressed in the final report document.

The methodology proposed by TAR will combine state-of-the-art technology, experienced personnel, and an investigative approach designed to generate appropriate historical and remote-sensing data. Equipment for the project has been selected to provide maximum reliability and economy in target location, relocation, identification, documentation, and assessment. Personnel responsible for the remote-sensing investigation have been selected to combine a variety of individual talents and extensive submerged cultural resource research and management experience. That experience provides assurance of maximum operational efficiency, safety, and professional assessment of the data.

The research methodology will assure a systematic scientific approach designed to ensure the generation of appropriate data, yet retain the operational flexibility essential to the success of field investigations. TAR submits that the major strength of this proposal lies in the unique combination of personnel, equipment, and procedures. This combination assures that the project will generate data that can serve as a basis for responsible decision-making concerning those submerged cultural resources in the study area.

Research Methodology

TAR proposes to conduct a limited literature and Internet search of primary and scholarly secondary sources to assess the potential for finding submerged historic properties within the proposed survey area. That research will be designed to build upon and refine an extant maritime background for Charleston and the adjacent Ashley River area.

Remote-Sensing Survey

To identify submerged cultural resources, TAR proposes to conduct a systematic remote-sensing survey of the proposed project construction areas utilizing a 25-foot vessel. In order to fulfill the requirements stated in the *Scope of Work*, TAR proposes to employ both magnetic and acoustic remote sensing. A combination of magnetic and acoustic remote-sensing equipment represents the

state of the art in submerged cultural resource location technology and offers the most consistent and cost-effective method to locate and identify potentially significant targets. Data collection will be controlled using a differential global positioning system (DGPS). The DGPS produces the highly accurate coordinates necessary to support a sophisticated navigation program and assure reliable target location.

Magnetic Remote Sensing

An EG&G Geometrics 882 dual channel cesium vapor magnetometer capable of plus or minus 0.1 gamma resolution will be employed to collect magnetic data in the survey area. To produce the most comprehensive magnetic record, data will be collected on a one-second interval, and the sensor will be deployed and maintained in the water column at a depth of 10 to 12 feet above the bottom surface unless shallow water dictates otherwise. A computer will provide a continuous permanent record of the magnetic background and target signatures. Because of the historical nature of the area, magnetic data will be collected along transects spaced on 15-meter intervals.

Investigators may return to the location of each significant anomaly and re-survey those targets by using a closer lane spacing (5-meter) to further refine the magnetic signature if necessary. Magnetic data will be recorded on both an analog recorder and as a data file associated with the computer navigation system. Data from the survey area will be contour plotted using QuickSurf software to facilitate anomaly location and definition of target signature characteristics. All magnetic data will be correlated with the acoustic remote-sensing records.

Acoustic Remote Sensing

Sidescan Sonar

A Klein 3900 digital 600/1200kHz high-resolution sidescan sonar will be employed to collect digital acoustic data in the survey area. During the survey, the sidescan sonar transducer will be deployed and maintained at approximately 10-foot elevation above the bottom surface unless shallow water dictates otherwise. Acoustic data will be collected along transects spaced on 15-meter intervals. Range sonar scales will be selected to provide a combination of 200% coverage of the survey area and high target signature definition. Acoustic data will be recorded digitally and tied to the magnetic and positioning data by the computer navigation system event-marking program.

Sub-bottom Profiler

An EDGETECH 3100 high-resolution digital sub-bottom profiler (SBP) with a 216 transducer will be employed to collect seismic acoustic data in the survey area. During the survey, the transducer will be deployed and maintained at a 10-foot elevation above the bottom surface unless shallow water dictates otherwise. SBP data will also be collected along transects spaced on 15-meter intervals. Additional lanes may be run in the vicinity of anomalies to enhance target signature definition. SBP acoustic data will be recorded as a data file and tied to the magnetic data by regular DGPS annotations.

Positioning System

The remote-sensing survey will run on a digitized navigation chart of the project area. A DGPS will be used to control navigation and data collection in the survey area. The DGPS system has sub-meter accuracy and can be used to generate precise coordinates for the computer navigation system. A TRIMBLE dedicated DGPS will be used. The DGPS will be operated in conjunction with an on-board laptop loaded with HYPACK navigation and data collection software. All magnetic and acoustic records will be tied to positioning events generated by HYPACK and magnetic data will be stored in the computer in conjunction with DGPS generated positioning coordinates.

Data Analysis

All data will be reviewed by TAR's principal investigator. Target signatures suggestive of significant submerged cultural material will be isolated and analyzed in accordance with anomaly intensity, duration, areal extent, and signature characteristics suggestive of the material generating the anomaly. Analysis of each target signature will include consideration of magnetic and acoustic signature characteristics previously demonstrated to be reliable indicators of historically significant submerged cultural resources. Assessment of each target will include recommendations for additional investigation to determine the exact nature of cultural material generating the signature and potential National Register of Historic Places (NRHP) significance. Data collected from any previously conducted surveys of the bridge site will also be examined.

Previously collected historical evidence will be enhanced by an Internet survey and developed into a background context and an inventory of shipwreck sites that identifies possible correlations with magnetic targets. A magnetic contour map of the survey area will be produced to aid in the analysis of each target. The contour map will include target location, South Carolina state plane coordinates; bar scale and north arrow; the locations of channel beacons and buoys, channel alignments, and any cable and pipeline crossings within the project area. To accompany the contour map, TAR will prepare a table listing all magnetic anomalies, sonar targets and potentially significant sub-bottom features located during the survey. This table will include project name, survey area, target number, coordinates, and signature characteristics. Each line of sidescan sonar data will be analyzed and a coverage mosaic prepared to illustrate the report document. Likewise, each line of SBP data will be reviewed for targets associated with anomalies and sonar targets.

Report Deliverables

Following the completion of fieldwork, the TAR principal investigator will report to the designated HDR *Point of Contract* (POC) by email. That written report will include discussion of the work accomplished, problems resolved, and findings in order that the HDR POC will be able to assess the work. TAR will follow up initial communications with a *Management Summary* within 10 business days following completion of the fieldwork. The *Management Summary* will briefly describe the field methods used. The results will be described in sufficient detail to provide a basis for specific recommendations of significance for identified magnetic anomalies. The summary will also include a magnetic anomaly map showing the South Carolina state plane coordinates of all anomalies identified as potentially significant and recommendations for additional evaluation of targets determined to represent potentially significant historic resources.

Unless an inordinate volume of anomalies are identified in the survey area that require intense evaluation, TAR will submit a digital illustrated draft report within 35 business days after completion of the fieldwork. The report will strictly adhere to requirements set forth by the South Carolina SHPO and by SCIAA and will include a thorough project treatment describing the purpose, methodology, and results of the field investigations that will satisfy Section 106 mandates.

Documentation of the submerged cultural resource survey will include a description of the methodology employed, identification of the equipment and personnel, and a target specific assessment of the data and a literature search to determine possible locations of historical shipwrecks in the proposed project area. Recommendations for buffer zones to avoid disturbance of material generating the target signature and/or additional investigation will also be included in the draft report. A South Carolina Master Site File survey log sheet will accompany the draft and final document. Following review by all state and Federal stakeholders, and incorporation of all reviewer comments, the final report document will be submitted to the HDR POC within 10 business days.

Experience Qualifications

Based in Washington, North Carolina, TAR was formed in July 1979 [inc. 1988] to provide historical and archaeological research and cultural resources management services to state and Federal agencies, institutions, corporations, and organizations requiring specialized skills. In order to

provide the most appropriate combination of skills and experience, each project is organized on an individual basis selecting personnel from a nucleus group with professional backgrounds in underwater, prehistoric, and historic archaeology, historical research and writing, cultural resource location, identification, assessment, management, and mitigation.

As the successful conduct of submerged cultural resource investigations requires the use of sophisticated technology, staff experience includes expertise in both acoustic and magnetic remote sensing, self contained and surface supplied compressed air or mixed gas diving operations, underwater photographic and video documentation, and artifact analysis and conservation. To ensure sensitivity to each project's requirements and objectives, TAR maintains the flexibility to provide any combination of support and assistance from problem-oriented consultation and service assistance to complete project development, conduct, and reporting.

For the past 41 years, TAR has carried out high-quality survey and assessment operations for a variety of Federal agencies that include: the U.S. Navy; NOAA, U.S. Department of Justice, U.S. Marine Corps, Bureau of Ocean Energy Management, National Park Service, Naval Historical Center, and several U.S. Army Engineer Districts; New York, Philadelphia, Baltimore, Norfolk, Wilmington, Charleston, Savannah, Jacksonville, and Mobile. State and municipal client agencies, museums, and colleges include: South Carolina Department of Highways and Public Transportation; Georgia Department of Transportation (DOT); North Carolina DOT, Virginia DOT; Maryland DOT; University of South Carolina, Institute of Archaeology and Anthropology; Virginia Department of Historic Resources; Virginia Port Authority; City of Alexandria, Virginia; National Civil War Naval Museum; Bermuda Maritime Museum; St. Augustine Lighthouse Museum, Tampa Aquarium, and the Martin County [Florida] Historical Society-Elliott Museum. TAR has provided cultural resource consultation to engineering and private firms that include; APTIM; Brockington & Associates, Chicago Bridge & Iron; Coastal Planning & Engineering, Coastal Science & Engineering, Olsen Associates, Applied Technology and Management; Tetra Tech, The SHAW Group, Panamerican Consultants, Moffatt and Nichol; The Wooten Company, Carter & Sloope, and The Brigman Company.

TAR operates out of a primary facility in Washington, North Carolina. The 4,000-square-foot structure contains office, library, engineering, laboratory and storage space and a complete range of computer related engineering and office equipment. TAR maintains in-house a complete line of remote-sensing and positioning equipment and six survey vessels ranging from 16 to 32 feet to support those operations. Diving operations can be carried out from several suitable surface support platforms using available and communications equipped surface supplied and/or SCUBA equipment. A complete inventory of pumps, compressors, dredges, underwater photographic and television equipment, hand held object locators, grids and mapping equipment is available to support all phases of underwater archaeological investigations. Both space and equipment are available to clean, record and conserve archaeological material. TAR provides appropriate hardware and software necessary for field data analysis and report production. Relevant software includes AutoCAD, Rhinoceros, ArcView, HYPACK, QuickSurf, and Chesapeake Technology SONAR WIZ.

Proposed Key Project Personnel

Gordon P. Watts, Jr., Director of TAR, will serve as the Principal Investigator. As such he will design and supervise all project activities. As necessary, qualified remote-sensing operators will serve as field personnel. Report preparation and computer graphics will be prepared by Gordon Watts and Senior Historian Robin Arnold. All project personnel exceed the minimum qualifications established by the U.S. Department of Interior. TAR has the personnel, equipment and experience to complete every aspect of the work identified in the request for proposals. Personnel identified in our proposal have extensive experience in maritime history and underwater archaeology and have participated in numerous submerged cultural resource projects in the State of South Carolina. TAR personnel have carried out underwater archaeological research projects in Charleston County, Berkeley County, Georgetown County, Beaufort County, Williamsburg County, and Jasper County. All personnel identified in this proposal have extensive experience in conducting submerged cultural resource investigations in environments such as the Ashley River.

Gordon P. Watts, Jr., Principal Investigator

Gordon Watts experience in maritime history and underwater archaeology spans more than 50 years. That experience has been accumulated in a variety of positions that included responsibility for program administration, cultural resource management, academic and public education and historical and underwater archaeological research and writing. Dr. Watts holds a M.A. degree in History from East Carolina University in Greenville, North Carolina and a Ph.D. in Maritime History from the University of St. Andrews in Fife, Scotland. He currently serves as the director of TAR and the director of the Institute for International Maritime Research, a non-profit research institute. Dr. Watts retired in January 2001 from East Carolina University (ECU) serving the university's Program in Maritime History and Nautical Archaeology as a professor of Nautical Archaeology for 20 years.

From 1972 until 1981, Dr. Watts was employed by the North Carolina Department of Cultural Resources. After serving for several years as an underwater archaeologist, Dr. Watts was placed in charge of the Underwater Archaeology Branch in 1978. That unit was created to make management of North Carolina's submerged cultural resources more effective. Activities of the branch included development of a submerged cultural resource management plan, survey and planning, grant development, environmental review, education (public and academic), contract administration, public information, preservation and historic and archaeological research. In addition to activities related to resource management, the Branch cooperated with the National Oceanic and Atmospheric Administration in developing research and management programs for the USS *Monitor* National Marine Sanctuary.

In 1981, Dr. Watts accepted a teaching and administrative position with ECU to assist in establishing the Program in Maritime History and Nautical Archaeology. That program was designed and organized to provide graduate educational opportunities in maritime history and underwater archaeology. Today that program includes both traditional courses in history and field research experience involving site location, identification, testing and excavation projects. Since 1981, Dr. Watts' grant and university-supported field research projects have included remote sensing and/or site specific investigations along the Atlantic Seaboard, in the Great Lakes and Gulf of Mexico, Europe, Bermuda and in a number of islands in the Caribbean and West Indies.

Shipwreck experience related to those areas includes sites that date from the period of exploration in the early sixteenth century to the American Civil War. Much of that work has involved the excavation, recovery, and documentation of the sixteenth century Western Ledge Reef Wreck and the excavation and documentation of vessels such as the seventeenth century *Stonewall* and New Old Spaniard wrecks and the nineteenth century French frigate *L'Herminie* in Bermuda. In the United States Dr. Watts' experience in excavation and documentation includes the eighteenth century British transport *Betsy* and Cornwallis Cave Wrecks at Yorktown, Virginia; the *El Nuevo Constante* off the Louisiana coast; a variety of late eighteenth and early nineteenth century sail and steam wrecks at Savannah, Georgia; a nineteenth century schooner in the Cape Fear River at Wilmington, North Carolina; and a variety of Great Lakes vessels that include a steam powered lightship, several grain and ore carriers, and fishing and lumber schooners. Dr. Watts has also directed research on a variety of Civil War vessels that include blockade runners, blockade vessels, and gunboats such as the C.S.S. *Chattahoochee* and U.S.S. *Southfield* and the ironclads U.S.S. *Monitor*, U.S.S. *Tecumseh*, C.S.S. *North Carolina*, C.S.S. *Richmond*, and C.S.S. *Jackson*.

Dr. Watts also serves in a variety of capacities to assist the National Oceanic and Atmospheric Administration in developing a program for protecting, investigating, and developing the remains of the U.S.S. *Monitor*, the Canadian Government with research and management of the War of 1812 schooners *Hamilton* and *Scourge*, and the French Association C.S.S. *Alabama* with research and management of the Confederate commerce raider C.S.S. *Alabama*.

Robin Arnold, Senior Historian

Ms. Arnold received a B.A. in History and Political Science from ECU and completed the course requirements for an M.A. in History at that institution. She has assisted with archival research and writing, editing, report preparation and GIS development at Tidewater Atlantic Research since 1988. Since 1993, Ms. Arnold has been the office manager for TAR. In that capacity, she has also been responsible for general business matters, proposal development, and contract administration. In 2005, Ms. Arnold received certification by NOAA for a Coastal Application, ArcGIS training module and similar instruction. In regard to Historic Preservation & Cultural Resource Management, Ms. Arnold serves as the Section 106 Compliance Specialist for TAR. In 2010, Ms. Arnold received certifications by the Advisory Council on Historic Preservation for *Section 106 Essentials* and *Advanced Section 106* training. In 2012, Ms. Arnold received certification from the National Preservation Institute for *Identification and management of Traditional Cultural Places* training.

Summary

TAR has the personnel, equipment and experience to work in conjunction with HDR to complete every aspect of the work for the proposed survey project. Personnel identified in our proposal have extensive experience in maritime history and underwater archaeology and have participated in submerged cultural resource research in the State of South Carolina. TAR personnel have carried out numerous underwater archaeological research projects in South Carolina for the South Carolina Department of Transportation, the USACE-Charleston District, the U.S. Navy, and numerous private organizations and engineering firms.

The proposed methodology combines state-of-the-art technology, highly experienced personnel, and an investigative plan designed to generate the appropriate remote-sensing data. Equipment for the project will be selected to provide maximum reliability and economy in target location, relocation, identification, documentation, assessment, and investigation. Personnel responsible for remote sensing investigations have been selected to combine a variety of individual talents and extensive, area specific submerged cultural resource research and management experience. That experience provides assurance of maximum operational efficiency, safety, and a professional assessment of the data. The research methodology will assure a systematic scientific approach designed to ensure the generation of appropriate data, yet retain the operational flexibility essential to the success of field investigations.

Archaeological Remote Sensing Survey & Technical Report Preparation
Bike/Pedestrian Bridge on the Ashley River
Charleston, South Carolina

Detailed Fixed Price Proposal

26-Jun-20

Mobilization, Demobilization, Travel and Remote Sensing Survey

	Units (da	Unit Cost	Total
Personnel			
Principal Investigator	3	$350	$1,050.00
Archaeologist/Remote Sensing Operator	1	$300	$300.00
Remote Sensing Operator	1	$250	$250.00
Overhead		0.98	$1,568.00
		Sub total	**$3,168.00**
25' Survey Boat (With Fuel and Dockage)	1	$1,050.00	$1,050.00
882 Cesium Magnetometer & Computer	1	$250.00	$250.00
Klein 3900 Sidescan Sonar	1	$550.00	$550.00
DGPS & Computer Marine Navigation Syste	1	$200.00	$200.00
Edgetech CHIRP Subbottom Profiler	1	$550.00	$550.00
		Sub total	**$2,600.00**
Travel (domestic)			
Lodging	1	$125.00	$125.00
Per diem	2	$44.00	$88.00
Mileage (towing)	728	$0.98	$713.44
Mileage	255	$0.42	$107.10
		Sub total	**$1,033.54**
Mobilization, Travel and Remote Sensing Survey		**Total**	**$6,801.54**

Historical Research Data Analysis & Report Preparation

	Units (days)	Unit Cost	Total
Personnel			
Principal Investigator	3	$350.00	$1,050.00
Senior Archaeologist		$250.00	$0.00
Senior Historian	4	$250.00	$1,000.00
Computer Graphics Technician	2	$225.00	$450.00
Administrative & Clerical	1	$165.00	$165.00
Overhead		0.98	$2,611.70
		Sub total	**$5,276.70**
Travel			
Lodging	0	$125.00	$0.00
Per diem	0	$42.00	$0.00
Airfare	0	$0.00	$0.00
Mileage	0	$0.42	$0.00
		Sub total	**$0.00**
Publishing			
Printing & Binding Cost	5	$45.00	$225.00
Graphics	2	$40.00	$80.00
Supplies	1	$30.00	$30.00
		Sub total	**$335.00**
Data Analysis & Report Preparation			**$5,611.70**
Detailed Fixed Price Proposal		**Total**	**$12,413.24**

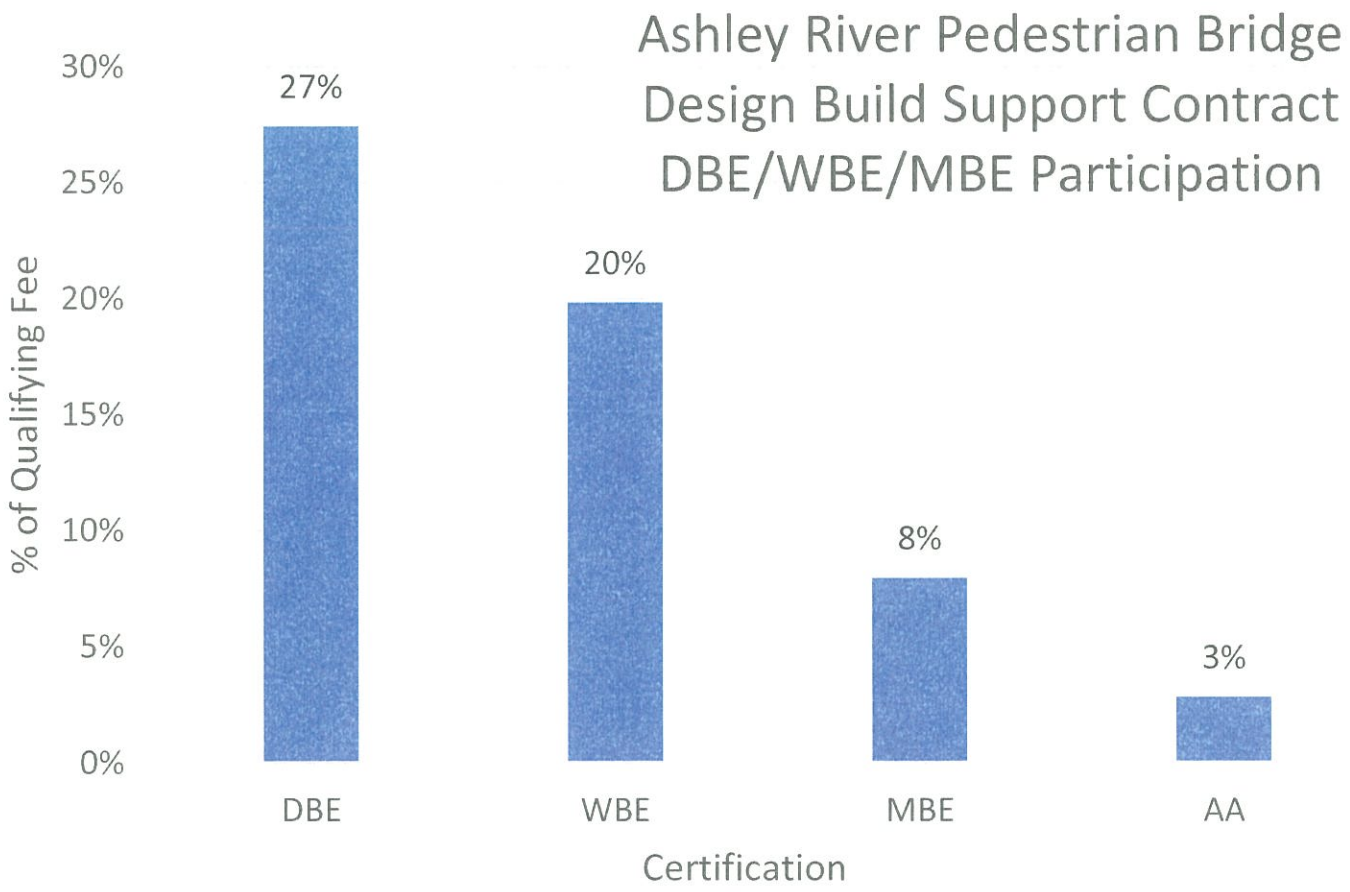
Tidewater Atlantic Research, Inc.
P.O. Box 2494
Washington, N.C. 27889

Additional Info

DBE/WBE/MBE/AA Statistics
Independent Fee Summary
Negotiated Fee Summary
Preaward Cost Approval Request

Ashley River Pedestrian Bridge
Design Build Support Contract
DBE/WBE/MBE Participation
CHS CP-2007

	DBE	WBE	MBE	AA	Fee	DBE	WBE	MBE	AA
HDR					$1,242,663.88	-	-	-	-
Alta					$44,335.01	-	-	-	-
Bihl	x	x			$42,616.06	$42,616.06	$42,616.06	-	-
Atlantic South	x		x	x	$49,443.07	$49,443.07	-	$49,443.07	$49,443.07
Cornerstone	x		x		$103,221.91	$103,221.91	-	$103,221.91	-
McKim and Creed					$73,917.18	-	-	-	-
Stantec					$96,884.90	-	-	-	-
DESA	x	x	x	x	$7,500.00	$7,500.00	$7,500.00	$7,500.00	$7,500.00
Mid Atlantic Drilling	x	x			$160,000.00	$160,000.00	$160,000.00	-	-
Soil Consultants	x	x			$45,405.00	$45,405.00	$45,405.00	-	-
Providence Engineering Consultants	x	x			$143,125.80	$143,125.80	$143,125.80	-	-
					$2,009,112.81	$551,311.84	$398,646.86	$160,164.98	$56,943.07


Ashley River Pedestrian Bridge
Design Build Support Contract
DBE/WBE/MBE Participation
% of Qualifying Fee
30%
25%
20%
15%
10%
5%
0%
27%
20%
8%
3%
DBE
WBE
MBE
AA
Certification

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
01	Project Organization and Management	$ 174,835.86	$ -	$ -	$ 174,835.86	9.6%
02	Field Surveys (Supplemental)	$ 144,751.33	$ 19,210.00	$ -	$ 163,961.33	9.0%
03	Traffic Studies and Modeling	$ 61,221.53	$ 40,580.00	$ -	$ 101,801.53	5.6%
04	Environmental Services	$ 110,956.16	$ -	$ -	$ 110,956.16	6.1%
05	Roadway and Path Design	$ 105,868.11	$ -	$ -	$ 105,868.11	5.8%
06	Structural Design	$ 76,718.60	$ -	$ -	$ 76,718.60	4.2%
07	Hydrology and Hydraulic Design	$ 70,906.10	$ -	$ -	$ 70,906.10	3.9%
08	Geotechnical Services	$ 60,621.16	$ 2,700.00	$ 140,000.00	$ 203,321.16	11.2%
09	Utility Coordination	$ 24,774.08	$ -	$ -	$ 24,774.08	1.4%
10	SUE	$ 19,830.39	$ 72,260.80	$ -	$ 92,091.19	5.1%
11	Right of Way	$ -	$ -	$ 75,000.00	$ 75,000.00	4.1%
12	Development of RFQ and RFP	$ 72,737.53	$ -	$ -	$ 72,737.53	4.0%
13	Procurement	$ 172,804.46	$ -	$ -	$ 172,804.46	9.5%
14	Design Plan Review and Administration	$ 371,645.60	$ -	$ -	$ 371,645.60	20.4%
15	Design Contingency	$ -	$ -	$ -	$ -	-
16	CE&I	$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
	Totals	$1,467,670.91	$ 134,750.80	$ 215,000.00	$ 1,817,421.71	

HDR

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
01	Project Organization and Management	$ 59,978.00	$ 98,963.70	$ 15,894.16	$ -	$ 174,835.86	$ -	$ 174,835.86
02	Field Surveys (Supplemental)	$ 49,657.40	$ 81,934.71	$ 13,159.22	$ -	$ 144,751.33	$ 19,210.00	$ 163,961.33
03	Traffic Studies and Modeling	$ 21,002.24	$ 34,653.70	$ 5,565.59	$ -	$ 61,221.53	$ 40,580.00	$ 101,801.53
04	Environmental Services	$ 38,063.86	$ 62,805.37	$ 10,086.93	$ -	$ 110,956.16	$ -	$ 110,956.16
05	Roadway and Path Design	$ 36,318.39	$ 59,925.35	$ 9,624.37	$ -	$ 105,868.11	$ -	$ 105,868.11
06	Structural Design	$ 26,318.56	$ 43,425.62	$ 6,974.42	$ -	$ 76,718.60	$ -	$ 76,718.60
07	Hydrology and Hydraulic Design	$ 24,324.56	$ 40,135.52	$ 6,446.02	$ -	$ 70,906.10	$ -	$ 70,906.10
08	Geotechnical Services	$ 20,796.28	$ 34,313.86	$ 5,511.02	$ -	$ 60,621.16	$ 2,700.00	$ 63,321.16
09	Utility Coordination	$ 8,498.83	$ 14,023.07	$ 2,252.18	$ -	$ 24,774.08	$ -	$ 24,774.08
10	SUE	$ 6,802.88	$ 11,224.75	$ 1,802.76	$ -	$ 19,830.39	$ 72,260.80	$ 92,091.19
11	Right of Way	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	Development of RFQ and RFP	$ 24,952.84	$ 41,172.19	$ 6,612.50	$ -	$ 72,737.53	$ -	$ 72,737.53
13	Procurement	$ 59,281.12	$ 97,813.85	$ 15,709.49	$ -	$ 172,804.46	$ -	$ 172,804.46
14	Design Plan Review and Administration	$ 127,494.20	$ 210,365.43	$ 33,785.97	$ -	$ 371,645.60	$ -	$ 371,645.60
15	Design Contingency	$ -	$ -	$ -	$ -	$ -	$ -	$ -
16	CE&I	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Totals	$ 503,489.16	$ 830,757.12	$ 133,424.63	$ -	$ 1,467,670.91	$ 134,750.80	$ 1,602,421.71
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qual. Percentage	Qualifying Fee
HDR	$ 1,602,421.71		$ -
ROW	$ 75,000.00		$ -
Geotech	$ 140,000.00		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -

Fee Summary

A - Direct Labor	$	503,489.16
B - Overhead [A x 1.65]	$	830,757.12
C - Profit [(A+B) x 0.1]	$	133,424.63
D - FCCM [A x 0]	$	-
E - Labor Total	$	1,467,670.91
F - Total Non-Salary Direct Expenses	$	134,750.80
G - Subconsultant Fees	$	215,000.00
Fee Total	$	1,817,421.71

fee total less profit $1,683,997.08

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
01	Project Organization and Management	$ 136,599.41	$ 1,049.25	$ -	$ 137,648.66	6.9%
02	Aerial Mapping and Field Surveys	$ -	$ -	$ 126,320.09	$ 126,320.09	6.3%
03	Traffic Studies and Modeling	$ 33,578.58	$ 118.00	$ 7,143.55	$ 40,840.13	2.0%
04	Environmental Services	$ 172,131.80	$ 15,523.24	$ 19,679.60	$ 207,334.64	10.3%
05	Roadway and Path Design	$ 37,305.14	$ 394.25	$ 98,535.06	$ 136,234.45	6.8%
06	Structural Design	$ 131,176.09	$ 2,018.50	$ -	$ 133,194.59	6.6%
07	Hydrology and Hydraulic Design	$ 53,569.53	$ 357.25	$ 20,775.59	$ 74,702.37	3.7%
08	Geotechnical Services and Pavement Design	$ 91,352.77	$ 10,821.00	$ 205,405.00	$ 307,578.77	15.3%
09	Utility Coordination	$ -	$ -	$ 35,339.35	$ 35,339.35	1.8%
10	Subsurface Utility Engineering	$ -	$ -	$ 50,820.00	$ 50,820.00	2.5%
11	Right of Way	$ 14,292.81	$ 64,569.10	$ -	$ 78,861.91	3.9%
12	Development of RFQ and RFP	$ 40,608.88	$ 708.50	$ 103,101.11	$ 144,418.49	7.2%
13	Procurement	$ 77,292.85	$ -	$ 45,745.22	$ 123,038.07	6.1%
14	Design Plan Review and Administration	$ 359,196.93	$ -	$ 53,701.17	$ 412,898.10	20.6%
15	CE&I	$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
	Totals	$1,147,104.79	$ 95,559.09	$ 766,565.74	$2,009,229.62	

HDR

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
01	Project Organization and Management	$ 49,410.00	$ 74,515.24	$ 12,392.53	$ 281.64	$ 136,599.41	$ 1,049.25	$ 137,648.66
02	Aerial Mapping and Field Surveys	$ -	$ -	$ -	$ -	$ -	$ -	$ -
03	Traffic Studies and Modeling	$ 12,145.86	$ 18,317.18	$ 3,046.31	$ 69.23	$ 33,578.58	$ 118.00	$ 33,696.58
04	Environmental Services	$ 62,262.60	$ 93,898.21	$ 15,616.09	$ 354.90	$ 172,131.80	$ 15,523.24	$ 187,655.04
05	Roadway and Path Design	$ 13,493.82	$ 20,350.03	$ 3,384.38	$ 76.91	$ 37,305.14	$ 394.25	$ 37,699.39
06	Structural Design	$ 47,448.32	$ 71,556.81	$ 11,900.51	$ 270.45	$ 131,176.09	$ 2,018.50	$ 133,194.59
07	Hydrology and Hydraulic Design	$ 19,376.88	$ 29,222.28	$ 4,859.92	$ 110.45	$ 53,569.53	$ 357.25	$ 53,926.78
08	Geotechnical Services and Pavement Design	$ 33,043.64	$ 49,833.11	$ 8,287.67	$ 188.35	$ 91,352.77	$ 10,821.00	$ 102,173.77
09	Utility Coordination	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	Subsurface Utility Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -
11	Right of Way	$ 5,169.92	$ 7,796.75	$ 1,296.67	$ 29.47	$ 14,292.81	$ 64,569.10	$ 78,861.91
12	Development of RFQ and RFP	$ 14,688.82	$ 22,152.22	$ 3,684.11	$ 83.73	$ 40,608.88	$ 708.50	$ 41,317.38
13	Procurement	$ 27,957.96	$ 42,163.39	$ 7,012.15	$ 159.35	$ 77,292.85	$ -	$ 77,292.85
14	Design Plan Review and Administration	$ 129,926.80	$ 195,942.60	$ 32,586.95	$ 740.58	$ 359,196.93	$ -	$ 359,196.93
15	CE&I	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Totals	$ 414,924.62	$ 625,747.82	$ 104,067.29	$ 2,365.06	$ 1,147,104.79	$ 95,559.09	$ 1,242,663.88
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
HDR	$ 1,242,663.88		$ -
Alta	$ 44,335.01		$ -
Bihl	$ 42,616.06	100.0%	$ 42,616.06
Atlantic South	$ 46,212.04	100.0%	$ 46,212.04
Cornerstone	$ 103,222.91	100.0%	$ 103,222.91
McKim & Creed	$ 73,917.18		$ -
Stantec	$ 96,884.90		$ -
DESA	$ 7,500.00	100.0%	$ 7,500.00
Mid Atlantic Drilling	$ 160,000.00	100.0%	$ 160,000.00
Soil Consultants	$ 45,405.00	100.0%	$ 45,405.00
Providence Engineering Consultants	$ 146,472.64	100.0%	$ 146,472.64
	Total DBE Qualifying Fee		$ 551,428.65
	Percentage of Fee Total		27.4%

Fee Summary

A - Direct Labor	$	414,924.62
B - Overhead [A x 1.5081]	$	625,747.82
C - Profit [(A+B) x 0.1]	$	104,067.29
D - FCCM [A x 0.0057]	$	2,365.06
E - Labor Total	$	1,147,104.79
F - Total Non-Salary Direct Expenses	$	95,559.09
G - Subconsultant Fees	$	766,565.74
Fee Total	$	2,009,229.62

fee total less profit $1,905,162.33

Prepared by _____

John J. Tecklenburg
Mayor

City of Charleston
South Carolina
Department of Parks

Jason Kronsberg
Director

September 9, 2020

FHWA S.C. Division Office
1835 Assembly St Suite#1270
Columbia, SC 29201

ATTN: Emily Lawton, Division Administrator
Email: emily.lawton@dot.gov
Phone: (503) 316-2545

Subject: Pre-Award Cost Request

Dear Mrs. Lawton:

The City of Charleston, South Carolina requests US DOT approval for pre-award costs incurred prior to executing the Grant Agreement for the Ashley River Crossing Project (FY 2019 BUILD Grant). The City seeks approval for costs incurred in carrying out design-build support services which will include (but are not limited to) preliminary design, NEPA studies, and development of the necessary design-build contract documents. Funding of these services will be through local funding and it is our desire to apply these costs towards the match requirements for the project. No BUILD Grant funds will be used to complete these support services as the total Grant award will be utilized to deliver the subsequent design-build contract.

The City of Charleston finalized the detailed scope of work with the selected consultant and developed an independent cost estimate. A copy of this estimate with a fee total of $1,817,421.71 is attached. At this point the City has completed cost and fee negotiations with the consultant, a copy of the final fee estimates of $2,009,112.81 is attached. The differences in these two costs are $191,691.10 or 10%. The difference is cost was due to a change of scope that resulted in changes to roadway design, geotechnical, environmental documentation, and structural design. Initially the City of Charleston understood that seismic design was not required. Ultimately the Scope of Work was amended to include seismic considerations which impacted each of these impacted tasks. The procurement process used for consultant selection and contract preparation was done in close coordination with your staff to ensure that the work to be performed can count towards the project match requirements.

It is imperative that the design-build support services begin very soon after we execute the consultant contract. Our schedule shows this work to begin no later than October 1, 2020. This will allow the City to complete all project development activities while we finalize the Grant Agreement with FHWA. In doing so, the City will be able to submit a final Design-Build

Request for Proposal document to FHWA for approval and obligation of funding prior to the September 2021 deadline. Delaying a notice to proceed for this work until the Grant Agreement is signed will prevent us from meeting this critical milestone.

Thank you for considering our request for approval of pre-award costs incurred for this project. If you have any questions or need further information, I can be reached at sciarrot@charleston-sc.gov or 843-735-8915.

Sincerely,

Terri Hubbard-Sciarro, PE
Project Manager

cc: Edmund Most, Deputy Director, Capital Projects, City of Charleston
Jason Kronsberg, Director, Dept of Parks, City of Charleston
Mayor John Tecklenburg, Mayor, City of Charleston

8.)

CPR COMMITTEE and/or COUNCIL AGENDA

TO: John J. Tecklenburg, Mayor

FROM: Edmund Most / Sarah Myers **DEPT.** Parks – Capital Projects

SUBJECT: INTERNATIONAL AFRICAN AMERICAN MUSEUM GMP CHANGE ORDER #5 - TURNER CONSTRUCTION COMPANY

REQUEST: Approval of Change Order #5 with Turner Construction Company in the amount of $229,150.00 for changes to include low voltage and revisions to track lighting as coordinated with exhibitry.

COMMITTEE OF COUNCIL: Ways & Means **DATE:** September 22, 2020

COORDINATION: This request has been coordinated with: *(attach all recommendations/reviews)*

	Yes	N/A	Signature of Individual Contacted	Attachment
CPR Committee Chair	☐	☐	Amy Wharton	☐
Corporate Counsel	☐	☐		☐
Capital Projects Director	☐	☐		☐
	☐	☐		☐

FUNDING: Was funding previously approved? Yes [X] No ☐ N/A ☐

If yes, provide the following: Dept/Div Parks-Capital Projects Acct # 051405-58240

Balance in Account $229,150.00 Amount needed for this item $229,150.00

Project Number CP1425

NEED: Identify any critical time constraint(s).

CFO's Signature: Amy Wharton

FISCAL IMPACT: Approval of Change Order #5 will increase the Guarantee Maximum Price (GMP) Contract by $229,150.00 (from $58,892,872 to $59,122,022). This change order is fully funded by the IAAM. Funding sources for this project are: Accommodations Tax ($13,200,000.00), Charleston County Accommodations Tax ($12,500,00.00), State Funding ($14,000,000.00), IAAM Contributions ($53,000,000.00).

Mayor's Signature:

John J. Tecklenburg, Mayor

ORIGINATING OFFICE PLEASE NOTE: A FULLY STAFFED/APPROVED (except Mayor's Signature) PACKAGE IS DUE IN THE CLERK OF COUNCIL'S OFFICE NO LATER THAN 10:00 A.M THE DAY OF THE CLERK'S AGENDA MEETING.

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Change Order - Construction Manager-Adviser Edition

PROJECT *(Name and address)*:
International African American Museum
14 Wharfside Street

CHANGE ORDER NUMBER: 005
INITIATION DATE: August 17, 2020

OWNER: ☒
CONSTRUCTION MANAGER: ☒
ARCHITECT: ☒
CONTRACTOR: ☒
FIELD: ☐
OTHER: ☐

TO CONTRACTOR *(Name and address)*
Turner Construction Company
4601 Park Road, Suite 601
Charlotte, NC 28209

PROJECT NUMBERS: CP1425 /
CONTRACT DATE: July 11, 2019
CONTRACT FOR: General Construction

THE CONTRACT IS CHANGED AS FOLLOWS:

COR No. 033 - Mass Excavation at CL 9 10: Request to access the Owner's Sitework allowance to provide all required labor, material and equipment to mass excavate and remove/replace unsuitable and debris ladden soil between: $186,365.00

TOTAL CHARGED TO THE OWNER SITEWORK ALLOWANCE: $186,365.00, resulting in a no cost change order. The balance of the Owner Contingency Allowance is $354,644.00

COR No. 005 - Request to access Owner allowance to cover the cost of material, labor, equipment and all other cost required to modify the GB3 running between the main building footings and external stair: $3,965.00
COR No. 009 - Request to access the Owner allowance to cover the cost of material, labor, equipment and all other cost of the revised concrete rebar dowel design to connect the pile and pile cap: $45,085.00
COR No. 025 - Existing Deadman Removal - Request to access the Owner allowance to provide all required labor, material and equipment to remove an unforseen deadman structure from the southeast corner of the site $40,331.00
COR No. 026 - Ductwok Coodination Changes - Request to access the Owner's Contingency allowance to cover changing the routing of ductwork penetrating the structure: $3,007 00
COR No. 029R - Relocate Sewer - Request to access the Owner's Contingency Allowance to provide all required labor, material and equipment to relocate the sewer line to allow space for the seawall sheet-pile installation: $29,578.00
COR No. 030R - Temporary Relocation of FDC Line Due to Seawall Request to access the Owner's Contingency allowance to provide all required labor, material and equipment to temporarily relocate the Fire Department Connection supply line in conflict with the new sheet-pile location: $22,002.00

TOTAL CHARGED TO THE OWNER CONTINGENCY ALLOWANCE: $143,968.00, resulting in a no cost change order. The balance of the Owner Contingency Allowance is $1,209,896.00

COR No. 053 - Bulletin #16 - Low Voltage/Track Lighting - changes include low voltage and revisions to track lighting as coordinated with exhibitry: $229,150.00

TOTAL CHANGE ORDER AMOUNT: $229,150 00

The original Guaranteed Maximum Price was	$	58,457,323.00
Net change by previously authorized Change Orders	$	435,549.00
The Guaranteed Maximum Price prior to this Change Order was	$	58,892,872.00
The Guaranteed Maximum Price will be increased by this Change Order in the amount of	$	229,150.00
The new Guaranteed Maximum Price including this Change Order will be	$	59,122,022.00

The Contract Time will be unchanged by Zero (0) days
The date of Substantial Completion as of the date of this Change Order therefore is April 15, 2021.

NOTE: This summary does not reflect changes in the Contract Sum, Contract Time or Guaranteed Maximum Price which have been authorized by Construction Change Directive.

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User Notes:

(3B9ADAC6)

NOT VALID UNTIL SIGNED BY THE OWNER, CONSTRUCTION MANAGER, ARCHITECT AND CONTRACTOR.

Cumming Construction Management, Inc.
CONSTRUCTION MANAGER *(Firm name)*
3820 Faber Place Drive, Suite 600
N. Charleston, SC 29405
ADDRESS

BY *(Signature)*
Rick W. Holt 8/20/20
(Typed name) **DATE:**

Moody Noland, Inc.
ARCHITECT *(Firm name)*
300 Spruce Street, Suite 300
Columbus, OH 43215
ADDRESS

Bernard Costantino

BY *(Signature)*
Robert Larrimer, AIA
(Typed name) **DATE:**

Turner Construction Company
CONTRACTOR *(Firm name)*
4601 Park Road, Suite 601
Charlotte, NC 28209
ADDRESS

BY *(Signature)*
~~Bobby Teachey~~ 8/18/20
(Typed name) **DATE:**
JEFF QUINN

City of Charleston
OWNER *(Firm name)*
823 Meeting Street
Charleston, SC 29403
ADDRESS

BY *(Signature)*
Mayor John J. Tecklenburg
(Typed name) **DATE:**

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Change Order - Construction Manager-Adviser Edition

PROJECT *(Name and address)*:
International African American Museum
14 Wharfside Street

CHANGE ORDER NUMBER: 005
INITIATION DATE: August 17, 2020

OWNER: ☒
CONSTRUCTION MANAGER: ☒
ARCHITECT: ☒
CONTRACTOR: ☒
FIELD: ☐
OTHER: ☐

TO CONTRACTOR *(Name and address)*.
Turner Construction Company
4601 Park Road, Suite 601
Charlotte, NC 28209

PROJECT NUMBERS: CP1425 /
CONTRACT DATE: July 11, 2019
CONTRACT FOR: General Construction

THE CONTRACT IS CHANGED AS FOLLOWS:

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TOTAL CHARGED TO THE OWNER SITEWORK ALLOWANCE: $186,365.00, resulting in a no cost change order. The balance of the Owner Contingency Allowance is $354,644.00.

COR No. 005 - Request to access Owner allowance to cover the cost of material, labor, equipment and all other cost required to modify the GB3 running between the main building footings and external stair: $3,965.00
COR No. 009 - Request to access the Owner allowance to cover the cost of material, labor, equipment and all other cost of the revised concrete rebar dowel design to connect the pile and pile cap: $45,085.00
COR No. 025 - Existing Deadman Removal - Request to access the Owner allowance to provide all required labor, material and equipment to remove an unforseen deadman structure from the southeast corner of the site: $40,331.00
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COR No. 029R - Relocate Sewer - Request to access the Owner's Contingency Allowance to provide all required labor, material and equipment to relocate the sewer line to allow space for the seawall sheet-pile installation: $29,578.00
COR No. 030R - Temporary Relocation of FDC Line Due to Seawall - Request to access the Owner's Contingency allowance to provide all required labor, material and equipment to temporarily relocate the Fire Department Connection supply line in conflict with the new sheet-pile location: $22,002.00

TOTAL CHARGED TO THE OWNER CONTINGENCY ALLOWANCE: $143,968.00, resulting in a no cost change order. The balance of the Owner Contingency Allowance is $1,209,896.00.

COR No. 053 - Bulletin #16 - Low Voltage/Track Lighting - changes include low voltage and revisions to track lighting as coordinated with exhibitry: $229,150.00

TOTAL CHANGE ORDER AMOUNT: $229,150.00

The original Guaranteed Maximum Price was	$	58,457,323.00
Net change by previously authorized Change Orders	$	435,549.00
The Guaranteed Maximum Price prior to this Change Order was	$	58,892,872.00
The Guaranteed Maximum Price will be increased by this Change Order in the amount of	$	229,150.00
The new Guaranteed Maximum Price including this Change Order will be	$	59,122,022.00

The Contract Time will be unchanged by Zero (0) days.
The date of Substantial Completion as of the date of this Change Order therefore is April 15, 2021.

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User Notes:
(3B9ADAC6)

NOT VALID UNTIL SIGNED BY THE OWNER, CONSTRUCTION MANAGER, ARCHITECT AND CONTRACTOR.

Cumming Construction Management, Inc.	Moody Noland, Inc.
CONSTRUCTION MANAGER *(Firm name)*	**ARCHITECT** *(Firm name)*
3820 Faber Place Drive, Suite 600 N. Charleston, SC 29405	300 Spruce Street, Suite 300 Columbus, OH 43215
ADDRESS	**ADDRESS**
BY *(Signature)*	**BY** *(Signature)*
Rick W. Holt	Robert Larrimer, AIA
(Typed name) **DATE:**	*(Typed name)* **DATE:**
Turner Construction Company	City of Charleston
CONTRACTOR *(Firm name)*	**OWNER** *(Firm name)*
4601 Park Road, Suite 601 Charlotte, NC 28209	823 Meeting Street Charleston, SC 29403
ADDRESS	**ADDRESS**
BY *(Signature)*	**BY** *(Signature)*
~~Bobby Teachey~~ 8/18/20	Mayor John J. Tecklenburg
(Typed name) **DATE:**	*(Typed name)* **DATE:**
JEFF QUEALS	

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User Notes: (3B9ADAC6)

CUMMING

Change Order Proposal Review Form

To: Edmund V. Most
From: Jonathan Roberts
Date: 8/6/2020
Contractor: Turner Construction Company

Project: CP 1425 International African American Museum
Project No.: CP 1425
Proposal No.: Change Order Request No. 5
Contract: Construction
(CMR)(ARCHITECT)(ENGINEER)(OTHER)

Description of work to be performed: Bulletin No. 1 - Grade Beam 3 Modification

Request to access Owner Allowance to cover the cost of material, labor, equipment, and all other cost required to modify the GB3 running between the main building footings and external stair. The size, reinforcing and elevation were changed to eliminate interference with the storm drain line.

Justification: C - Errors and Omissions/ BIM Coordination

A Customer Requested Change
B - Code/Regulatory Agency Required Change
C - Errors and Omissions
D - Replacing Unsuitable Soils
E Soils Related Change Other than De-Mucking
F - Unforeseen Conditions
G Time Related Change
H Liquidated Damages
I Value Engineering Change
J Exercising Pre-Priced Option (Allowance)
K Accounting Error
(Indicate Reason for Change Proposal)

Attachments:

	J&A from Project Manager		Cost Estimate (Expected to Exceed $10,000)
	Independent Cost Estimate		Change Proposal Request from CMR with Detailed Backup
	Pre-Negotiation Position (PNP)	X	

Proposal Cost (not to exceed): $3,965.00 **Owner Contingency Allow. Bal.** $1,349,899.00
Time Extension Requested: **Time Extension Recommended:** 0

Special Circumstances: This change will net in a $0.00 contract modification as the $960,000.00 owner contingency allowance will be accessed to cover the cost of this scope.

Consequence of Rejection: Funding of this scope would come from an alternate source.

Comments by Supervisor:

Approved:

(NO) (YES) (Circle One) — Rick Holt, Cumming Corp

(NO) (YES) (Circle One) — Robert Faust, Cumming Corp

(NO) (YES) (Circle One) — Edmund V. Most, City of Charleston

(NO) (YES) (Circle One) — Bernard Costantino, Moody Nolan

Decision needed by: August 6, 2020

(NO) (YES) (Circle One) — Jonathan Roberts, Cumming Corp

COR #: 5

Date Submitted: **November 1, 2019**

TURNER BROWNSTONE
9 Warf Street
Charleston, SC

To: Edmund Most
City of Charleston

Re: **Internation African American Muesum**

Bulletin 1 Drawings

Please find attached our Proposed Change Order (PCO) for the above described Work. We are submitting for your review and approval of the changed condition(s) as outlined herein. All work shall be performed under our current contract terms and as outlined below:

Work Description:	Provide all required Labor, Materials, Equipment, and Administrative/Support costs to revised scope of work per Bulletin 1. They will be per specs and drawings issued to Turner, scope of work as detailed within the Subcontractor's quote(s) &/or correspondence attached. The design has started and the will be submitted based on the new findings. Work in the field can not start with out signed change order.

Reason: [X] Owner Directive [ ] Code / Regulatory [ ] Unforeseen Condition [ ] Design Issue

Pricing: [ ] ROM Estimate of GR's & Insurances [ ] ROM Estimate for Entire PCO [X] Lump Sum or **Firm Fixed Unit Pricing** for Trade Contractors - See Detailed Estimates

Time Impact: [ ] Evaluating Potential for Time Impact [X] Evaluated - NO TIME IMPACT [ ] Calendar Days Requested (See attached FRAGNET/Schedule Impact Analysis)

[ ] Work has been Completed [ ] Work Has Commenced &/or is Ongoing [ ] Work Authorization is Requested By:

Submitted By: Contractor: **TURNER BROWNSTONE**

Walter Lewis Project Engineer — Dated / / — $ 3,965 Amount Requested

Requested Action: [ ] Authorized to Proceed While Pricing [ ] Price Only [ ] Do Not Proceed or Price

Reviewed By: Program Manager: **CUMMING**

Dated / /

Authorized Action: [ ] Authorized to Proceed While Pricing [ ] Price Only [ ] Do Not Proceed or Price

Approved By: Owner: **City of Charleston**

Edmund Most — Dated / / — $ 3,965 Amount Approved

Turner

Internation African American Muesum
General Summary of the Estimate

COR No.: 5

Item #	Description of Work		DETAIL ESTIMATE OF DIRECTS
A1	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	SELF PERFORMED LABOR	$0
A2	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	MATERIAL(S) & EQUIPMENT	$0
A3	TRADE DIRECTS		$3,649.00
A4		SUBTOTAL TRADE DIRECTS	$3,649
A5			
A6			
A7			
A8			
A9			
A14			
A11			
A14			
A15			
A16			
A16			
A17			

		SUBTOTAL		$3,649
CCIP	@	2.45%	=	$89.40
Subguard	@	0.012	=	$43.79
Builders Risk	@	0.84%	=	$30.65
Performance and Payment Bond		0.00732	=	$26.71
Procore	@	0.04500%	=	$1.64
Overhead and Profit	@	3.25%	=	$123.97
		ESTIMATE TOTAL		**$3,965**

Turner

Internation African American Muesum
DETAIL ESTIMATE OF DIRECTS

COR No.: 5

	DIVISIONS OF WORK	RATE	Unit	UNITS	SUBTOTAL	TOTAL	COMMENTS

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)

	DESCRIPTION						
	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)						$0

TRADE DIRECTS

	DESCRIPTION						
	Additional Scope of Work						
1	To Revise concrete grade beams per Bulletin 1 Drawings	$	3,649.00	1	LS	$3,649.00	
						$0.00	
						$0.00	
							$3,649
					DIRECT WORK SUBTOTAL		$3,649

To: Bobby Teachey & Walt Lewis
10/28/2019
COR #: 02
Title: Bulletin No. 1- GB3 Modification
Schedule Impact: TBD

Agent: Donley's Concrete Group

Bulletin No. 1 (TCCo PCO 009) directed DCG to modify the Grade beams (GB3) running between the main building footings and the external stair. The size, reinforcing and elevations were changed so they would not interfere with a storm drain line.

	Qty.	Unit	Labor $/UM	EQ $/UM	Mat $/UM	SUB $/UM		Labor	EQ	Mat	SUB
Additional Rebar (Lump sum w/ detailing)	1.0	EA	$ -	$ -	$ -	$ 1,618		$ -	$ -	$ -	$ 1,618
Additional Lumber & stayform	1.0	EA	$ -	$ -	$ 150	$ -		$ -	$ -	$ 150	$ -
Small Tools	1.0	EA	$ -	$ 200		$ -		$ -	$ 200	$ -	$ -
Carpenter	4	HRS	$ 54	$ -	$ -	$ -		$ 216	$ -	$ -	$ -
Rodbuster	11	HRS	$ 54	$ -	$ -	$ -		$ 594	$ -	$ -	$ -
Foreman	1	HRS	$ 57	$ -	$ -	$ -		$ 57	$ -	$ -	$ -
Superintendent	-	HRS	$ 97	$ -	$ -	$ -		$ -	$ -	$ -	$ -
Project Manager	2	HRS	$ 87	$ -	$ -	$ -		$ 174	$ -	$ -	$ -
							Subtotal	$ 1,041	$ 200	$ 150	$ 1,618
							Burden	INCL	$ -	$ -	$ -
							Tax	$ -	$ 18	$ 14	$ -
							SDI	$ -	$ -	$ -	$ 202
							Service Dep.	$ 31	$ 10	$ -	$ -
							Bond	$ 10	$ 2	$ 2	$ 16
							GL Insurance	$ -	$ -	$ -	$ -
							OH/Profit	$ -	$ 35	$ 25	$ 275
							Item Totals	$ 1,083	$ 265	$ 190	$ 2,112
							Totals	$			3,649

Submitted by: Chris Hewitt, Project Manager
Donley's Concrete Group

Harris Rebar North Carolina Inc.

Project No:	06219158-01	Change Order #1	Date: October 15, 2019

To: Donley's Concrete
Mr. Chris Hewitt
Project: International African American Museum
Loc.: Charleston, SC
Archt.:

Change Order #1: Approximately 1.06 tons plain rebar for $1,618.00 plus applicable tax.

Description: Additional rebar and 6 hours of detailing time required per RFI 0008 Storm Drain & East Stairwell Conflict. The RFI revised grade beam elevations, dimensions, and added reinforcing to the top and bottom runs.

Accepted by Buyer

This day of

Buyer's name:

Approved By:

Name/Tite:

Harris Rebar North Carolina Inc.

By: Neil Byrd 10/15/2019

Title: Sales Estimator

Approved By:

Name/Title: Gary Rhodes, Area Manager

TCCo Atl/Car
4601 Park Road, Suite 601
Charlotte, North Carolina 28209
Phone: (704) 554-1001

Project: 190795 - IAAM
14 Wharfside Street
Charleston, 29401

Storm Drain and East Stairwell Conflict

TO:	Xiaoxiao Wu **(Guy Nordenson and Associates)** Bernard Costantino **(Moody Nolan)**	**FROM:**	Bobby Teachey II **(Brownstone)** 5150 trump st, Unit 1602 Charleston, South Carolina 29425
DATE INITIATED:	09/17/2019		
LOCATION:		**STATUS:**	Open
PROJECT STAGE:		**DUE DATE:**	10/02/2019
SUB JOB:		**COST CODE:**	
COST IMPACT:		**SCHEDULE IMPACT:**	
DRAWING NUMBER:	C-403	**SPEC SECTION:**	
LINKED DRAWINGS:		**REFERENCE:**	

RECEIVED FROM: Mark Hylton **(Gulf Stream Construction Company, Inc)**

COPIES TO:
Julie Cook, AIA **(Moody Nolan)**, Rick Holt **(Cumming)**, Bobby Langdale **(Turner ATL)**, Robert Larrimer, AIA **(Moody Nolan)**, Walter Lewis **(Turner Construction (CAR))**, Trey Linton, PE **(Forsberg Engineering and Surveying, Inc)**, Matteo Milani **(Pei, Cobb Freed & Partners)**, Edmund Most **(City of Charleston)**, Jonathan Roberts **(Cumming)**, Xiaoxiao Wu **(Guy Nordenson and Associates)**

Question from Bobby Teachey II (Brownstone) at 05:01 PM on 09/17/2019

As drawn, Junction Box #4 will conflict with the grade beam running from CL8 to the eastern stairwell. In addition, where the proposed storm drain line passes under the grade beam from CL8 to eastern stairwell grade beam, there is only 8.6" of clearance. Where the proposed storm drain line passes under the CL9 to East Stairwell, there is only 4" of clearance.

Please advise as where JB #4 can be relocated to avoid the grade beam and as to the minimum acceptable clearance between the grade beams and C900 storm drain.

Attachments:
RFI 01- Storm Drain and East Stairwell.pdf Clash Storm vs. Grade Beam 2.JPG Clash Storm vs. Grade Beam 1.JPG

Awaiting an Official Response

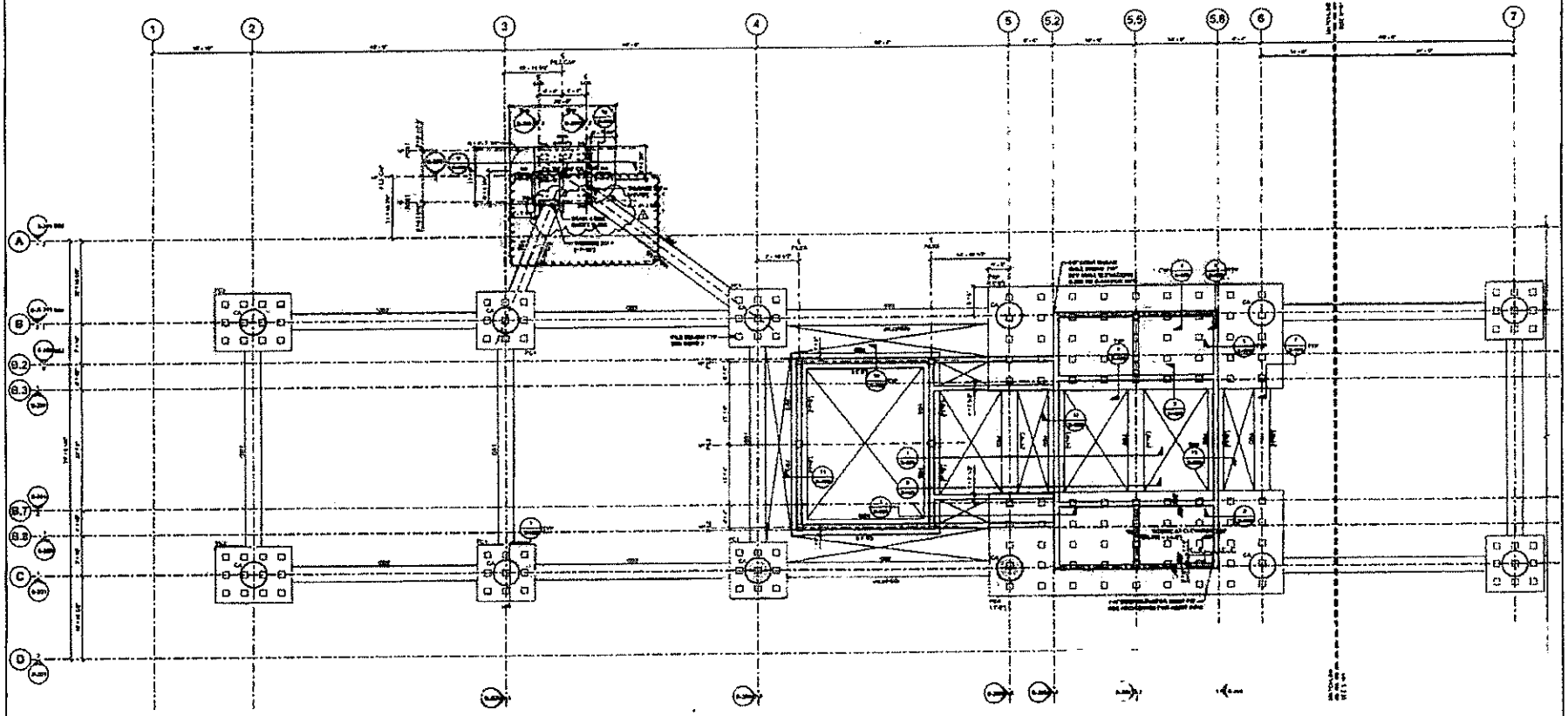
All Replies:

Civil response has been coordinated with structural response to RFI #8. The junction box has been moved in a horizontal direction to avoid proposed grade beams. See revised Grading & Drainage sheet attached with response. Structural has revised grade beam from CL8 to stairwell and grade beam from CL9 to stairwell. The depth of the grade beam is now 24" (as opposed to 36" previously) - see structural for details and revisions. This will provide additional clearance between grade beams and C900 storm drain. We would also recommend flowable fill around the C900 pipe at grade beam crossings.

Trey Linton - F.E.S. 9.30.2019

As requested by Civil Engineer and Architect, the grade beams GB3 connecting to Stair 3 and 4 pile caps need to be reduced in depth, and the top of the grade beam elevations at intersections with the stair pile caps need to be lowered by 6" from what's shown in the structural drawings (Bid Set dated 6/10/2019). GNA checked it's acceptable structurally to update the GB3 beams to be 36in wide and 24in deep with 10#8 longitudinal reinforcements top and bottom, instead of 24in wide and 36in deep with 8#8 longitudinal reinforcements top and bottom as shown in schedule sheet S-500. See markups in blue on the following pages for additional information.
Pending Architect's approval, GNA will mark up the Concrete Reinforcement submittal 03 20 00-01 in accordance with this RFI response.

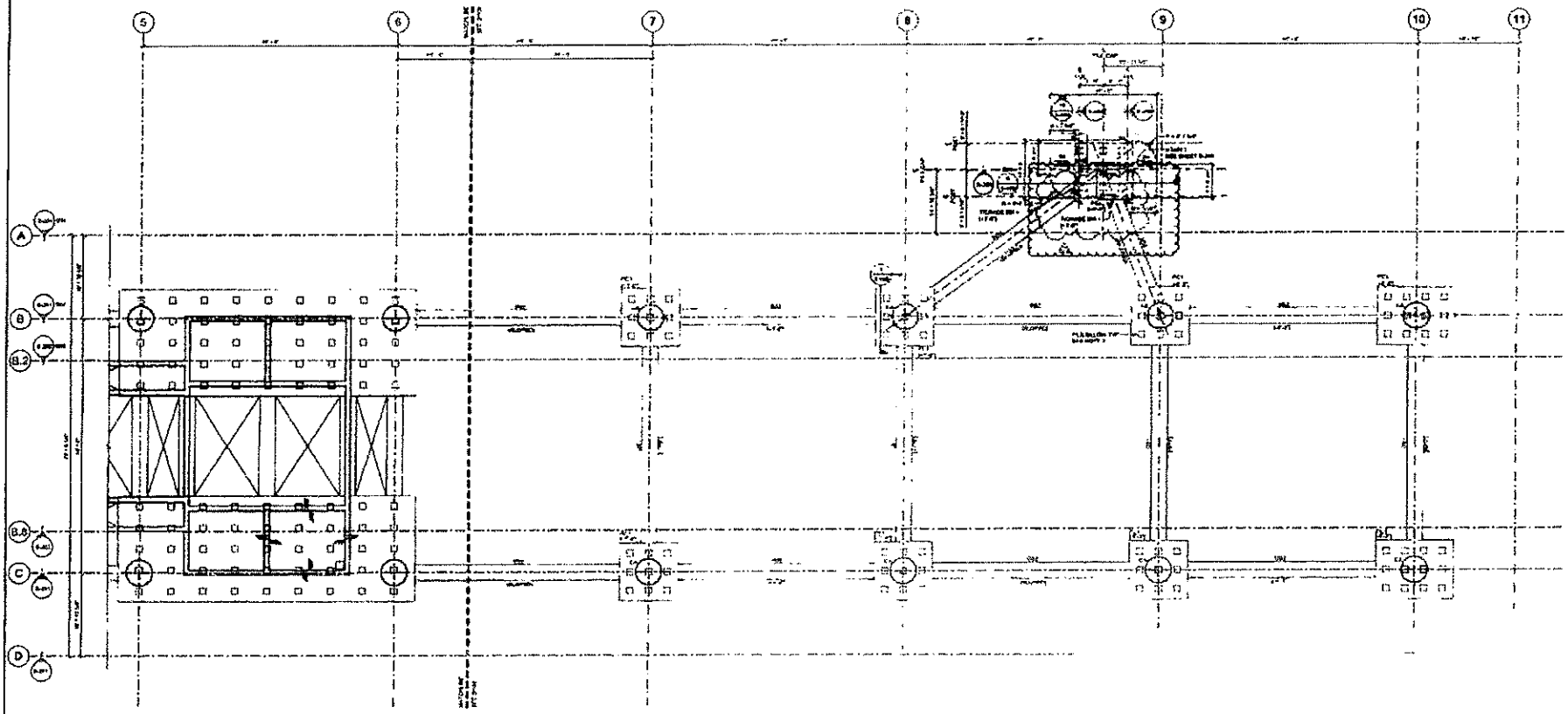
BY	DATE	COPIES TO
X WU	27 SEPTEMBER 2019	MN



FOUNDATION PLAN - PART A

FOUNDATION PLAN PART A

S-100



FOUNDATION PLAN - PART B

FOUNDATION PLAN PART B

S-101

STEEL EMBED PLATE SCHEDULE AT CIP CONC WALLS

MARK	DIMENSIONS (IN)						SHEAR STUDS			REMARKS
	HEIGHT	WIDTH	THICKNESS	DIM (H)	DIM (V)		4 HORIZ	4 VERT.	TOTAL	
SP1	16	11 1/4	3/4	2	2	NPT				
SP2	16	11 1/4	3/4	2	2	NPT				
SP3	16	8	3/4	2	2	NPT				
SP4	16 1/4	8	3/4	3	3	NPT				
SP5	12	8	3/4	2	2	NPT				
SP6	18	8	3/4	2	2	NPT				
SP7	16	8	3/4							
SP8	14	8	3/4							
SP9	14	8	3/4							
SP10	20	8	1							
SP11	14	8	1/2							
SP12	8	8	3/4							
SP13	16	VARIES	1/2							
SP14	16	VARIES	1/2							
SP15	16	VARIES	1/2							
SP16	16 1/4	8	3/4							

NOTES

1. SEE DETAILS 1, 2, 3, 4 AND 5/S-500 FOR ADDITIONAL INFO
2. NOTIFY ENGINEER TO INSTALL BEAM SCHEDULE 3 TIMES
3. SET ELEVATIONS BASED TO 6-36 FOR EMBED PLATE LOCATIONS
4. STUDS ARE 1/2" DIA X 8" LONG

BEAM WEB PENETRATION SCHEDULE

MARK	TYPE	WEB PENETRATION (IN)					REMARKS
		D	H	V	LATERAL	WELD SIZE	
A	R1	N/A	N/A	N/A	N/A	N/A	
B	R1	3	3-4	N/A	1	1/4	
C	R1	2 1/2	1/2	N/A	1	3/8	
D	R1	4	3-4	N/A	1	1/2	
E	R2	3	1/2	1/2	1	1/2	
F	R2	3 1/2	1/2	1/2	1	1/4	
G	R2	4	3-4	1/2	1	1/2	
H	C	8	3-4	N/A	N/A	1/4	

NOTES

1. SEE DETAIL 1/S-500 FOR BEAM WEB PENETRATION TYPES AND VARIABLES
2. SEE SHEET S-210 THROUGH S-212 FOR PENETRATION LOCATIONS
3. CENTER OPENINGS AT MIDSPAN OF BEAM UNLESS OTHERWISE NOTED
4. CONTRACTOR OF PIPE PENETRATIONS WILL PROVIDE PIPE SLEEVES WITH HVAC, PLUMBING AND ELECTRICAL CONTRACTORS AND SUBMIT TO ENGINEER REPRESENTATIVE
5. WEB PENETRATIONS NOT SHOWN ARE TO BE SIMILAR PENETRATIONS, OR HAVING DIAMETER OF ROUND OPENING 1/2 LARGER THAN ONE-THIRD OF BEAM DEPTH

CIP PILE CAP SCHEDULE

MARK	DIMENSIONS			REINFORCEMENT									REMARKS
	LENGTH (FT)	WIDTH (FT)	DEPTH	HORIZ	VERT	NO.	HORIZ	VERT	TOP REINFORCEMENT HORIZ	TOP REINFORCEMENT VERT	BOTT REINFORCEMENT HORIZ	BOTT REINFORCEMENT VERT	
PC1	7 1/2	7 1/2	2'-6"	7	7	7	#4	#4	#4@9"	#4@9"	#4@9"	#4@9"	
PC2									#4				PILE CAP TYPE PC2 FOR PILE LOADS
PC3	11'-6"	10'-6"	3'-6"	8	8	10	7'-6"	7'-6"	#4	#4@9"	#4@9"	#4@9"	
PC4	10'-6"	10'-6"	3'-6"	8	8	10	6'-6"	6'-6"	#4	#4@9"	#4@9"	#4@9"	
PC5	14'-6"	14'-6 1/2"	3'-6"	8	8	8	9'-6"	9'-6"	#4	#4@9"	#4@9"	#4@9"	

NOTES

1. SEE DETAIL 1/S-500 FOR PILE CAP SCHEDULE
2. SEE FOUNDATION PLAN FOR PILE CAP SCHEDULE
3. SEE FOUNDATION SPECIFICATIONS AND SOIL REPORT FOR ADDITIONAL INFO

CIP CONCRETE GRADE BEAM SCHEDULE

MARK	DIMENSIONS (IN)		REINFORCEMENT			REMARKS
	WIDTH	DEPTH	CONT TOP	CONT BOTTOM	STIRRUPS	
GB1	24	36	#4@9	#4@9	#4@9"	
GB2	24	36	#4@9	#4@9	#4@9"	

NOTES

1. SEE FOUNDATION PLAN FOR DIMENSIONS
2. SEE STRUCTURAL DETAILS FOR ADDITIONAL REINFORCEMENT REQUIREMENTS INCLUDING SIDE BEAM INFO

CIP CONCRETE SLAB SCHEDULE

MARK	THICKNESS (IN)	REINFORCEMENT				REMARKS
		SPAN TOP	SPAN BOTTOM	SUPPORT NEGATIVE	TEMP	
S1	4	#4@12"	#4@12"	N/A	#4@12"	GARAGE SLAB
S2	4	#4@12" 2.5 EACH	#4@12" 2.5 EACH	N/A	N/A	PROMENADE SLAB, WITH AUTO GATE
S3	4	#4@12" 2.5 EACH	#4@12" 2.5 EACH	N/A	N/A	PROMENADE SLAB, EXPOSED TO WEATHER
S4	4	#4@12"	#4@12"	N/A	#4@12"	GARAGE SLAB, EXPOSED TO WEATHER
S5	4	#4@12"	#4@12"	#4@12"	#4@12"	GARAGE SLAB, EXPOSED TO WEATHER

NOTES

1. SEE TYPICAL DETAILS 3 AND 13/S-500 FOR SLAB INFO
2. SEE GRADING PLANS FOR ADDITIONAL SLAB INFO
3. SLABS ON GRADE ARE DESIGNED AS PLATES ON SOIL AND FOR HYDROSTATIC PRESSURE PROVIDING 3" CLR BENEATH AT MID PANEL OR SLABS CAST ON BEDDING
4. PROVIDE 2" CLR FOR REBAR AT SLAB FACES EXPOSED TO THE WEATHER

CIP CONCRETE WALL SCHEDULE

MARK	THICKNESS (IN)	REINFORCEMENT		REMARKS
		VERTICAL	HORIZONTAL	
W1A/B	12	#4 @ 12" EF	#4 @ 12" EF	
W1C/D	12	#4 @ 12" EF	#4 @ 12" EF	
W1E/G	12	#4 @ 12" EF	#4 @ 12" EF	
W1H/J	12	#4 @ 12" EF	#4 @ 12" EF	
W1K/M	12	#4 @ 12" EF	#4 @ 12" EF	

NOTES

1. SEE TYPICAL DETAILS 3 AND 13/S-500 FOR ADDITIONAL WALL REINFORCEMENT INFO
2. SEE CIP BOUNDARY ELEMENT SCHEDULE FOR ADDITIONAL REINFORCEMENT INFO
3. CLEAR COVER IS 2" AT EXTERIOR FACES AND 1" AT INTERIOR FACES
4. HORIZONTAL BARS TO BE CLOSEST TO EXTERIOR FACE FOR VERTICAL BARS TO BE CLOSED ON INTERIOR FACE WALL
5. SEE WALL ELEVATIONS FOR ADDITIONAL WALL REINFORCEMENT INFO

BOUNDARY ELEMENT SCHEDULE

MARK	DIMENSIONS (IN)		VERTICAL BARS	TIES	REMARKS
	B.E.	B.W.			
BE1	12	12	#4 @ 4.5 EACH FACE	#4@9"	
BE2	8	12	#4 @ 4.5 EACH FACE	#4@9"	
BE3	12	21 1/2	#4 @ 4.5 EACH FACE	#4@9"	
BE4	18	12	#4 @ 4.5 EACH FACE	#4@9"	

NOTES

1. SEE CONCRETE DETAILS 5-8/S1 FOR PLAN REQUIRED 4.5 BOUNDARY ELEMENTS
2. SEE WALL ELEVATIONS FOR ADDITIONAL REINFORCEMENT IN GRAPHICS

CONCRETE WALL BEAM SCHEDULE

MARK	DEPTH (IN)	REINFORCEMENT			STIRRUPS	REMARKS
		TOP	BOTTOM	VERTICAL		
WB1	17	3#5	3#5	3#5	#4@12"	
WB2	14	2#7	3#7	2#7	#4@12"	
WB3	14	3#5	3#5	2#5	#4@12"	
WB4	14 1/2	2#5	2#5		#4@12"	
WB5	14	3#7	3#7		#4@12"	
WB6	14	2#5	2#5	2#5	#4@12"	
WB7	12	2#5	2#5		#4@12"	
WB8	17	3#4	3#4		#4@12"	
WB9	22 1/2	3#4	2#5	3#4	#4@12"	

NOTES

1. WALL BEAM THICKNESS IS THICKNESS OF CIP CONCRETE WALL
2. STIRRUPS ARE WITH TWO #4@12" CLR LADDER FOR ALL WALL BEAMS
3. SEE WALL ELEVATIONS FOR PLAN WALL BEAM LOCATIONS AND DETAIL 2/S-500 FOR ADDITIONAL INFO
4. CLEAR COVER TO TIES IS 1 1/2" FOR WALLS IN AIR AND 2" FOR EXPOSED TO WEATHER

CIP CONCRETE BEAM SCHEDULE

MARK	DIMENSIONS (IN)		REINFORCEMENT				REMARKS
	WIDTH	DEPTH	CONT TOP	CONT BOT	STIRRUPS	# STIRRUPS EACH SIDE	
B1	8	16	3#5	3#5	#4@9"	2	
B2	12	1	3#4	3#5	#4@9 1/2"	2	
B3		21 1/2	2#5	3#5	#4@9 1/2"	2	

NOTES

1. SEE TYPICAL DETAIL 1/S-500 FOR ADDITIONAL INFORMATION

1 SECTION
SCALE: 1/2" = 1'-0"

NOTES

1. WALL BEAM LONGITUDINAL REBAR ARE WELD COMPLIANT TO SHAPE OF BARREL PL. SEE SCHEDULE FOR REINFORCEMENT WALL BEAM LENGTH.

2 SECTION
SCALE: 1/2" = 1'-0"

NOTES

1. WALL BEAM LONGITUDINAL REBAR ARE WELD COMPLIANT TO SHAPE OF BARREL PL. SEE SCHEDULE FOR REINFORCEMENT WALL BEAM LENGTH.

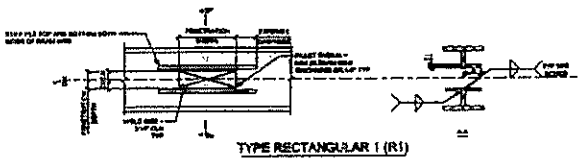
3 SECTION
SCALE: 1/2" = 1'-0"

4 SECTION
SCALE: 1/2" = 1'-0"

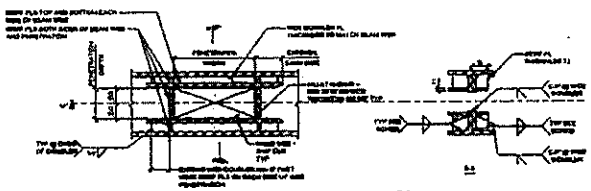
NOTES

1. WALL BEAM REINFORCEMENT NOT SHOWN FOR CLARITY

5 SECTION
SCALE: 1/2" = 1'-0"



TYPE RECTANGULAR 1 (R1)



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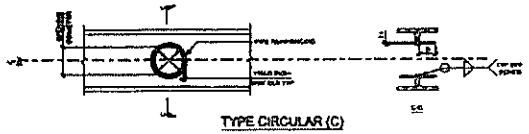
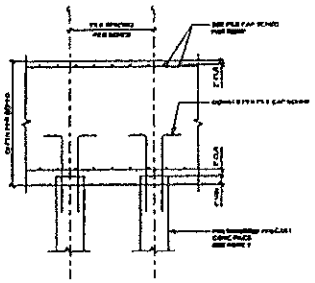


TYPE CIRCULAR (C)

6 BEAM WEB PENETRATION
SCALE: 1/2" = 1'-0"

NOTES

1. SEE BEAM WEB PENETRATION SCHEDULE ON THIS SHEET FOR DATA NOT SHOWN
2. SEE PLANS FOR BEAMS SIZE AND LOCATION



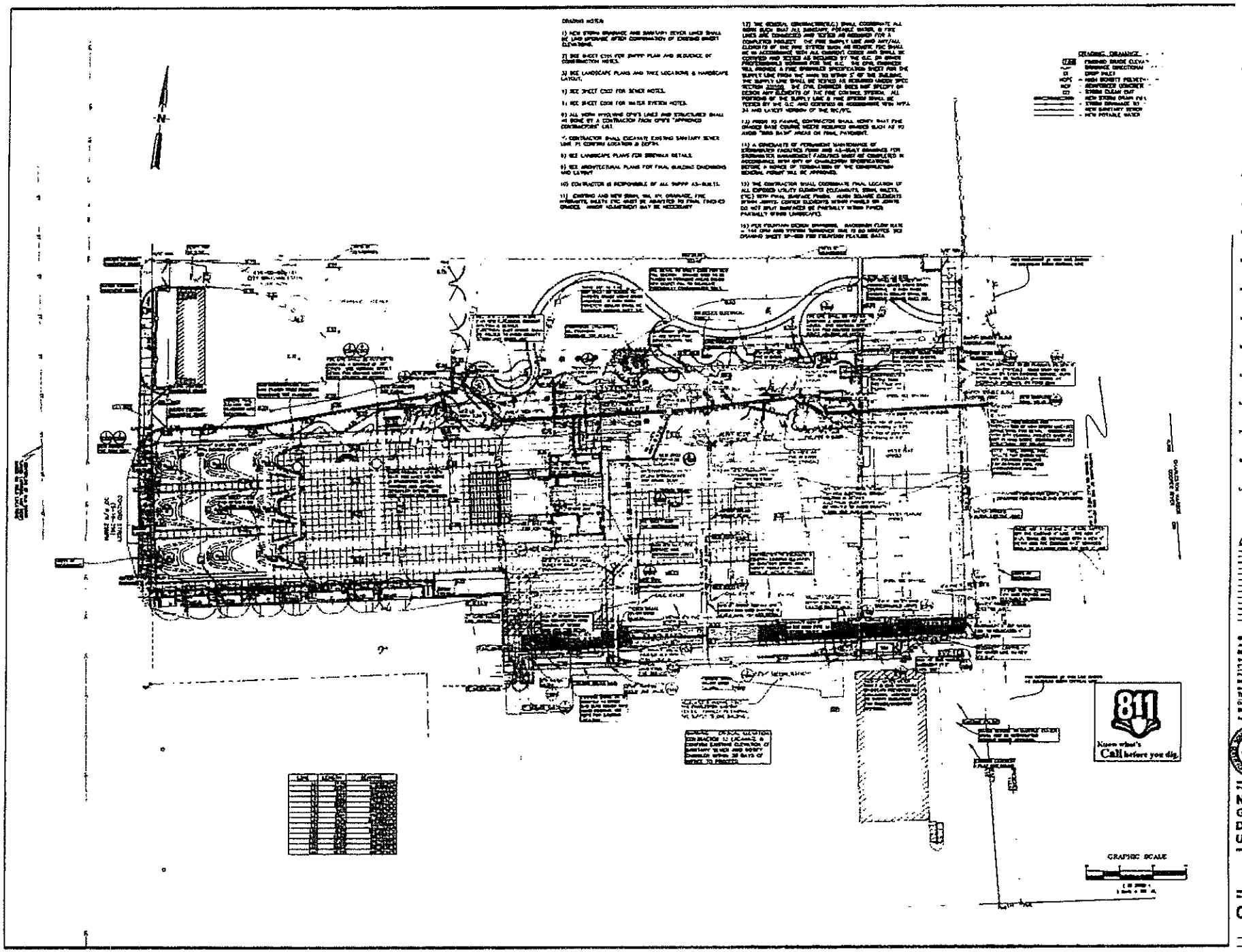
7 TYPICAL PILE CAP
SCALE: 1/2" = 1'-0"

NOTES

1. SEE PILE CAP SCHEDULE FOR PILE TYPE, SPACING AND REINFORCEMENT. SEE PILE SCHEDULE FOR LENGTH AND DIAMETER OF PILES

SCHEDULES

S-500



NEW GRADING, DRAINAGE, & UTILITY PLAN

C-400

MOODY•NOLAN

BULLETIN #001

PROJECT	IAAM	**BULLETIN**	#001
PROJECT NO.	15490	**DATE**	10/21/19
TO	Bobby Teachey	**FROM**	Bernie Costantino

DESCRIPTION:

Revisions to Storm Drain location and Structural grade beams GB3 to avoid conflict and provide clearance. This was in response to RFI #008.

CIVIL
C400

1) Move junction box in a horizontal direction to avoid proposed grade beams. We would also recommend flowable fill around the C900 pipe at grade beam crossings. See revised Grading & Drainage sheet attached with response.

STRUCTURAL
S100, S101, S500

1) S100 and S101. The grade beams GB3 connecting to Stair 3 and 4 pile caps (PC5) need to be reduced in depth to provide additional clearance between grade beams, and C900 storm drain. The top of the grade beam elevations at intersections with the stair pile caps need to be lowered by 6" to accommodate architectural/landscape finishes.
2) S500. GB3 dimensions and reinforcement is modified in CIP Concrete Grade Beam Schedule S500 as required by item 1)

ATTACHMENTS: C400, S100, S101, S500

Each affected contractor is to provide detailed pricing for both labor and material. If the contractor is not affected by the scope of this change, the contractor shall indicate no costs. The contractor shall notify the Architect within 10 working days of any costs that are expected to be incurred. If no response is received within 10 working days, it will be assumed there is no effect to the contractor's contract.

DISTRIBUTION:

Rick Davis
Bri'Shae Anderson
Edmund Most
Rick Holt
Robert Faust
Jonathan Roberts
Julie Cook
Bob Larrimer

300 SPRUCE ST, STE 300, COLUMBUS, OH 43215
614.461.4664

MOODYNOLAN.COM

DRAWING NOTES

1) NEW STORM DRAINAGE AND SANITARY SEWER LINES SHALL BE LAID BETWEEN ±0.50' EXAMINATION OF EXISTING SHEET ELEVATIONS.

2) SEE SHEET C100 FOR SWPPP PLAN AND SEQUENCE OF CONSTRUCTION NOTES.

3) SEE LANDSCAPE PLANS AND TREE LOCATIONS & HARDSCAPE LAYOUT

4) SEE SHEET C300 FOR SEWER NOTES.

5) SEE SHEET C300 FOR WATER SYSTEM NOTES.

6) ALL WORK INVOLVING STATE LINES AND STRUCTURES SHALL BE DONE BY A CONTRACTOR FROM STATE "APPROVED CONTRACTORS" LIST.

7) CONTRACTOR SHALL EXCAVATE EXISTING SANITARY SEWER LINE TO VERIFY LOCATION & DEPTH

8) SEE LANDSCAPE PLANS FOR SIDEWALK DETAILS.

9) SEE ARCHITECTURAL PLANS FOR FINAL BUILDING DIMENSIONS AND LAYOUT

10) CONTRACTOR IS RESPONSIBLE OF ALL SWPPP AS-BUILTS

11) GRADING AND NEW SEWR, WA, WA, DRAINAGE, FIRE HYDRANTS, VALVES ETC. MUST BE ADJUSTED TO FINAL FINISHED GRADES. MINOR ADJUSTMENT MAY BE NECESSARY

12) PRE-DEMOLITION CONTRACTOR(S) SHALL CONSIDER THE ALL WORK THEY SHALL ALL SUBMITTAL PORTABLE WATER & FIRE LINES AND CONNECTION AND TESTING AS REQUIRED FOR A COMPLETED PROJECT. THE FIRE SUPPLY LINE AND VERTICAL ELEMENTS OF THE FIRE SYSTEM SHOW AS NEWARK FTC SHALL BE IN ACCORDANCE WITH ALL CURRENT CODES AND SHALL BE CONTROLLED AND TESTED AS VERIFIED BY THE R.C. OR OTHER PROFESSIONALS VERIFIED FOR THE R.C. THE CIVIL ENGINEER WILL PROVIDE A FIRE SPRINKLER SPECIFICATION SHEET FOR THE SUPPLY LINE FROM THE MAIN TO WITHIN 5' OF THE BUILDING. THE SUPPLY LINE SHALL BE TESTED AS REQUIRED UNDER FTC SECTION 312.5.1. THE CIVIL ENGINEER DOES NOT SPECIFY OR DESIGN ANY COMPONENTS OF THE FIRE CONTROL SYSTEM. ALL PORTIONS OF THE SUPPLY LINE & FIRE SYSTEM SHALL BE TESTED BY THE R.C. AND CERTIFIED IN ACCORDANCE WITH NFPA 24 AND LATEST VERSION OF THE IBC/IFC.

13) PRIOR TO PAVING, CONTRACTOR SHALL VERIFY THAT FIRE HYDRANT BASE CHANGE MEETS REQUIRED HEIGHTS SUCH AS TO AVOID "BIRD BATH" AREAS ON FINAL PAVEMENT.

14) A COVENANTS OF PERMANENT MAINTENANCE OF STORMWATER FACILITIES FORM AND AS-BUILT DRAWINGS FOR STORMWATER MANAGEMENT FACILITIES MUST BE COMPLETED IN ACCORDANCE WITH CITY OF CHARLESTON SPECIFICATIONS BEFORE A NOTICE OF TERMINATION OF THE CONSTRUCTION GENERAL PERMIT WILL BE APPROVED.

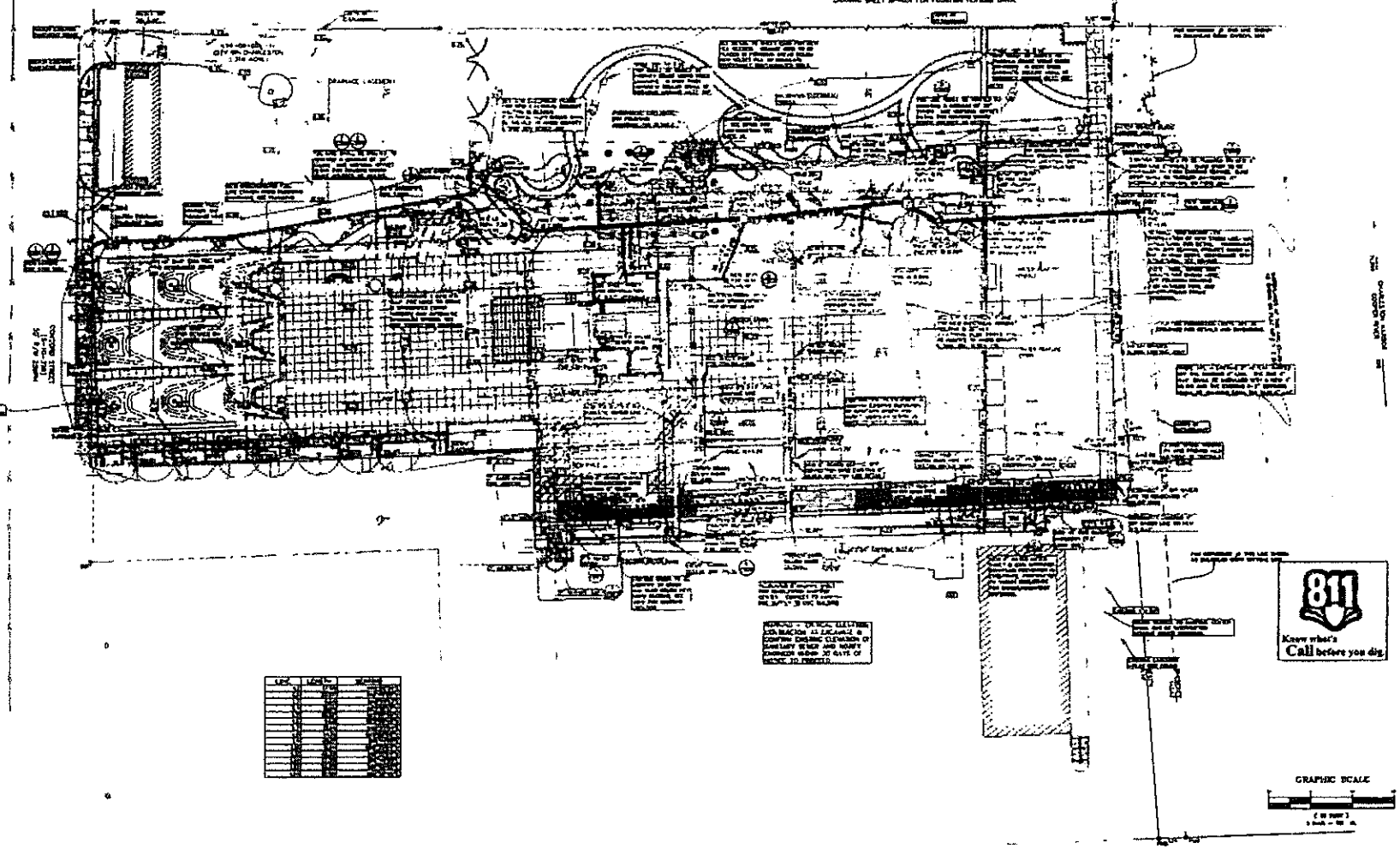
15) THE CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL EXPOSED UTILITY ELEMENTS (BULLHEADS, BOXES, ETC.) WITH FINAL SURFACE FINISH. ALIGN GRADE ELEMENTS WITH JOINTS, COVER ELEMENTS WITH PANELS OR JOINTS

16) NOT BUILT SURFACES OR PARTIALLY WITHIN PAVED, PARTIALLY WITHIN LANDSCAPED

17) FOR FOUNTAIN DESIGN DRAWINGS. BACKWASH FLOW RATE — 144 GPM AND SYSTEM TURNOVER RATE IS 48 MINUTES. SEE DRAWING SHEET SP-501 FOR FOUNTAIN FEATURE DATA.

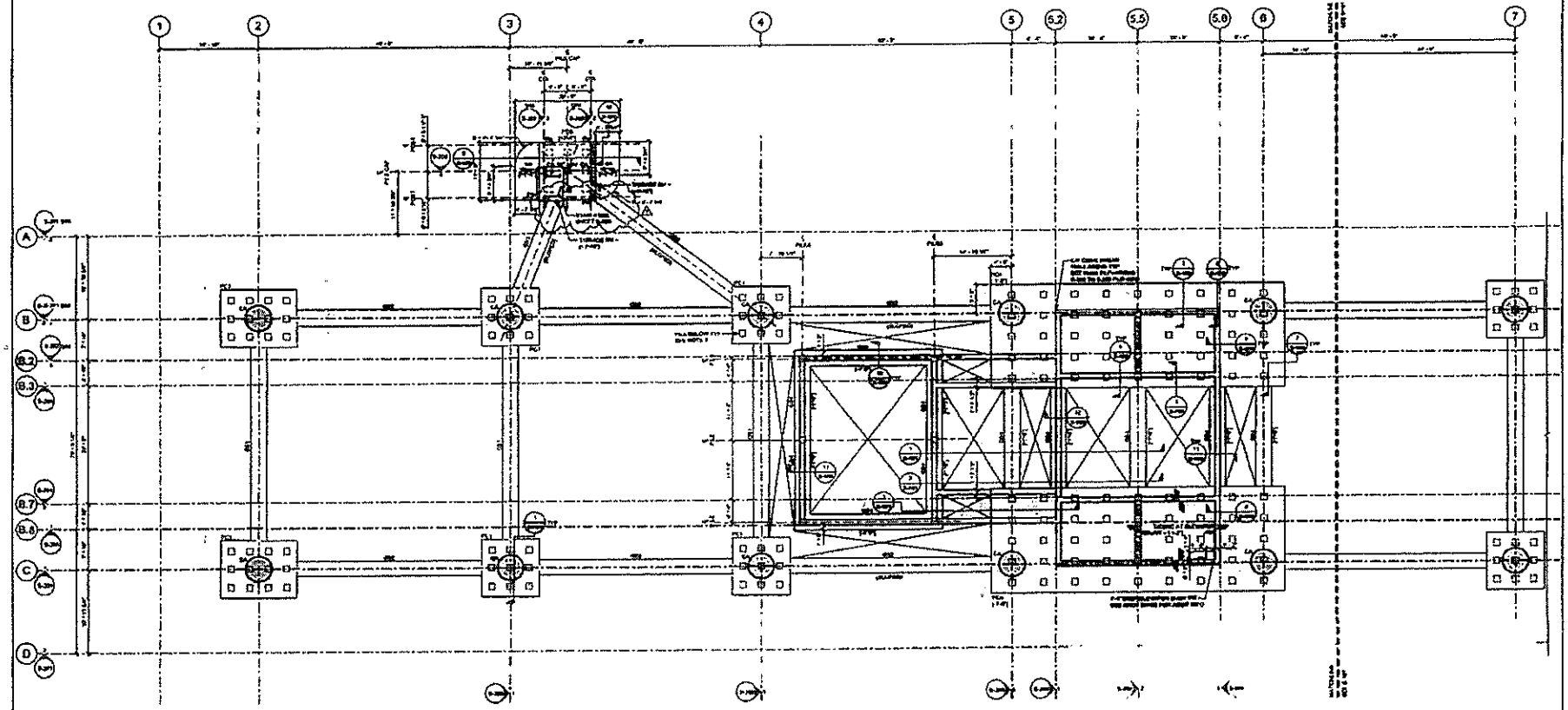
GRADING DRAINAGE

1.2%	FINISHED GRADE ELEVATION
	DRAINAGE DIRECTIONS
FL	- DROP INLET
HDPE	- HIGH DENSITY POLYETHYLENE
RCP	- REINFORCED CONCRETE
CO	- STORM CLEAN OUT
	- NEW STORM DRAIN PIPE
	- STORM DRAINAGE, DI
	- NEW SANITARY SEWER
	- NEW POTABLE WATER



NEW GRADING, DRAINAGE, & UTILITY PLAN

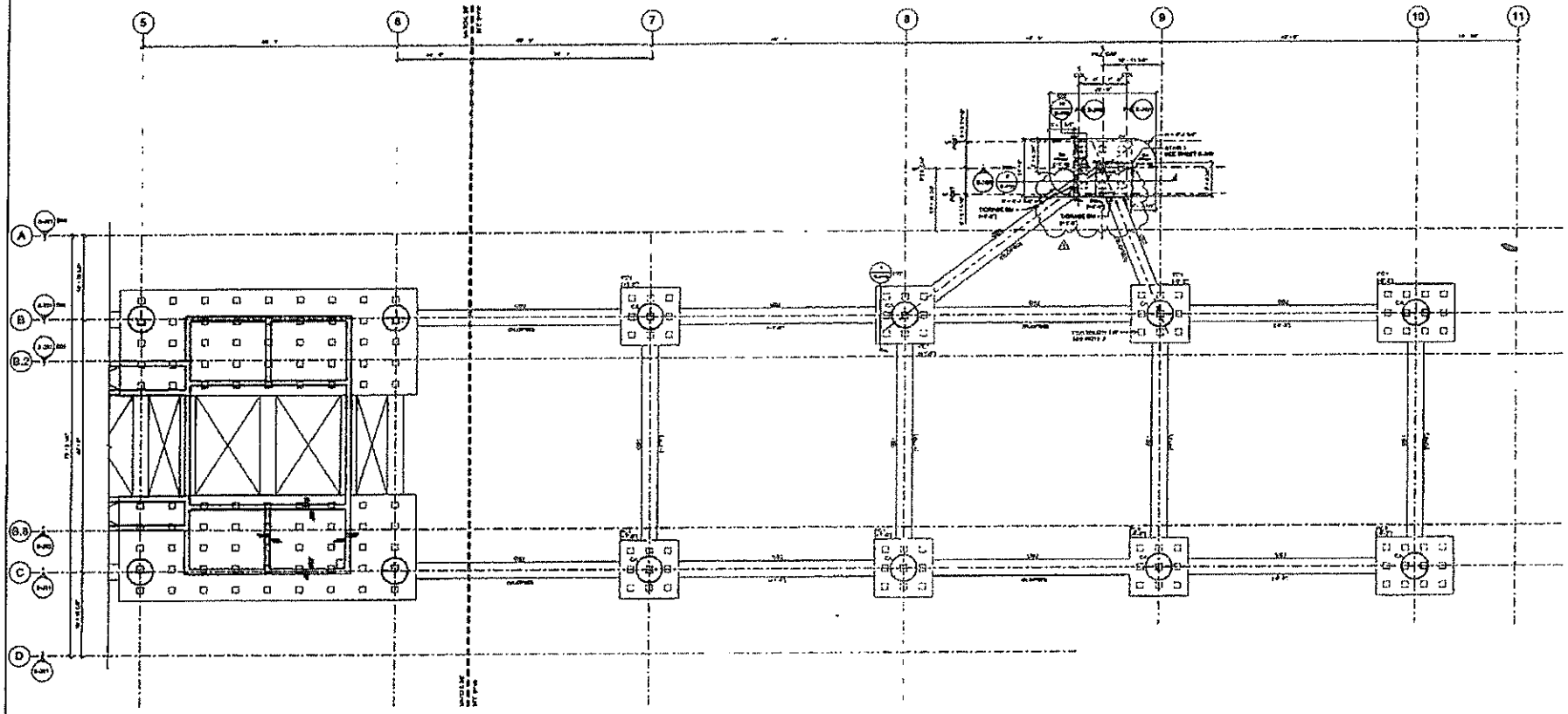
C-400



FOUNDATION PLAN - PART A

FOUNDATION PLAN PART A

S-100



FOUNDATION PLAN - PART B

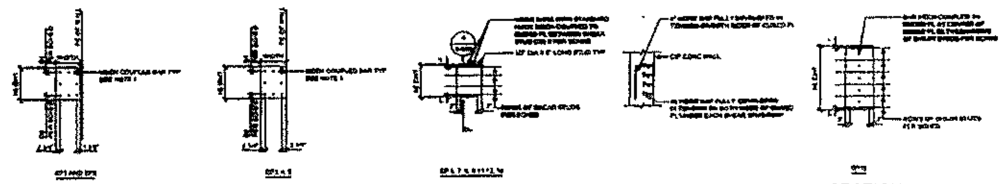
FOUNDATION PLAN PART B

S-101

STEEL EMBED PLATE SCHEDULE AT CIP CONC WALLS

MARK	DIMENSIONS (IN)					HEADED/COUPLER BARS	SHEAR STUDS			REMARKS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NOTES [illegible]



① SECTION

② SECTION

③ SECTION

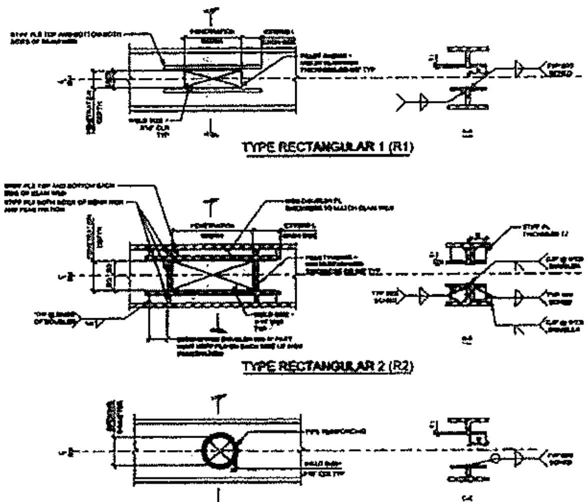
④ SECTION

⑤ SECTION

BEAM WEB PENETRATION SCHEDULE

MARK	TYPE	WEB PENETRATION					REMARKS
A	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
B	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
C	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
D	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
E	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
F	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
G	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
H	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

NOTES [illegible]

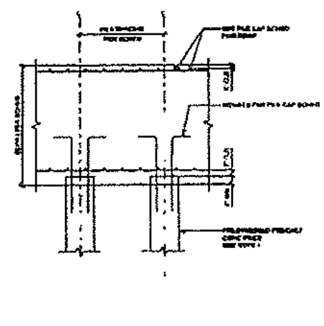


TYPE RECTANGULAR 1 (R1)

TYPE RECTANGULAR 2 (R2)

TYPE CIRCULAR (C)

⑥ BEAM WEB PENETRATION



⑦ TYPICAL PILE CAP

CIP PILE CAP SCHEDULE

MARK	DIMENSIONS			NUMBER OF PILES			SPACING OF PILES		PILE CUTOFF	TOP REINFORCEMENT		BOT REINFORCEMENT		REMARKS
PC1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
PC2									[illegible]					[illegible]
PC3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
PC4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
PC5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

NOTES [illegible]

CIP CONCRETE GRADE BEAM SCHEDULE

MARK	DIMENSIONS		MAIN REINFORCEMENT			REMARKS
	WIDTH	DEPTH	CONT TOP	CONT BOTTOM	STIRRUPS	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

NOTES [illegible]

CIP CONCRETE SLAB SCHEDULE

MARK	THICKNESS	REINFORCEMENT				REMARKS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NOTES [illegible]

CIP CONCRETE WALL SCHEDULE

MARK	THICKNESS	REINFORCEMENT		REMARKS
		VERTICAL	HORIZONTAL	
[illegible]	[illegible]	[illegible]	[illegible]	

NOTES [illegible]

BOUNDARY ELEMENT SCHEDULE

MARK	DIMENSIONS		VERTICAL BARS	TIES	REMARKS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

NOTES [illegible]

CONCRETE WALL BEAM SCHEDULE

MARK	DEPTH	HORIZ REINFORCEMENT			STIRRUPS	REMARKS
		TOP	BOTTOM	MIDDLE		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

NOTES [illegible]

CIP CONCRETE BEAM SCHEDULE

MARK	DIMENSIONS		REINFORCEMENT					REMARKS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

NOTES [illegible]

SCHEDULES

S-500

Turner Construction Company
4601 Park Road; Suite 601
Charlotte, NC 28209
phone: 704.554.1001

Robert Faust
Cumming
3820 Faber Place Drive, Suite 600,
North Charleston, SC 29405

Subject: Change Order Request 9 – Pile Cap Rebar Change

Bob,

During the submittal review process submittal # 316214 – 2 came back with changed rebar sizes. Turner submitted RFI 50 (Donley RFI 13)

The cost of this change is due to the additional tonnage of the rebar. As stated in previous email Turner-Brownstone needs to have approval to release these materials by 11/27/2019 in order to maintain the 12/9/2019 concrete start date.

Please feel free to contact me directly with any further questions or comments with regard to this matter.

Respectfully,

Walter Lewis
Project Engineer
Turner Construction Company
704 936 6991

CUMMING

Change Order Proposal Review Form

To: Edmund V. Moat
From: Jonathan Roberts
Date: 8/6/2020
Contractor: Turner Construction Company

Project: CP 1425 International African American Museum
Project No.: CP 1425
Proposal No.: Change Order Request No. 9
Contract: Construction
(CMR/ARCHITECT/OWNER/OTHER)

Description of work to be performed: Pile Cap Rebar - Dowel Connection @ Pile/ Cap

Request to access Owner Allowance to cover the cost of material, labor, equipment, and all other cost of the revised concrete rebar dowel design to connect the pile and pile-cap.

Justification: F - Unforseen Condition

A - Customer Requested Change
B - Code/Regulatory Agency Required Change
C - Errors and Omissions
D - Replacing Unsuitable Soils
E - Soils Related Change Other than De-Mucking
F - Unforeseen Conditions
G - Time Related Change
H - Liquidated Damages
I - Value Engineering Change
J - Exercising Pre-Priced Option (Allowance)
K - Accounting Error
(Indicate Reason for Change Proposal)

Attachments:

	J&A from Project Manager		Cost Estimate (Expected to Exceed $10,000)
	Independent Cost Estimate		Change Proposal Request from CMR with Detailed Backup
	Pre-Negotiation Position (PNP)	X	

Proposal Cost (not to exceed): $45,085.00 **Owner Contingency Allow. Bal.** $1,304,814.00
Time Extension Requested: **Time Extension Recommended:** 0

Special Circumstances: This change will net in a $0.00 contract modification as the $960,000.00 Owner Contingency allowance will be accessed to cover the cost of this scope.

Consequence of Rejection: Funding of this scope would come from an alternate source.

Comments by Supervisor:

Approved:

(NO) (YES) (Circle One) — Rick Holt, Cumming Corp.

(NO) (YES) (Circle One) — Robert Faust, Cumming Corp.

(NO) (YES) (Circle One) — Edmund V. Moat, City of Charleston

(NO) (YES) (Circle One) — Bernard Costantino, Moody Nolan

Decision needed by: August 6, 2020

(NO) (YES) (Circle One) — Jonathan Roberts, Cumming Corp.

Turner BROWN

COR #: 9

Date Submitted: November 26, 2019

TURNER BROWNSTONE
9 Warf Street
Charleston, SC

To: Edmund Most
City of Charleston

Re: **Internation African American Muesum**

Rebar Change at the pile Caps

Please find attached our Proposed Change Order (PCO) for the above described Work. We are submitting for your review and approval of the changed condition(s) as outlined herein. All work shall be performed under our current contract terms and as outlined below:

Work Description:	Provide all required Labor, Materials, Equipment, and Administrative/Support costs to provide revised rebar per the approved shop drawings per revised scope of work attached. They will be per specs and drawings issued to Turner, scope of work as detailed within the Subcontractor's quote(s) &/or correspondence attached. The design has started and the will be submitted based on the new findings. Work in the field can not start with out signed change order.

Reason: [X] Owner Directive [ ] Code / Regulatory [ ] Unforeseen Condition [ ] Design Issue

Pricing: [ ] ROM Estimate of GR's & Insurances [ ] ROM Estimate for Entire PCO [X] Lump Sum or **Firm Fixed Unit Pricing** for Trade Contractors - See Detailed Estimates

Time Impact: [X] Evaluating Potential for Time Impact [ ] Evaluated - NO TIME IMPACT [TBD] Calendar Days Requested (See attached FRAGNET/Schedule Impact Analysis)

[ ] Work has been Completed [ ] Work Has Commenced &/or is Ongoing [ ] Work Authorization Is Requested By:

Submitted By: Contractor: **TURNER BROWNSTONE**

Walter Lewis Project Engineer — Dated / / — $ 45,085 Amount Requested

Requested Action: [ ] Authorized to Proceed While Pricing [ ] Price Only [ ] Do Not Proceed or Price

Reviewed By: Program Manager: **CUMMING**

Dated / /

Authorized Action: [ ] Authorized to Proceed While Pricing [ ] Price Only [ ] Do Not Proceed or Price

Approved By: Owner: **City of Charleston**

Edmund Most — Dated / / — $ 45,085 Amount Approved

Turner

Internation African American Muesum
General Summary of the Estimate

COR No.: 9

Item #	Description of Work		DETAIL ESTIMATE OF DIRECTS
A1	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	SELF PERFORMED LABOR	$0
A2	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	MATERIAL(S) & EQUIPMENT	$0
A3	TRADE DIRECTS		$41,490.00
A4		SUBTOTAL TRADE DIRECTS	$41,490
A5			
A6			
A7			
A8			
A9			
A14			
A11			
A14			
A15			
A16			
A16			
A17			

		SUBTOTAL		$41,490
CCIP	@	2.45%	=	$1,016.51
Subguard	@	0.012	=	$497.88
Builders Risk	@	0.84%	=	$348.52
Performance and Payment Bond		0.00732	=	$303.71
Procore	@	0.04500%	=	$18.67
Overhead and Profit	@	3.25%	=	$1,409.58
		ESTIMATE TOTAL		**$45,085**

Turner

Internation African American Muesum
DETAIL ESTIMATE OF DIRECTS

COR No.: 9

DIVISIONS OF WORK	RATE	Unit	UNITS	SUBTOTAL	TOTAL	COMMENTS

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)

DESCRIPTION

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)	$0

TRADE DIRECTS

DESCRIPTION

1	**Additional Scope of Work** Provide new rebar per returned submittal	$	41,490.00	1	LS	$41,490.00	
							$41,490
					DIRECT WORK SUBTOTAL		$41,490

Donley's
CONCRETE GROUP

To: Bobby Teachey & Walt Lewis
11/25/2019
COR #: 07
Title: Revision to Pile Dowels
Schedule Impact: TBD pending release and fabrication Agent: Donley's Concrete Group

Design Team comments to Turner Submittal Package #37 "316214-2 Production Concrete Piles" indicated that pile dowels were to be changed from (4) #8 GR 60 dowels with 3'-7" of embedment to (4) #10 GR 75 dowels with 6'-0" of embedment typical all pile locations. This increased the tonnage of rebar by 12.38 tons and increased the cost per ton for increasing the grade from GR 60 to GR75. This change order includes administrative costs for coordinating the rebar changes and additional labor for unloading and installing the increased tonnage of rebar.

	Qty.	Unit	Labor $/UM	EQ $/UM	Mat $/UM	SUB $/UM		Labor	EQ	Mat	SUB
Additional Rebar (12.38 tons w/ detailing)	1.0	EA	$ -	$ -	$ -	$ 22,746		$ -	$ -	$ -	$ 22,746
Misc Materials	1.0	EA	$ -	$ -	$ 500	$ -		$ -	$ -	$ 500	$ -
Small Tools	1.0	EA	$ -	$ 750		$ -		$ -	$ 750	$ -	$ -
Carpenter	136	HRS	$ 55	$ -	$ -	$ -		$ 7,480	$ -	$ -	$ -
Foreman	14	HRS	$ 57	$ -	$ -	$ -		$ 775	$ -	$ -	$ -
Superintendent	7	HRS	$ 97	$ -	$ -	$ -		$ 660	$ -	$ -	$ -
Project Manager	10	HRS	$ 87	$ -	$ -	$ -		$ 870	$ -	$ -	$ -
							Subtotal	$ 9,785	$ 750	$ 500	$ 22,746
							Burden	INCL.	$ -	$ -	$ -
							Tax	$ -	$ 68	$ 45	$ -
							SDI	$ -	$ -	$ -	$ 2,843
							Service Dep.	$ 294	$ 38	$ -	$ -
							Bond	$ 98	$ 8	$ 5	$ 227
							GL Insurance	$ -	$ -	$ -	$ -
							OH/Profit	$ -	$ 129	$ 83	$ 3,873
							Item Totals	$ 10,176	$ 992	$ 633	$ 29,689
							Totals	$			41,490

Submitted by: Chris Hewitt, Project Manager
Donley's Concrete Group

Harris Rebar North Carolina Inc.

Project No:	06219158-04	Change Order #4	Date: November 22, 2019

To: Donley's Concrete
Mr. Chris Hewitt
Project: International African American Museum
Loc.: Charleston, SC
Archt.:

Change Order #4: Approximately 12.38 tons plain rebar for $22,746.00 plus applicable tax.

Description: Additional rebar and 6 hours of detailing time required to change 4 #8 with embed of 3'-7" to 4 #10 with embed of 6'-0" at each pile location per Turner Submittal Package #37 "316214-2 Production Concrete Piles". Revisions include changing 21.17 tons from Grade 60 to Grade 75 for $8,680.00.

Accepted by Buyer

This day of

Buyer's name:

Approved By:

Name/Tite:

Harris Rebar North Carolina Inc.

By: Neil Byrd 11/22/2019

Title: Sales Estimator

Approved By:

Name/Title: Gary Rhodes, Area Manager

Hewitt, Chris

From: Kaveney, Matthew
Sent: Wednesday, November 20, 2019 11:06 AM
To: 'Bobby Teachey'; Anderson, Bri'Shae D - (CAR)
Cc: 'Lewis, Walter - (CAR)'; Langdale Jr, Bobby - (ATL); 'Lovelace, Ricky J - (CAR)'; Hewitt, Chris; Hendershott, Ken
Subject: RE: DCG RFI No. 13 - Size & Grade Requirement at Prestressed Concrete Piles
Attachments: DCG RFI 13 - Size of Dowel at Prestressed Piles.pdf

Importance: High

Bobby T. – as a follow up to my voicemail earlier, wanted to send over the attached RFI confirming the following:

- Size of dowel required at prestressed piles
- Grade of dowel required at prestressed piles

We are awaiting a formal quote from our supplier – which we should see by end of the day hopefully – but we wanted to advise that this could produce a cost impact. *More importantly*, our supplier does not have grade 75 on hand so that will need to be ordered and then fabricated, producing a lead time issue.

- Note – our supplier does have grade 60 in stock, eliminating our lead time issue

Bri'Shae – please review and submit per our phone conversation. As we discussed, this is extremely important.

Let us know how, or if, we can assist.

Donley's
CONCRETE GROUP

REQUEST FOR INFORMATION
Job. : International African American Museum

RFI #: 13
Date: 11/20/2019

To:	**Bobby Teachey & Walt Lewis**	**From:**	**Matthew Kaveney**
Phone: Email:	Turner Construction Company 14 Wharfside Street Charleston, South Carolina 29401 (843) 973-8660 (704) 936-6991 bteachey@bstonegroup.com wlewis@tcco.com	Phone: Email:	Donley's Concrete Group, LLC 3300 W. Montague Ave Ste 120 North Charleston, SC 29418 (843) 323-7343 mkaveney@donleyinc.com
CC:	Bri'Shae Anderson (TCCO), Bobby Langdale (TCCO), Ken Hendershott (DCG), Joe Norton (DCG) & Chris Hewitt		

Subject:	Reinforcing Requirement at Prestressed Piles			**Status:**	New
Drawing #:		**Spec Sect#:**		**TCCo Submital #:**	316214-2
Addendum:	N/A	**Schedule #:**	N/A		

Potential Schedule &/or Cost Impacts:

Schedule Impact: Potential *days* Cost Impact: Yes

Information Requested: ***Dated Required:*** 11/27/2019

DCG is requesting/confirming the following information regarding the 14" x 14" Prestressed Precast Concrete Pile Dowel:

1. EOR to confirm (4) #10 Dowels are required
2. EOR to confirm Grade 75 is required

Please note that there will be a cost impact to go to the Grade 75 reinforcing as well increase each dowel to a #10. More importantly, the lead time for Grade 75 is running 4-6 weeks; therefore time is of the essence on the answer to this RFI.

Submitted By: *Matthew Kaveney*

Response:

Turner

THIS SHEET IS BEING SUBMITTED FOR REFERENCE ONLY - SEE PAGE 4 FOR COMMENTS FROM EOR ON SIZE OF POWER REQUIRED

Submittal Package # 38

TCCo Atl/Car
4601 Park Road, Suite 601
Charlotte, North Carolina 28209

Project: 190795 - IAAM
14 Wharfside Street
Charleston, 29401

032000-1-1 CONCRETE REINFORCEMENT SD REVISION

SPEC SECTION: 03 20 00 - Concrete Reinforcement **CREATED DATE:** 11/06/ 2019

LINK TO PROCORE: View

DESCRIPTION:

PACKAGE ATTACHMENTS:

SUBMITTALS

	Title	Spec Section	Status	Due Date	
View	03 20 00-1.1: Concrete Reinforcement SD	03 20 00 - Concrete Reinforcement	Open	//	

03 20 00-1.1: Concrete Reinforcement SD

APPROVERS:

DATE CREATED:	11/06/ 2019	**STATUS:**	Open
ISSUE DATE:	11/06/ 2019	**REVISION:**	1
RECEIVED FROM:	Chris Hewitt (Donley Inc)	**RECEIVED DATE:**	//
DUE DATE:	//	**SUBMIT BY:**	09/19/ 2019
TYPE:	Shop Drawing	**LOCATION:**	
COST CODE:		**SPEC SECTION:**	03 20 00 - Concrete Reinforcement

BALL IN COURT:
Bri'Shae Anderson (Turner Construction (CAR))

COPIES TO:
Matthew Kaveney (Donley Inc), Chris Hewitt (Donley Inc), Ken Hendershott (Donley Inc), David Himelman (Guy Nordenson and Associates), Xiaoxiao Wu (Guy Nordenson and Associates), Jonathan Sigman (Collins Engineers, Inc.), Jonathan Roberts (Cumming), Edmund Most (City of Charleston), Matteo Milani (Pei, Cobb Freed & Partners), Trey Linton, PE (Forsberg Engineering and Surveying, Inc.), Robert Larrimer, AIA (Moody Nolan), Rick Holt (Cumming), Danny Forsberg, PE, PLS (Forsberg Engineering and Surveying, Inc.), Bernard Costantino (Moody Nolan), Julie Cook, AIA (Moody Nolan)

DESCRIPTION:
Rebar Shop Drawings:

1. RC01: Building Columns Area A
2. RC02: Building Columns Area B
3. RFA01: Area A Pile Cap Details
4. RFA02: Area A Pile Cap Details
5. RFA03: Area A Grade Beam Details
6. RFA04: Area A Grade Beam Details
7. RFA05: Area A Grade Beam Details
8. RFB01: Area B Pile Cap Details
9. RFB02: Area B Grade Beam Details
10. RFB03: Area B Grade Beam Details

TURNER-BROWNSTONE

REVIEWED BY: bdanderson DATE: 11/06/2019

Reviewed by Turner for General Compliance with the contract documents only. This review does not relieve the subcontractor of the responsibility for making the work conform to the requirements of the contract. The subcontractor is responsible for all dimensions, correct fabrication, and accurate fit with the work of other trades

SUBMITTAL #DCG Submittal No. 1 - Foundations Area A B

ATTACHMENTS:

BY DATE COPIES TO

Donley's CONCRETE GROUP

THIS SHEET IS BEING SUBMITTED FOR REFERENCE ONLY - SEE PAGE 4 FOR COMMENTS FROM EOR ON SIZE OF DOWEL REQUIRED.

SUBMITTAL FOR APPROVAL

6517 International African American Museum

Submittal #001 - Rebar Shop Drawings Foundations and Columns

REV 1

Specification #: 033000

Date: 10/28/2019

To:	Bobby Teachey & Walt Lewis	From:	Matthew Kaveney
Phone: Email:	Turner Construction Company 14 Wharfside Street Charleston, South Carolina 29401 (843) 973-8660 (704) 936-6991 bteachey@bstonegroup.com wlewis@tcco.com	Phone: Email:	Donley's Concrete Group, LLC 3300 W. Montague Ave Ste 120 North Charleston, SC 29418 (843) 323-7343 mkaveney@donleyinc.com

We are transmitting the following submittal – Building Foundations – for your review in accordance with specification #033000.

In order to meet the contract schedule, please review and respond by 11/13/2019.

Submittal Item	Status	Date Sent	Copies	Specification
Building Foundations	New	10/28/2019	1	03 20 00-Concrete Reinforcement

Additional Notes:
**A/EOR to aid in shear lug pocket coordination.

Matthew Kaveney

Matthew Kaveney

cc: 6517, Bri'Shae Anderson (TCCO), Bobby Langdale (TCC), Ken Hendershott (DCG)

Guy Nordenson and Associates **Submittal Review**

Submittal No 051200-3 Project: IAAM No 230

THIS SHEET IS BEING SUBMITTED FOR REFERENCE ONLY - SEE COMMENTS BELOW FROM EOR ON SIZE OF DOWEL REQUIRED.

___ NO EXCEPTIONS TAKEN

X MAKE CORRECTIONS NOTED

___ SUBMIT SPECIFIED ITEM

___ REVISE AND RESUBMIT

___ REJECTED

___ ACTION NOT REQUIRED

Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents, and not for the purpose of determining the accuracy and completeness of details such as dimensions and quantities Any action shown does not relieve contractor of responsibility to comply fully with the requirements of the drawings and specifications Any deviations from the contract documents must be clearly identified as such and conspicuously located on the submission Contractor is responsible for: dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his work with that of all other trades and the satisfactory performance of his work.

Guy Nordenson and Associates LLP

Date 11/13/2019

By X WU

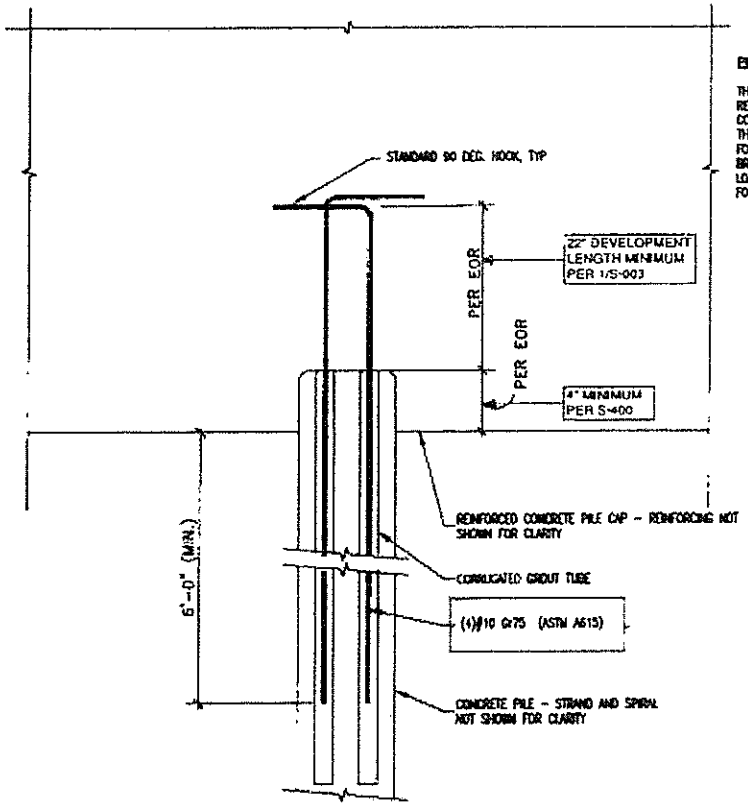
GENERAL NOTES

1 REFERENCES TO THE STRUCTURAL DRAWINGS BID SET DATED 6/10/19.
2 LAST TWO SHEETS FROM 032000-1-0 RC01 AND RC02 NOT RE-SUBMITTED IN THIS SUBMITTAL THUS NOT REVIEWED
3 [redacted]
4 COORDINATE SHEAR WALL DOWEL LAYOUT AT PILE CAPS PC4 WITH SHEAR WALL PENETRATION LOCATIONS AND THE ADDITIONAL REINFORCING REQUIRED AROUND THE PENETRATIONS. SEE RFI 27 FOR ADDITIONAL INFORMATION

Structural Engineers LLP

225 Varick Street 6th Floor
New York NY 10014 USA
Tel 212 766 9119
Fax 212 766 9016
www.nordenson.com

THIS SHEET WAS EXTRACTED FROM SUBMITTAL 316214-2; SEE REFERENCE TO GRADE 75 BELOW.



RECOMMENDED PILE CAP CONN. DETAIL

NOT TO SCALE

PILE NOTES:

THE RECOMMENDED REINFORCING DETAIL IS BASED ON REINFORCING REQUIRED TO CREATE AN ADEQUATE CONDITION AT THE TOP OF THE PRECAST CONCRETE PILE. PILE-TO-PILE CAP CONNECTION DESIGN IS OUTSIDE OF THE SCOPE OF THE PILE SPECIALTY ENGINEER. THE ENGINEER OF RECORD FOR THE DESIGN OF THE PILE CAP MUST VERIFY THAT THE PULL-OUT AND BREAK-OUT STRENGTH OF THE CONCRETE CAP IS ADEQUATE FOR DESIGN LOADS AND THAT LOAD TRANSFER IS CONSISTENT WITH THE OVERALL FOUNDATION MODELING ASSUMPTIONS.

GNA WILL INCORPORATE THE REQUIRED DOWELS 4#10 IN THE REVIEW OF THE RELATED REINFORCEMENT SUBMITTAL

CONFIRM THIS

JOHN C. RYAN, PE
3253 EEACONSFIELD RD.
Mt. Pleasant, SC 29466
ph.: 540.230.2607
email: John@RyanSE.com

INTERNATIONAL AFRICAN AMERICAN MUSEUM

CHARLESTON, SC

14-INCH PILE DETAILS

DATE: 11.04.19	DRAWN: JCR
SCALE: NOTED	SHEET: 2 OF 2

CUMMING
Change Order Proposal Review Form

To: Edmund V. Most
From: Jonathan Roberts
Date: 3/23/2020
Contractor: Turner Construction Company

Project: CP 1425 International African American Museum
Project No.: CP 1425
Proposal No.: Change Order Request No. 25
Contract: Construction
(CMR)(ARCHITECT)(ENGINEER)(OTHER)

Description of work to be performed: **Existing Deadman Removal**

This is a request to access the Owner's Contingency Allowance to provide all required labor, material, and equipment to remove an unforeseen deadman structure from the Southeast corner of the site. The structure is approximately 10' deep requiring mass excavation, cutting the 4'X4' concrete section, removal/ disposal of debris, and backfill.

A - Customer Requested Change
B - Code/Regulatory Agency Required Change
C - Errors and Omissions
D - Replacing Unsuitable Soils
E - Soils Related Change Other
F - Unforeseen Conditions
G - Time Related Change
H - Liquidated Damages
I - Value Engineering Change
J - Exercising Pre-Priced Option (Allowance)
K - Accounting Error
(Indicate Reason for Change Proposal)

Justification: **F - Unforeseen Conditions**

Attachments:

	J&A from Project Manager		Cost Estimate (Expected to Exceed $10,000)
	Independent Cost Estimate		Change Proposal Request from CMR with Detailed Backup
	Pre-Negotiation Position (PNP)	X	

Proposal Cost (not to exceed): $40,331.00 **Owner Contingency Allow. Bal.** $1,264,483.00
Time Extension Requested: **Time Extension Recommended:**

Special Circumstances: This change will net in a $0.00 contract modification as the $960,000.00 Owner Contingency allowance will be accessed to cover the cost of this scope.

Consequence of Rejection:

Comments by Supervisor:

Approved:

(NO) (YES) (Circle One) — Rick Holt, Cumming Corp.

(NO) (YES) (Circle One) — Robert Faust, Cumming Corp

(NO) (YES) (Circle One) — Edmund V. Most, City of Charleston

(NO) (YES) (Circle One) — Bernard Costantino, Moody Nolan

Decision needed by: March 26, 2020

(NO) (YES) (Circle One) — Jonathan Roberts, Cumming Corp

COR #: 25

Date Submitted: March 9, 2020

TURNER BROWNSTONE
14 Wharf Street
Charleston, SC

To: Edmund Most
City of Charleston

Re: **Internation African American Muesum**

Unforeseen Deadman Removal Costs

Please find attached our Proposed Change Order (PCO) for the above described Work. We are submitting for your review and approval of the changed condition(s) as outlined herein. All work shall be performed under our current contract terms and as outlined below:

Work Description:	Provide all required Labor, Materials, Equipment, and Administrative/Support costs to remove unforeseen deadman removal. They will be per specs and drawings issued to Turner, scope of work as detailed within the Subcontractor's quote(s) &/or correspondence attached. The design has started and the will be submitted based on the new findings. Work in the field can not start with out signed change order.

Reason: [ ] Owner Directive [ ] Code / Regulatory [X] Unforeseen Condition [ ] Design Issue

Pricing: [ ] ROM Estimate of GR's & Insurances [ ] ROM Estimate for Entire PCO [X] Lump Sum or **Firm Fixed Unit Pricing** for Trade Contractors - See Detailed Estimates

Time Impact: [ ] Evaluating Potential for Time Impact [X] Evaluated - NO TIME IMPACT [ ] Calendar Days Requested (See attached FRAGNET/Schedule Impact Analysis)

[X] Work has been Completed [ ] Work Has Commenced &/or is Ongoing [ ] Work Authorization is Requested By:

Submitted By: Contractor: **TURNER BROWNSTONE**

Walter Lewis Project Engineer — Dated / / — $ 40,331 Amount Requested

Requested Action: [ ] Authorized to Proceed While Pricing [ ] Price Only [ ] Do Not Proceed or Price

Reviewed By: Program Manager: **CUMMING**

Dated / /

Authorized Action: [ ] Authorized to Proceed While Pricing [ ] Price Only [ ] Do Not Proceed or Price

Approved By: Owner: **City of Charleston**

Edmund Most — Dated / / — $ 40,331 Amount Approved

Turner

Internation African American Muesum
General Summary of the Estimate

COR No.: 25

Item #	Description of Work		DETAIL ESTIMATE OF DIRECTS
A1	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	SELF PERFORMED LABOR	$0
A2	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	MATERIAL(S) & EQUIPMENT	$0
A3	TRADE DIRECTS		$37,115.00
A4		SUBTOTAL TRADE DIRECTS	$37,115
A5			
A6			
A7			
A8			
A9			
A14			
A11			
A14			
A15			
A16			
A16			
A17			

		SUBTOTAL		$37,115
CCIP	@	2.45%	=	$909.32
Subguard	@	0.012	=	$445.38
Builders Risk	@	0.84%	=	$311.77
Performance and Payment Bond		0.00732	=	$271.68
Procore	@	0.04500%	=	$16.70
Overhead and Profit	@	3.25%	=	$1,260.94
		ESTIMATE TOTAL		**$40,331**

Turner

Internation African American Muesum
DETAIL ESTIMATE OF DIRECTS

COR No.: 25

DIVISIONS OF WORK	RATE	Unit	UNITS	SUBTOTAL	TOTAL	COMMENTS

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)

DESCRIPTION

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's) $0

TRADE DIRECTS

DESCRIPTION

	Additional Scope of Work						
1	Relocate Back Flow Relocation	$	4,909.00	1	LS	$4,909.00	
2	Partial Deadman Removal	$	14,805.00	1	LS	$14,805.00	
3	Completion of Deadman Removal	$	17,401.00	1	LS	$17,401.00	
							$37,115
					DIRECT WORK SUBTOTAL		$37,115

GULF STREAM CONSTRUCTION

1983 Technology Drive • Charleston, SC 29492
(843) 572-4363 • Fax (843) 572-9609
www.gulfstreamconstruction.com

To:	Turner Construction Company	**Contact:**	Bobby Teachey
Address:	4601 Park Road, Suite 601 Charlotte, NC 28209	**Phone:**	(704) 239-9429
		Fax:	
Project Name:	IAAM - COR02.1 Backflow Relocation	**Bid Number:**	191400
Project Location:	14 Wharfside Street, Charleston, SC	**Bid Date:**	11/8/2019

Item Description	Estimated Quantity	Unit	Total Price
Backflow Relocation	1.00	LS	$4,909.39

Total Bid Price: $4,909.39

Notes:

- The price above includes the cost to relocate an existing water backflow that was not shown on the plans. Relocation back to orignial location is excluded.

ACCEPTED:

The above prices, specifications and conditions are satisfactory and are hereby accepted.

Buyer: _____

Signature: _____

Date of Acceptance: _____

CONFIRMED:

Gulf Stream Construction Company Inc

Authorized Signature: _____

Estimator: Harmon Todd
(843) 572-4363 htodd@gulfstreamconstruction.com

GULF STREAM CONSTRUCTION

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(843) 572-4363 • Fax (843) 572-9609
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Cost Detail With Pricing and Categories

Project Name:	IAAM - COR02.1 Backflow Relocation	**Customer:**	Turner Construction Company
Job Number:	191400 **Bid Number:** 191400	**Billing Address:**	4601 Park Road, Suite 601
Bid As:	Subcontractor		Charlotte, NC 28209
Estimator:	Harmon Todd	**Phone:**	(704) 239-9429
Project Address:	14 Wharfside Street, Charleston, SC	**Contact:**	Bobby Teachey
Completion Date:			

Pay Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost	Unit Price	Total Price	Markup Percent
D C004 - C004 - Backflow Relocation	**1.00**	**LS**	**$4,218.74**	**$4,218.74**	**$4,909.39**	**$4,909.39**	**15.00%**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$593.09	$156.65	$0.00	$3,469.00	$0.00	$0.00	$0.00
Total:	$593.09	$156.65	$0.00	$3,469.00	$0.00	$0.00	$0.00

3 Chandler - Exploratory To Determine Configuration And Relocation	1.00	LS	$773.00	$773.00
4 Chandler - Mobilization, 4 Man Crew	1.00	LS	$751.00	$751.00
5 Chandler - Relocate Existing Backflow Preventer	1.00	LS	$1,549.00	$1,549.00
6 Chandler - Third Party Testing	1.00	LS	$396.00	$396.00
D Gulf Stream - Investigation	1.00	LS	$749.74	$749.74
Pothole/Utility Coordination Crew	1.00	LS	$749.74	$749.74

Indirect Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost
D Business License	**1.00**	**LS**	**$8.25**	**$8.25**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$0.00	$0.00	$0.00	$0.00	$0.00	$8.25	$0.00
Total:	$0.00	$0.00	$0.00	$0.00	$0.00	$8.25	$0.00

Direct Cost Totals

	Amount	Percent of Direct Cost
Labor:	$593.09	14.06%
Equipment Owned:	$156.65	3.71%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$0.00	0.00%
Subcontracted:	$3,469.00	82.23%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$0.00	0.00%
Miscellaneous:	$0.00	0.00%
Plug:	$0.00	0.00%
Direct Cost:	$4,218.74	

Indirect Cost Totals

	Amount	Percent of Indirect Cost
Labor:	$0.00	0.00%
Equipment Owned:	$0.00	0.00%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$0.00	0.00%
Subcontracted:	$0.00	0.00%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$0.00	0.00%
Miscellaneous:	$8.25	100.00%
Plug:	$0.00	0.00%
Indirect Cost:	$8.25	

Pay Item Summary

	Amount	Percent of Bid Price
Total Direct Cost:	$4,218.74	85.93%
Total DC Adds/Cuts:	$0.00	0.00%
Total Indirect Cost:	$8.25	0.17%
Total Bond:	$41.94	0.85%
Total Overall Cost:	$4,268.94	86.95%
Total Overhead:	$0.00	0.00%
Total Profit:	$640.45	13.05%
Total Margin:	$640.45	13.05%
Total Bid Price:	$4,909.39	

Chandler
Construction Services, Inc.

October 23, 2019

Gulfstream Construction
1983 Technology Drive
Charleston, SC 29492

Reference: Change Proposal Request 01

Subject: International African American Museum
Subcontract No. 191400 (CCS Project #1298)

In accordance with Article 5 of the referenced Subcontract dated August 23, 2019, Chandler Construction Services, Inc. proposes to modify the work and subcontract sum in accordance as follows:

1.1	Exploratory to determine configuration and relocation	$	773.00
1.2	Mobilization, 4-man crew	$	751.00
1.3	Relocate existing backflow preventer	$	1,549.00
1.4	Third party testing to comply with cross connection control Requirements (Chandler does not certify unit will pass)	$	396.00
	NET CHANGE ORDER (add)	**$**	**3,469.00**
	Original Contract Price	$	300,480.00
	Previous Change Orders	$	0.00
	This Change Order	$	3,469.00
	Revised Contract Amount	$	303,949.00

In signing below both parties acknowledge and agree to the above changes to the agreement and further acknowledge this change order supersedes all prior versions.

Contractor (Signature)

Subcontractor (Signature)

(Printed Name and Title)

Matthew Bares, Division Manager
(Printed Name and Title)

GULF STREAM CONSTRUCTION

1983 Technology Drive • Charleston, SC 29492
(843) 572-4363 • Fax (843) 572-9609
www.gulfstreamconstruction.com

To:	Turner Construction Company	**Contact:**	Bobby Teachey
Address:	4601 Park Road, Suite 601	**Phone:**	(704) 319-4854
	Charlotte, NC 28209	**Fax:**	
Project Name:	IAAM - COR10 Partial Deadman & Tie-Back Removal	**Bid Number:**	
Project Location:	14 Wharfside Street, Charleston, SC	**Bid Date:**	1/6/2020

Item Description	Estimated Quantity	Unit	Unit Price	Total Price
Partial Deadman & Tieback Removal	1.00	LS	$14,356.18	$14,356.18
Deadman Haul Off & Disposal	1.00	LS	$449.07	$449.07

Total Bid Price: $14,805.25

Notes:

- Cost Includes:
  - Excavation and Backfill Required For Demolition
  - Cutting & Removal of Deadman
  - Cutting of Tie-back
  - Haul-off of Deadman
- Exclusions:
  - Excavation Shoring
  - Removal of Tieback From Existing Seawall
  - Pile Removal
  - Testing
  - Monitoring of Existing Seawall

ACCEPTED:

The above prices, specifications and conditions are satisfactory and are hereby accepted.

Buyer: _____

Signature: _____

Date of Acceptance: _____

CONFIRMED:

Gulf Stream Construction Company Inc

Authorized Signature: _____

Estimator: Ken Allen
843-572-4363 kallen@gulfstreamconstruction.com

GULF STREAM CONSTRUCTION

1983 Technology Drive • Charleston, SC 29492
(843) 572-4363 • Fax (843) 572-9609
www.gulfstreamconstruction.com

Cost Detail With Pricing and Categories

Project Name:	IAAM - COR10 Partial Deadman & Tie-Back Removal	**Customer:**	Turner Construction Company
Job Number:	191400.	**Billing Address:**	4601 Park Road, Suite 601
Bid As:	Subcontractor		Charlotte, NC 28209
Estimator:	Ken Allen	**Phone:**	(704) 319-4854
Project Address:	14 Wharfside Street, Charleston, SC	**Contact:**	Bobby Teachey
Completion Date:			

Pay Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost	Unit Price	Total Price	Markup Percent
1 Partial Deadman & Tieback Removal	**1.00**	**LS**	**$12,319.47**	**$12,319.47**	**$14,356.18**	**$14,356.18**	**15.00%**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$5,391.87	$4,677.60	$0.00	$2,250.00	$0.00	$0.00	$0.00
Total:	$5,391.87	$4,677.60	$0.00	$2,250.00	$0.00	$0.00	$0.00

Crew - Demo	1.00	LS	$10,069.47	$10,069.47
Heavy Demolition Crew	1.00	LS	$10,069.47	$10,069.47
Wire Cut Deadman	10.00	HR	$225.00	$2,250.00

2 Deadman Haul Off & Disposal	**1.00**	**LS**	**$384.77**	**$384.77**	**$449.07**	**$449.07**	**15.00%**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$65.57	$109.20	$0.00	$0.00	$210.00	$0.00	$0.00
Total:	$65.57	$109.20	$0.00	$0.00	$210.00	$0.00	$0.00

Breakup & Load Debris	6.00	TON	$29.13	$174.77
Haul Disposal - Recyling Yard (Welborn Inc.)	6.00	TON	$35.00	$210.00

Indirect Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost
Business License	**1.00**	**LS**	**$44.44**	**$44.44**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$0.00	$0.00	$0.00	$0.00	$0.00	$44.44	$0.00
Total:	$0.00	$0.00	$0.00	$0.00	$0.00	$44.44	$0.00

Direct Cost Totals

	Amount	Percent of Direct Cost
Labor:	$5,457.44	42.96%
Equipment Owned:	$4,786.80	37.68%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$0.00	0.00%
Subcontracted:	$2,250.00	17.71%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$210.00	1.65%
Miscellaneous:	$0.00	0.00%
Plug:	$0.00	0.00%
Direct Cost:	$12,704.23	

Indirect Cost Totals

	Amount	Percent of Indirect Cost
Labor:	$0.00	0.00%
Equipment Owned:	$0.00	0.00%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$0.00	0.00%
Subcontracted:	$0.00	0.00%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$0.00	0.00%
Miscellaneous:	$44.44	100.00%
Plug:	$0.00	0.00%
Indirect Cost:	$44.44	

Pay Item Summary

	Amount	Percent of Bid Price
Total Direct Cost:	$12,704.23	85.81%
Total DC Adds/Cuts:	$0.00	0.00%
Total Indirect Cost:	$44.44	0.30%
Total Bond:	$125.46	0.85%
Total Overall Cost:	$12,874.13	86.96%
Total Overhead:	$0.00	0.00%
Total Profit:	$1,931.12	13.04%
Total Margin:	$1,931.12	13.04%
Total Bid Price:	$14,805.25	

GULF STREAM CONSTRUCTION

1983 Technology Drive • Charleston, SC 29492
(843) 572-4363 • Fax (843) 572-9609
www.gulfstreamconstruction.com

To:	Turner Construction Company	**Contact:**	Bobby Teachey
Address:	4601 Park Road, Suite 601	**Phone:**	(704) 319-4854
	Charlotte, NC 28209	**Fax:**	
Project Name:	IAAM - COR15 Remaining Deadman Removal	**Bid Number:**	
Project Location:	14 Wharfside Street, Charleston, SC	**Bid Date:**	2/12/2020

Item Description	Estimated Quantity	Unit	Unit Price	Total Price
Remaining Deadman & Tieback Removal	1.00	LS	$16,510.28	$16,510.28
Deadman Haul Off & Disposal	1.00	LS	$891.56	$891.56

Total Bid Price: $17,401.84

Notes:

- Cost Includes:
  - Excavation and Backfill Required For Demolition
  - Cutting & Removal of Deadman
  - Cutting of Tie-back
  - Haul-off of Deadman
- Exclusions:
  - Excavation Shoring
  - Removal of Tieback From Existing Seawall
  - Pile Removal
  - Testing
  - Monitoring of Existing Seawall

ACCEPTED:

The above prices, specifications and conditions are satisfactory and are hereby accepted.

Buyer: _____

Signature: _____

Date of Acceptance: _____

CONFIRMED:

Gulf Stream Construction Company Inc

Authorized Signature: _____

Estimator: Ken Allen
843-572-4363 kallen@gulfstreamconstruction.com

GULF STREAM CONSTRUCTION

1983 Technology Drive • Charleston, SC 29492
(843) 572-4363 • Fax (843) 572-9609
www.gulfstreamconstruction.com

Cost Detail With Pricing and Categories

Project Name:	IAAM - COR15 Remaining Deadman Removal	**Customer:**	Turner Construction Company
Job Number:	191400.	**Billing Address:**	4601 Park Road, Suite 601
Bid As:	Subcontractor		Charlotte, NC 28209
Estimator:	Ken Allen	**Phone:**	(704) 319-4854
Project Address:	14 Wharfside Street, Charleston, SC	**Contact:**	Bobby Teachey
Completion Date:			

Pay Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost	Unit Price	Total Price	Markup Percent
D Remaining Deadman & Tieback Removal	**1.00**	**LS**	**$14,192.60**	**$14,192.60**	**$16,510.28**	**$16,510.28**	**15.00%**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$5,391.87	$4,677.60	$0.00	$4,123.13	$0.00	$0.00	$0.00
Total:	$5,391.87	$4,677.60	$0.00	$4,123.13	$0.00	$0.00	$0.00

Crew - Demo	1.00	LS	$10,069.47	$10,069.47
Wire Cut Deadman	1.00	LS	$4,123.13	$4,123.13

D Deadman Haul Off & Disposal	**1.00**	**LS**	**$769.54**	**$769.54**	**$891.56**	**$891.56**	**15.00%**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$131.14	$218.39	$0.00	$0.00	$420.00	$0.00	$0.00
Total:	$131.14	$218.39	$0.00	$0.00	$420.00	$0.00	$0.00

Breakup & Load Debris (19.52 TON/PH, 0.07 DY)	12.00	TON	$29.13	$349.54
Haul Disposal - Recyling Yard (Welborn Inc.)	12.00	TON	$35.00	$420.00

Indirect Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost
D Business License	**1.00**	**LS**	**$44.44**	**$44.44**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$0.00	$0.00	$0.00	$0.00	$0.00	$44.44	$0.00
Total:	$0.00	$0.00	$0.00	$0.00	$0.00	$44.44	$0.00

Direct Cost Totals

	Amount	Percent of Direct Cost
Labor:	$5,523.01	36.91%
Equipment Owned:	$4,895.99	32.72%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$0.00	0.00%
Subcontracted:	$4,123.13	27.56%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$420.00	2.81%
Miscellaneous:	$0.00	0.00%
Plug:	$0.00	0.00%
Direct Cost:	$14,962.13	

Indirect Cost Totals

	Amount	Percent of Indirect Cost
Labor:	$0.00	0.00%
Equipment Owned:	$0.00	0.00%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$0.00	0.00%
Subcontracted:	$0.00	0.00%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$0.00	0.00%
Miscellaneous:	$44.44	100.00%
Plug:	$0.00	0.00%
Indirect Cost:	$44.44	

Pay Item Summary

	Amount	Percent of Bid Price
Total Direct Cost:	$14,962.13	85.98%
Total DC Adds/Cuts:	$0.00	0.00%
Total Indirect Cost:	$44.44	0.26%
Total Bond:	$125.46	0.72%
Total Overall Cost:	$15,132.03	86.96%
Total Overhead:	$0.00	0.00%
Total Profit:	$2,269.81	13.04%
Total Margin:	$2,269.81	13.04%
Total Bid Price:	$17,401.84	

PENHALL COMPANY

Invoice 2300

Invoice Date: 01/22/20
Branch 412
Due Date. 01/22/20
Sales Representative: ZACHERY PARKER
Ordered By.
PO #:
Customer Job #
Job Site Address 113 CALHOUN ST
CHARLESTON, SC 29401

Remit To: Penhall Company
PO Box 842911
Los Angeles, CA 90084-2911

REC'D FEB 03 2020

Bill To: 12034
GULF STREAM CONSTRUCTION
1983 TECHNOLOGY DRIVE
CHARLESTON, SC 29492

Work Description:
Work Order 1156

Description of Work.
WIRE SAW(1) 5' X 4' CONCRETE PIECE IN PITT

Work Order	Description	Ticket	Date	Amount	Tax	Total
1156	GULF STREAM . IAAM					
WIRESAW		4267183 4267184 4267187, 4267188, 4267259 4267260		6 187 50	0 00	6,187 50
ENVIRONMENTAL SURCHARGE				185 63	0 00	185 63
				6,373.13	0.00	6,373.13

Terms: DUE UPON RECEIPT

Subtotal	6,373 13
Tax	0 00
Total	6,373 13
COR10 Partial Removal	($2,250)
COR15 Remaining Removal	**$4,123.13**

For Billing Inquiries call 843.767.1881

JOB NO

COR NO 2417

SUB / PO NO

PHASE NO

APPROVED BY DATE

SL ENTRY DATE BY

AP BATCH: _____ DATE: _____ BY _____

CUMMING

Change Order Proposal Review Form

To: Edmund V. Most
From: Jonathan Roberts
Date: 7/14/2020
Contractor: Turner Construction Company

Project: CP 1425 International African American Museum
Project No.: CP 1425
Proposal No.: Change Order Request No. 26
Contract: Construction
(CM)(ARCHITECT)(ENGINEER)(OTHER)

Description of work to be performed: **Ductwork Coordination Changes**

This request is to access the Construction Contingency to cover of changing the routing of ductwork penetrating the structure.

A - Customer Requested Change
B - Code/Regulatory Agency Required Change
C - Errors and Omissions
D - Replacing Unsuitable Soils
E - Soils Related Change Other
F - Unforeseen Conditions
G - Time Related Change
H - Liquidated Damages
I - Value Engineering Change
J - Exercising Pre-Priced Option (Allowance)
K - Accounting Error
(Indicate Reason for Change Proposal)

Justification: F - Unforeseen Conditions/ BIM Coordination

Attachments:

	J&A from Project Manager		Cost Estimate (Expected to Exceed $10,000)
	Independent Cost Estimate		Change Proposal Request from CMR with Detailed Backup
	Pre-Negotiation Position (PNP)	X	

Proposal Cost (not to exceed): $3,007.00 **Owner Contingency Allow. Bal.** $1,261,476.00 See Contingency Log
Time Extension Requested: **Time Extension Recommended:**

Special Circumstances: This change will net in a $0.00 contract modification as the $960,000.00 Owner Contingency allowance will be accessed to cover the cost of this scope.

Consequence of Rejection:

Comments by Supervisor:

Approved:

(NO) (YES) (Circle One) — Rick Holt, Cumming Corp.

(NO) (YES) (Circle One) — Robert Faust, Robert Faust, Cumming Corp.

(NO) (YES) (Circle One) — Edmund V. Most, City of Charleston

(NO) (YES) (Circle One) — Bernard Costantino, Moody Nolan

Decision needed by: August 8, 2020

(NO) (YES) (Circle One) — Jonathan Roberts, Jonathan Roberts, Cumming Corp.

COR #: 26

Date Submitted:

TURNER BROWNSTONE
14 Wharf Street
Charleston, SC

To: Edmund Most
City of Charleston

Re: **Internation African American Muesum**

COR 26 - L3 TOS SEQ 5-8 PENETRATIONS

Please find attached our Proposed Change Order (PCO) for the above described Work. We are submitting for your review and approval of the changed condition(s) as outlined herein. All work shall be performed under our current contract terms and as outlined below:

Work Description:	Revised locations of steel penetrations per RFI 137. Changes caused the shop drawings to be revised.

Reason:
- [ ] Owner Directive
- [ ] Code / Regulatory
- [ ] Unforeseen Condition
- [X] Design Issue

Pricing:
- [ ] ROM Estimate of GR's & Insurances
- [ ] ROM Estimate for Entire PCO
- [X] Lump Sum or **Firm Fixed Unit Pricing** for Trade Contractors - See Detailed Estimates

Time Impact:
- [ ] Evaluating Potential for Time Impact
- [X] Evaluated - NO TIME IMPACT
- [ ] Calendar Days Requested (See attached FRAGNET/Schedule Impact Analysis)
- [ ] Work has been Completed
- [ ] Work Has Commenced &/or is Ongoing
- [ ] Work Authorization is Requested By:

Submitted By: Contractor: **TURNER BROWNSTONE**

Walter Lewis Project Engineer — Dated 05/08/2020 — $ 3,007 Amount Requested

Requested Action:
- [ ] Authorized to Proceed While Pricing
- [ ] Price Only
- [ ] Do Not Proceed or Price

Reviewed By: Program Manager: **CUMMING**

Dated / /

Authorized Action:
- [ ] Authorized to Proceed While Pricing
- [ ] Price Only
- [ ] Do Not Proceed or Price

Approved By: Owner: **City of Charleston**

Edmund Most — Dated / / — $ 3,007 Amount Approved

Turner

Internation African American Muesum
General Summary of the Estimate

COR No.: 26

Item #	Description of Work		DETAIL ESTIMATE OF DIRECTS
A1	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	SELF PERFORMED LABOR	$0
A2	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	MATERIAL(S) & EQUIPMENT	$0
A3	TRADE DIRECTS		$2,767.00
A4		SUBTOTAL TRADE DIRECTS	$2,767
A5			
A6			
A7			
A8			
A9			
A14			
A11			
A14			
A15			
A16			
A16			
A17			

		SUBTOTAL		$2,767
CCIP	@	2.45%	=	$67.79
Subguard	@	0.012	=	$33.20
Builders Risk	@	0.84%	=	$23.24
Performance and Payment Bond		0.00732	=	$20.25
Procore	@	0.04500%	=	$1.25
Overhead and Profit	@	3.25%	=	$94.01
		ESTIMATE TOTAL		**$3,007**

Turner

Internation African American Muesum
DETAIL ESTIMATE OF DIRECTS

COR No.: 26

DIVISIONS OF WORK	RATE	Unit	UNITS	SUBTOTAL	TOTAL	COMMENTS

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)

DESCRIPTION	
GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)	$0

TRADE DIRECTS

	DESCRIPTION						
	Additional Scope of Work						
1	COR 25 - L3 TOS DUCTWORK PENETRATIONS	$	2,767.00	1	LS	$2,767.00	
							$2,767
					DIRECT WORK SUBTOTAL		$2,767

PROPOSED CHANGE ORDER

LYNDON STEEL COMPANY LLC
1947 Union Cross Road
Winston-Salem, NC 27107
www.lyndonsteel.com
(336) 785-0848 FAX 788-8835

PROPOSED CHANGE ORDER #:	04
REVISION #:	N/A
LSC CONTRACT #:	19041
DATE:	02/11/20

TO: Turner Const
4601 Park Road, Suite 600
Charlotte, NC 28209

Attention: Walt Lewis
Phone: 919-788-2024 FAX: -

PROJECT: International African American Museum
Charleston, SC

Description: RFI #137 Response
Received 1/28/20
NOC#: [illegible]

DESCRIPTION	A/D	AMOUNT
Added cost due to receipt of RFI #137 repsonse received on 1/28/20.		
Revised penetration sizes on (20) beams in Sequences 5 thru 8.		
See attached Proposed Detailing Extras form for additional description.		
Detailing	ADD	$2,380
Overhead & Profit	ADD	$357
Bonding	ADD	$30

This change will ADD an additional 0 WORK DAYS to our scheduled scope of work.

Total This Change Order: $2,767

Accepted - The above prices and specifications of this change order are satisfactory and are hereby accepted. All work is to be performed under the same terms and conditions as specified in the original contract unless otherwise stipulated.

Turner Const Signature: Date:

LSC Signature: Date: 02/11/20

LSC PM: DeWitt Friedermann
e-mail: DFriedermann@lyndonsteel.com
Prepared By: Spencer Fleming

Please sign and return to E-mail noted above or via Facsimile (336-788-8835) to Lyndon Steel Company.
Upon receipt of written approval of this change order, LSC will proceed to fabricate and deliver the above items.
If the above proposal is not accepted within thirty calendar days from the date of issuance, LSC reserves the right to revise the above quotation.

BDM

PROPOSED DETAILING EXTRAS

(Completed by Detailer) Sheet # 1 of 1

Job No. 9041 Job Name International African American Museum

Detailer Reference CO # H NOC# 7 (Contact PM or DC for number)

Source of Change: (NOC-07)

Revised penetrations size on (7) beams at grid 9.5, 10, B & C on sequence 5.
Revised penetrations size on (4) beams at grid 8, 8.5, B & C on sequence 6.
Revised penetrations size on (4) beams at grid 7, 7.5, B & C on sequence 7.
Revised penetrations size on (4) beams at grid 6.2, 6.5, B & C on sequence 8.

General Description of Change:

Revised penetrations size on (8) beams at grid 9.5, 10, B & C on sequence 5.
Revised penetrations size on (4) beams at grid 8, 8.5, B & C on sequence 6.
Revised penetrations size on (4) beams at grid 7, 7.5, B & C on sequence 7.
Revised penetrations size on (4) beams at grid 6.2, 6.5, B & C on sequence 8.

List of ADDED PIECE MARKS and/or Number of Added Members at the Time of Revision

	Detail Hrs
Revised penetration size or location on total (20) beams.	
Revised (20) beams shop drawings & 4 E-plans.	
	22

List of REVISED PIECE MARKS & Status	Shop Drawing Status

Total Detailing Hours this sheet	
Total Checking Hours this sheet	6
Total Hours this sheet	28
Grand Total Det and Ckg Hours ALL sheets	28

Total Impact to Schedule, ALL sheets: _____

Detailing Coord. Review: _____ (Initial / Date)

Project Manager Acceptance: _____ (Signature) (Dated)

NOTE: The detailer is not to proceed with changes until this form is signed and returned.
For urgent and /or unusual circumstances requiring immediate detailing changes, contact the Project Manager or Detailing Coordinator.

NOTE: The Detailer has the option of using their standard company form if all the above information is included.

Fax to: Detailer **CC:** PM, PC, NOC Estimator **Original:** BB

CUMMING
Change Order Proposal Review Form

To: Edmund V. Most
From: Jonathan Roberts
Date: 3/23/2020
Contractor: Turner Construction Company

Project: CP 1425 International African American Museum
Project No.: CP 1425
Proposal No.: Change Order Request No. 29R
Contract: Construction
~~(CMR)(ARCHITECT)(ENGINEER)(OTHER)~~

Description of work to be performed: ~~Existing Deadman Removal~~ - Relocate Sewer
This is a request to access the Owner's Contingency Allowance to provide all required labor, material, and equipment to relocate sewer line to allow space for the seawall sheet-pile installation.

A - Customer Requested Change
B - Code/Regulatory Agency Required Change
C - Errors and Omissions
D - Replacing Unsuitable Soils
E - Soils Related Change Other
F - Unforeseen Conditions
G - Time Related Change
H - Liquidated Damages
I - Value Engineering Change
J - Exercising Pre-Priced Option (Allowance)
K - Accounting Error

Justification: **F - Unforeseen Conditions** (Indicate Reason for Change Proposal)

Attachments:

	J&A from Project Manager		Cost Estimate (Expected to Exceed $10,000)
	Independent Cost Estimate		Change Proposal Request from CMR with Detailed Backup
	Pre-Negotiation Position (PNP)	X	

Proposal Cost (not to exceed): $29,578.00 **Owner Contingency Allow. Bal.** $1,231,898.00
Time Extension Requested: **Time Extension Recommended:**

Special Circumstances: This change will net in a $0.00 contract modification as the $960,000.00 Owner Contingency allowance will be accessed to cover the cost of this scope.

Consequence of Rejection:

Comments by Supervisor:

Decision needed by: March 26, 2020

(NO) (YES)
(Circle One)
Jonathan Roberts
Jonathan Roberts, Cumming Corp

Approved:

(NO) (YES) (Circle One) — Rick Holt, Cumming Corp.

(NO) (YES) (Circle One) — Robert Faust, Cumming Corp.

(NO) (YES) (Circle One) — Edmund V. Most, City of Charleston

(NO) (YES) (Circle One) — Bernard Costantino, Moody Nolan

COR #: 29R

Date Submitted: March 24, 2020

TURNER BROWNSTONE
14 Wharf Street
Charleston, SC

To: Edmund Most
City of Charleston

Re: **Internation African American Muesum**

SewerLine Relocation per RFI 99

Please find attached our Proposed Change Order (PCO) for the above described Work. We are submitting for your review and approval of the changed condition(s) as outlined herein. All work shall be performed under our current contract terms and as outlined below:

Work Description:	Provide all required Labor, Materials, Equipment, and Administrative/Support costs to relocate the sewer line to make room for the new perminate sheetpiles. They will be per specs and drawings issued to Turner, scope of work as detailed within the Subcontractor's quote(s) &/or correspondence attached. The design has started and the will be submitted based on the new findings. Work in the field can not start with out signed change order.

Reason: [ ] Owner Directive [ ] Code / Regulatory [X] Unforeseen Condition [ ] Design Issue

Pricing: [ ] ROM Estimate of GR's & Insurances [ ] ROM Estimate for Entire PCO [X] Lump Sum or **Firm Fixed Unit Pricing** for Trade Contractors - See Detailed Estimates

Time Impact: [ ] Evaluating Potential for Time Impact [X] Evaluated - NO TIME IMPACT [ ] Calendar Days Requested (See attached FRAGNET/Schedule Impact Analysis)

[X] Work has been Completed [ ] Work Has Commenced &/or Is Ongoing [ ] Work Authorization Is Requested By:

Submitted By: Contractor: **TURNER BROWNSTONE**

Walter Lewis Project Engineer — Dated 3/24/2020 — $ 29,578 Amount Requested

Requested Action: [ ] Authorized to Proceed While Pricing [ ] Price Only [ ] Do Not Proceed or Price

Reviewed By: Program Manager: **CUMMING**

Dated / /

Authorized Action: [ ] Authorized to Proceed While Pricing [ ] Price Only [ ] Do Not Proceed or Price

Approved By: Owner: **City of Charleston**

Edmund Most — Dated / / — $ 29,578 Amount Approved

Turner

Internation African American Muesum
General Summary of the Estimate

COR No.: 29R

Item #	Description of Work		DETAIL ESTIMATE OF DIRECTS
A1	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	SELF PERFORMED LABOR	$0
A2	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	MATERIAL(S) & EQUIPMENT	$0
A3	TRADE DIRECTS		$27,220.00
A4		SUBTOTAL TRADE DIRECTS	$27,220
A5			
A6			
A7			
A8			
A9			
A14			
A11			
A14			
A15			
A16			
A16			
A17			

		SUBTOTAL		$27,220
CCIP	@	2.45%	=	$666.89
Subguard	@	0.012	=	$326.64
Builders Risk	@	0.84%	=	$228.65
Performance and Payment Bond		0.00732	=	$199.25
Procore	@	0.04500%	=	$12.25
Overhead and Profit	@	3.25%	=	$924.77
		ESTIMATE TOTAL		$29,578

Turner

Internation African American Muesum
DETAIL ESTIMATE OF DIRECTS

COR No.: 29R

DIVISIONS OF WORK	RATE	Unit	UNITS	SUBTOTAL	TOTAL	COMMENTS

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)

DESCRIPTION

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)	$0

TRADE DIRECTS

DESCRIPTION

	Additional Scope of Work						
1	To relocate existing sewer line that was to remain in place per the drawings	$	27,220.00	1	LS	$27,220.00	
							$27,220
					DIRECT WORK SUBTOTAL		$27,220

GULF STREAM CONSTRUCTION

1983 Technology Drive • Charleston, SC 29492
(843) 572-4363 • Fax (843) 572-9609
www.gulfstreamconstruction.com

To:	Turner Construction Company	**Contact:**	Bobby Teachey
Address:	4601 Park Road, Suite 601	**Phone:**	(704) 319-4854
	Charlotte, NC 28209	**Fax:**	
Project Name:	IAAM - COR09 Sewer Reroute	**Bid Number:**	
Project Location:	14 Wharfside Street, Charleston, SC	**Bid Date:**	1/3/2020

Item Description	Estimated Quantity	Unit	Unit Price	Total Price
8" Sewer Reroute	1.00	LS	$26,062.86	$26,062.86
Existing Sewer Manhole Demo	1.00	EACH	$1,157.31	$1,157.31

Total Bid Price: $27,220.17

Notes:
- Delete tie in to existing and install 8" PVC service with CO -24LF
- Supply and install 8" PVC service with fitting and three (3) CO -108 LF
- Supply and install SSMH at depth - 1 each
- Demo & Haul-Off Existing SSMH
- In reference to TCCO RFI #99/ GSCC RFI #2.

ACCEPTED:
The above prices, specifications and conditions are satisfactory and are hereby accepted.

Buyer: _____

Signature: _____

Date of Acceptance: _____

CONFIRMED:
Gulf Stream Construction Company Inc

Authorized Signature: _____

Estimator: Ken Allen
843-572-4363 kallen@gulfstreamconstruction.com

GULF STREAM
CONSTRUCTION

1983 Technology Drive • Charleston, SC 29492
(843) 572-4363 • Fax (843) 572-9609
www.gulfstreamconstruction.com

Cost Detail With Pricing

Project Name:	IAAM - COR09 Sewer Reroute	**Customer:**	Turner Construction Company
Job Number:	191400.	**Billing Address:**	4601 Park Road, Suite 601
Bid As:	Subcontractor		Charlotte, NC 28209
Estimator:	Ken Allen	**Phone:**	(704) 319-4854
Project Address:	14 Wharfside Street, Charleston, SC	**Contact:**	Bobby Teachey
Completion Date:			

Pay Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost	Unit Price	Total Price	Markup Percent
1.70100 - 8" Sewer Reroute	**1.00**	**LS**	**$23,419.00**	**$23,419.00**	**$26,062.86**	**$26,062.86**	**10.00%**
8" Sewer Reroute	1.00	LS	$23,419.00	$23,419.00			
1.70100 - Existing Sewer Manhole Demo	**1.00**	**EACH**	**$996.47**	**$996.47**	**$1,157.31**	**$1,157.31**	**15.00%**
Demo SSMH	1.00	EACH	$996.47	$996.47			
Heavy Demolition Crew (0.56 EACH/PH, 0.20 DY)	1.00	EACH	$786.47	$786.47			
Track Hoe Excavator	2.00	HR	$123.90	$247.80			
Loader	2.00	HR	$77.34	$154.68			
Foreman	2.00	HR	$64.60	$129.19			
Fine Grade Oper	2.00	HR	$37.82	$75.65			
Operator [2]	2.00	HR	$31.46	$125.85			
Operator Laborer	2.00	HR	$26.65	$53.30			
Haul By The Hour / Tractor Trailer	2.00	HR	$105.00	$210.00			

Indirect Items

Description	Quantity	UM	Unit Indirect Cost	Total Indirect Cost
Business License	**1.00**	**LS**	**$44.44**	**$44.44**

Direct Cost Totals

	Amount	Percent of Direct Cost
Labor:	$383.99	1.57%
Equipment Owned:	$402.48	1.65%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$0.00	0.00%
Subcontracted:	$23,629.00	96.78%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$0.00	0.00%
Miscellaneous:	$0.00	0.00%
Plug:	$0.00	0.00%
Direct Cost:	$24,415.47	

Indirect Cost Totals

	Amount	Percent of Indirect Cost
Labor:	$0.00	0.00%
Equipment Owned:	$0.00	0.00%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$0.00	0.00%
Subcontracted:	$0.00	0.00%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$0.00	0.00%
Miscellaneous:	$44.44	100.00%
Plug:	$0.00	0.00%
Indirect Cost:	$44.44	

Pay Item Summary

	Amount	Percent of Bid Price
Total Direct Cost:	$24,415.47	89.70%
Total DC Adds/Cuts:	$0.00	0.00%
Total Indirect Cost:	$44.44	0.16%
Total Bond:	$239.96	0.88%
Total Overall Cost:	$24,699.87	90.74%
Total Overhead:	$0.00	0.00%
Total Profit:	$2,520.30	9.26%
Total Margin:	$2,520.30	9.26%
Total Bid Price:	$27,220.17	

Chandler

Construction Services, Inc.

December 30, 2019

Labor	$10,019.13
Equipment	$6,521.74
Material	$3,823.48
MU @ 15%	$3,054.65
TOTAL	$23,419.00

Gulf Stream Construction
Attn:
Via email:

Reference: Change Order Request #1 for International African American Museum
Charleston, SC

Chandler Construction Services, Inc. proposes to furnish materials as noted, supervision, labor and equipment to complete the scope additions and deletions as requested under the following conditions and clarifications:

8" SEWER REROUTE

COR09

- Delete tie in to existing and install 8" PVC service with CO – 24 LF
- Supply and install 8" PVC service with fittings and three (3) CO – 108 LF
- Supply and install SSMH at depth – 1 each
- We request a time extension of 3 days

RECONNECT DOCK WATER SERVICES

- Reconnect dock water services – 2 each
- Relocate and test existing backflow preventers – 2 each
- We request a time extension of 1 days
  *** Backflow Preventer Tester exempt from Turners onsite requirements.

CWS 4" METER VAULT

- Pick up all materials except stone bedding from CWS and bring to site
- Install 4" meter vault and interior piping – 1 each
- We exclude meters and fees
- We request a time extension of 2 days

1511 Ninety Six Hwy Ninety Six, SC 29666 Phone (864) 227-3221 Fax (864) 227-3328

CLARIFICATIONS:

1. All clarifications and exclusions submitted with our original bid apply to this change.
2. Quotation includes excavation, backfill and compaction with in-situ materials, shoring, dewatering, cleaning, testing, and red lined drawings.
3. Quotation excludes BIM modeling, obtaining easements, providing easement plats, meters, Usage Fees, Tap and Privilege Fees, demo, restoration, imported fill, hauling of site, rough grade, concrete and asphalt removal, replacement or repair, clearing and grubbing, construction entrance and other erosion control, removal or handling of contaminated, hazardous or unusual materials and any items not specifically detailed under Scope of Work
4. We exclude removal, repair, replacement and relocation of underground and above ground utilities not shown on plans or profiles inclusive of any business interruption or costs incurred by others for mismarked or unmarked utilities
5. Over-excavation and backfill excluded
6. Quote is based on mobilizing while we begin our base contract work and incorporates the first drug test
7. Quotation does not include and specifically excludes liquidated damages

PRICING:

COR09

1. 8" Sewer Reroute – $23,419.00
2. Dock Water Services - $4,246.00
3. CWS Meter Vault Installation - $19,866.00
4. Performance and Payment Bonds – add $9.50/$1,000.00 of Cost
5. Remobilization/Demobilization cost - $5,000 per each occurrence
6. Additional Bac T samples - $2,500.00 per each sample
7. Pricing valid for 20 Days

Chandler Construction Services, Inc.

John Cecil

John Cecil, Ext 206

The content of this proposal is the confidential property and intellectual property of Chandler Construction Services, Inc. and shall not be copied, modified, retransmitted or used for any purpose other than the acquisition of services with Chandler Construction Services, Inc

Turner

RFI #99

TCCo Atl/Car
4601 Park Road, Suite 601
Charlotte, North Carolina 28209
Phone: (704) 554-1001

Project: 190795 - IAAM
14 Wharfside Street
Charleston, 29401

Maritime Center Sewer Service (Gulfstream 2)

TO:	Bernard Costantino **(Moody Nolan)**	**FROM:**	Bri'Shae Anderson **(Turner Construction (CAR))** 4601 Park Road, Suite 601 Charlotte, North Carolina 28209
DATE INITIATED:	01/02/2020		
LOCATION:			
PROJECT STAGE:		**STATUS:**	Closed
SUB JOB:		**DUE DATE:**	01/17/2020
COST IMPACT:		**COST CODE:**	
DRAWING NUMBER:		**SCHEDULE IMPACT:**	
LINKED DRAWINGS:		**SPEC SECTION:**	
		REFERENCE:	

RECEIVED FROM: Harmon Todd **(Gulf Stream Construction Company, Inc)**

COPIES TO:
Julie Cook, AIA **(Moody Nolan)**, Bernard Costantino **(Moody Nolan)**, Ashley Guest **(Gulf Stream Construction Company, Inc)**, David Himelman **(Guy Nordenson and Associates)**, Mark Hylton **(Gulf Stream Construction Company, Inc)**, Jason Matthews **(Gulf Stream Construction Company, Inc)**, Jonathan Roberts **(Cumming)**, Leonard Spears **(ARUP)**, Stephanie Terault **(ARUP)**, Harmon Todd **(Gulf Stream Construction Company, Inc)**, Xiaoxiao Wu **(Guy Nordenson and Associates)**

Question from Bri'Shae Anderson (Turner Construction (CAR)) at 03:13 PM on 01/02/2020

The Maritime Center sewer service is currently shown under the pool feature and will at least need to be temporarily rerouted around the pool feature to facilitate foundation construction. A sketch of a possible solution is attached

Please advise.

Attachments:
RFI 02 - Maritime Center Sewer Service Attachment.pdf

Official Response: **Bernard Costantino (Moody Nolan)** *responded on Friday, January 10th, 2020 at 10:32AM EST*

The sewer is below fountain foundation so should not have been a conflict with fountain, it is our understanding the sewer is in conflict with the seawall project so needs to be relocated. We have submitted proposed sketch to CWS for realigning sewer to the south. CWS has approved realignment of sewer service line and has stamped the plans approved (we have copy for contractor). This should a permanent relocation. This work should be part of the Sea Wall funding. See attached drawing sheets this will be issued in Bulletin #009.

See files below:

Attachments:
C403 Rev 12.17.19.pdf, C200 Rev 12.17.19.pdf

BY	DATE	COPIES TO

CUMMING

Change Order Proposal Review Form

To: Edmund V. Most
From: Jonathan Roberts
Date: 3/23/2020
Contractor: Turner Construction Company

Project: CP 1425 International African American Museum
Project No.: CP 1425
Proposal No.: Change Order Request No. 30R
Contract: Construction
(CMR)(ARCHITECT)(ENGINEER)(OTHER)

Description of work to be performed: **Temporary Relocation of FDC Line Due to Seawall**

This is a request to access the Owner's Contingency Allowance to provide all required labor, material, and equipment to temporarily relocate the Fire Deaptment Connection supply line in conflict with the new sheet-pile location.

A - Customer Requested Change
B - Code/Regulatory Agency Required Change
C - Errors and Omissions
D - Replacing Unsuitable Soils
E - Soils Related Change Other
F - Unforeseen Conditions
G - Time Related Change
H - Liquidated Damages
I - Value Engineering Change
J - Exercising Pre-Priced Option (Allowance)
K - Accounting Error

Justification: **F - Unforeseen Conditions** (Indicate Reason for Change Proposal)

Attachments:

	J&A from Project Manager		Cost Estimate (Expected to Exceed $10,000)
	Independent Cost Estimate		Change Proposal Request from CMR with Detailed Backup
	Pre-Negotiation Position (PNP)	X	

Proposal Cost (not to exceed): $22,002.00 **Owner Contingency Allow. Bal.** $1,209,896.00
Time Extension Requested: **Time Extension Recommended:**

Special Circumstances: This change will net in a $0.00 contract modification as the $960,000.00 Owner Contingency allowance will be accessed to cover the cost of this scope.

Consequence of Rejection:

Comments by Supervisor:

Approved:

(NO) (YES) (Circle One) — Rick Holt, Cumming Corp.

(NO) (YES) (Circle One) — Robert Faust, Cumming Corp.

(NO) (YES) (Circle One) — Edmund V. Most, City of Charleston

(NO) (YES) (Circle One) — Bernard Costantino, Moody Nolan

Decision needed by: April 3, 2020

(NO) (YES) (Circle One) — Jonathan Roberts, Cumming Corp

COR #: 30

Date Submitted: **February 19, 2020**

TURNER BROWNSTONE
14 Wharf Street
Charleston, SC

To: Edmund Most
City of Charleston

Re: **Internation African American Muesum**

Temporary FDC Line install

Please find attached our Proposed Change Order (PCO) for the above described Work. We are submitting for your review and approval of the changed condition(s) as outlined herein. All work shall be performed under our current contract terms and as outlined below:

Work Description:	Provide all required Labor, Materials, Equipment, and Administrative/Support costs to relocate the sewer line to make room for the new perminate sheetpiles. They will be per specs and drawings issued to Turner, scope of work as detailed within the Subcontractor's quote(s) &/or correspondence attached. The design has started and the will be submitted based on the new findings. Work in the field can not start with out signed change order.

Reason: [ ] Owner Directive [ ] Code / Regulatory [X] Unforeseen Condition [ ] Design Issue

Pricing: [ ] ROM Estimate of GR's & Insurances [ ] ROM Estimate for Entire PCO [X] Lump Sum or **Firm Fixed Unit Pricing** for Trade Contractors - See Detailed Estimates

Time Impact: [ ] Evaluating Potential for Time Impact [X] Evaluated - NO TIME IMPACT [ ] Calendar Days Requested (See attached FRAGNET/Schedule Impact Analysis)

[X] Work has been Completed [ ] Work Has Commenced &/or is Ongoing [ ] Work Authorization is Requested By:

Submitted By: Contractor: **TURNER BROWNSTONE**

Walter Lewis Project Engineer — Dated 02/19/2020 — $ 22,942 Amount Requested

Requested Action: [ ] Authorized to Proceed While Pricing [ ] Price Only [ ] Do Not Proceed or Price

Reviewed By: Program Manager: **CUMMING**

Dated / /

Authorized Action: [ ] Authorized to Proceed While Pricing [ ] Price Only [ ] Do Not Proceed or Price

Approved By: Owner: **City of Charleston**

Edmund Most — Dated / / — $ 22,942 Amount Approved

Turner

Internation African American Muesum
General Summary of the Estimate

COR No.: 30

Item #	Description of Work		DETAIL ESTIMATE OF DIRECTS
A1	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	SELF PERFORMED LABOR	$0
A2	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	MATERIAL(S) & EQUIPMENT	$0
A3	TRADE DIRECTS		$21,113.00
A4		SUBTOTAL TRADE DIRECTS	$21,113
A5			
A6			
A7			
A8			
A9			
A14			
A11			
A14			
A15			
A16			
A16			
A17			

		SUBTOTAL		$21,113
CCIP	@	2.45%	=	$517.27
Subguard	@	0.012	=	$253.36
Builders Risk	@	0.84%	=	$177.35
Performance and Payment Bond		0.00732	=	$154.55
Procore	@	0.04500%	=	$9.50
Overhead and Profit	@	3.25%	=	$717.29
		ESTIMATE TOTAL		**$22,942**

Turner

Internation African American Muesum
DETAIL ESTIMATE OF DIRECTS

COR No.: 30

DIVISIONS OF WORK	RATE	Unit	UNITS	SUBTOTAL	TOTAL	COMMENTS

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)

DESCRIPTION	
GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)	$0

TRADE DIRECTS

	DESCRIPTION						
	Additional Scope of Work						
1	To run a temporary above ground relocation to miss pool foundations	$	21,113.00	1	LS	$21,113.00	
							$21,113
						DIRECT WORK SUBTOTAL	$21,113

GULF STREAM CONSTRUCTION

1983 Technology Drive • Charleston, SC 29492
(843) 572-4363 • Fax (843) 572-9609
www.gulfstreamconstruction.com

To:	Turner Construction Company	**Contact:**	Bobby Teachey
Address:	4601 Park Road, Suite 601 Charlotte, NC 28209	**Phone:** **Fax:**	(704) 319-4854
Project Name:	IAAM - COR12 Temporary FDC Line Relocation	**Bid Number:**	
Project Location:	14 Wharfside Street, Charleston, SC	**Bid Date:**	1/14/2020

Item Description	Estimated Quantity	Unit	Unit Price	Total Price
Temporary FDC Line Relocation	1.00	LS	$21,113.21	$21,113.21

Total Bid Price: $21,113.21

Notes:
- The price includes the temporary above ground relocation of an FDC line that was not shown on the plans that is in conflict with the pool foundation piles and grade beam.
- Exlcuded:
  - Permanent Relocation of FDC standpipe and line
  - Freeze protection

ACCEPTED: The above prices, specifications and conditions are satisfactory and are hereby accepted.	**CONFIRMED:** **Gulf Stream Construction Company Inc**
Buyer: _____	
Signature: _____	**Authorized Signature:** _____
Date of Acceptance: _____	**Estimator:** Harmon Todd (843) 572-4363 htodd@gulfstreamconstruction.com

GULF STREAM CONSTRUCTION

1983 Technology Drive • Charleston, SC 29492
(843) 572-4363 • Fax (843) 572-9609
www.gulfstreamconstruction.com

Cost Detail With Pricing and Categories

Project Name:	IAAM - COR12 Temporary FDC Line Relocation	**Customer:**	Turner Construction Company
Job Number:	191400.	**Billing Address:**	4601 Park Road, Suite 601
Bid As:	Subcontractor		Charlotte, NC 28209
Estimator:	Harmon Todd	**Phone:**	(704) 319-4854
Project Address:	14 Wharfside Street, Charleston, SC	**Contact:**	Bobby Teachey
Completion Date:			

Pay Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost	Unit Price	Total Price	Markup Percent
1 Temporary FDC Line Relocation	**1.00**	**LS**	**$18,146.38**	**$18,146.38**	**$21,113.21**	**$21,113.21**	**15.00%**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$1,093.23	$243.15	$0.00	$16,810.00	$0.00	$0.00	$0.00
Total:	$1,093.23	$243.15	$0.00	$16,810.00	$0.00	$0.00	$0.00

S Temporary Relocation Of FDC (Sub - Chandler)	1.00	LS	$16,810.00	$16,810.00
D Additional Utility Investigation	1.00	LS	$1,336.38	$1,336.38

Indirect Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost
I Business License	**1.00**	**LS**	**$34.65**	**$34.65**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$0.00	$0.00	$0.00	$0.00	$0.00	$34.65	$0.00
Total:	$0.00	$0.00	$0.00	$0.00	$0.00	$34.65	$0.00

Direct Cost Totals

	Amount	Percent of Direct Cost
Labor:	$1,093.23	6.02%
Equipment Owned:	$243.15	1.34%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$0.00	0.00%
Subcontracted:	$16,810.00	92.64%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$0.00	0.00%
Miscellaneous:	$0.00	0.00%
Plug:	$0.00	0.00%
Direct Cost:	$18,146.38	

Indirect Cost Totals

	Amount	Percent of Indirect Cost
Labor:	$0.00	0.00%
Equipment Owned:	$0.00	0.00%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$0.00	0.00%
Subcontracted:	$0.00	0.00%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$0.00	0.00%
Miscellaneous:	$34.65	100.00%
Plug:	$0.00	0.00%
Indirect Cost:	$34.65	

Pay Item Summary

	Amount	Percent of Bid Price
Total Direct Cost:	$18,146.38	85.95%
Total DC Adds/Cuts:	$0.00	0.00%
Total Indirect Cost:	$34.65	0.16%
Total Bond:	$178.29	0.84%
Total Overall Cost:	$18,359.32	86.96%
Total Overhead:	$0.00	0.00%
Total Profit:	$2,753.89	13.04%
Total Margin:	$2,753.89	13.04%
Total Bid Price:	$21,113.21	

Chandler
Construction Services, Inc.

January 13, 2020

Gulfstream Construction
1983 Technology Drive
Charleston, SC 29492

Reference: Change Proposal Request 05

Subject: International African American Museum
Subcontract No. 191400 (CCS Project #1298)

In accordance with Article 5 of the referenced Subcontract dated August 23, 2019, Chandler Construction Services, Inc. proposes to modify the work and subcontract sum in accordance as follows:

5.0	Mobilize Equipment and Full Crew Temporarily Relocate Existing FDC Line & Existing Standpipe	$	16,810.00
	NET CHANGE ORDER (add)	**$**	**16,810.00**

In signing below both parties acknowledge and agree to the above changes to the agreement and further acknowledge this change order supersedes all prior versions.

Contractor (Signature)

Subcontractor (Signature)

Matthew Bares, Vice President
(Printed Name and Title)

(Printed Name and Title)

CUMMING

Change Order Proposal Review Form

To: Edmund V. Most
From: Jonathan Roberts
Date: 8/6/2020
Contractor: Turner Construction Company

Project: CP 1425 International African American Museum
Project No.: CP 1425
Proposal No.: Change Order Request No. 53
Contract: Construction
(CMR)(ARCHITECT)(ENGINEER)(OTHER)

Description of work to be performed: **Bulletin #16 - Low Voltage/ Track Lighting**

This request will cover the cost to complete the low voltage and track lighting modifications requested by IAAM.

Bulletin #16 included changes to the GMP design: low voltage and revisions track lighting as coordinated with exhibitry as requested through the IAAM.

A - Customer Requested Change
B - Code/Regulatory Agency Required Change
C - Errors and Omissions
D - Replacing Unsuitable Soils
E - Soils Related Change Other
F - Unforeseen Conditions
G - Time Related Change
H - Liquidated Damages
I - Value Engineering Change
J - Exercising Pre-Priced Option (Allowance)
K - Accounting Error
(Indicate Reason for Change Proposal)

Justification: A - Customer Requested Change

Attachments:

	J&A from Project Manager		Cost Estimate (Expected to Exceed $10,000)
	Independent Cost Estimate		Change Proposal Request from CMR with Detailed Backup
	Pre-Negotiation Position (PNP)	X	

Proposal Cost (not to exceed): $229,150.00 **Owner Contingency Allow. Bal.**
Time Extension Requested: 0 **Time Extension Recommended:**

Special Circumstances: This change will increase the current GMP and be funded through an IAAM contribution to the City of Charleston.

Consequence of Rejection:

Comments by Supervisor:

Decision needed by: August 6, 2020

(NO) (YES)
(Circle One)
Jonathan Roberts
Jonathan Roberts, Cumming Corp.

Approved:

(NO) (YES) (Circle One) — Rick Holt, Cumming Corp

(NO) (YES) (Circle One) — Robert Faust, Robert Faust, Cumming Corp.

(NO) (YES) (Circle One) — Edmund V Most, City of Charleston

(NO) (YES) (Circle One) — Bernard Costantino, Bernard Costantino, Moody Nolan

Turner BROWN

COR #: 53

Date Submitted: July 27, 2020

TURNER BROWNSTONE
14 Wharf Street
Charleston, SC

To: Edmund Most
City of Charleston

Re: **Internation African American Muesum**

Bulletin 16

Please find attached our Proposed Change Order (PCO) for the above described Work. We are submitting for your review and approval of the changed condition(s) as outlined herein. All work shall be performed under our current contract terms and as outlined below:

Work Description:	Provide all required Labor, Materials, Equipment, and Administrative/Support costs to provide materials, labor, and equipment to drawing changes made in Bulletin 16. They will be per specs and drawings issued to Turner, scope of work as detailed within the Subcontractor's quote(s) &/or correspondence attached. The design has started and the will be submitted based on the new findings. Work in the field can not start with out signed change order.

Reason:
- [X] Owner Directive
- [ ] Code / Regulatory
- [ ] Unforeseen Condition
- [ ] Design Issue

Pricing:
- [ ] ROM Estimate of GR's & Insurances
- [X] ROM Estimate for Entire PCO
- [X] Lump Sum or **Firm Fixed Unit Pricing** for Trade Contractors - See Detailed Estimates

Time Impact:
- [X] Evaluating Potential for Time Impact
- [ ] Evaluated - NO TIME IMPACT
- [ ] Calendar Days Requested - May 5 Substaintial Date
- [ ] Work has been Completed
- [ ] Work Has Commenced &/or is Ongoing
- [ ] Work Authorization is Requested By:

Submitted By: Contractor: **TURNER BROWNSTONE**

Walter Lewis Project Engineer — Dated 07/27/20 — $ 229,150 Amount Requested

Requested Action:
- [ ] Authorized to Proceed While Pricing
- [ ] Price Only
- [ ] Do Not Proceed or Price

Reviewed By: Program Manager: **CUMMING**

Dated / /

Authorized Action:
- [ ] Authorized to Proceed While Pricing
- [ ] Price Only
- [ ] Do Not Proceed or Price

Approved By: Owner: **City of Charleston**

Edmund Most — Dated / / — $ 229,150 Amount Approved

Turner

Internation African American Muesum
General Summary of the Estimate

COR No.: 53

Item #	Description of Work		DETAIL ESTIMATE OF DIRECTS
A1	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	SELF PERFORMED LABOR	$0
A2	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	MATERIAL(S) & EQUIPMENT	$0
	TRADE DIRECTS		$210,879.00
A3	Contingency 3%		$0.00
A4		SUBTOTAL TRADE DIRECTS	$210,879
A5			
A6			
A7			
A8			
A9			
A14			
A11			
A14			
A15			
A16			
A16			
A17			

		SUBTOTAL		$210,879
CCIP	@	2.45%	=	$5,166.54
Subguard	@	0.012	=	$2,530.55
Builders Risk	@	0.84%	=	$1,771.38
Performance and Payment Bond		0.00732	=	$1,543.63
Procore	@	0.04500%	=	$94.90
Overhead and Profit	@	3.25%	=	$7,164.38
		ESTIMATE TOTAL		$229,150

Turner

Internation African American Muesum
DETAIL ESTIMATE OF DIRECTS

COR No.: 53

DIVISIONS OF WORK	RATE	Unit	UNITS	SUBTOTAL	TOTAL	COMMENTS

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)

DESCRIPTION

Due to additional scope of work and coordination in the Building	8,667.00	0	days	$0.00	
GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)					$0

TRADE DIRECTS

DESCRIPTION

Additional Scope of Work

1	Bulletin 16 Caroline Fire	$	3,510.00	1	LS	$3,510.00	
2	CP Marina Bulletin 16	$	28,887.00	1	LS	$28,887.00	
3	TL - Bulletin 16	$	8,643.00	1	LS	$8,643.00	
4	Watson Bulletin 16	$	169,839.00	1	LS	$169,839.00	
					DIRECT WORK SUBTOTAL		$210,879

PROPOSED CHANGE ORDER

WATSON ELECTRICAL CONSTRUCTION CO.
3215 Fortune Dr.
Suite 109
Charleston, SC 29418
Telephone: 843.414.0700
Fax: 843.414.0704

PCO #	**14**
Date:	6/30/2020
Project Name:	IAAM Museum
Project Number:	IAAM Museum
Page Number:	1

Turner Construction / Brownstone Management and Design
Contact: Walt Lewis
4055 Faber Place
Suite 202
North Charleston, South Carolina 29405
Contact: Walt Lewis
E-mail: wlewis@tcco.com

Work Description

SCOPE OF WORK:

REV1: Deducts TH1 track heads. To be separate change proposal.

INCLUSIONS:
ADD (7) seven 3" empty AV raceway only. Approximaely 438 feet. Sheet T402M-B.
ADD (8) Bollard racewys only.
ADD (3) Duplex receptalces. Sheet E-502-A.
ADD (1) Duplex receptacle for projector above ceiling. Sheet E-502-A.

TRACK HEADS- NOTE TRK-2 CLARIFICATION IN SUPPLIER QUOTE.
TRK-2 TRACK CANNOT BE CURVED.
Total quantity of track heads: 271
Includes (48) TH1 additional track heads. Labor and material.
Includes (223) NEW TYPES THP-1, THP-3 and THW-2 track heads. Labor and material.
Labor for (271) new / added track heads.
Quanitles per Bulletin 16 documents.

EXCLISIONS:
Low voltage data equipmant, cabling, devices. Raceways only.
Breakers or related electrical equipment. Furnished by others, installed by Watson.
No new lighting homeruns. None shown.
Origianl (374) TH1 Track heads.

CLARIFICATIONS:
Sheet T-702, Detail 3 - only ADDs two (2) 4" AV sleeve between floors.
Sheet T070, Detail 6 - - upsizes wire mesh basket tray. Previsou RFI changes wire mesh basket tray to ladder tray.
Sheet E-702, Detail 1 - changes panel or origin for rack power circuits.
There is no additional cost for lighting controls system.
All seismic supprts for lighitng by others.
Labor for 271 overall additional trackheads included.
Acknowledge change to basket tray. No charge.

We reserve the right to correct this quote for errors and omissions.

This quote covers direct costs only and we reserve the right to claim for impact and consequential costs.
This price is good for acceptance within 10 days from the date of receipt.
We request a time extension of 15 days.

ORIGINAL

PROPOSED CHANGE ORDER

WATSON ELECTRICAL CONSTRUC
3215 Fortune Dr.
Suite 109
Charleston, SC 29418

Turner Construction / Brownstone Management and Design
4055 Faber Place
Suite 202
North Charleston, South Carolina 29405

We will supply and install all materials, labor, and equipment as per your instructions on **<CCN_14>**.

Itemized Breakdown

System	Material($)	Labor Hrs
|| LIGHTING	0.00	524.07
|| WIRING DEVICES	968.79	76.45
|| LOW VOLT	5,370.10	295.29
Total	**6,338.89**	**895.81**

LIGHTING

Description	Qty	Net Price	U	Total Mat.	Labor	U	Total Hrs.
2' TRACK STARTER SURF	124	0.00	E	0.00	1.18	E	146.32
4' TRACK JOINER SURF	136	0.00	E	0.00	0.60	E	81.60
TRACK LIVE END CONN SURF	160	0.00	E	0.00	0.75	E	120.00
TRACK HEAD FIXTS	271	0.00	E	0.00	0.65	E	176.15
Totals	**691**			**0.00**			**524.07**

WIRING DEVICES

Description	Qty	Net Price	U	Total Mat.	Labor	U	Total Hrs.
3/4" CONDUIT - EMT	465	80.13	C	372.60	5.00	C	23.25
3/4" CONN SS STL - EMT	62	17.48	C	10.84	10.00	C	6.20
3/4" COUPLING SS STL - EMT	31	22.94	C	7.11	5.00	C	1.55
1/2 OR 3/4" SNAP CLOSE CLIP - SIDE MNT TO MTL STU	62	92.55	C	57.38	5.25	C	3.25
1/2 OR 3/4" SNAP CLOSE CLIP ON ANGLE BRKT	31	69.08	C	21.41	5.00	C	1.55
#12 THHN SOLID BLACK	1,054	110.13	M	116.08	6.00	M	6.32
#12 THHN SOLID GREEN	527	110.13	M	58.04	6.00	M	3.16
WIRE CONN RED	62	10.41	C	6.45	2.75	C	1.71
#8x 1/2 WAFER HEAD SHEET MTL SCREW	155	3.93	C	6.09	5.00	C	7.75
1G DUPLEX REC PLATE - PLASTIC IVY	31	19.00	C	5.89	10.00	C	3.10
15A 125V DUP REC - IVY (SG)	31	320.00	C	99.20	25.00	C	7.75
8000-1 - MULTI-BOX BRACKET - 1 BOX - 1-GANG	31	6.70	E	207.70	0.35	E	10.85
Totals	**2,542**			**968.80**			**76.45**

LOW VOLT

Description	Qty	Net Price	U	Total Mat.	Labor	U	Total Hrs.
1" CONDUIT - EMT	1,131	137.76	C	1,558.07	5.50	C	62.20
3" CONDUIT - EMT	438	619.36	C	2,712.80	11.00	C	48.18
3" ELBOW 90 DEG - EMT	2	3,519.02	C	70.38	70.00	C	1.40
3" COUPLING COMP DC - EMT	46	884.01	C	406.64	80.00	C	36.80
3" CONN COMP DC INSUL - EMT	2	1,031.44	C	20.63	60.00	C	1.20
1" CONN COMP STL - EMT	59	45.89	C	27.08	16.00	C	9.44
1" COUPLING COMP STL - EMT	59	49.17	C	29.01	35.00	C	20.65
1" INSULATING BUSHING - EMT	59	38.01	C	22.43	26.00	C	15.34
1" 1-H STRAP - EMT - STEEL	16	20.43	C	3.27	4.00	C	0.64
3" SPRING STL CONDUIT CLAMP W/ BOLT	45	100.14	C	45.06	12.50	C	5.63
1" SNAP CLOSE CLIP - SIDE MNT TO MTL STUD SUP	102	111.34	C	113.57	5.36	C	5.47
6" SLEEVE & SEAL	4	0.00	E	0.00	0.75	E	3.00
1/2" JET LINE PULL KIT	885	0.00	E	0.00	0.06	E	53.10
1/8" POLYTWINE	612	10.75	M	6.58	1.15	M	0.70
4x 1 1/2" SQ BOX COMB KO	8	46.67	C	3.73	30.00	C	2.40

ORIGINAL

PROPOSED CHANGE ORDER

WATSON ELECTRICAL CONSTRUC
3215 Fortune Dr.
Suite 109
Charleston, SC 29418

Turner Construction / Brownstone Management and Design
4055 Faber Place
Suite 202
North Charleston, South Carolina 29405

Description	Qty	Net Price	U	Total Mat.	Labor	U	Total Hrs.
1/4-20 HEX NUT - PLTD STL	45	2.51	C	1.13	2.40	C	1.08
#8x 1/2 WAFER HEAD SHEET MTL SCREW	204	3.93	C	8.02	5.00	C	10.20
8000-1 - MULTI-BOX BRACKET - 1 BOX - 1-GANG	51	6.70	E	341.70	0.35	E	17.85
Totals	**3,768**			**5,370.09**			**295.28**

Summary

General Materials		6,338.89
LIGHTING FIXTURES		189,750.00
Deduct TH1 Heads		-119,680.00
Material Tax	(@ 9.000 %)	6,876.80
Material Total		**83,285.69**
JOURNEYMAN	(895.80 Hrs @ $45.00)	40,311.00
FOREMAN @ 15%	(134.37 Hrs @ $50.00)	6,718.50
SAFETY @ 3.5%	(31.35 Hrs @ $52.00)	1,630.20
PM&S	(1,061.52 @ 0.00 @ $6.00 + 0.000 % + 0.000 % + 0.000 %)	6,369.12
VDC	(1,061.52 @ 0.00 @ $1.00 + 0.000 % + 0.000 % + 0.000 %)	1,061.52
VEHICLES	(1,061.52 @ 0.00 @ $2.50 + 0.000 % + 0.000 % + 0.000 %)	2,653.80
COVID Helth and Hygeine	(1,061.52 @ 0.00 @ $1.00 + 0.000 % + 0.000 % + 0.000 %)	1,061.52
SCISSOR LIFT - 25' (per Day)	(2.00 @ 2.00 @ $625.00 + 0.000 % + 0.000 % + 0.000 %)	2,500.00
Subtotal		**145,591.35**
Overhead	(@ 10.000 %)	14,559.14
Markup	(@ 5.000 %)	8,007.52
Subtotal		**168,158.01**
Bond	(@ 1.000 %)	1,681.58
Final Amount		**$169,839.59**

CLIENT ACCEPTANCE

PCO # 14
Final Amount: **$169,839.59**

Name: _____

Date: _____

Signature: _____

Change Order #: _____

I hereby accept this quotation and authorize the contractor to complete the above described work.

ORIGINAL

Turner Logistics

PURCHASE AUTHORIZATION & APPROVAL

COR # 6

PROJECT INFORMATION

Submit Date: 1-Jun-20

Client Name : Turner Construction
Project Name : IAAM
Project Type : Equipment Purchase Order
TL Project Number : 190799

EXECUTIVE SUMMARY

Per Bulletin 16 Drawing E-300 Keyed Note #2 and Electrical Distribution Panelboard

Scope	Description	Vendor	Cost
Elec.	Bulletin 16 Electrical Distribution Changes	Eaton	$ 6,555.00
Elec.	Added Isolated ground Busbar	Liebret	$ 525.00
	Freight		Included
	Installation		by others
		Sub-total	$ 7,080.00
		COS at 12%	$ 849.60
		Insurance	not included
		Tax at 9%	$ 713.66
		Total Approval	$ 8,643.26

APPROVAL

We are **excluding** the following:

Installation and connection
Handling, storage, adjustment, modification and associated materials
Spare materials or attic stock
Associated labor and materials are not included, pricing by others
Labor warranty for installation or any term length labor warranty

Assuming the aforementioned scope, quantities, unit costs, labor rates, overhead, profit and other identified costs for the referenced work associated with the IAAM project, meet with your approval and you agree that the work will commence, please provide evidence thereof with your signature below.

No work will commence without execution of this document.

Turner Logistics assumes no liability for any and all impact to the project due to lack of execution of this document.

A formal change order shall be issued for the referenced work within 7 working days from the date of execution of this document.

APPROVAL

Name : _____

Date : _____

Please return the signed approval letter to:

Arash Ghasemi, Logistics Engineer
Turner Logistics LLC
aghasemi@tcco.com

Detail Bill of Material

Powering Business Worldwide

Project Name:	Int'l African American Museum _CUIE1031X8K1	**Negotiation No:**	CUIE1031X8K1
General Order No:	LCS0023060	**Alternate No:**	0030

Item No.	Qty	Product	Description
	1	Panelboards	30 Circuits, 100A, Fully Rated, 208Y/120V 3Ph 4W, Copper Bus, 35kAIC, 100A, 3P GHB Main Breaker[Top Fed], Surface Mounted

Catalog No P2A100BT30CD01
Designation AP-L2-IGC

Qty	List of Materials
1	100A, 3P GHB Main Breaker
20	20A, 1P GHQ Branch Breaker
4	30A, 2P GHB Branch Breaker
8	1P GHQ Branch Provision Only
1	Surge Protective Device, 160 kA SPD Series - Standard
1	Copper Main Bus, 100 Amps
1	Density Rated Cu Main Bus (1000A per sq. inch)
1	200% Rated Neutral (225A)
1	Insulated / Isolated Cu Ground Bar (Cu Cable Only)
1	Panel Nameplate - White with Black Letters
1	Circuit Directory - Metal Frame with Plastic Cover
1	Type 1 Enclosure: EZB2048R
1	EZ Trim, Door in Door, Concealed Hardware: EZT2048S
1	Add Yale 511 Lock to Door-in-Door EZ Trim.

Item No.	Qty	Product	Description
	1	MCCB SERIES C	TYPE GHB BREAKR 3P 100A 277/480VAC MAX 125/250VDC

Catalog No GHB3100

Qty	List of Materials
1	TYPE GHB BREAKR 3P 100A 277/480VAC MAX 125/250VDC

Item No.	Qty	Product	Description
	32	OEM	20 Amp 277 Volt 14 Ka

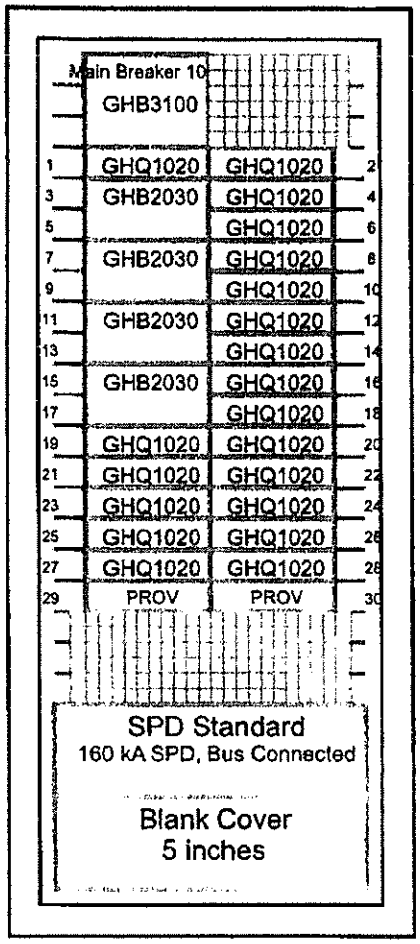
Catalog No GHQ1020

Qty	List of Materials
32	20 Amp 277 Volt 14 Ka

Eaton Selling Policy 25-000 applies.

All orders must be released for manufacture within 90 days of date of order entry. If approval drawings are required, drawings must be returned approved for release within 60 days of mailing. If drawings are not returned accordingly, and/or if shipment is delayed for any reason, the price of the order will increase by 1.0% per month or fraction thereof for the time the shipment is delayed.

Seller shall not be responsible for any failure to perform, or delay in performance of, its obligations resulting from the COVID-19 pandemic or any future epidemic, and Buyer shall not be entitled to any damages resulting thereof.



General Information **(Section 1 of 1)**

Service Voltage:	208Y/120V 3Ph 4W	**Enclosure:**	Type 1
Bus Rating & Type:	100A Copper	**Neutral Rating:**	200A
Ground Bar:	Insulated / Isolated Copper, Cu cable only		
S.C. Rating:	35k A.I.C. Fully Rated		

Main Device Type:	Main Breaker - Top Cable Entry
Main Terminals:	Mechanical - (1) #10-1/0 (Cu/Al)
Neutral Terminals:	Mechanical - (2) #14-1/0 (Cu/Al)
Box Catalog No.:	EZB2048R
Trim:	EZ Trim, Door in Door, Concealed Hardware (EZT2048S)
	Surface Mounted
Box Dimensions:	Consult Factory to Verify Dimensions.
Min. Gutter Size:	Top = 5.5" [139.7mm] Bottom = 5.5" [139.7mm]
	Left = 5.75" [146.1mm] Right = 5.75" [146.1mm]

Panel ID Nameplate: **(1) AP-L2-IGC**
Type: Plastic, adhesive-backed **(2) 208Y/120V 3Ph 4W**
Color: White with Black Letters **(3)**

UL *****Non-Interchangeable Main Device*****

Trim Lock: Standard Lock & Key (Keyed WEM2)
Circuit Directory: Metal Frame with Plastic Cover
200% Rated Neutral
Density Rated Bus
Main Circuit Breaker Trip Type: Thermal-Magnetic.
Seismic Label (IBC/CBC Seismic Qualified).
Heat Loss - Watts (Est.) = 51
Weight - lbs (Est.) = 132

Device Modifications:

Ref #	Description

Branch Devices

Qty	Poles	Trip	Frame	Amps	kAIC
4	2	30	GHB	100	35
20	1	20	GHQ	100	35
8	1		PROV		

Main Devices

Qty	Poles	Trip	Frame	Amps	kAIC
1	3	100	GHB	100	35

Notes:

Qty	Item
1	Add Yale 511 Lock to Door-in-Door EZ Trim

The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.

PREPARED BY: JOY A FRAZIER	DATE: 5/27/2020	**Eaton**	
APPROVED BY	DATE	JOB NAME: Int'l African American Museum _CUIE1031X8K1	
		DESIGNATION: AP-L2-IGC	
VERSION: 1.0.0.32		TYPE: PRL2a	DRAWING TYPE: Customer Approval
NEG-ALT Number: CUIE1031X8K1-0030	REVISION: 0 / DWG SIZE: A	G.O: LCS0023060	ITEM / SHEET: 1 of 1

JOE POWELL AND ASSOCIATES, INC.

VERTIV.

COMPANY ➤		PROPOSAL # ➤	Q02883730
ATTN ➤		PAGES ➤	1
FAX ➤		DATE ➤	May 27, 2020
FROM ➤	CHRIS HARR | P: (770) 781-0427 | CHARR@JOEPOWELL.COM		
PROJECT ➤	IAAM – Change Order 01		

Liebert EXM 30kVA UPS – Add one (1) isolated ground busbar

- Per Bulletin 16 Drawing E-300 Keyed Note #2
- Lead Time Impact: +1 week

Original PO Total	[redacted]
Change Order Amount	**+$525.00**
New PO Total	[redacted]

Please issue a Change Order to PO 4500015820 in this amount.

Thanks,

CHRIS HARR
Account Representative

Carolina Fire Control
INCORPORATED

Change Order Request #8

Date:	22-May-20	**Job Number:**	*19-2346*
Project Name:	IAAM	**Location:**	Charleston, SC

General Contractor: Turner Construction ATT: **Daron Pardine**
Address/City/State/Zip
City / State / Zip

COR# 8

Description of work credit - Per bulliten 16 we will have to reloate heads for the floor plan ajustments.

Labor	Hours	Rates		Total Costs
Construction Superintendent		*$68.70*		$0.00
Foreman/Fitter/Laborer	0	*$52.75*		$0.00
Fabrication/Listing	0	*$47.50*		$0.00
Engineering/BIM	40	*$76.30*		$3,052.00
Project Manager		*$91.57*		$0.00
Engineer review and stamp	0	$8,500.00		$0.00
				$0.00
Labor Totals				$3,052.00

Equipment & Miscellaneous	Units	Rates	Total Costs
Tool & Truck Charge	0	*$185.00*	$0.00
Lift	0	$400.00	$0.00
Subsistance	0	$125.00	$0.00
			$0.00
			$0.00
Equipment Totals			$0.00

Material	Qty.	Unit Price	Total Costs
	0	$28.82	$0.00
	0	$3.33	$0.00
	0	$2.90	$0.00
	0	$4.68	$0.00
	0	$10.17	$0.00
	0	$3.71	$0.00
		$1.27	$0.00
	0	$0.00	$0.00
	0	$0.00	$0.00
	0	$0.00	$0.00
Material Cost:			$0.00
Sales Tax *(7.75%)*			$0.00
Material Totals:			$0.00

Change Order Sub Total:	$3,052.00
Change Order Overhead & Profit 15%	$457.80
Total of Change Order:	$3,509.80
Total Rounded	$3,510.00

Michael Holbrooks 5/22/2020
Signature **Date**

P.O. Box 1090 ~ Concord, NC 28026 ~ Phone 704-784-4218 ~ Fax 704-784-4405

Lewis, Walter - (CAR)

From: Trae Dantzler <tdantzler@knowlogix.com>
Sent: Friday, July 24, 2020 7:00 PM
To: Lewis, Walter - (CAR); Sahlender, Steven
Cc: Pardine, Daron - (CAR); John Pritz; Chris Nuss; Joey Villafane; Matt DePaulis
Subject: Re: Bulletin 15 and 16 pricing

Good evening Walter,

Here are the talking points and pricing differences I see as we compare the Previously Bid Set Drawings to the Bulletin Set.

B15 and 16 Changes Noted

Type	Quantity Added	
AV1 Additions	33	Assumed Standard CAT6a Drop. No other specifiec
AV2 Additions	1	Assumed Standard CAT6a Drop. No other specifiec
AV3 Additions	4	Assumed Standard CAT6a Drop. No other specifiec
AV4 Additions	1	Assumed Standard CAT6a Drop. No other specifiec
AV6 Additions	9	Assumed Standard CAT6a Drop. No other specifiec
AV7 Additions	4	Assumed Standard CAT6a Drop. No other specifiec
2 Port Wall Drop	13	Assumed Standard CAT6a Drop. No other specifiec
AV11 Additions	2	Assumed Standard CAT6a Drop. No other specifiec
AV12 Additions	2	Assumed Standard CAT6a Drop. No other specifiec
AV13 Additions	2	Assumed Standard CAT6a Drop. No other specifiec
Total Drops Added	48	
Price	**$ 24,087.00**	
Labor	$ 11,000.00	
Materials	$ 13,487.00	
Camera Added Bulletin 15,16	5	Assumed Camera Specifications are within the sam
Price	**$ 4,800.00**	
Labor	$ 2,200.00	
Materials	$ 2,600.00	
TOTAL CHANGES Bulletin 15,16	**$ 28,887.00**	

Pricing listed here is subject to change pending clarification on AV Requirements for cable types and terminations

Please note that these changes are based on us providing specialty back boxes where necessary or called out, with standard Category 6a Cabling pulled. We would like to confirm these specifics with the Design

and Engineering team to firm up this estimate. In the event that the requirements are only CAT6a and terminations, this estimate should provide very close numbers.

Please let me know if you have any questions or would like us to have a meeting to clarify specific cabling needs for each AV area.

Thank you and have a great weekend.

Trae Dantzler
Systems Architect | Lead Engineer | Project Manager

Managed Technology Solutions
M: 843•900•4588
O: 843•900•4576
tdantler@knowlogix.com
www.knowlogix.com

On Fri, Jul 24, 2020 at 9:57 AM Lewis, Walter - (CAR) <wlewis@tcco.com> wrote:

Thanks for sending over. Please let me know if you are going to have 16 over to me today as we discussed

Thanks

Walt

Walter Lewis | Project Manager

Turner Construction Company

[illegible]

Email wlewis@tcco.com

From: Trae Dantzler <tdantzler@knowlogix.com>
Sent: Thursday, July 23, 2020 5:41 PM
To: Lewis, Walter - (CAR) <wlewis@tcco.com>
Cc: Pardine, Daron - (CAR) <dpardine@tcco.com>
Subject: Re: Bulletin 15 and 16 pricing

Walter,

After reviewing the documents, at this time there are no changes in Bulletin 15. We will submit the changes for Bulletin 16 with all changes found.

Thank you,

Trae Dantzler
Systems Architect | Lead Engineer | Project Manager

Managed Technology Solutions
M: 843•900•4588
O: 843•900•4576
tdantler@knowlogix.com
www.knowlogix.com

On Wed, Jul 22, 2020 at 4:50 PM Lewis, Walter - (CAR) <wlewis@tcco.com> wrote:

Good Afternoon,

Can you provide me with an update. I need Bulletin 15 and 16 pricing asap.

Please give me a call to discuss.

Thanks
Walt

Walter Lewis | Project Manager

Turner Construction Company

Mobile 704 936 6991

Email: wlewis@tcco.com

CUMMING
Change Order Proposal Review Form

To: Edmund V. Most
From: Jonathan Roberts
Date: 3/23/2020
Contractor: Turner Construction Company

Project: CP 1425 International African American Museum
Project No.: CP 1425
Proposal No.: Change Order Request No. 33
Contract: Construction
~~(CMR)(ARCHITECT)(ENGINEER)(OTHER)~~

Description of work to be performed: **Mass Excavation at CL 9 - 10**

This is a request to access the Owner's Sitework Allowance to provide all required labor, material, and equipment to mass excavate and remove/ replace unsuitable and dbris ladden soil between column line 9 - 10.

A - Customer Requested Change
B - Code/Regulatory Agency Required Change
C - Errors and Omissions
D - Replacing Unsuitable Soils
E - Soils Related Change Other
F - Unforeseen Conditions
G - Time Related Change
H - Liquidated Damages
I - Value Engineering Change
J - Exercising Pre-Priced Option (Allowance)
K - Accounting Error

Justification: **E - Soils Related Change Other** (Indicate Reason for Change Proposal)

Attachments:

	J&A from Project Manager		Cost Estimate (Expected to Exceed $10,000)
	Independent Cost Estimate		Change Proposal Request from CMR with Detailed Backup
	Pre-Negotiation Position (PNP)	X	

Proposal Cost (not to exceed): $186,365.00 **Owner ~~Contingency~~ Sitework Allow. Bal.** $354,644.00
Time Extension Requested: **Time Extension Recommended:**

Special Circumstances: This change will net in a $0.00 contract modification as the ~~$960,000.00~~ $1,000,000.00 Owner ~~Contingency~~ Sitework ~~Allowance~~ allowance will be accessed to cover the cost of this scope.

Consequence of Rejection:

Comments by Supervisor:

Decision needed by: March 26, 2020

(NO) (YES)
(Circle One)
Jonathan Roberts
Jonathan Roberts, Cumming Corp.

Approved:

(NO) (YES)
(Circle One)
Rick Holt, Cumming Corp.

(NO) (YES)
(Circle One)
Robert Faust
Robert Faust, Cumming Corp

(NO) (YES)
(Circle One)
Edmund V. Most, City of Charleston

(NO) (YES)
(Circle One)
Bernard Costantino
Bernard Costantino, Moody Nolan

COR #: 33

Date Submitted: March 9, 2020

TURNER BROWNSTONE
14 Wharf Street
Charleston, SC

To: Edmund Most
City of Charleston

Re: **Internation African American Muesum**

Soil Removal Column Line 9 to 10

Please find attached our Proposed Change Order (PCO) for the above described Work. We are submitting for your review and approval of the changed condition(s) as outlined herein. All work shall be performed under our current contract terms and as outlined below:

Work Description:	Provide all required Labor, Materials, Equipment, and Administrative/Support costs to removal soils from Column Line 9 to 10. They will be per specs and drawings issued to Turner, scope of work as detailed within the Subcontractor's quote(s) &/or correspondence attached. The design has started and the will be submitted based on the new findings. Work in the field can not start with out signed change order.

Reason:
- [ ] Owner Directive
- [ ] Code / Regulatory
- [X] Unforeseen Condition
- [ ] Design Issue

Pricing:
- [ ] ROM Estimate of GR's & Insurances
- [ ] ROM Estimate for Entire PCO
- [X] Lump Sum or **Firm Fixed Unit Pricing** for Trade Contractors - See Detailed Estimates

Time Impact:
- [ ] Evaluating Potential for Time Impact
- [X] Evaluated - NO TIME IMPACT
- [ ] Calendar Days Requested (See attached FRAGNET/Schedule Impact Analysis)
- [X] Work has been Completed
- [ ] Work Has Commenced &/or is Ongoing
- [ ] Work Authorization is Requested By:

Submitted By: Contractor: **TURNER BROWNSTONE**

Walter Lewis Project Engineer — Dated / /

$ 186,365 — Amount Requested

Requested Action:
- [ ] Authorized to Proceed While Pricing
- [ ] Price Only
- [ ] Do Not Proceed or Price

Reviewed By: Program Manager: **CUMMING**

Dated / /

Authorized Action:
- [ ] Authorized to Proceed While Pricing
- [ ] Price Only
- [ ] Do Not Proceed or Price

Approved By: Owner: **City of Charleston**

Edmund Most — Dated / /

$ 186,365 — Amount Approved

Turner

Internation African American Muesum
General Summary of the Estimate

COR No.: 33

Item #	Description of Work		DETAIL ESTIMATE OF DIRECTS
A1	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	SELF PERFORMED LABOR	$0
A2	GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC'S)	MATERIAL(S) & EQUIPMENT	$0
A3	TRADE DIRECTS		$171,505.00
A4		SUBTOTAL TRADE DIRECTS	$171,505
A5			
A6			
A7			
A8			
A9			
A14			
A11			
A14			
A15			
A16			
A16			
A17			

		SUBTOTAL		$171,505
CCIP	@	2.45%	=	$4,201.87
Subguard	@	0.012	=	$2,058.06
Builders Risk	@	0.84%	=	$1,440.64
Performance and Payment Bond		0.00732	=	$1,255.42
Procore	@	0.04500%	=	$77.18
Overhead and Profit	@	3.25%	=	$5,826.69
		ESTIMATE TOTAL		$186,365

Turner

Internation African American Muesum
DETAIL ESTIMATE OF DIRECTS

COR No.: 33

DIVISIONS OF WORK	RATE	Unit	UNITS	SUBTOTAL	TOTAL	COMMENTS

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)

DESCRIPTION

GENERAL REQUIREMENTS (GR's) & GENERAL CONDITIONS (GC's)	$0

TRADE DIRECTS

DESCRIPTION

	Additional Scope of Work							
1	Soil Removal CL 9 to CL 10	$	171,505.00	1	LS	$171,505.00		
								$171,505
						DIRECT WORK SUBTOTAL		$171,505

GULF STREAM CONSTRUCTION

1983 Technology Drive • Charleston, SC 29492
(843) 572-4363 • Fax (843) 572-9609
www.gulfstreamconstruction.com

To:	Turner Construction Company	**Contact:**	Bobby Teachey
Address:	4601 Park Road, Suite 601 Charlotte, NC 28209	**Phone:** **Fax:**	(704) 319-4854
Project Name:	IAAM - COR13 - Foundation Soil Haul- Off (Ph. 2 Thru 2/12/2020)	**Bid Number:**	
Project Location:	14 Wharfside Street, Charleston, SC	**Bid Date:**	2/12/2020

Item Description	Estimated Quantity	Unit	Unit Price	Total Price
Through 2/12/2020				
Haul-off, Contaminated (Contract Unit Price)	1,015.00	CY	$168.97	$171,504.55

Total Bid Price: $171,504.55

Notes:

- Price includes hauling off material from the foundation excavation for Phase 2 through 2/12/2020. The final quantity for this excavation will be concluded after phase 2 is fully excavated.

ACCEPTED:

The above prices, specifications and conditions are satisfactory and are hereby accepted.

Buyer: _____

Signature: _____

Date of Acceptance: _____

CONFIRMED:

Gulf Stream Construction Company Inc

Authorized Signature: _____

Estimator: Ken Allen
843-572-4363 kallen@gulfstreamconstruction.com

GULF STREAM CONSTRUCTION

1983 Technology Drive • Charleston, SC 29492
(843) 572-4363 • Fax (843) 572-9609
www.gulfstreamconstruction.com

Cost Detail With Pricing and Categories

Project Name:	IAAM - Oakridge Landfill Disposal Contract Rate	**Customer:**	Turner Construction Company
Job Number:	191400.	**Billing Address:**	4601 Park Road, Suite 601
Bid As:	Subcontractor		Charlotte, NC 28209
Estimator:	Harmon Todd	**Phone:**	(704) 319-4854
Project Address:	14 Wharfside Street, Charleston, SC	**Contact:**	Bobby Teachey
Completion Date:			

Pay Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost	Unit Price	Total Price	Markup Percent
D Haul-off, Contaminated (Contract Unit Price)	**1.00**	**CY**	**$145.32**	**$145.32**	**$168.97**	**$168.97**	**15.00%**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$11.69	$14.82	$87.33	$2.60	$28.88	$0.00	$0.00
Total:	$11.69	$14.82	$87.33	$2.60	$28.88	$0.00	$0.00

Haul-off, Contaminated (Contract Unit Price)	1.50	LCY	$16.70	$25.05
Haul Disposal - Oakridge (Welborn Inc.)	1.65	TON	$17.50	$28.88
Disposal Fee - Oakridge Landfill	1.65	TON	$52.32	$86.33
Volume Survey	1.00	LS	$1.65	$1.65
Sweep Roadways (Power Broom)	1.00	HR	$0.95	$0.95
20 Mil Poly Liner	0.32	SY	$3.11	$1.01
Safety Manager	1.00	CY	$1.46	$1.46

Indirect Items

Description	Quantity	UM	Unit Direct Cost	Total Direct Cost
Q Business License	**1.00**	**LS**	**$0.23**	**$0.23**

	Labor	Equipment	Material	Subcontracted	Trucking	Miscellaneous	Plug
Unit:	$0.00	$0.00	$0.00	$0.00	$0.00	$0.23	$0.00
Total:	$0.00	$0.00	$0.00	$0.00	$0.00	$0.23	$0.00

Direct Cost Totals

	Amount	Percent of Direct Cost
Labor:	$11.69	8.04%
Equipment Owned:	$14.82	10.20%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$87.33	60.10%
Subcontracted:	$2.60	1.79%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$28.88	19.87%
Miscellaneous:	$0.00	0.00%
Plug:	$0.00	0.00%
Direct Cost:	$145.32	

Indirect Cost Totals

	Amount	Percent of Indirect Cost
Labor:	$0.00	0.00%
Equipment Owned:	$0.00	0.00%
Equipment Rented:	$0.00	0.00%
Materials Owned:	$0.00	0.00%
Materials Purchased:	$0.00	0.00%
Subcontracted:	$0.00	0.00%
Trucking Owned:	$0.00	0.00%
Trucking Hired:	$0.00	0.00%
Miscellaneous:	$0.23	100.00%
Plug:	$0.00	0.00%
Indirect Cost:	$0.23	

Pay Item Summary

	Amount	Percent of Bid Price
Total Direct Cost:	$145.32	86.00%
Total DC Adds/Cuts:	$0.00	0.00%
Total Indirect Cost:	$0.23	0.14%
Total Bond:	$1.38	0.82%
Total Overall Cost:	$146.93	86.96%
Total Overhead:	$0.00	0.00%
Total Profit:	$22.04	13.04%
Total Margin:	$22.04	13.04%
Total Bid Price:	$168.97	

Excavation Volume Total = 1,015 CY

Project File Data		Coordinate System	
Name:	C:\Users\kallen\The Beach Company\Gulf Stream Construction - African American Museum\1.3 Misc. Corespondence\Ph. 2 Take Off\Phase 2 Take off 2-11-2020.vce	Name:	Default
		Datum:	WGS 1984
		Zone:	Default
		Geoid:	
Size:	135 KB	Vertical datum:	
Modified:	2/12/2020 11:43:59 AM (UTC:-5)	Calibrated site:	
Time zone:	Eastern Standard Time		
Reference number:			
Description:			
Comment 1:			
Comment 2:			
Comment 3:			

Earthwork Volume Report

Unclassified surface compared to Unclassified surface

Surfaces	
Exsisting Ph.2	Classification: Unclassified
Ph. 2 Bottom	Classification: Unclassified

Bank Volumes Based on Surface Geometry Alone	
Cut material	**1,014.2 yd³**
Fill material	**0.0 yd³**
Excess	**1,014.2 yd³**

Bank Areas Based on Surface Geometry Alone	
Cut area	**4,457.9 ft²**
Fill area	**0.0 ft²**
Zero volume area	**0.0 ft²**
Total	**4,457.9 ft²**

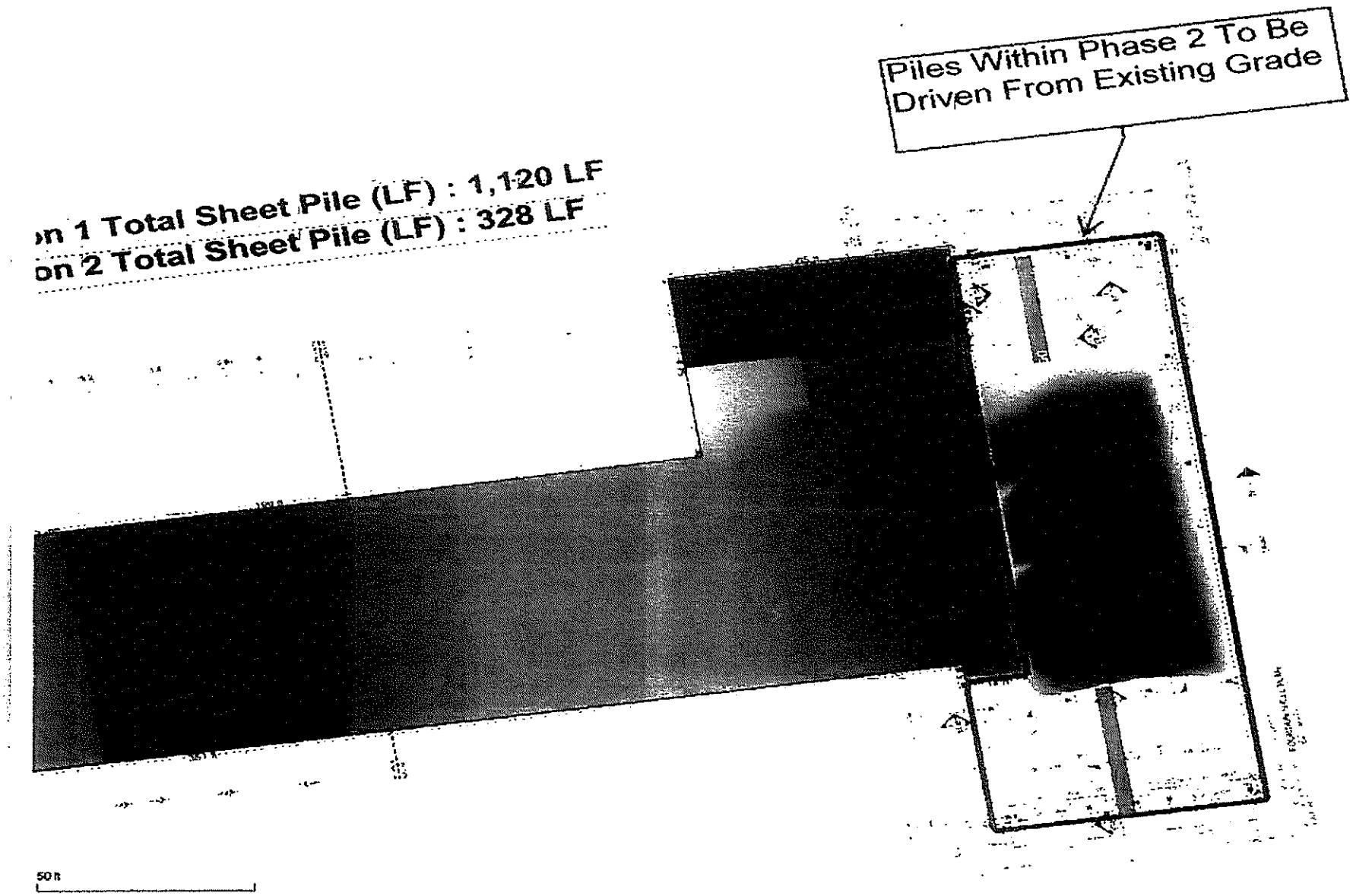
Depth summary	
Maximum depth of cut material	**9.757 ft**
Maximum depth of fill material	**-**

Note: 'Cut Material' is defined as material where [Ph. 2 Bottom] is lower than [Exsisting Ph.2]. 'Fill Material' is defined as the volume of material where [Ph. 2 Bottom] is higher than [Exsisting Ph.2].

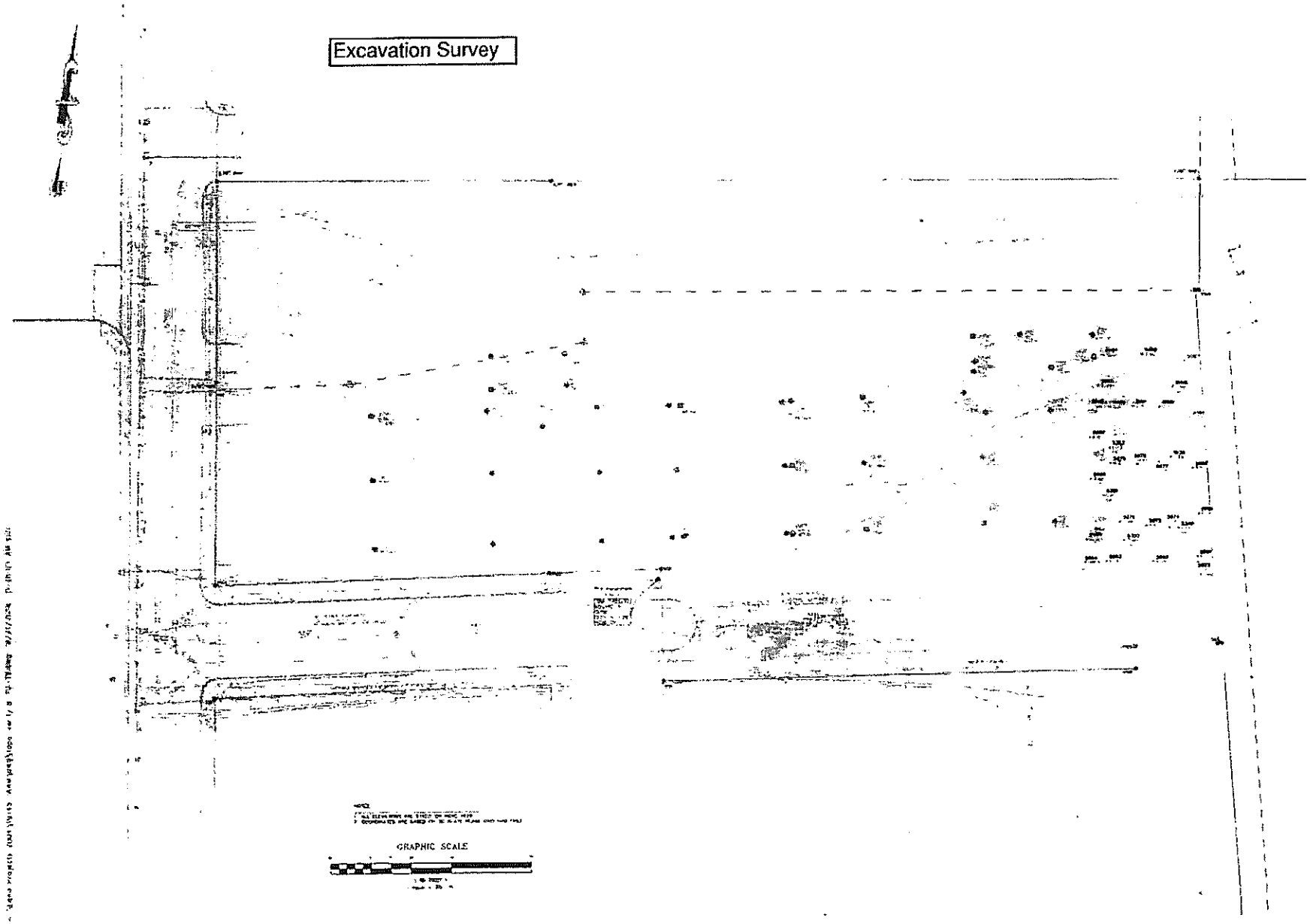
Note: The above volumes are calculated solely from the geometries of the selected surfaces. No material properties are applied to the above numbers.

Reported volumes are limited to those that lie within the constraining boundary.	
Boundary name:	<Unnamed boundary>
Area within boundary:	9,021.4 ft² (0.2 AC)
Total triangulated area:	4,457.9 ft² (0.1 AC)

Date: 2/12/2020 1:25:31 PM	Project: C:\Users\kallen\The Beach Company\Gulf Stream Construction - African American Museum\1.3 Misc. Corespondence\Ph. 2 Take Off\Phase 2 Take off 2-11-2020.vce	Trimble Business Center


Piles Within Phase 2 To Be Driven From Existing Grade
on 1 Total Sheet Pile (LF) : 1,120 LF
on 2 Total Sheet Pile (LF) : 328 LF
50 ft

Excavation Survey



Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
EXCESS SOIL/CONSTR	100	15.14	Tons				10-CHARLES

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403 4. Generator's Phone 843-958-6405	Generator's Site Address (if different than mailing):	A. Manifest Number B. State Generator's ID
5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12 Containers No.	12 Containers Type	13 Total Quantity	14 Unit Wt./Vol.	I Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile # 1017484					18.14

J. Additional Descriptions for Materials Listed Above

K Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO..

16. GENERATOR'S CERTIFICATE:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature On behalf of	Month	Day	Year
Billy Lawrence	[signature]	1	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Robert Jenkins	[signature]	1	31	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above

20. Facility Owner or Operator: Certification of receipt of non hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
NS	[signature]	1	31	20

Comments

Product	D%	Q'y	UOM	Rate	Tax	Amount	Origin
EXCESS SOIL/CONSTR	10	5.3	Tons				10-CHARLES

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
ANCRUM 359

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					25.23
WM Profile # 1017453					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name Ricky Lowe | Signature "On behalf of" | Month 1 | Day 31 | Year 20

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed Name Michael L. ANCRUM | Signature Michael L. Ancrum | Month 1 | Day 31 | Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed Name | Signature | Month | Day | Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.
Printed Name NS | Signature | Month 1 | Day 30 | Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017415

Customer Name GULFSTREAMCNSTRCTN GULF STREA
Ticket Date 01/31/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 610625sc
Destination
PO 191400
Profile 610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)
Generator 126-CITYOFCHARLES-300 CITY OF CHARLESTON

Carrier WELBORN WELBORN
Vehicle# 30
Container
Driver
Check#
Billing # 0000978
Gen EPA ID NR
Grid

Volume

	Time	Scale	Operator	Inbound		
In	01/31/2020 09:56:21	S2	nsmith13		Gross	75980 lb
Out	01/31/2020 09:56:21		nsmith13		Tare	25500 lb
					Net	50480 lb
					Tons	25 24

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 EXCESS SOIL/CONSTR	100	25 24	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
Welborn 30

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile # 101714145					25.24

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name [illegible] | Signature On behalf of [illegible] | Month 7 | Day 31 | Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed Name [illegible] Rowell | Signature [illegible] | Month 7 | Day 31 | Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed Name | Signature | Month | Day | Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest
Printed Name [illegible] | Signature [illegible] | Month 7 | Day 31 | Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017414

Customer Name GULFSTREAMCNSTRCTN GULF STREA
Ticket Date 01/31/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 601625sc
Destination
PO 191400
Profile 610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)
Generator 126-CITYOFCHARLES-300 CITY OF CHARLESTON

Carrier WPIBORN WELBORN
Vehicle# 35
Container
Driver
Check#
Billing # 0000978
Gen EPA ID NR
Grid

Volume

	Time	Scale	Operat r	Inbound		
In	01/31/2020 09:55:16	P S1	Alloyd		Gross	70140 lb
Out	01/31/2020 09:55:16		Alloyd		Tare	27040 lb
					Net	43100 lb
					Tons	21.55

Comments

	Product	LOW	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	00	21.55	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. | Manifest Doc No. | 2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name | 6. US EPA ID Number | C. State Transporter's ID | D. Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number | E. State Transporter's ID | F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile # 1017414					21SS
d.					
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name | Signature "on behalf of" | Month 1 | Day 31 | Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed Name | Signature | Month 1 | Day 31 | Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed Name | Signature | Month | Day | Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.
Printed Name | Signature | Month 1 | Day 31 | Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017456

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WELBCRN WELBORN		
Ticket Date	01/31/2020	Vehicle#	40		Volume
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-30 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 12:17:07	S2	nsmith13		Gross	66700 lb
Out	01/31/2020 12:17:07		nsmith13		Tare	27400 lb
					Net	39300 lb
					Tons	19.65

Comments

Product	LOT	Qty	Unit	Rate	Tax	Amount	Origin
1 EXCESS SOIL DEBRIS	102	19.65	Ton				10 CHARLES

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2. Page 1 of
3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403	Generator's Site Address (if different than mailing):	A. Manifest Number
4. Generator's Phone 843-958-6405		B. State Generator's ID
5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID
		D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101
		H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					18.65
WM Profile # 1017-1560					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lovelace	[signature]	7	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Michael Stevens	[signature]	7	31	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
WS	[signature]	7	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017464

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	01/31/2020	Vehicle#	B101	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0020978		
State Waste Code		Gen EPA ID	NR		
Manifest	61025SC				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inl Hnd		
In	01/31/2020 12:41:1	P S1	aLLOYD		Gross	74840 lb
Out	01/31/2020 12:41:1		aLLOYD		Tare	26740 lb
					Net	48100 lb
					Tons	24.05

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	24.05	Tons				10-CHARLES

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403 4. Generator's Phone 843-958-6405	Generator's Site Address (if different than mailing):	A. Manifest Number B. State Generator's ID
5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12 Containers No.	Type	13 Total Quantity	14 Unit Wt./Vol.	I Misc Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile # 1017464					2405
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

K Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:

I hereby certify that the above described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations

Printed Name	Signature (On behalf of)	Month	Day	Year
Roy Lovelace	[signature]	1	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Wells	[signature]			

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
[signature]	[signature]	1	31	20[illegible]

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017470

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	01/31/2020	Vehicle#	195	Volume	
Payment Type	Credit Account	Containe			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0`00978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBR S)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 12:59:57	P S2	LLOYD		Gross	84900 lb
Out	01/31/2020 12:59:57		LLOYD		Tare	29500 lb
					Net	55400 lb
					Tons	27 70

Comments

	Product	LDM	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	27 70	Tons				10-CHARLES

Driver Signature

NON-HAZARDOUS MANIFEST

WM WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403 4. Generator's Phone 843-958-6405	Generator's Site Address (if different than mailing):	A. Manifest Number B. State Generator's ID
5. Transporter 1 Company Name W. Frazier Const #195	6. US EPA ID Number	C. State Transporter's ID D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile # 1017470					2770
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level
Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations

Printed Name	Signature "On behalf of"	Month	Day	Year
[signature]	[signature]	1	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
[signature]	[signature]	1	31	2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
[signature]	[signature]	1	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017411

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	01/31/2020	Vehicle#	195	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 09:50:05	S2	nsmith13		Gross	82640 lb
Out	01/31/2020 09:50:05		nsmith13		Tare	29500 lb
					Net	53140 lb
					Tons	26.57

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	26.5	Tons				10 CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WM WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different then mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
W. Frazier Const. #195

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					
WM Profile # 1017211					26.57

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level
Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature On behalf of	Month	Day	Year
Ricky Lovelace	[signature]	7	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Annie Bowman	[signature]	7	31	2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
NS	[signature]	7	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017398

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	01/31/2020	Vehicle#	BL01	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000976		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 09:07:59	F S2	Alloyd		Gross	84940 lb
Out	01/31/2020 09:07:59		Alloyd		Tare	26740 lb
					Net	58200 lb
					Tons	29.10

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONS R	100	9.10	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403 4. Generator's Phone 843-958-6405	Generator's Site Address (if different than mailing):	A. Manifest Number B. State Generator's ID
5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13 Total Quantity	14 Unit Wt /Vol	I Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile # 1017398					2910
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

K Disposal Location

Cell Grid | Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Rieky Lovecase	[signature]	1	31	2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
TY Wells	[signature]			

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
[signature]	[signature]	1	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 017446

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU W. FRAZIER CONSTRUCT
Ticket Date	01/31/2020	Vehicle#	195
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000978
State Waste Code		Gen EPA ID	NR
Manifest	610625sc		
Destination		Grid	
PO	191400		
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)		
Generator	126-CITYOFCHARLES-30 CITY OF CHARLESTON		

	Time	Scale	Operator	Inbound		
In	01/31/2020 11:24:41	S1	nsmith13		Gross	85200 lb
Out	01/31/2020 11:24:41		nsmith13		Tare	29500 lb
					Net	55700 lb
					Tons	27.85

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	27.85	Tons				10 CHARLES

Total tax
Total chgs

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
W. Frazier Grad #195

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 6106255C					
b.					
WM Profile #					
c.					
WM Profile #					
d.					27.85
WM Profile # 1017446					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name Ricky Lovelace

Signature "On behalf of"

Month 7 Day 31 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name Jamene Bowman

Signature

Month 7 Day 31 Year 2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name NS

Signature

Month 7 Day 31 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017436

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	01/31/2020	Vehicle#	BL01	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126 CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 10:56:03	S1	nsmith13		Gross	67400 lb
Out	01/31/2020 10:56:03		nsmith13		Tare	26740 lb
					Net	40660 lb
					Tons	20.33

Comments

Product	LOS	Qty	UOM	Rate	Tax	Amount	Origin
[illegible]	00	[illegible]	Tons				10 CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials

	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile # 1017436					2033

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell L. Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name Ricky Lawrence

Signature "On behalf of"

Month 1 Day 31 Year 2022

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name Wells

Signature

Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name NS

Signature

Month 1 Day 31 Year 22

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017427

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WELBORN WELBORN		
Ticket Date	01/31/2020	Vehicle#	40	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 10:32:57	P S2	Alloyd		Gross	73620 lb
Out	01/31/2020 10:32:57		Alloyd		Tare	27400 lb
					Net	46220 lb
					Tons	23.11

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	23.11	Tons				10-CHARLES

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2. Page 1 of
3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403	Generator's Site Address (if different than mailing):	A. Manifest Number
4. Generator's Phone 843-958-6405		B. State Generator's ID
5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID
		D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101
		H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					23.11
WM Profile # 1014427					
d.					
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature (On behalf of)	Month	Day	Year
Ricky Lovelace	[signature]	1	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Michael Stevens Jr	[signature]	1	31	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
[signature]	[signature]	1	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017417

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	01/31/2020	Vehicle#	193	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	000'978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 10:02:14	S2	nsmith13		Gross	68040 lb
Out	01/31/2020 10:02:14		nsmith13		Tare	26420 lb
					Net	41620 lb
					Tons	20 81

Comments

Product		LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	20.81	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of	

3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403 4. Generator's Phone 843-958-6405	Generator's Site Address (if different than mailing):	A. Manifest Number B. State Generator's ID
5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile # 1017415					20.81

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
RICKY LOVELACE		7	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Robert Jenkins		7	31	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
NS		7	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017421

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	01/31/2020	Vehicle#	A359	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 10:11:24	S2	nsmith13		Gross	75200 lb
Out	01/31/2020 10:11:24		nsmith 3		Tare	27400 lb
					Net	47800 lb
					Tons	23.90

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	23.90	T				10-CHARLES

Driver's Signature

NON-HAZARDOUS MANIFEST

WM WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
ANCRUM 359

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					23.90
WM Profile # 1017421					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Grid

Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature On behalf of	Month	Day	Year
Kirby Lovelace	[signature]	1	31	20

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Michael L. Anam	Michael L. Anam	1	31	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
NS	[signature]	1	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017369

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	01/31/2020	Vehicle#	195	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 08:09:00	P S1	Alloyd		Gross	85940 lb
Out	01/31/2020 08:09:00		Alloyd		Tare	29500 lb
					Net	56440 lb
					Tons	28.22

Comments

[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Origin
1	[illegible] SOIL/CONSTR	100	28.22	[illegible]			10 CHARLES

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing)

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
LW Frazier Const. #195

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					2802
WM Profile # 1017369					
d.					
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name Ricky Lovesace | Signature "On behalf of" | Month 7 | Day 31 | Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name Annie Bowman | Signature | Month 7 | Day 31 | Year 2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name | Signature | Month | Day | Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non hazardous materials covered by this manifest

Printed Name | Signature | Month 7 | Day 31 | Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2600

Original
Ticket# 1017373

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WELBORN WELBORN		
Ticket Date	01/31/2020	Vehicle#	33	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 08:14:53	S2	nsmith13		Gross	73640 lb
Out	01/31/2020 08:14:53		nsmith13		Tare	27040 lb
					Net	46600 lb
					Tons	23.30

Comments

	Product	LD#	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	23.30	Tons				10-CHARLES

Total Tax
Total Ticket

Driver Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					23.30
WM Profile # 1017373					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Grid

Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name Roy Lovelace

Signature "On Behalf Of"

Month 7 Day 31 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month 7 Day 31 Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name NS

Signature

Month 7 Day 31 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017376

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	01/31/2020	Vehicle#	A359	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-30 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 08:23:01	P S2	Alloyd		Gross	74960 lb
Out	01/31/2020 08:23:01		Alloyd		Tare	27400 lb
					Net	47560 lb
					Tons	23.78

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	23.78	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature Michael J. Cuna

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2. Page 1 of
3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403	Generator's Site Address (if different than mailing):	A. Manifest Number
4. Generator's Phone 843-958-6405		B. State Generator's ID
5. Transporter 1 Company Name ANCRUM 359	6. US EPA ID Number	C. State Transporter's ID D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12 Containers No	Type	13. Total Quantity	14 Unit Wt./Vol	Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					0378
WM Profile # 1014376					
d.					
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations

Printed Name	Signature "On behalf of"	Month	Day	Year
[illegible]	[illegible]	1	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Michael L. ANCRUM	Michael L. Ancrum	1	31	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
[illegible]	[illegible]	1	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017481

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	01/31/2020	Vehicle#	193	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000976		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 13:50:16	P S1	aLLOYD		Gross	72160 lb
Out	01/31/2020 13:50:16		aLLOYD		Tare	26420 lb
					Net	45740 lb
					Tons	22.87

Product	ID%	Qty	UOM	Rate	Tax	Amount	Origin
EXCESS SOIL/CONSTR	100	22.87	Tons				10-CHARLES

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:	Generator's Site Address (if different than mailing):	A. Manifest Number
CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403		B. State Generator's ID
4. Generator's Phone 843-958-6405		

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile # 1017481					2281
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level
Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lovelace	[signature]	1	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Robert Senkins	[signature]	1	31	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
[signature]	[signature]	1	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017378

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU W. FRAZIER CONSTRUCT
Ticket Date	01/31/2020	Vehicle#	193
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000978
State Waste Code		Gen EPA ID	NR
Manifest	610625sc		
Destination		Grid	
PO	191400		
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)		
Generator	.26-CITYOFCHARLES-300 CITY OF CHARLESTON		

Volume

	Time	Scale	Operator	Inbound		
In	01/31/2020 08:26:16	P S2	Alloyd		Gross	70140 lb
Out	01/31/2020 08:26:16		Alloyd		Tare	26420 lb
					Net	43720 lb
					Tons	2[illegible].86

Comments

Product	LOT	Qty	UOM	Rate	Tax	Amount	Origin
[illegible]							[illegible] HARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:	Generator's Site Address (if different than mailing):	A. Manifest Number
CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403		B. State Generator's ID
4. Generator's Phone 843-958-6405		

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID
		D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101
		H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile # 1017378					2186
d.					
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level
Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lovecar	[signature]	1	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Robert Jenkins	[signature]	1	31	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
[signature]	[signature]	1	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017377

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WELBORN WELBORN		
Ticket Date	01/31/2020	Vehicle#	30	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 08:24:26	S	nsmith13		Gross	79220 lb
Out	01/31/2020 08:24:26		nsmith13		Tare	25500 lb
					Net	53720 lb
					Tons	26 86

Comments

	Product	LD%	Qty	UM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	26.86	T ns				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (If different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
Welborn 30

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # **610625SC**					
b.					
WM Profile #					
c.					
WM Profile #					
d.					
WM Profile # 1017377					26-86

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name Signature "On behalf of" Month 7 Day 31 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed Name Signature Month 7 Day 31 Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed Name Signature Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.
Printed Name Signature Month 7 Day 31 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017387

Customer Name GULFSTREAMCNSTRCTN GULF STREA
Ticket Date 01/31/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 610625sc
Destination
PO 191400
Profile 610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)
Generator 126-CITYOFCHARLES-300 CITY OF CHARLESTON

Carrier WELBORN WELBORN
Vehicle# 40
Container
Driver
Check#
Billing # 00009.8
Gen EPA ID NR
Grid

Volume

	Time	Scale	Operator	Inbound		
In	01/31/2020 08:42:37	S1	nsmith13		Gross	70200 lb
Out	01/31/2020 08:42:37		nsmith13		Tare	27400 lb
					Net	42800 lb
					Tons	21.40

Comments

	Product	DR	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	21.40	Tons				10-CHARLES

Total Tax
Total Ticket

Driver s Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					21.40
WM Profile # 017387					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell
Grid

Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name Ricky Lowe | Signature "On behalf of" | Month 7 | Day 31 | Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed Name Michael Stevens Jr | Signature | Month 7 | Day 31 | Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed Name | Signature | Month | Day | Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.
Printed Name NS | Signature | Month 7 | Day 31 | Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017450

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WELBORN WELBORN
Ticket Date	01/31/2020	Vehicle#	30
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000978
State Waste Code		Gen EPA ID	NR
Manifest	610625sc		
Destination		Grid	
PO	19140C		
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)		
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON		

Volume

	Time	Scale	Operator	Inbound		
In	01/31/2020 11:36:04	S2	nsmith13		Gross	71240 lb
Out	01/31/2020 11:36:04		nsmith13		Tare	25500 lb
					Net	45740 lb
					Tons	22 87

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 EXCESS SOIL/CONSTR	100	22.8	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:	Generator's Site Address (if different than mailing):	A. Manifest Number
CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403		B. State Generator's ID
4. Generator's Phone 843-958-6405		

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID
Wellborn 30		D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13 Total Quantity	14. Unit Wt./Vol.	1 Misc Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					22.87
WM Profile # 017450					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Grid

Level

15. Special Handling Instructions and Additional Information

CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:

I hereby certify that the above described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lowe	[signature]	1	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Ronell Palmer	[signature]	1	31	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
NS	[signature]	1	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017449

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WELBORN WELBORN
Ticket Date	01/31/2020	Vehicle#	35
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000978
State Waste Code		Gen EPA ID	NR
Manifest	610625sc		
Destination		Grid	
PO	191400		
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)		
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON		

Volume

	Time	Scale	Operator	Inbound		
In	01/31/2020 11:31:33	S1	nsmith13		Gross	68080 lb
Out	01/31/2020 11:31:33		nsmith13		Tare	27040 lb
					Net	41040 lb
					Tons	20.52

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
EXCESS SOIL/CONSTR	100	20.52	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2. Page 1 of
3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403 4. Generator's Phone 843-958-6405	Generator's Site Address (if different than mailing):	A. Manifest Number B. State Generator's ID
5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile # 10M4449					20.52

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level
Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lovelace	[signature]	1	31	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Marty	[signature]	1	31	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
NS	[signature]	1	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017480

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZ ERCONSTRU W.	FRAZIER CONSTRUCT	
Ticket Date	01/31/2020	Vehicle#	A359	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000[illegible]8		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	01/31/2020 13:49:31	S2	nsmith13		Gross	68600 lb
Out	01/31/2020 13:49:31		nsmith13		Tare	27400 lb
					Net	41200 lb
					Tons	20.60

Comments

Product		LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	610625 SOIL/CONSTR	100	[illegible]	Tons				[illegible] CHARLES

Total Tax
Total Ticket

Driver's Signature Michael L Anderson

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:	Generator's Site Address (if different than mailing):	A. Manifest Number
CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403		B. State Generator's ID
4. Generator's Phone 843-958-6405		

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID
ANCRUM 359		D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					
WM Profile # 1017480					20.60

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level
Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
Kirby Lovelace	[signature]			

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Michael L. ANCRUM	Michael L. Ancrum	1	31	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
NS	[signature]	1	31	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017729

Customer Name GULFSTREAMCNSTRCTN GULF STREA
Ticket Date 02/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 610625sc
Destination
PO 191400
Profile 610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)
Generator 126-CITYOFCHARLES-30C CITY OF CHARLESTON

Carrier SW SERVICES
Vehicle# 4
Container
Driver
Check#
Billing # 0000978
Gen EPA ID NR
Grid

Volume

	Time	Scale	Operator	Inbound		
In	02/03/2020 12:37:15	S1	nsmith13		Gross	74740 lb
Out	02/03/2020 12:37:15		nsmith13		Tare	28520 lb
					Net	46220 lb
					Tons	23.11

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	23.11	Tons				10-CHARLFS

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name | 6. US EPA ID Number | C. State Transporter's ID | D. Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number | E. State Transporter's ID | F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile # 10111232					23.11

J. Additional Descriptions for Materials Listed Above

K. Disposal Location: Cell | Level | Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.

16. GENERATOR'S CERTIFICATE
I hereby certify that the above described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable State laws, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lovelace		2	3	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Jerell Jenkins		2	3	2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
DS		2	3	20

Oakridge Landfill
2183 Highway [illegible]
Dorchester, SC, [illegible]
Ph. [illegible]

Original
Ticket# 10[illegible]

Customer [illegible]
Ticket [illegible] Time
Payment [illegible]
Manual Ticket [illegible]
Hauling [illegible]
Route [illegible]
State [illegible]
[illegible]

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 EXCESS SOIL/CONSTR	100	22.49	Tons				10-CHARLES

Total Tax
Total Ticket

Original Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile # 1017754					22.48

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Grid

Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name: Ricky Lovelace

Signature "On behalf of"

Month 2 Day 3 Year 2021

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name: Michael Stevens Jr

Signature

Month 2 Day 3 Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name DS

Signature

Month 2 Day 3 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017758

Customer Name GULFSTREAMCNSTRCTN GULF STREA
Ticket Date 02/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 610625sc
Destination
PO 191400
Profile 610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)
Generator 126-CITYOFCHARLES-300 CITY OF CHARLESTON

Carrier WFRAZIERCONSTRU W. FRAZIER CONSTRUCT
Vehicle# 194
Volume
Container
Driver
Check#
Billing # 0000978
Gen EPA ID NR
Grid

	Time	Scale	Operator	Inbound		
In	02/03/2020 13:45:34	P SI	Alloyd		Gross	80320 lb
Out	02/03/2020 13:45:34		Alloyd		Tare	28940 lb
					Net	51380 lb
					Tons	25.69

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	25.69	Tons				10 CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:	Generator's Site Address (if different than mailing):	A. Manifest Number
CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403 4. Generator's Phone 843-958-6405		B. State Generator's ID

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID
W. Frazier #194		D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	G. State Facility ID 182400-1101
OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437		H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12 Containers No.	12 Containers Type	13 Total Quantity	14 Unit Wt./Vol	I Misc Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					2569
WM Profile # 1017758					
d.					
WM Profile #					

J. Additional Descriptions for Materials Listed Above	K. Disposal Location			
	Cell		Level	
	Grid			

15. Special Handling Instructions and Additional Information

CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO

16. GENERATOR'S CERTIFICATE:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lovelace		2	3	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Almzo		2	3	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above

20. Facility Owner or Operator: Certification of receipt of non hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
		2	3	20

Cartridge Landfill
2185 Highway 78
[illegible] 29437
[illegible]

Original
Ticket# 1017747

[illegible]

Comments

Product		LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	26.[illegible]1	Tons				0 CHAR ES

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
W. Frazier Const. #195

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					
WM Profile # 1017747					Dell

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name Ricky Lovelace

Signature "On behalf of"

Month 2 Day 3 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month 2 Day 3 Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name NS

Signature

Month 2 Day 3 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017727

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	SW SERVICES		
Ticket Date	02/03/2020	Vehicle#	03	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-3[illegible] CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 12:34:27	S2	nsmith13		Gross	84740 lb
Out	02/03/2020 12:34:2[illegible]		nsmith13		Tare	28000 lb
					Net	56740 lb
					Tons	28.37

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	28.37	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (If different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol	I. Misc Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile # 1017727					2837

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Grid

Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name Ricky Lovelace

Signature "On behalf of"

Month 2 Day 3 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name Rodrick DMus

Signature

Month 2 Day 3 Year 2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name NS

Signature

Month 2 Day 3 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017733

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WELBORN WELBORN		
Ticket Date	02/03/2020	Vehicle#	36	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 12:42:55	S1	nsmith13		Gross	69620 lb
Out	02/03/2020 12:42:55		nsmith13		Tare	26580 lb
					Net	43040 lb
					Tons	21.52

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	21.52	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2. Page 1 of Wellborn #36

3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403	Generator's Site Address (If different than mailing):	A. Manifest Number
4. Generator's Phone 843-958-6405		B. State Generator's ID
5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID
		D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101
		H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile # 1017733					

J. Additional Descriptions for Materials Listed Above

K Disposal Location: Cell / Grid / Level

15 Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO

16 GENERATOR'S CERTIFICATE
I hereby certify that the above described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lovelace		2	3	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Lafayette Clark		2	3	2020

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19 Certificate of Final Treatment/Disposal
I certify on behalf of the above listed treatment facility, that to the best of my knowledge the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above

20. Facility Owner or Operator: Certification of receipt of non hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
NS		2	3	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017715

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	02/03/2020	Vehicle#	193	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 12:14:43	P S2	Alloyd		Gross	83540 lb
Out	02/03/2020 12:14:43		Alloyd		Tare	26420 lb
					Net	57120 lb
					Tons	28.56

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	28.56	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:	Generator's Site Address (if different than mailing)	A. Manifest Number
CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403 4. Generator's Phone 843-958-6405		B. State Generator's ID

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone 843-563-4587

11. Description of Waste Materials	12 Containers No	12 Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile # 101715					2856
d WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location: Cell | Level | Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.

16. GENERATOR'S CERTIFICATE
I hereby certify that the above described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
Becky Lovelace		2	3	2020

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Robert Jenkins		2	3	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
		2	3	20

GENERATOR

TRANSPORTER

FACILITY

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017724

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	02/03/2020	Vehicle#	190	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES 300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 12:29:47	S2	nsmith13		Gross	80240 lb
Out	02/03/2020 12:29:47		nsmith13		Tare	26800 lb
					Net	53440 lb
					Tons	26.72

Comments

	Product	[illegible]	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	00	6.72	Tons				10-CHARLES

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
WFC 190

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					
WM Profile # 1017324					26.72

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level
Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lowrance	[signature]	2	3	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Eva Brown	[signature]	2	3	20

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
NS	[signature]	2	3	20

Oakridge Landfill
2183 Highway 73
Dorchester [illegible]
Ph: (843) [illegible]

Original
Ticket# 101[illegible]

[illegible]

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (If different than mailing)

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
W. FRAZIER CONST 191

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
21B3 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					22.77
WM Profile # 1017123					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name: RICKY LOVELACE | Signature "On behalf of" | Month 2 | Day 3 | Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed Name: BRYAN WRIGHT | Signature: Bryan Wright | Month 2 | Day 3 | Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed Name | Signature | Month | Day | Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.
Printed Name NS | Signature | Month 2 | Day 3 | Year 20

Product	LD	Qty	UOM	Rate	Tax	Amount	Origin
1 EXCESS SOIL/CONSTR	100	2 00	Tons				10 CHARLES

local Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:	Generator's Site Address (if different than mailing):	A. Manifest Number
CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403 4. Generator's Phone 843-958-6405		B. State Generator's ID

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID F. Transporter's Phone
9. Designated Facility Name and Site Address **OAKRIDGE LANDFILL, INC.** **2183 HIGHWAY 78** **DORCHESTER, SC 29437**	10. US EPA ID Number	G. State Facility ID 182400-1101 H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # **610625SC**					
b. WM Profile #					
c. WM Profile # 101MM12					8700
d WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell		Level	
Grid			

15. Special Handling Instructions and Additional Information

CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO

16. GENERATOR'S CERTIFICATE

I hereby certify that the above described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations

Printed Name	Signature (On behalf of)	Month	Day	Year
Ricky Loveluce		2	3	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Adam Frazier		2	3	2020

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility that to the best of my knowledge the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above

20. Facility Owner or Operator: Certification of receipt of non hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
		2	3	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017711

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU W. FRAZIER CONSTRUCT
Ticket Date	02/03/2020	Vehicle#	194
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000978
State Waste Code		Gen EPA ID	NR
Manifest	610625sc		
Destination		Grid	
PO	191400		
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)		
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON		

	Time	Scale	Operator	Inbound		
In	02/03/2020 11:58:24	P S1	Alloyd		Gross	73880 lb
Out	02/03/2020 11:58:24		Alloyd		Tare	28940 lb
					Net	44940 lb
					Tons	22.47

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	22.47	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

4. Generator's Phone 843-958-6405

5. Transporter 1 Company Name
W. Frazier #194

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c					22497
WM Profile # 101711					
d					
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO

16. GENERATOR'S CERTIFICATE
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations

Printed Name Ricky Lowrance Signature "On behalf of" Month 2 Day 3 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name Alex Signature Month 2 Day 3 Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name Signature Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name Signature Month 2 Day 3 Year 20

Oakridge Landfill
2181 Highway 75
Dorchester, SC 29437
Ph [illegible]

Original
Ticket# 1017709

[illegible] Carrier [illegible] TRAILER CONSTRUCT
[illegible]
Payment Type [illegible]
Manual Tickets
Hauling Tickets
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

Time				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
			Tons	[illegible]

Comments

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (If different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
N. Frazier Const. #125

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b					
WM Profile #					
c.					229
WM Profile # 1017709					
d					
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.

16. GENERATOR'S CERTIFICATE.
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name: RICKY LOVELACE

Signature "On behalf of"

Month 2 Day 3 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name: Jamie Bamar

Signature

Month 2 Day 3 Year 2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name

Signature

Month 2 Day 3 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 2948
Ph (843) [illegible]

Original
Ticket# 101[illegible]

Customer Name [illegible]
Ticket Date [illegible]
Payment Type [illegible]
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
PO
[illegible]
Generator [illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Comments

Product	LDs	Qty	UOM	Rate	Tax	Amount	Origin
1 EXCESS SOIL/CONSTR	100	22.30	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2 Page 1 of	
3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403	Generator's Site Address (If different than mailing):	A. Manifest Number	
4. Generator's Phone 843-958-6405		B. State Generator's ID	
5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID	
		D. Transporter's Phone	
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID	
		F. Transporter's Phone	
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101	
		H. State Facility Phone 843-563-4587	

GENERATOR

11. Description of Waste Materials	12 Containers No.	12 Containers Type	13 Total Quantity	14 Unit Wt./Vol	I Misc Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile # 1017708					22.30
d. WM Profile #					

J Additional Descriptions for Materials Listed Above

K Disposal Location

Cell | Level

Grid

15 Special Handling Instructions and Additional Information

CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO

16 GENERATOR'S CERTIFICATE

I hereby certify that the above described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lowrance	[signature]	2	3	2020

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Michael Stevens Jr	[signature]	2	3	20

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19 Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20 Facility Owner or Operator: Certification of receipt of non hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
[signature]	[signature]	2	3	20

Oakridge Landfill
2183 Highway 75
Dorchester, SC, 29437
Ph: (843) [illegible]

Original
Ticket# 1017673

[illegible]

Comments

Product		LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL CONSTR	100	23.1	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2. Page 1 of Wt/Ba #36
3. Generator's Mailing Address: CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403	Generator's Site Address (If different than mailing):	A. Manifest Number
4. Generator's Phone 843-958-6405		B. State Generator's ID
5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID
		D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101
		H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					23.01
WM Profile # 1017673					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level

Grid

15. Special Handling Instructions and Additional Information

CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
RICKY LOVELACE	[signature] for [signature]	2	3	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
WAYNE CLARK	[signature]	2	3	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
NB	[signature]	2	3	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017586

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU W. FRAZIER CONSTRUCT
Ticket Date	02/03/2020	Vehicle#	190
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000978
State Waste Code		Gen EPA ID	NR
Manifest	610625sc		
Destination		Grid	
PO	191400		
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)		
Generator	126-CITYOFCHARLES 300 CITY OF CHARLESTON		

Volume

	Time	Scale	Operator	Inbound		
In	02/03/2020 08:25:58	S2	nsmith13		Gross	79360 lb
Out	02/03/2020 08:25:58		nsmith13		Tare	26800 lb
					Net	52560 lb
					Tons	26.28

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	26.28	Tons				10-CHARLES

Customer Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
WFC 190

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c					
WM Profile #					
d.					2628
WM Profile # 1017586					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Grid

Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name: Ricky Lovelace

Signature "On behalf of"

Month 2 Day 3 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name: Brian Brown

Signature

Month 2 Day 3 Year 2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name

Signature

Month 2 Day 3 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017658

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	02/03/2020	Vehicle#	190	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 10:19:22	S1	nsmith13		Gross	77520 lb
Out	02/03/2020 10:19:22		nsmith13		Tare	26800 lb
					Net	50720 lb
					Tons	25.36

Comments

	Product	LDS	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL CONSTR	100	25.36	Tons				10 CHARLES

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2. Page 1 of	
3. Generator's Mailing Address: CITY OF CHARLESTON, 300 CONCORD STREET, CHARLESTON, SC 29403	Generator's Site Address (if different than mailing):	A. Manifest Number	
4. Generator's Phone 843-958-6405		B. State Generator's ID	
5. Transporter 1 Company Name: WFC 190	6. US EPA ID Number	C. State Transporter's ID	
		D. Transporter's Phone	
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID	
		F. Transporter's Phone	
9. Designated Facility Name and Site Address: OAKRIDGE LANDFILL, INC., 2183 HIGHWAY 78, DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101	
		H. State Facility Phone 843-563-4587	

GENERATOR

11. Description of Waste Materials	12. Containers No	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					25.36
WM Profile # 1017658					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location: Cell | Level | Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO :

16 GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lovelace		2	3	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Glenn Brown		2	3	20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above

20. Facility Owner or Operator. Certification of receipt of non-hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
NS		2	3	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017657

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	02/03/2020	Vehicle#	191	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 10:13:37	P S2	Alloyd		Gross	70920 lb
Out	02/03/2020 10:13:37		Alloyd		Tare	27140 lb
					Net	43780 lb
					Tons	21.89

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	21.89	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (If different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
W. Frazier Const 191

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12 Containers No.	12 Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c					2189
WM Profile # 101165-1					
d.					
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level

Grid

15 Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO :

16 GENERATOR'S CERTIFICATE
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
RICKY LOVELACE		2	3	2026

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
BRYAN WRIGHT	Bryan Wright	2	3	26

18 Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19 Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20 Facility Owner or Operator: Certification of receipt of non hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
		2	3	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017646

Customer Name GULFSTREAMCNSTRCTN GULF STREA
Ticket Date 02/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 610625sc
Destination
PO 191400
Profile 610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)
Generator 126-CITYOFCHARLES-300 CITY OF CHARLESTON

Carrier SW SERVICES
Vehicle# 4
Container
Driver
Check#
Billing # 0000978
Gen EPA ID NR
Grid

Volume

	Time	Scale	Operator	Inbound		
In	02/03/2020 09:58:20	P S2	Alloyd		Gross	79060 lb
Out	02/03/2020 09:58:20		Alloyd		Tare	28520 lb
					Net	50540 lb
					Tons	25.27

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	.00	25.27	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt./Vol.	I Misc Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile # 1017644					2504
d.					
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name RICKY LOVELACE | Signature "On behalf of" | Month 2 | Day 3 | Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed Name | Signature | Month 2 | Day 3 | Year 2020

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed Name | Signature | Month | Day | Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.
Printed Name | Signature | Month 8 | Day 3 | Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017655

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRJ	W. FRAZIER CONSTRUCT	
Ticket Date	02/03/2020	Vehicle#	193	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 10:09:31	S1	nsmith13		Gross	79380 lb
Out	02/03/2020 10:09:31		nsmith13		Tare	26420 lb
					Net	52960 lb
					Tons	26.48

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	26.48	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					26.48
WM Profile # 1017655					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Grid

Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name: Ricky Lovelace

Signature "On behalf of"

Month 2 Day 3 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name: Robert Jenkins

Signature

Month 2 Day 3 Year 2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name NS

Signature

Month 2 Day 3 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017650

Customer Name GULFSTREAMCNSTRCTN GULF STREA
Ticket Date 02/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 610625sc
Destination
PO 191400
Profile 610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)
Generator 126-CITYOFCHARLES-300 CITY OF CHARLESTON

Carrier SW SERVICES
Vehicle# 03
Container
Driver
Check#
Billing # 0000978
Gen EPA ID NR
Grid

Volume

	Time	Scale	Operator	Inbound		
In	02/03/2020 10:04:12	P S2	Alloyd		Gross	77860 lb
Out	02/03/2020 10:04:12		Alloyd		Tare	28000 lb
					Net	49860 lb
					Tons	24.93

Comments

	Product	LDs	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	24.93	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:	Generator's Site Address (if different than mailing):	A. Manifest Number
CITY OF CHARLESTON 300 CONCORD STREET CHARLESTON, SC 29403 4. Generator's Phone 843-958-6405		B. State Generator's ID

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID
		D. Transporter's Phone
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Phone
9. Designated Facility Name and Site Address OAKRIDGE LANDFILL, INC. 2183 HIGHWAY 78 DORCHESTER, SC 29437	10. US EPA ID Number	G. State Facility ID 182400-1101
		H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13 Total Quantity	14 Unit Wt./Vol.	I Misc Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile # 1017650					2493
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

K Disposal Location

Cell | Level

Grid

15 Special Handling Instructions and Additional Information

CHARLESTON COUNTY

Purchase Order # 191400 EMERGENCY CONTACT / PHONE NO.:

16 GENERATOR'S CERTIFICATE

I hereby certify that the above described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations

Printed Name	Signature "On behalf of"	Month	Day	Year
Ricky Lovelace	[signature] for [signature]	2	3	2020

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
Kadrick Davis	[signature]	2	3	2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19 Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name	Signature	Month	Day	Year
Carlyn	Carlyn	2	3	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017652

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	02/03/2020	Vehicle#	194	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625c				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 10:06:12	P S2	Alloyd		Gross	75840 lb
Out	02/03/2020 10:06:12		Alloyd		Tare	28940 lb
					Net	46900 lb
					Tons	23 45

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	23.45	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
W. Frazier #194

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					2346
WM Profile # 1017652					
d.					
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name: Ricky Lovelace | Signature "On behalf of" | Month 2 | Day 3 | Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed Name: Alonzo | Signature | Month 2 | Day 3 | Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed Name | Signature | Month | Day | Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.
Printed Name | Signature | Month 2 | Day 3 | Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017627

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WELBORN WELBORN		
Ticket Date	02/03/2020	Vehicle#	34	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 09:34:19	P S2	Alloyd		Gross	65820 lb
Out	02/03/2020 09:34:19		Alloyd		Tare	26840 lb
					Net	38980 lb
					Tons	19.49

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	19.49	Tons				10-CHARLES

Total Tax
Total Ticket

Driver s Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile # 1017627					1949
d.					
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Level

Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations

Printed Name: Ricky Lovelace

Signature "On behalf of"

Month 2 Day 3 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name: Adam Frazier

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name

Signature

Month 2 Day 3 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph. (843) [illegible]

Original
Ticket# 1017640

[illegible] DISTREAM CONSTRUCTION [illegible] STREA [illegible] CONSTRUCT
[illegible]
Payment Type Credit Account
Manual Ticket#
[illegible]
Route
State Waste [illegible]
[illegible]
[illegible]
[illegible]
[illegible]

[illegible]
[illegible]
[illegible]

Comments

Product		LD%	Qty	J M	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	22.99	T ns				10-CHARLES

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No.	Manifest Doc No.	2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

4. Generator's Phone 843-958-6405

5. Transporter 1 Company Name
W. Frazier Corp. #195

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					22.99
WM Profile # 1017640					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level
Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature "On behalf of"	Month	Day	Year
RICKY LOVELACE	[signature]	2	3	2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year
[illegible]	[signature]	2	3	2020

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year
NS	[signature]	2	3	20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017624

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WELBORN WELBORN		
Ticket Date	02/03/2020	Vehicle#	40	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000976		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 09:30:23	S1	nsmith13		Gross	69940 lb
Out	02/03/2020 09:30:23		nsmith13		Tare	27400 lb
					Net	42540 lb
					Tons	21 27

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	21.2	T n				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (If different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 6106255C					
b.					
WM Profile #					
c.					
WM Profile #					
d.					21.27
WM Profile # 1017624					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Grid

Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name: Ricky Lovelace

Signature "On behalf of"

Month 2 Day 3 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name: Michael Stevens Jr

Signature

Month 2 Day 3 Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest

Printed Name NS

Signature

Month 3 Day 3 Year 20

Oakridge Landfil.
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017600

Customer Name GULFSTREAMCNSTRCTN GULF STREA
Ticket Date 02/03/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 610625sc
Destination
PO 191400
Profile 610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)
Generator 126-CITYOFCHARLES-300 CITY OF CHARLESTON

Carrier WELBORN WELBORN
Vehicle# 36
Container
Driver
Check#
Billing # 0000978
Gen EPA ID NR
Grid

Volume

	Time	Scale	Operator	Inbound		
In	02/03/2020 08:49:57	S3	nsmith13		Gross	70060 lb*
Out	02/03/2020 08:49:57		nsmith13		Tare	26580 lb*
			* Manual Weight		Net	43480 lb
					Tons	21.74

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	21.74	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Mgt. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile # 1017584					21.74

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Grid

Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name: Ricky Lovelace

Signature "On behalf of"

Month 2 Day 3 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name: Wayne Clark

Signature

Month 2 Day 3 Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non hazardous materials covered by this manifest.

Printed Name NS

Signature

Month 2 Day 3 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017579

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU W. FRAZIER CONSTRUCT
Ticket Date	02/03/2020	Vehicle#	191
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000978
State Waste Code		Gen EPA ID	NR
Manifest	610625		
Destination		Grid	
PO	191400		
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)		
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON		

Volume

	Time	Scale	Operator	Inbound		
In	02/03/2020 08:17:40	P S2	Ailoyd		Gross	70680 lb
Out	02/03/2020 08:29:13	S3	nsmith13		Tare	27140 lb
					Net	43540 lb
					Tons	21.77

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	21.77	Tons				10-CHARLES

Total Tax
Total Ticket

Driver's Signature

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
W. Fraizer 191

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile # 10M579					
d.					21.77
WM Profile #					

J. Additional Descriptions for Materials Listed Above

K Disposal Location

Cell

Grid

Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name Ricky Lovelace

Signature "On behalf of" [signature]

Month 2 Day 3 Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name BRYAN WRIGHT

Signature [signature]

Month 2 Day 3 Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name

Signature

Month Day Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name [signature]

Signature [signature]

Month 2 Day 3 Year 20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017583

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU W. FRAZIER CONSTRUCT		
Ticket Date	02/03/2020	Vehicle#	193	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 08:21:47	S1	nsmith13		Gross	65880 lb
Out	02/03/2020 08:21:47		nsmith13		Tare	26420 lb
					Net	39460 lb
					Tons	19.73

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	EXCESS SOIL/CONSTR	100	19.73	Tons				10-CHARLES

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone **843-563-4587**

GENERATOR

11. Description of Waste Materials	12. Containers No	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c.					
WM Profile #					
d.					19.73
WM Profile # 101758					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level
Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name: Ricky Lovelace | Signature "On behalf of" | Month 2 | Day 3 | Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed Name: Robert Jenkins | Signature | Month 2 | Day 3 | Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed Name | Signature | Month | Day | Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest
Printed Name NS | Signature | Month 2 | Day 3 | Year 20

2/3/20

Oakridge Landfill
2183 Highway 78
Dorchester, SC, 29437
Ph: (843) 563-2607

Original
Ticket# 1017578

Customer Name	GULFSTREAMCNSTRCTN GULF STREA	Carrier	WFRAZIERCONSTRU	W. FRAZIER CONSTRUCT	
Ticket Date	02/03/2020	Vehicle#	194	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver			
Hauling Ticket#		Check#			
Route		Billing #	0000978		
State Waste Code		Gen EPA ID	NR		
Manifest	610625sc				
Destination		Grid			
PO	191400				
Profile	610625SC (EXCESS SOIL/CONSTRUCTION DEBRIS)				
Generator	126-CITYOFCHARLES-300 CITY OF CHARLESTON				

	Time	Scale	Operator	Inbound		
In	02/03/2020 08:16:59	S1	nsmith13		Gross	77420 lb
Out	02/03/2020 08:26:32	P S3	Alloyd		Tare	28940 lb
					Net	48480 lb
					Tons	24.24

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 EXCESS SOIL/CONSTR	100	24.24	T s				10-CHARLES

Total Tax
Total Ticket

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. Manifest Doc No.

2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

4. Generator's Phone 843-958-6405

Generator's Site Address (if different than mailing):

A. Manifest Number

B. State Generator's ID

5. Transporter 1 Company Name
W. Frazier #194

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10. US EPA ID Number

G. State Facility ID 182400-1101

H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials	12. Containers No	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. EXCESS SOIL/CONSTRUCTION DEBRIS WM Profile # 610625SC					
b. WM Profile #					
c. WM Profile #					
d. WM Profile # 10175'78					2424

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell

Grid

Level

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name Ricky Lovelace | Signature "On behalf of" | Month 2 | Day 3 | Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed Name Almzo | Signature | Month 2 | Day 3 | Year 20

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed Name | Signature | Month | Day | Year

FACILITY

19. Certificate of Final Treatment/Disposal
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.
Printed Name NS | Signature | Month 2 | Day 3 | Year 20

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. | Manifest Doc No | 2. Page 1 of

3. Generator's Mailing Address:
CITY OF CHARLESTON
300 CONCORD STREET
CHARLESTON, SC 29403

Generator's Site Address (If different than mailing)

A Manifest Number

B State Generator's ID

4. Generator's Phone 843-958-6405

5. Transporter 1 Company Name | 6. US EPA ID Number

C. State Transporter's ID
D. Transporter's Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
OAKRIDGE LANDFILL, INC.
2183 HIGHWAY 78
DORCHESTER, SC 29437

10 US EPA ID Number

G. State Facility ID 182400-1101
H. State Facility Phone 843-563-4587

GENERATOR

11. Description of Waste Materials

	12 Containers No.	Type	13 Total Quantity	14 Unit Wt./Vol.	15 Misc. Comments
a EXCESS SOIL/CONSTRUCTION DEBRIS					
WM Profile # 610625SC					
b.					
WM Profile #					
c					
WM Profile #					
d					
WM Profile # 1917776					25.21

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level
Grid

15. Special Handling Instructions and Additional Information
CHARLESTON COUNTY

Purchase Order # 191400

EMERGENCY CONTACT / PHONE NO.:

16 GENERATOR'S CERTIFICATE:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name: Ricky Lovelace | Signature "on behalf of": [signature] | Month 2 | Day 3 | Year 2020

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name | Signature | Month | Day | Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name: Adam Frazier | Signature: [signature] | Month | Day | Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility that to the best of my knowledge, the above described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non hazardous materials covered by this manifest

Printed Name: NS | Signature: [signature] | Month 2 | Day 3 | Year 20

9.)

CPR COMMITTEE and/or COUNCIL AGENDA

TO: John J. Tecklenburg, Mayor

FROM: Joe Swaim / Andrew Jones **DEPT.** Stormwater Management

SUBJECT: JOHNS ISLAND RESTORATION PLAN TO IMPROVE FLOOD RESILIENCY PROFESSIONAL SERVICES CONTRACT

REQUEST: Approval of a Professional Services Contract with The Water Institute of the Gulf in the amount of $42,255.00 for Masterplan Services as part of the John's Island Restoration Plan to Improve Flood Resiliency.

COMMITTEE OF COUNCIL: Ways & Means **DATE:** September 22, 2020

COORDINATION: This request has been coordinated with: *(attach all recommendations/reviews)*

	Yes	N/A	Signature of Individual Contacted	Attachment
CPR Committee Chair	☐	☐	Amy Wharton	☐
Corporate Counsel	☐	☐	[illegible]	☐
Dir. of SW Management	☒	☐	[illegible]	☐
	☐	☐		☐

FUNDING: Was funding previously approved? Yes ☒ No ☐ N/A ☐

If yes, provide the following: Dept/Div SW Mgmt-Proj. Mgmt Acct # 050371-52238

Balance in Account 42,255.00 Amount needed for this item 42,255.00

NEED: Identify any critical time constraint(s).

CFO's Signature: Amy Wharton

FISCAL IMPACT: **This Professional Services Contract will obligate $42,255.00 of the project budget. Funding for this project is coming from a National Fish & Wildlife Grant ($117,500.00) and Drainage Fund ($117,500).**

Mayor's Signature: [illegible]

John J. Tecklenburg, Mayor

ORIGINATING OFFICE PLEASE NOTE: A FULLY STAFFED/APPROVED (except Mayor's Signature) PACKAGE IS DUE IN THE CLERK OF COUNCIL'S OFFICE NO LATER THAN 10:00 A.M THE DAY OF THE CLERK'S AGENDA MEETING.

City of Charleston Contract for
Small Professional Services under $100,000.00 without construction management

THIS CONTRACT, made this 28th day of August, 2020 by and between

The Owner:	City of Charleston Department of Stormwater Management 2 George Street, Suite 2100 Charleston, SC 29401	and The A/E:	The Water Institute of the Gulf 1110 River Road S., Suite 200 Baton Rouge, LA 70802

WHEREAS the Owner requires the delivery of professional Masterplan Services ("Work"), as a part of the John's Island Restoration Plan to Improve Flood Resiliency Project ("Project") as outlined in the Proposal for Support the John's Island Flood Resiliency Plan Consultant Team ("Service" or "Scope of Services"), dated August 20, 2020, prepared by Dale Morris for The Water Institute of the Gulf ("A/E) which is marked as Exhibit A and attached hereto as if fully written herein.

050366 *(Project Number)*	Johns Island Restoration Plan to Improve Flood Resiliency *(Project Name)*

WHEREAS, the A/E, whose Louisiana professional license is 000530, is prepared and qualified to provide such Services.

NOW THEREFORE, the Owner and A/E agree to all of the following:

The Services required herein are set forth in the attached EXHIBIT A, which shall be performed in accordance with the Terms and Conditions contained on pages 2 through 4 of this Contract. Services shall be performed and Payments for acceptable work shall be made in accordance with the following:

MILESTONE	**SCHEDULE**	**PHASE FEE (%)**
Tasks 1-6	Per project schedule	$30,130.00.
Tasks 7-13, including travel	Per project schedule	$12,125.00.
	TOTAL	$42,255.00

The **CONTRACT SUM** payable to the A/E shall be:

☒ Lump Sum of ..... $ 42,255.00

☐ Actual costs based on A/E's Hourly Rate & Reimbursable Schedule attached as Exhibit B, Not-to-Exceed ..... $ N/A.

REIMBURSABLES:

☐ Expenses shall be reimbursed at actual cost plus 10%, Not-to-Exceed ..... $ N/A.

☒ Expenses included in Lump Sum

IN WITNESS WHEREOF, THE PARTIES HERETO HAVE ENTERED INTO THIS CONTRACT ON THE DAY AND YEAR FIRST WRITTEN ABOVE.

OWNER: City of Charleston

BY: _____
John J. Tecklenburg, Mayor

A/E: The Water Institute of the Gulf

BY: Jennifer Butler Digitally signed by Jennifer Butler Date: 2020.09.02 08:43:47 -05'00'
Jennifer Butler, VP for Administration & CFO

ITS: _____

ATTACHMENTS

1. Exhibit A: Support John's Island Flood Resiliency Plan Consultant Team

2. Exhibit B: Rate Schedule

Terms and Conditions of the City of Charleston
Professional Services Contract

ARTICLE 1 - GENERAL

A. The A/E agrees to provide professional services to the Owner as required by the Scope of Services requested by the Owner as set forth in Exhibit A.

B. The A/E accepts the relationship of trust and confidence established between A/E and Owner by this Contract.

C. The A/E covenants with the Owner that he/she possess the required degree of learning, skills, and experience that is ordinarily possessed by similarly situated professionals, that he/she will utilize reasonable and ordinary care and diligence in the exercise of his/her skills to accomplish the Scope of Services, and that he/she will use good professional judgment in performing the Scope of Services.

D. The A/E agrees to cooperate with the Owner and any other contractor in furthering the interests of the Owner.

ARTICLE 2 – A/E'S RESPONSIBILITIES

A. The A/E shall designate one or more representatives to be assigned for the duration of the Project. These representatives shall be authorized to act on behalf of the A/E in all matters related to the A/E's performance(s) under this Contract. The A/E shall not replace a designated representative without notice to the owner and with good cause shown.

B. The A/E shall notify the Owner, in writing, of information necessary from the Owner for the project. A/E shall allow sufficient time for Owner to acquire and respond with such information.

E. The A/E shall provide all Scope of Services using persons, including the staff of A/E's Consultants and Additional Consultants, who possess the required degree of learning, skills, and experience that is ordinarily possessed by similarly situated professionals, that they will utilize reasonable and ordinary care and diligence in the exercise of their skills to accomplish the Scope of Services, and that they will use good professional judgment in performing the Scope of Services.

C. The A/E shall manage and coordinate the A/E's services, consult with the Owner, research applicable design criteria, attend all Project meetings, communicate with members of the Project team and report progress to the Owner.

D. The A/E shall have, at the time of execution and for the duration of this Contract, all professional and business insurance, licenses and permits required to provide the required Services in the City of Charleston and as required by this Contract.

E. The A/E shall be entitled to rely on the accuracy of information provided by the Owner. Notwithstanding the foregoing, A/E shall review all information provided by the Owner and shall give prompt and timely notice to the Owner of any apparent deficiencies or inconsistencies in the information furnished by the Owner.

F. The A/E shall be entitled to additional compensation if required to provide services beyond those Services set forth in Exhibit A. The A/E shall be compensated for these additional services as agreed by both parties based on projected time and expense for the additional services Exhibit B.

ARTICLE 3 - OWNER'S RESPONSIBILITIES

A. The Owner shall provide all available programmatic and budgetary requirements for the Project.

B. The Owner shall designate one or more representatives with authority to act on the Owner's behalf in all matters related to the Owner's duties under this Contract.

C. The Owner shall provide the A/E with available information about the site and work area that is necessary for the A/E to perform the Services. The owner shall cooperate with the A/E in the identification and acquisition of any additional information required.

D. The Owner shall make timely decisions on all issues related to the Contract and shall promptly advise the A/E of any errors or deficiencies in the A/E's performance under this Contract.

ARTICLE 4 – ADDITIONAL CONSULTANTS

A. It is agreed that the attached Exhibit A shall have identified all professional and technical disciplines and their providers required for the performance of the A/E's services, and that the fees for such personnel are incorporated into the Contract Sum set forth on page one (1) of this Contract.

B. Additional Consultants may be employed to perform portions of the Services under this Contract as required and approved by the Owner in advance. The A/E may apply a multiplier, not to exceed 1.1, to the approved fees of such Additional Consultants.

ARTICLE 5 – LIMITATIONS AND REPRESENTATIONS OF RESPONSIBILITY

A. The A/E shall not be responsible for the failure of any contractor, sub-contractor, vendor, or other Project participant, not under contract to the A/E, to fulfill its contractual responsibilities to the Owner or to comply with Federal, State, or local laws, regulations, and codes.

B. The A/E shall indemnify and save harmless the Owner and the Owner's officers, agents and employees, from and against all losses and claims, demands, payments, suits, actions, recoveries, and judgments of every nature and description brought or recovered against them by reason of any act, omission, or default of the A/E, its agents, or employees or subcontractors in the performance of this Contract. When the Owner submits notice, A/E shall promptly defend any aforementioned action at no cost to the Owner. This obligation shall survive the suspension or termination of this Contract. The limits of insurance coverage required herein shall not serve to limit this indemnity obligation. The recovery of costs and fees shall extend to those incurred in the enforcement of this indemnity.

ARTICLE 6 – DOCUMENTS

A. At the completion of the Project, the A/E shall provide to the Owner all contract documents electronically or on a Computer Disk or thumb drive. Specifications shall be in Microsoft Word format and as-built drawings shall be in AutoCAD 2000 format.

B. All documents prepared or furnished by the A/E pursuant to this Contract are instruments of service and the A/E shall maintain an ownership and property interest therein.

C. Documents prepared or furnished by the A/E pursuant to this Contract may not be reused by the A/E on other projects or for other clients without the prior written permission of the Owner.

D. The A/E hereby grants to the Owner a non-exclusive license to reproduce or otherwise utilize A/E's documents for the purposes of constructing, operating, maintaining, repairing, using, renovating, expanding, modifying or otherwise enjoying the beneficial use of the Project at no additional cost to the Owner. The A/E shall incur no liability for the Owner's reproduction or reuse of the A/E's documents.

E. Consultants and Additional Consultants used by the A/E for the Services of this Contract shall be bound by the conditions of this Article.

ARTICLE 7 – PAYMENTS

A. The Owner shall make payments to the A/E for undisputed work, as scheduled on page 1 and in accordance with Title 29, Chapter 6 of the SC Code of Laws, as amended.

B. The A/E shall make payments to its Consultants and Additional consultants in accordance with Title 29, Chapter 6 of the SC Code of Laws, as amended.

C. If applicable, the A/E's request for payment under a NOT-TO-EXCEED contract shall be based on actual hours worked during the billing period, using the approved A/E's Hourly Rate and Reimbursable Schedule, not exceeding the scheduled amounts shown on Page 1 (one) of this Contract.

D. All requests for payment shall be submitted in the form and manner required by the Owner, and shall be accompanied by appropriate supporting documentation.

E. Payment under a Lump Sum contract shall be paid within thirty (30) days of receipt of the invoice. The invoice for the A/E's services shall be submitted to the City at the completion of the Scope of Services and after the City's acceptance of the work in its entirety.

ARTICLE 8 - DISPUTE RESOLUTION

The parties agree to attempt in good faith to resolve their disputes arising from a claim or controversy arising out of or relating to the contract. To the extent that the parties are unable to resolve a claim or controversy arising out of or relating to the Contract, the parties agree that any suit, action or proceeding arising out of or relating to the Contract shall be instituted and maintained only in a State or Federal court located in the County in which the Owner maintains its principle place of business, in the State of South Carolina. The A/E agrees that any act by the Owner regarding the Contract is not a waiver of either the State's sovereign immunity or the State's immunity under the Eleventh Amendment of the United States Constitution. As used in this paragraph, the phrase "the State" includes any governmental entity transacting business with the A/E pursuant to the Contract, including .

ARTICLE 9 - SUSPENSION AND TERMINATION

A. The Owner may direct the A/E to suspend performance under this Contract at any time.

B. The A/E may suspend its performance under this Contract if the Owner fails to make payments of undisputed amounts to the A/E as required by the terms of this Contract. Prior to the suspension of performance, the A/E shall give written notice to the Owner, and shall allow the Owner no fewer than twenty one (21) calendar days to make payment, otherwise the suspension may take effect without further notice by the A/E.

C. Additional Consultants may be employed to perform portions of the Services under this Contract as required and approved by the Owner in advance. The A/E may apply a multiplier, not to exceed 1.1, to the approved fees of such Additional Consultants.

D. If the performance of Services is suspended by either party for a period of more than thirty (30) days but less than one hundred eighty (180) days due to no fault of the A/E, the A/E's time schedules shall be equitably adjusted. If a project is interrupted for one hundred eighty (180) days or more due to no fault of the A/E, the A/E's compensation shall be equitably adjusted to provide for expenses incurred in resuming the A/E's services and the time schedules for the remaining Services shall be equitably adjusted.

E. The Owner may terminate this Contract for the convenience of the Owner with not less than seven (7) days written notice to the A/E. The A/E shall be paid for all Work acceptably performed and reimbursable expenses incurred, up to the date of termination, and project closure costs as authorized by the Owner.

F. If either party fails to substantially perform according to the terms of this Contract, the other party may terminate this Contract upon not less than seven (7) days written notice. The notice of termination shall set forth with specificity the grounds for termination and may, at the sole option of the terminating party, give the other party a stated period of time in which it may cure the alleged breach.

ARTICLE 10 – INSURANCE

A. The A/E shall maintain all forms of insurance required by law in the State of South Carolina. The A/E shall also maintain insurance coverage for comprehensive, general liability, automobile liability, and workers' compensation (by statutory authority). Minimum insurance coverage limits shall be as required by law or as shown in Chapter 6 of the *Manual for Planning and Execution of State Permanent Improvements Part II*, whichever is greater.

B. The A/E shall maintain Professional Liability Insurance for the duration of this Contract with a limit of $1,000,000 per claim and annual aggregate, or such other amount as the Owner may request. This policy shall remain in effect for a minimum of 12 months after the date of issuance of the final Certificate of Payment by the A/E.

ARTICLE 11 – MISCELLANEOUS PROVISIONS

A. The A/E and Owner each bind themselves, their partners, directors, officers, successors, executors, administrators, assigns and legal representatives in respect to all provisions of the Contract. Neither party shall assign, sublet or transfer their interest in this Contract without the written consent of the other party.

B. This Contract represents the entire and integrated agreement between the Owner and A/E. It supersedes any and all prior and contemporaneous communications, representations and agreements, whether written or oral relating to the subject matter of this Contract.

C. Nothing in this Contract shall be construed to give any rights, contractual relationship or benefit to a third party against either the Owner or the A/E.

D. Nothing in this Contract shall prevent the A/E from employing any independent consultant, associate, or sub-contractor to assist in the performance of the Services.

E. Unless otherwise included in the Contract, nothing shall require the A/E to discover, handle, remove, or dispose of any hazardous or toxic materials in any form at the project site.

F. Time and Expense Records of the A/E's personnel, consultants, and reimbursable expenses pertaining to the Services shall be kept on a generally recognized accounting basis, and shall be available to the Owner for audit at mutually agreeable times and places for a period no less than 3 years after the conclusion of this Contract.

ARTICLE 12 – ERRORS AND OMISSIONS

A. Owner shall notify the A/E whenever the Owner believes the A/E's work contains errors or omissions, and the A/E shall agree to correct all errors and omissions without cost to the Owner.

B. The A/E agrees to pay the Owner for any costs the Owner is responsible for paying, as a result of any errors and omissions caused solely by the fault of the A/E. Each error and omission shall constitute a separate offense.

THE WATER INSTITUTE
OF THE GULF™

The Water Institute of the Gulf (TWI) will support the Johns Island Flood Resiliency Plan Consultant Team, led by W.K. Dickson with Biohabitats as a peer subconsultant. The table below summarily describes TWI's scope of work per Project Task, as established by W.K. Dickson.

Task	Description	Water Institute Role / Scope of Work	Cost
1	Project Management		$4940
2	NFWF Comp		0
3	Project Initiation	TWI will assist with key Johns Island stakeholder identification. Stakeholders gathered through the Dutch Dialogues (DD) effort in 2019, specifically relevant to Johns Island, and stakeholders identified in the current TWI Comprehensive Plan Update work, are initial focus. TWI will gather relevant GIS layers and other information collated or produced during DD and provide this info in suitable form to consultant team. TWI will provide (a) context of DD conclusions and recommendations (b) and relevance to this project to team members.	$1820
	Stakeholder Outreach	TWI will coordinate stakeholder outreach alongside consultant team. TWI will conduct stakeholder interviews and meetings, either in-person or via video conferencing, depending upon COVID-19 travel guidance and personal safety considerations. TWI's preference is to conduct as much in-person outreach as possible, COVID-permitting. TWI will support consultant team in the collation of stakeholder concerns and development of a framework of stakeholder intentions and goals for project. These goals will, initially, be related to target development principles for new development projects on Johns Island; recommendations to City Planning,	$5300

		Stormwater and other departments on target development guidelines for project review / planning. TWI will provide coordination to project team on relevant Johns Island and/or other general information gathered during Comprehensive Plan Update discussions. This latter will be provided only after City Planning confirms that such information can be shared with project team. TWI will support consultant team in the formation of a Technical Advisory Group (TAG).	
5	Reconnaissance		0
6	Risk Assessment	TWI will support consultant team and TAG with a high-level QA of risk tolerance guidelines based upon stormwater, surge, tidal, compound and SLR modeling outputs produced via Task 6 flood risk assessment.	$2460
7	Living Infra Potential	TWI will support consultant team with GIS support, spatial analysis and alignment of low-impact development (LID) and green infrastructure (GI) alternatives applicable to Johns Island, to the indicative elevation zones, to ecological and flood risk assessment outputs, and to any Comprehensive Plan Update intentions. TWI will help prepare and participate in project "virtual meeting" with public and / or stakeholders.	$15610
8	Conservation / GI Prioritization	TWI will support and participate in a virtual meeting with the TAG.	$530
9	Stakeholder Workshop 1	TWI will support and participate in an in-person, half-day charette with consultant team, TAG, City and key stakeholders. Charette goal is the identification of ideal project types that would achieve desired flood risk mitigation and align with revised development zones for Johns Island.	$2120
10	Initial Summary and Internal Charette	TWI will support (a) analysis of Workshop-derived outcomes and (b) draft of internal team memo outlining the project's "forward path."	$2120
11	Private Sector Solutions		0

12	Stakeholder Workshop #2	TWI will help prepare and participate in virtual Stakeholder Workshop #2. This workshop will explain prioritized actions, successful executing parameters, and gather stakeholder input (and integrate as appropriate) on those actions and parameters.	2120
13	Draft Restoration / Resiliency Plan	TWI will support consultant team (a) high-level analysis of quantitative and qualitative project parameters, (b) development of a draft final plan and (c) Final Johns Island Flood Resiliency Plan.	$4630
	Travel		$605
	Total		$42255

Exhibit B Rate Schedule

RATE SCHEDULE (effective August 28, 2020)

For Internal Use Only - Proprietary and Confidential

Confidential and Proprietary – Do Not Distribute.

"This rate sheet provided is in response to a request by City of Charleston and is provided for the sole purpose of evaluation by C
These documents should be considered confidential and proprietary and are not to be distributed without the express permission of The V

Billing Title	Public Hourly Rate
Research Scientist 2	$ 175
Project Director	$ 265
Grants Specialist	$ 110
Grants Specialist	$ 110
Director of Grants & Contracts	$ 160
Program Manager	$ 160
Project Director	$ 265

SOLE SOURCE JUSTIFICATION FORM

DEPARTMENT: Department of Stormwater Management

PRODUCT: Outreach/Education Services for Johns Island National Fish and Wildlife Foundation Grant

ACCOUNT NUMBER : 050366

REQUISITION NUMBER:

VENDOR: The Water Institute of the Gulf (TWI)
1110 River Road S., Suite 200
Baton Rouge, LA 70802

DATE: 2 September 2020

1. Please state the use for this/these product(s):

   As part of the John's Island/Barberry Woods Masterplanning National Fish and Wildlife Foundation (NFWF) grant awarded to the City, the City is required to perform outreach/education programs and activities to educate the public. TWI is also to provide consultation support and overview of the plan develop to ensure concepts from the Dutch Dialogues are developed in this process, as stated as one of the City's goals in the referenced NFWF application.

2. Can the above product(s) be purchased from more than one distributor? If so, please list their company name and telephone number.

   As a part of the City's NFWF application, the City identified The Water Institute as a sub-grantee and a team member to execute the grant. Page 22 of the NFWF JI Grant Submission 2019.pdf (supplied to CPR for as supporting documentation) shows The Water Institute assisting in plan development and outreach as a part of the grant scope.

3. Please explain in detail why this product is considered a sole source. (i.e. accessories, replacement parts, disposable supplies, compatibility with existing equipment, or a change in this product would invalidate results of research). Please estimate completion date of research.

   TWI was an active member in the development of the NFWF applications for the referenced NFWF grant, is identified as a sub-grantee/team member for the referenced NFWF grant, and was a prominent participant in the Dutch Dialogues.

4. Have you evaluated comparable products within the last two years?

   ____YES or NO __X__

   If yes, please state the complete results of the evaluation.
   If no, do you wish to evaluate this product? Explain why this item is the only acceptable product, on the market, for your utilization at this time.

   See Items 1-3.

SIGNATURE _____ TITLE Director, Dept. of Stormwater Management
Matthew Fountain, P.E., P.G.

Client#: 30439 WATERINS

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 05/22/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Louisiana Companies
801 North Blvd.
Baton Rouge, LA 70802
225 383-4761

CONTACT NAME: Shannon Ellis
PHONE (A/C, No, Ext): 225 383-4761 FAX (A/C, No): 225-387-4336
E-MAIL ADDRESS: sellis@lacompanies.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Everest Indemnity Insurance Co.	10851
INSURER B : Old Republic Insurance Company	24147
INSURER C : Underwriters At Lloyds, London	15792
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
The Water Institute of the Gulf
1110 River Road S.
Suite 200
Baton Rouge, LA 70802

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY	X	X	EF4ML06433201	05/21/2020	05/21/2021	EACH OCCURRENCE	$1,000,000
	X CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$50,000
	X						MED EXP (Any one person)	$5,000
							PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$3,000,000
	POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$3,000,000
	OTHER:							$
A	AUTOMOBILE LIABILITY			EF4CA00385201	05/21/2020	05/21/2021	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY X SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			MWC31469501	12/14/2019	12/14/2020	X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A					E.L. EACH ACCIDENT	$1,000,000
							E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000
C	Maritime Emp Liab			B1368M195125	12/14/2019	12/14/2020	$1,000,000	
A	Professional Liab			EF4ML06433201	05/21/2020	05/21/2021	$1,000,000	
A	Pollution Liab			EF4ML06433201	05/21/2020	05/21/2021	$1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Certificate holder is additional insured with respect to the general liability policy as required by written contract when executed prior to a loss, subject to policy terms, conditions and exclusions.

Waiver of subrogation is provided with respect to the general liability policy as required by written contract when executed prior to a loss, subject to policy terms, conditions and exclusions.

CERTIFICATE HOLDER

Proof of Coverage

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Patrick J. Bogan

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Grant Information

Title of Project
Johns Island Restoration Plan To Improve Flood Resiliency

Total Amount Requested	$ 117,500.00
Matching Contributions Proposed	$117,500.00
Proposed Grant Period	07/01/ 2019 - 12/31/ 2020

Project Description
The Johns Island Restoration Plan will reduce barriers to coastal resilience by producing a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure, that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. This project will influence revisions, already underway, to the City's Comprehensive Plan, land-use and zoning codes.

Project Abstract
The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate flooding and drainage constraints. The City of Charleston is requesting $117,500 in NFWF funding and contributing $117,500 in non-federal matching funds to meet the 1:1 match recommendation. The total project budget is $235,000 and will be completed within the 12-18 month period of performance.

Organization and Primary Contact Information

Organization	City of Charleston, South Carolina
Organization Type	State or Local Government
City, State, Country	,,
Region (if international)	
Primary Contact	Sarah Fichera
Position/Title	
Phone and E-mail	843-720-2535 x ; ficheras@charleston-sc.gov

Additional Contacts

Role	Name

Project Location Information

Project Location Description	Johns Island of Charleston, South Carolina
Project Country(ies)	North America - United States
Project State(s)	South Carolina
Project Congressional District(s)	District 1 (SC)

Permits and Approvals

Permits/Approvals Description:	Necessary stormwater permits from the City of Charleston's Stormwater Management Department.
Permits/Approvals Status:	Intend to Apply
Permits/Approvals Agency-Contact Person:	City of Charleston - Stormwater, Kinsey Holton
Permits/Approvals Submittal-Approval Date:	03/02/2020

Activities and Outcomes

Funding Strategy: Capacity, Outreach, Incentives
Metric: Resilience - Outreach/ Education/ Technical Assistance - # govt entities participating
Required: Recommended
Description: Enter the number of municipalities, local, state, and federal government entities participating in the project and add the names of these institutions in the notes.

Starting Value	0.00 # gov't entities participating
Target value	10.00 # gov't entities participating

Note:

Funding Strategy: Capacity, Outreach, Incentives
Metric: Resilience - Outreach/ Education/ Technical Assistance - # people reached
Required: Recommended
Description: Enter the number of people demonstrating a minimum level of knowledge, attitudes, or skills to enable them to become resiliency leaders. This metric refers to people other than staff or FTEs. In the notes include the hours of training and participant demographics.

Starting Value	0.00 # people reached
Target value	500.00 # people reached

Note:

Funding Strategy: Planning, Research, Monitoring
Metric: Resilience - Restoration planning/design/permitting - # E&D plans developed
Required: Recommended
Description: Enter the number of Engineering and Design plans developed. Generally there will be one plan per project to be constructed.

Starting Value	0.00 # E&D plans developed
Target value	1.00 # E&D plans developed

Note:

Funding Strategy: Capacity, Outreach, Incentives
Metric: Resilience - Volunteer participation - # of volunteer hours
Required: Recommended
Description: Enter the # of volunteer hours in this project

Starting Value	0.00 # of volunteer hours
Target value	300.00 # of volunteer hours

Note:

Title: Johns Island Restoration Plan To Improve Flood Resiliency
Organization: City of Charleston, South Carolina

I. PERSONNEL $0.00

Staff Name	Position	Annual Salary	Project Hours	Hourly Rate	LOE (%)	Project Salary	% Fringe	$ Fringe	Total Personnel
Totals						$0.00		$0.00	$0.00

II. TRAVEL $0.00

Domestic Airfare – Per Flight

Purpose/Destination	Unit Cost	Quantity	Total Cost
SubTotal			$0.00

International Airfare – Per Flight

Purpose/Destination	Unit Cost	Quantity	Total Cost
SubTotal			$0.00

Train – Per Ticket

Purpose/Destination	Unit Cost	Quantity	Total Cost
SubTotal			$0.00

Rental Car – Per Day

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Taxis – Per Trip

Purpose/Destination	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Mileage – Per Mile

Purpose/Destination	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Gasoline – Per Gallon

Purpose/Destination	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Per Diem (M&IE) – Per Day

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Lodging – Per Night

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Meals (no M&IE) – Per Meal

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

III. EQUIPMENT $0.00

Item Name	Description	Unit Cost	Quantity	Total Cost

IV. MATERIALS & SUPPLIES $0.00

Type	Purpose	Unit of Measure	Unit Cost	Quantity	Total Cost

V. CONTRACTUAL SERVICES $117,500.00

Subcontract/Contract – Per Agreement

Contractor Name	Description	Total Cost
TBD Professional Services		$37,500.00

SubTotal **$37,500.00**

Title: Johns Island Restoration Plan To Improve Flood Resiliency
Organization: City of Charleston, South Carolina

Subgrant – Per Agreement

Subrecipient	Description	Total Cost
TBD Engagement		$50,000.00
TBD Monitoring		$30,000.00

SubTotal **$80,000.00**

VI. OTHER DIRECT COSTS $0.00

Type	Purpose	Unit of Measure	Unit Cost	Quantity	Total Cost

VII. TOTAL DIRECT COSTS $117,500.00

VIII. INDIRECT COSTS $0.00

Explanation of Modified Total Direct Cost Base(MTDC)	Rate Type	NICRA Expiration	$MTDC	Rate(%)	Total Cost

IX. TOTAL PROJECT COSTS $117,500.00

Budget Narrative

Budget Narrative:

1. Personnel

Personnel -

2. Travel

Domestic Airfare - Per Flight -
International Airfare - Per Flight -
Train - Per Ticket -
Rental Car - Per Day -
Taxis - Per Trip -
Mileage - Per Mile -
Gasoline - Per Gallon -
Per Diem (M&IE) - Per Day -
Lodging - Per Night -
Meals (No M&IE) - Per Meal -

3. Equipment

Equipment -

4. Materials and Supplies

Materials and Supplies -

5. Contractual Services

Subcontract/Contract - Per Agreement -

Subgrant - Per Agreement -

6. Other Direct Costs

Other Direct Costs -

7. Indirect Costs

Indirect Costs -

Title: Johns Island Restoration Plan To Improve Flood Resiliency
Organization: City of Charleston, South Carolina

Matching Contributions

Matching Contribution Amount:	$117,500.00
Type:	Cash
Status:	Received
Source:	The City of Charleston
Source Type:	Non-Federal
Description:	The City of Charleston will provide non-federal cash match funds to meet the 1:1 recommendation.

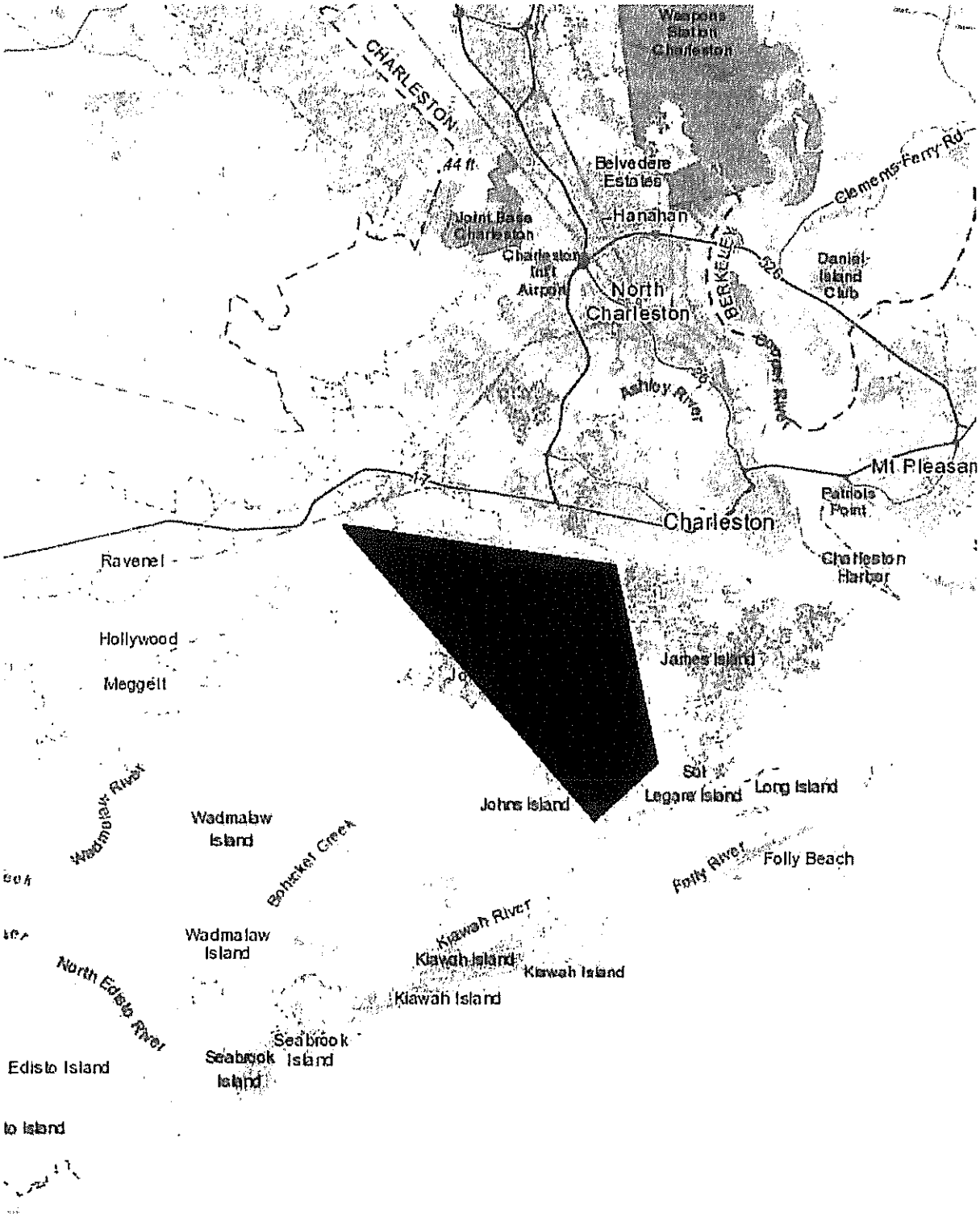
Total Amount of Matching Contributions:	$117,500.00

EasyGrantsID: 67037

National Fish and Wildlife Foundation – Emergency Coastal Resilience Fund 2019, Full Proposal

Title: Johns Island Restoration Plan To Improve Flood Resiliency

Organization: City of Charleston, South Carolina



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

The following pages contain the uploaded documents, in the order shown below, as provided by the applicant:

Upload Type	File Name	Uploaded By	Uploaded Date
ECRF Narrative 2019	City of Charleston_JI Narrative.pdf	Fichera, Sarah	11/12/2019
Project Map	JohnsIsland_NFWFgrant11.12.19.pdf	Fichera, Sarah	11/12/2019
Letters of Support	City of Charleston_JI Letters of Support.pdf	Fichera, Sarah	11/12/2019
Photos - Jpeg	JI Photo #1.JPG	Fichera, Sarah	11/12/2019
Photos - Jpeg	JI Photo #2.JPG	Fichera, Sarah	11/12/2019
Photos - Jpeg	Photo #3.JPG	Fichera, Sarah	11/12/2019
Statement of Litigation	City of Charleston_Statement of Litigation.pdf	Fichera, Sarah	11/12/2019
Board of Trustees, Directors, or equivalent	City Council Members 2019.pdf	Fichera, Sarah	11/12/2019
Other Documents	NFWF JI LOC_Clemson.pdf	Fichera, Sarah	11/12/2019
Other Documents	NFWF JI LOC_Sea Grant.pdf	Fichera, Sarah	11/12/2019
Other Documents	NFWF JI LOC_Water Inst.pdf	Fichera, Sarah	11/12/2019

The following uploads do not have the same headers and footers as the previous sections of this document in order to preserve the integrity of the actual files uploaded.

City of Charleston, South Carolina
Johns Island Restoration Plan to Improve Flood Resiliency

Executive Summary

The Johns Island Restoration Plan will reduce barriers to coastal resilience by producing a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

As of 2018, 29 housing developments planned or under construction on the island have a combined footprint of about 2,213 acres, almost half the size of Charleston's peninsula. City Planning has list of permitted but not built, and development permit applications that demonstrate the near term development pressures from which we can surmise that a future without changes approach will be substantially increase overall JI flood risk, and flood risk in low-lying (near Stono) areas, plus destroy / impair natural drainage, native (super-sponge-like) soils and ecosystem connectivity.

This project will influence revisions, already underway, to the City's Comprehensive Plan, land-use and zoning codes. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate flooding and drainage constraints. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects. With previous community engagement, planning, and prioritization, this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Coastal Community Context

"The Lowcountry landscape has been created through cycles of sea level highstands (interglacial warm periods) and lowstands (glacial periods or Ice Ages) over the last several hundred thousand years, stacking one barrier island complex upon another until the modern marine inundation. The Lowcountry formed as active beach ridges and estuaries and the modern barrier island system mimics these ancient systems. The modern Lowcountry coast -- harbors, estuaries, inlets, tidal rivers, ancient sea islands, hammock islands and uplands -- is a complex arrangement of modern and ancient barrier islands resting on the ancient marls mined for phosphates in the 19th century.

Lowcountry inlets, channels, creeks, and estuaries send huge volumes of water twice a day back and forth from the ocean. While some tidal systems are perpendicular to the coast, extending inland (Cooper, Ashley, and Stono rivers), others run parallel to the coast and drain the areas between uplands and the modern barrier islands

(Kiawah and Folly rivers). Each of these rivers has accumulating marshes and swamps. In some areas, hammock islands rise a few feet above the marsh and are being slowly inundated by sea level.

The topography, geology, and modern coastal environments define the near-surface hydrology of the region. Ancient and modern beach ridges have a high capacity for infiltration, while the lower areas between ridges tend to accumulate water, producing the upland swamps and wetlands common throughout the Lowcountry. Where many beach ridges are stacked together and form a wide ridge, the groundwater table generally sits closer to the land surface, draining slowly at the edges and maintaining high water tables except in times of extreme drought. The wide, relatively flat areas of ancient marshes and estuaries are usually slow to infiltrate water due to high water tables, and water must take long pathways to the modern river systems. Extreme wind and storm driven tidal surges are common and often destructive, depending on elevation and position. River and creek systems enable the inland transport of large volumes of water during these events, flooding the marshes and low-lying inland communities. Surge can be mitigated when low-lying areas are surrounded by healthy marshes and oyster reefs, which attenuate wave action and decelerate surge. As sea-levels rise marshes will be unable to keep up and turn into open water, increasing wave energy and surges into low-lying areas.

The Johns Island landscape is dominated by long, wide ridge systems (Maybank Highway) with multiple smaller ridges separated by former estuaries (e.g. Plowed Ground Road) that formed in both beach- and river-parallel systems. These ridge and swale systems, where infiltration can be very high, often have accumulations of upland peats in the narrow areas between the smaller ridges ranging from a few feet to over ten feet thick. These deposits are highly compressible, absorb and filter large volumes of water, and buffer the flow to other lowland areas. The high ridge systems are high infiltration areas with large capacity to store water.

Johns Island is the 4th largest Island on the US East Coast with a rich, diverse ecology and culturally significant history. The Island is under substantial development and transportation pressure, which add to its significant stormwater, tidal and surge risks. Johns Island functions as a natural storm surge buffer for much of the Charleston region west of the Ashley River; its protective role in the Lowcountry's landscape, like that of other sea and barrier islands, cannot be overstated.

Johns Island is also naturally resilient, designed to regenerate and protect itself in a layered system of sands and sediment, water courses, and marsh and upland vegetation. The dunes and sand ridges, which run parallel to the coast, naturally migrate, accrete and dissipate over time. The accretion, migration and dissipation processes are influenced by coastal forces of wind, waves, surge and erosion and are constantly underway. The ridges and dunes are compacted into stable formations and are naturally robust. The Maybank Corridor and parts of Bohicket and River Roads run atop and follow these high ground ridges.

Johns Island has an incredible forest canopy, productive soils, and rich ecological systems, all of which benefit the island's current and historic inhabitants. The Lowcountry's saltmarsh is an ecological keystone habitat for water, plants, fish and other crucial species and for the Gullah Geechee culture and people. Historic homes and properties are abundant. This ecology and community are also home for more recent residents, often concentrated in newer developments in which the widespread use of fill for elevation and drainage routing often impair watershed functionality and the Island's hydrology connecting ridge to river. The removal or covering of native topsoil and coastal forests and trees further reduce natural water infiltration and storage capacity." (The above text is an excerpt from the Dutch Dialogues Final Report. See attached).

Water Challenges: A pressing challenge on Johns Island is stormwater management: ponding, pooling, infiltration, and drainage. While drainage codes and guidelines are crucial management tools to address these problems, a crucial determinant of their magnitude is mean sea level, which increased by 6" between 1990 and 2016 in Charleston Harbor (NOAA Tides & Currents). Higher tides can slow or even reverse drainage outflows, and managing water in the soil and where it falls becomes all the more vital. Drainage regulations, overland

drainage siting and maintenance regimes, and development patterns must be updated to reflect current (and rising) tidal levels and account for future anticipated sea level rise. If these higher water levels are ignored, and overland drainage channels are undermaintained, the drainage infrastructure may fail to mitigate the direct, harmful consequences of stormwater management on the Island's ecology and people. Another primary and long-term risk on Johns Island is storm surge, which also will be exacerbated by rising sea levels. Residents and citizens, whether recent arrivals or long-term inhabitants, should not settle or build in risky surge, tidal or drainage zones.

Need for Plan: When the community plan was written, the city established an urban growth boundary with Charleston County to preserve the rural areas above Main Road, corralling new developments to the portion closest to the Stono River. But the boundary line wasn't drawn with topography in mind, so, inadvertently, it encourages growth in some of the lowest-lying areas. For instance, a 201-acre parcel on the Stono River near Dustan's property is zoned for residential development. The developer, American Star, has plans to build 205 homes on the site, which in some places sits as low as 5 feet above sea level. Dustan's maps show how the property would be inundated by storm surge similar to Tropical Storm Irma, which reached 9½ feet. If a property has zoning in place, and practically all of them do, the city can't turn down its development, regardless of how low or vulnerable the site might be. The city's only option is to change the zoning, but it's not a popular process.

The City does not currently require developers to use the land's natural assets to absorb water. Most developers choose detention ponds. To make them work in low-lying areas, many raise their foundations with sandy clay to create enough for a slope from the ground to the pond. That is why many of them clear-cut trees and remove the top soil. Developers can choose which drainage methods to use from the City's stormwater manual. Less intrusive options include porous pavements and rain gardens. But they're often overlooked. In 2018, the City partnered with the Green Infrastructure Center, a Virginia-based nonprofit, to study the connection between trees and flood mitigation. The organization has recommended that the City stop allowing developers to clear-cut forests, and require them to use the land's natural soils. Otherwise, the consultants said the island's developments will continue to cause flooding problems and water quality issues. (Source: Post and Courier, February 2018)

Current Efforts: The City's Stormwater Manual, in the process of revision, will include updates that are designed to lessen negative impacts of fill by considering volume-based requirements. Ordinance given initial approval by Council on October 22, 2019 to limit "fill and build" on Johns Island. The proposal's current language would ban developers from adding more soil on a property than it currently has. It also would require developers to keep soils at a certain consistency so they promote proper drainage.

Dutch Dialogues Charleston (DD CHS) posited a strategy to better manage the growing flood risk and development pressures on Johns Island as well as reinforce nature-based features on the island that reduce storm surge risk and will facilitate adaptation to sea level rise and increasing tidal flooding risks. This strategy is similar to land use goals found in the Johns Island Community Plan, adopted by City Council in Nov 2007. The DD CHS strategy identifies four "safety" zones in which flood risk management, land use, infrastructure and development could be assessed and jointly managed. These zones are: Wet Zone, Ecological Zone, Transition Zone, Community Zone. The zones are based upon water surface elevation, datum NAVD 88. They differ from, but can be adjusted to, the MLLW datum that is common in the SC Lowcountry. The Wet Zone is all between 0' -6'; the Ecological Zone is land between 6' and 10', the Transition Zone is land between 10' and 15', and the Community Zone is all land above 15'.

Project Area: The Dutch Dialogues Project Team identified four planning or safety zones – wet, ecological, transition, community – based upon elevation above local mean sea level (MSL).

The first "wet" zone is from zero to six feet above MSL, which coincidentally correlates with the impacts of the 10-year storm return period. As noted in the NOAA Coastal Surge / HTF summary, 10-yr design storms are quickly becoming the 2-yr design storm. Similarly, rainfall amounts associated with the previous 10-yr storm are now associated with the 2-yr storm. We recommend prohibiting future development in the wet zone. Marsh in this zone is essential for storm surge protection. In addition, marshland warrants robust ecological protection and restoration, possibly through the addition of living shorelines, although sediment accretion and marsh migration must be studied and encouraged. Sea walls and bulkheads should not be used, as they ultimately cause erosion and undermine natural lines of coastal defense. Adding access points for Johns Island residents to the river and marshes would provide recreation and health benefits and opportunities to educate citizens about the marsh ecosystem's role in surge protection.

The "ecological" zone exists from six to ten feet above MSL. This is primarily saltmarsh and low coastal forest, providing ecological connections, ecosystem services and water storage / sponge functions between the Island's lowland and highland. Only limited and adapted development should occur in the ecological zone, such as low density, pile-elevated, single-family homes -- with access provided by elevated roads (at +8 feet or more) and bridges -- with little-to-no landfill and no large-scale removal of existing soils and trees. Maintaining the existing coastal forest is essential: the average forest canopy should be maintained at 50% or more of land cover in this zone. The ecological zone carries substantial flood risk and can expect to get wet in a 100-year storm which, oddly, means a 1% chance of flooding in any year but also a 26% chance that a home with a 30-yr mortgage will flood once over the mortgage term. Those living in this zone should be fully aware of the risk they assume by living there.

The "transition" zone is defined as areas between 10-15ft above MSL. In the transition zone, development is possible, including clustered, elevated homes. Development here must respect the dynamic nature of the landscape, with fluctuating water levels and sufficient, maintained overland drainage channels, and the need for tailored flood risk reduction strategies. Fill should be sparingly used, primarily for road construction or to elevate only certain homes. The coastal forests in this zone should not be further degraded as trees are essential for storing and managing stormwater.

The "community" zone, at 15 feet and more above MSL, is on historic and stable sand ridges, the most prominent of which are along Maybank Ridge and Upper Burden Creek. This is stronger, higher, safer, and thus valuable ground, although it is neither scarce nor abundant. Clustered development combined with stormwater infiltration could be encouraged in this zone, especially where the soils readily infiltrate and store water. The existing water systems -- channels, swales, creeks, ditches -- in these zones must also be protected, maintained and not further compromised, filled or eliminated. These systems store and infiltrate stormwater, providing stormwater management and hydrologic balance. Clear rules to protect these hydrologic features must be developed and enforced.

With sea level rise, the risk curves change. The hundred-year storm today, with 2-feet of sea level rise, becomes a fifty-year storm, or one with a 2% annual chance of occurrence. 3-feet of sea level rise means the 100-year storm becomes a twenty-five-year storm. In short, increasing storm, surge, flood and occurrence are forecast in Charleston's future. Connections across the four zones are essential, as are other connections: between the salt marshes and freshwater zones, between the groundwater and surface water, between the tree canopy and tree roots, and between Johns Island residents and the natural systems – the "Island Life" – they want to embrace and sustain.

Critical Infrastructure: Evacuation routes, fire stations, utilities, hospitals—all need immediate, targeted, science-based, near-term planning for future surge, water level, storm frequency and rainfall increase. This is true even if residential and commercial development regulations are adjusted to reflect the new levels over time.

Policy & Regulation: Market-based strategies to achieve land-use recommendations should be supported via common-sense policy and regulations, including transfer of development rights, low-impact development, conservation easements, stormwater credits, and deployment of green infrastructure measures. Without such requirements and market-based mechanisms supporting them, Johns Island residents will carry substantially higher flood risks and potential for catastrophic or steady and likely irreversible physical and financial losses.

A primary goal is to reinforce the land, soil and water system's natural tendencies to store, manage and drain the area's stormwater. Our team acknowledges both the advantages and disadvantages of deploying wet pipes. The addition of bioswales, infiltration ponds, and restoration of former creek beds should be strongly encouraged. They should be designed and constructed to also provide amenity to connect new and existing neighborhoods with linear park-like and natural spaces and to connect residents to the landscape and ecology in which they live.

This new approach on Johns Island will require time to be carefully designed, developed and implemented. More science-based research is recommended to refine levels for each zone as a basis for all future planning, design, retrofits, and regulatory decision making. While implementation of this approach can be phased, immediate conservation of the Island's existing ecological assets should begin now: they cannot be replaced once gone. Development of a Johns Island Watershed Master Plan – a blue-green framework, across the entire Island, which would entail coordination with County officials and that informs or is integrated into an updated Johns Island Master or Zoning Plan is strongly recommended.

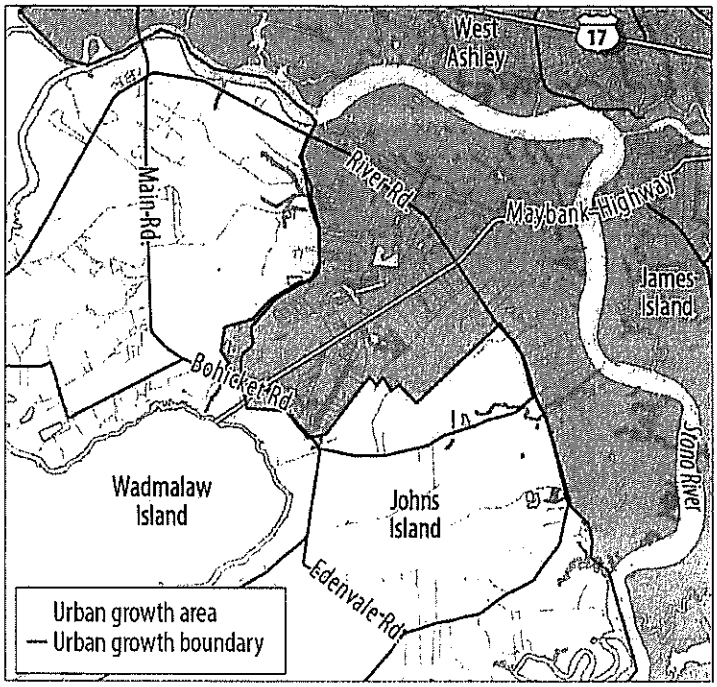
Johns Island Planning History:

- Key Dates/Plans:
  - 1988 Johns Island Plan
  - 1995 Johns Island Land Use Plan Update
  - 1999 Charleston County Comprehensive Plan (Established Urban Growth Boundary)
  - 2000 Charleston Century V Plan (City Comprehensive Plan) Formally establishes UGB in City to coordinate with Charleston County
  - 2007 Johns Island Community Plan
- History of intergovernmental coordination between city and county on Johns Island Planning
- Most portions of Johns Island within city limits were annexed and zoned prior to the existence of the Urban Growth Boundary.
- Plan to use Dutch Dialogues recommendations during 2020 Comprehensive Plan update to help guide land use recommendations

"Land use policy is the responsibility of local government, and the planning for Johns Island has been unique over the years. In the case of Johns Island, the responsibility falls under the jurisdiction of both Charleston City and County governments. Both jurisdictions have a solid understanding of the need for intergovernmental coordination. This is reflected in the intensive planning efforts for Johns Island to date. For nearly two decades, however, the decisions made regarding land use, zoning, and development on Johns Island have been led and determined by a consensus of citizens. During this time, two extensive land use plans were developed by residents and adopted by both governing agencies. The original Johns Island Plan was developed in 1988; its update was adopted in 1995." – Johns Island Community Plan, 2007

Johns Island's growth zone

The city and Charleston County established an urban growth boundary about a decade ago on Johns Island to preserve the rural areas above Main Road. It kept new developments within the portion closest to the Stono River.



SOURCE: ESRI STAFF

Activities

The Johns Island Restoration Plan to Improve Flood Resiliency will perform the following activities. Project work would take place through video and location specific meetings of technical team and project partners, desk research and modelling, and public workshops. Community outreach and engagement is also a necessary component of the project.

- Test the data used to establish the zones, model surge and tidal impacts on the island within the two lowest zones (Wet, Ecological), and adjust all zone elevation recommendations, if necessary, to achieve appropriate flood risk reduction. Data testing would incorporate some TBD level of sea level rise into the zone recommendations.
- Identify, with City Planning and possibly Lowcountry Land Trust, tracts of undeveloped land on Johns Island on which the Strategy could be applied. Ideally, a number of large tracts could be located, or smaller, contiguous tracts could be identified.
- Assess and prioritize which tracts would provide highest benefit for flood risk mitigation and ecosystem function / connectivity.
- Prioritize which tracts are best suited for purchase, easement or other utilization strategies to achieve highest-benefit outcomes.
- Develop specific recommendations, pursuant to the safety zone strategy / flood risk mitigation, to inform the Charleston Comprehensive Plan (2020) Update and future Zoning Ordinance amendments.

Outcomes

- Protect critical infrastructure in and around the Church Creek Basin;
- Promote community resilience around the basin and in surrounding communities;
- Enhance ecosystem services and benefits.

Tracking Metrics

This Project will create 1 Engineering and Design Plan, engage 10 government stakeholders, reach 500 people, and involve volunteers to serve 300 hours.

Matching Funds and Additional Leverage

The City of Charleston is requesting $117,500 in NFWF funding and will contribute $117,500 in non-federal matching funds to meet the recommended 1:1 match amount for a total project budget of $235,000. There is no federal funding contributed to this project.

Project Team

- City of Charleston –oversight, program management, grant management
- Water Institute – plan development, outreach
- SC Sea Grant – outreach
- Clemson – education, outreach

Upon award, TWI technical staff will engage with City staff, stakeholders and project partners in a 2-day Workshop to scope the project and its ecosystem components. This will establish the pre-project baseline assessment of the project's water system features, stormwater management challenges, and ecosystem features. These will be synthesized to provide high-level feasibility and alternatives analysis based upon stormwater management model outputs, best available science, immediately available land, and land likely to be acquired over the project term. TWI will develop a series of relevant GIS data layers to provide an indication of relevant potential threats, community benefits, and ecosystem benefits that could be realized through the project in the context of the local watershed. Post Workshop, TWI will technically assess alternatives of ecosystem metrics and performance (habitat restoration, floodplain restoration, instream restoration, land and wetland restoration), develop a recommended ecosystem monitoring protocol based around the prioritized potential ecosystem and community benefits as well as identified potential threats that could limit success of the project. TWI will summarize this data, conclusions and monitoring plan as a technical report to project partners and the City. TWI staff will prove quality assurance review of stormwater management model outputs and support to project partners leading the stormwater / FRM efforts along and near the Creek's channel and floodplain. TWI will work with partners and universities, as needed, providing technical advice to those carrying out project monitoring, data collection and analysis. TWI will engage in a 2-day mid-project Workshop with partners and City to assess project performance and unforeseen project needs. TWI will assist with public outreach and engagement activities (technical and qualitative) in pre-project, mid-project and project-completion phases, leveraging its efforts and relationships developed with Charleston stakeholders, citizens and agencies on community and natural systems resilience over the past 18 months. We are committed to completing the following activities during the grant period of performance from July 1, 2019 to December 31, 2020.

Representative Project Photos

Photo 1: Johns Island Elevation Map
Photo 2: Johns Island Water Level Map
Photo 3: Johns Island Elevation Zones

Designs, Site Maps and Letters of Support

See attached Designs, Site Maps and Letters of Support.

Johns Island

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Date: 11/12/2019

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SUBCOMMITTEE ON WATER, OCEANS, WILDLIFE

U.S. House of Representatives
Joe Cunningham
1st District, South Carolina

November 12, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I write to express support for the City of Charleston's application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The funding for Johns Island Restoration Plan will assist the community in flooding resiliency efforts as they face substantial development pressures. Specifically, the plan would produce a preliminary floodplain restoration planning framework to increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how nature-based infrastructure, such as stream naturalization, floodplain protection and enhancement, and wetland restoration/creation, can be used to mitigate current and future flood risk on the Island. The better understanding of the Island's natural systems, their role in reducing flood risk, and improving ecosystem functions is needed to support future City planning decisions.

This project will address revisions, already underway, to the City's Comprehensive Plan, land-use and zoning codes. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate flooding and drainage constraints. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects.

With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me at (843) 352-7572.

Sincerely,

Joe Cunningham
Member of Congress

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MT. PLEASANT, SC 29464
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November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

Thank you for the opportunity to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

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Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

J. Elliott Summey
Chairman
Charleston County Council

United States Department of the Interior

FISH AND WILDLIFE SERVICE
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

November 12, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez:

The U.S. Fish and Wildlife Service (Service) – South Carolina Ecological Services Field Office supports the City of Charleston's application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

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Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me at (843) 727-4707 ext. 227, or via email at thomas_mccoy@fws.gov.

Sincerely,

for Thomas D. McCoy
Field Supervisor

November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

We are writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

We, Rich Thomas and Dr. Philip Dustan, are residents of Johns Island. For the past two years we have been conducting water flow studies at four locations in the Burden Creek/Hoopstick Creek drainage basins of Johns Island, encompassing both developed, undeveloped, and mixed areas. We used high-quality surplus scientific equipment to record various water parameters around various rainfall events.

The results we have identified relate to effects of Fill and Build developments in the City of Charleston on Johns Island. These developments bring in massive amounts of impervious fill dirt into low-lying land to allow for housing to be built in areas that range from 8ft to 10 ft above mean sea level, thus altering the surface and subsurface hydrology, water balance, ecological and environmental health, and neighboring properties' flood risk. Our results (an example shown below relative water runoff from diverse landscapes is from Hurricane Dorian in September 2019, a storm that dumped six inches of water in a relatively short time) have demonstrated clearly the effects of these development on the water flow and water quality on Johns Island and surrounding marshes and rivers.

We are interested in the proposed project as a way to identify other effects related to development on Johns Island as well as any mitigation processes that could minimize further developments or the effects of existing developments. The recent Dutch Dialogues efforts focused on Johns Island as one study area, and identified recommendations to improve resiliency, protect ecological health, and minimize direct and ancillary damage related to these Fill and Build developments. Our results were considered by the Dutch Dialogues team and figured prominently in their results as relate to Johns Island.

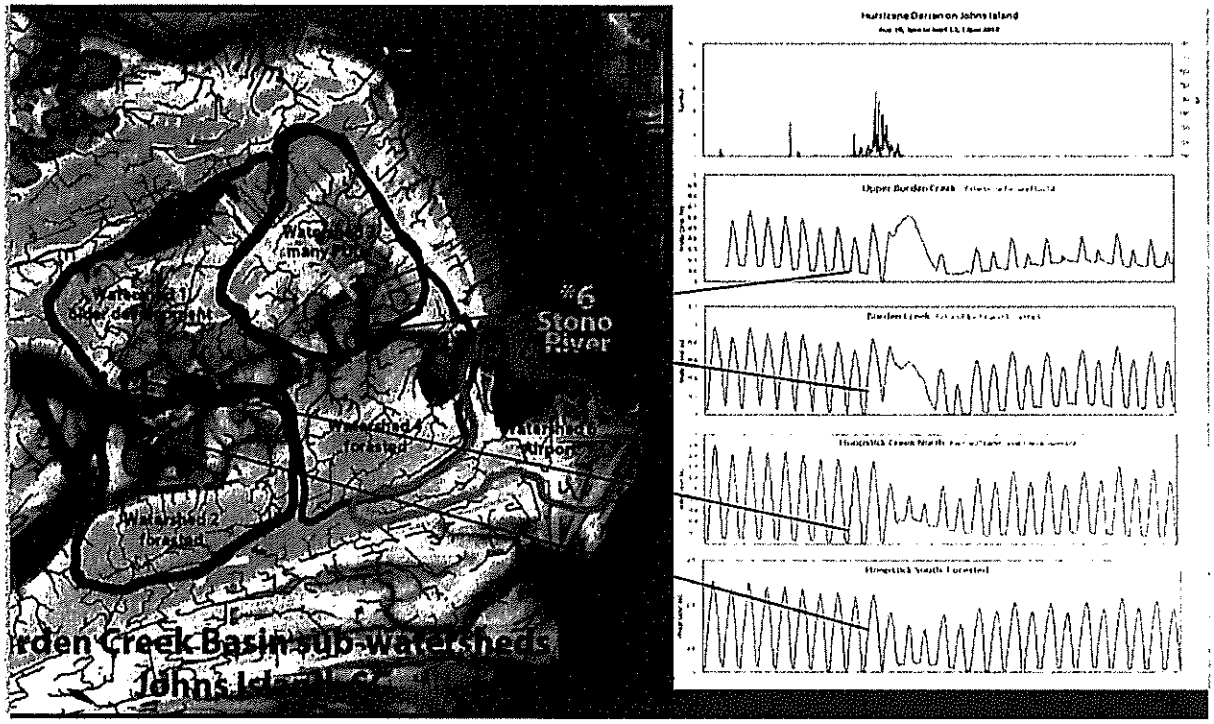
We hope that the proposed study will continue this process and improve Johns Island going forward. We as engaged citizens offer our efforts and knowledge to this study. Should you have any further questions about our efforts or interests in Johns Island we would be more than happy to discuss them with you.

Thank you for your consideration of this proposed effort.

Rich Thomas
Betsy Kerrison Parkway
Johns Island, SC
rich.thomas@pdq.net

Dr. Philip Dustan
Burden Creek Road
Johns Island
phil.dustan@gmail.com

Graphs of runoff from three primary watersheds on Johns Island during and after Hurricane Dorian, September 2019, demonstrating relative effects of a Fill and Build developed area (3), a semi-developed area (1), and a forested/marsh area (2) on water flow rates in creeks that drain the subject areas



The Plantation at Headquarters Island Property Owners Association
c/o AMCS, Inc.
2409-A Mall Dr.,
N. Charleston, SC 29406
Phone: (843) 224-2293 - Fax: (843) 735-7382
www.amcshoa.com

November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

This project will influence revisions, already underway, to the City's Comprehensive Plan, land-use and zoning codes. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate flooding and drainage constraints. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects.

With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Most sincerely yours,
At the Direction of the Board of Directors, HQIPOA

Megan Howard
Community Association Manager
AMCS, Inc.

CC: Don C. Ball, HQIPOA President

Department of Geology and Environmental Geosciences
Norman S. Levine, Associate Professor
Director of the Santee Cooper GIS Laboratory & the Low Country Hazards Center
Director of the South Carolina Earthquake Education and Preparedness Program
843.953.5308 | Fax 843.953.5446 | levinen@cofc.edu

COLLEGE of CHARLESTON

November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's Johns Island ECRF Submission 2019

Dear Chairman Rodriguez,

I am writing to express my strong commitment to the City of Charleston's Emergency Coastal Resilience Fund 2019 grant submission to the National Fish and Wildlife Foundation (NFWF). The City is requesting $117,500 in funding to support a project within the planning funding priority area.

The "Johns Island Restoration Plan to Improve Flood Resiliency (SC)," will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement , wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

This project will influence revisions, already underway and / or planned, to the City's Comprehensive Plan, land-use and zoning codes, an essential part of planning for a more resilient future. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate tidal flooding and drainage constraints. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues And a previous regional NOAA Coastal Resilience project, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects.

With previous community engagement as a guide, and the current planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Most sincerely yours,

Norman S. Levine
Associate Professor of Geology & Environmental Geosciences
Director of the Santee Cooper GIS Laboratory
Director of the Low Country Hazards Center
College of Charleston

CHARLESTON
WATERKEEPER®

Protecting the public's right to swimmable, drinkable, fishable water.

Andrew J. Wunderley, Esq.

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

November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

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With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Andrew J. Wunderley
Executive Director Charleston Waterkeeper

Johns Island
Task Force
Respect ■ Protect ■ Enhance

November 12, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 2000
Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

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With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Most sincerely yours,

Michael G. McShane
Johns Island Task Force

The Johns Island Task Force meets monthly to advance the Vision created by a coalition of Johns Island residents and supporters from the adjacent sea islands. The Vision promotes the welfare of the diverse and vibrant community of Johns Island by seeking to maintain traditional rural land uses and communities This includes the culture, history, agriculture forestry, ecotourism, hunting, fishing, and equestrian activities

The Task Force includes residents of Johns and Wadmalaw Islands, the Johns Island Community Association, St. Johns Water Company, representatives of four prominent local conservation organizations and delegates from the Town Councils of Kiawah Island and Seabrook Island

LOWCOUNTRY
LAND TRUST

November 11, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)." The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure. Understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

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Lowcountry Land Trust has been conducting a Johns Island Community Conservation Initiative from December 2017 through December 2019 in order to identify resources providing important ecosystem services on Johns Island, and envisioning and developing new tools in addition to our traditional conservation easement and land acquisition approach in order to work with a wider array of landowners and community members. With this and other forms of previous community engagement, planning, and prioritization, I am confident the City of Charleston's proposed project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely yours,

Ashley Demosthenes

Ashley Demosthenes
President and CEO
Lowcountry Land Trust

Charleston Resilience Network

November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

On behalf of the Charleston Resilience Network (CRN), I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)." The CRN is a collaboration of public, private, academic and non-profit organizations seeking to enhance the capacity of individuals, communities, institutions, businesses and systems within the Charleston region to survive, adapt and grow despite episodic natural disasters and chronic coastal hazards. Since 2015, CRN has provided a forum to share science-based information, enhanced access to high quality information and convened diverse stakeholders to build consensus around challenging flood hazard mitigation and adaptation approaches.

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

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With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Daniel J. Burger
Founder and Chair
Charleston Resilience Network
843-763-9178

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NOAA Restoration Center
2234 South Hobson Avenue
Charleston, SC 29455
843-740-1328

November 12, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

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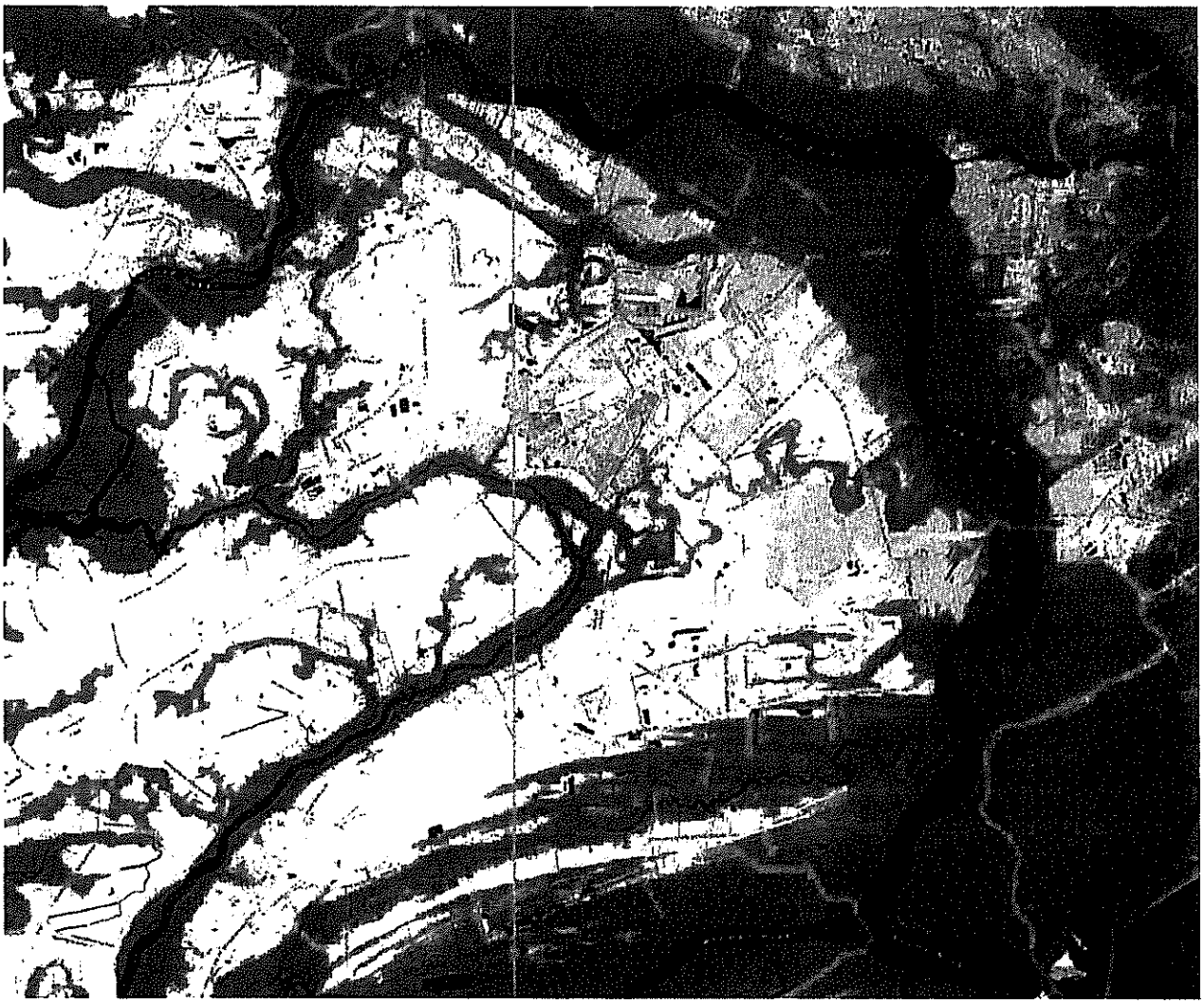
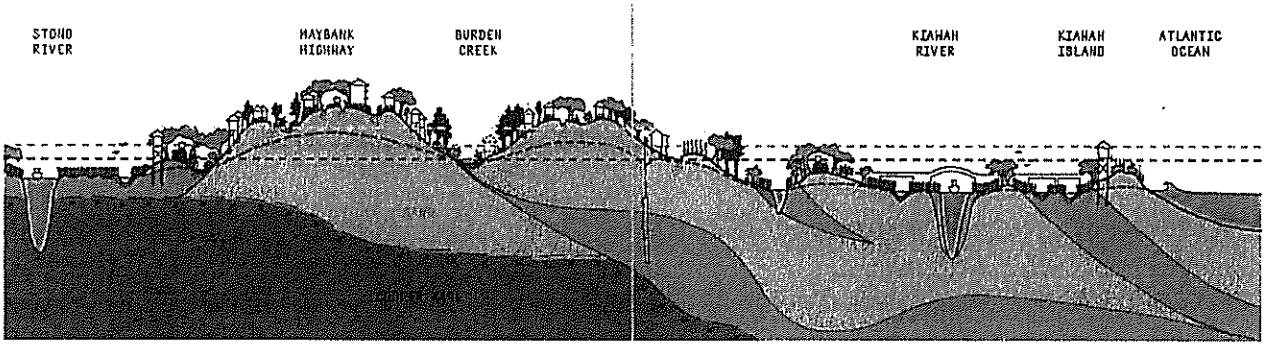
Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Howard Schnabolk
South Atlantic Team Leader
NOAA Restoration Center




STONO
RIVER
MAYBANK
HIGHWAY
BURDEN
CREEK
KIAWAH
RIVER
KIAWAH
ISLAND
ATLANTIC
OCEAN

NFWF

Statement of Litigation

Instructions: Save this document on your computer and complete. The final narrative should not exceed two (2) pages; do not delete the text provided below. Once complete, upload this document into the on-line application as instructed.

Litigation: In the space provided below, state any litigation (including bankruptcies) involving your organization and either a federal, state, or local government agency as parties. This includes anticipated litigation, pending litigation, or litigation completed within the past twelve months. Federal, state, and local government applicants are not required to complete this section. If your organization is not involved in any litigation, please state below.

The City of Charleston, South Carolina is not required to complete this section as a local government agency.

City of Charleston

South Carolina

CITY OF CHARLESTON
COUNCIL MEMBERS 2019

District One Councilmember
F. Gary White, Jr.

District Two Councilmember
Kevin Shealy

District Three Councilmember
James Lewis, Jr.

District Four Councilmember
Robert M. Mitchell

District Five Councilmember
Marvin D. Wagner

District Six Councilmember
William Dudley Gregorie

District Seven Councilmember
Perry K. Waring

District Eight Councilmember
Michael S. Seekings

District Nine Councilmember
A.Peter Shahid, Jr.

District Ten Councilmember
Harry Griffin

District Eleven Councilmember
William A. Moody, Jr.

District Twelve Councilmember
Carol Jackson

Clemson Cooperative Extension Service
900 Clemson Road
Columbia, SC
(803) 722-1194

Clemson Cooperative Extension Service
900 Clemson Road
Columbia, SC
(803) 722-1194

November 12, 2019

Dear Chairman Rodriguez,

This letter is submitted on behalf of the Clemson Extension Carolina Clear program to express support of the 2019 NFWF Emergency Coastal Resilience Fund for the Johns Island Restoration Plant to Improve Flood Resiliency.

Carolina Clear is a program of Clemson University, which works to create regional partnerships with communities and educational partners to assist communities in meeting Phase II NPDES stormwater permit requirements for public education and involvement. The efforts of the regional partnerships emphasize water resource protection and pollution prevention. The Ashley Cooper Stormwater Education Consortium (ACSEC) is the Carolina Clear partnership effort for the Charleston, South Carolina tri-county area. Through this regional approach three county governments, eleven area municipalities and a host of education partners consisting of state agencies, non-profit organizations and universities, collaborate to provide a strategic, watershed- scale approach to stormwater education and community involvement in the Charleston, South Carolina region. The Church Creek Drainage Basin area is included in the jurisdiction of a Municipal Separate Storm Sewer System (MS4) which participates in the ACSEC.

The ACSEC will provide a list of certified Master Rain Gardener volunteers for preliminary site assessment and design. The ACSEC can also provide information on rain gardens and other landscape level best management practices in the form of a presentation with hands on components, such as measuring impervious areas and percolation and/or infiltration tests. Additionally, our organization can provide up to 50 copies of the award winning 2016 Guide to Rain Gardens in South Carolina manuals and a free rain gauge for anyone who installs a rain gauge.

If you have any questions regarding the ACSEC or Carolina Clear program, please contact me at 803-722-1194 (karen7@clemson.edu) or Beatriss Calhoun (beatris@clemson.edu).

Sincerely,

Karen Jackson
Water Resources Agent
Clemson University Cooperative Extension 900 Clemson Road
Columbia, SC 29229

Sea Grant | S.C. SEA GRANT CONSORTIUM
Coastal Science Serving South Carolina
287 Meeting Street, Charleston, S.C. 29401 • 843.953.2078 • www.scseagrant.org

November 10, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez:

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects.

The S.C. Sea Grant Consortium will assist framing the scope, dimensions, and expectations of the planning effort, which seeks to enhance Johns Island's capacity to be more resilience to increasing weather and climate hazards. Community engagement exercises will be organized, in consultation with the Project team, to share the goals of the scope of the planning Project, to keep community members informed and involved in the Project as planning progresses, and to share results of the Project and planning milestones for anticipated improvements that may result.

This, together with previous community engagement, planning, and prioritization, will ensure that barriers to coastal resilience will be addressed by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request. Please feel free to contact me if you have any questions.

Sincerely,

M. Richard DeVoe
Executive Director

Enhancing the practical use and conservation of South Carolina's coastal and marine resources to foster a sustainable economy and environment.

MEMBER INSTITUTIONS
Clemson University • Coastal Carolina University • College of Charleston • Medical University of South Carolina
S.C. Department of Natural Resources • S.C. State University • The Citadel • University of South Carolina

CHAIRMAN
Dr. Harris Pastides, President Emeritus, University of South Carolina

EXECUTIVE DIRECTOR
M. Richard DeVoe

THE WATER INSTITUTE
OF THE GULF™

November 12, 2019

To Whom it May Concern:

This letter is submitted in full support of the City of Charleston's (City) Johns Island Planning Grant proposal for funding under the Emergency Coastal Resilience Fund program administered by the National Fish and Wildlife Foundation (NFWF). The Water Institute of the Gulf (The Institute) enthusiastically supports this project as it moves builds upon existing City planning efforts and will positively influence the City's Comprehensive Plan and Zoning Ordinance to increase community and ecosystem resilience on an important barrier island in the City

The Institute is a not-for-profit, independent research and technical services resource with a mission to support resilient coasts and sustainable water systems worldwide. Our work helps ensure livable communities and a thriving economy and environment. Our scientists and engineers conduct applied research to increase understanding of natural and human aspects of deltaic, coastal, and water systems; to develop tools that apply knowledge to restore coasts and ecosystems; and to reduce risk for people and infrastructure. We welcome the opportunity to provide our expertise to the City of Charleston, alongside the South Carolina-based partner organizations in this project who share our passion for advancing resilient coasts and sustainable water systems worldwide. The Institute has coastal and riverine expertise in Analytics and Integrated Decision Support, Integrated Natural Systems Modeling, Field Investigations, Ecology, and the Human Dimension/ Social Science. We develop and apply integrated decision support systems linking sensors, predictions, and analytics in a real-time framework that can support coastal planning preparedness, operations, and emergency response at local and regional scales. Our goal is to make links between data, models, and end users more seamless to provide high quality information to support effective analysis, project planning and design, and transparent decision making.

The Institute led Dutch Dialogues Charleston (DD CHS) alongside Waggonner & Ball Architects and the Royal Netherlands Embassy. DD CHS explored resilient landscape design and planning approaches for four prototypical Charleston areas, the largest of which was Johns Island (JI). JI challenges are stormwater management, tidal flooding, storm surge risk and flooding, compound flooding, heavy development pressure and rich, diverse ecosystems and natural areas under threat from that development. DD CHS (DD CHS) posited a strategy to mitigate the growing flood risk and reduce development impacts upon on JI natural features. This "four zone" strategy, by reinforcing natural features (marshes, wetlands, tidal reeks and floodplains), will also facilitate adaptation to sea level rise and enhance ecological quality and function for species, habit and ecosystem function and connectivity. This strategy is similar to land use goals found in the Johns Island Community Plan, adopted by City Council in Nov 2007.

1110 River Road S. Suite 200
Baton Rouge, LA 70825
www.thewaterinstitute.org | (225) 448-2813

Upon award, The Institute would further scope the DD CHS JI four-zone strategy with partners and key stakeholders and refine, via high-level QAQC of existing surge, tidal and stormwater modeling, the target elevations for those zones. Alongside partners and City staff, The Institute would:

- analyze existing, large and small undeveloped land tracts on JI
- assess their FRM and ecosystem-enhancement potential
- co-determine FRM and ecosystem benefits of creating contiguous small tracts through acquisition and easements on JI
- assist in the development of policy recommendations for the City to inform the 2020 Comprehensive Plan update and future changes to the Zoning Ordinance
- support public outreach, stakeholder engagement, meetings, and workshops associated with this grant to ensure widespread understanding and support of the four-zone approach.

The Institute is pleased to provide additional information on its contributions to the Church Creek ECRF proposal as needed.

Respectfully,

Jennifer Butler

Jennifer Butler
Vice-President for Administration & CFO

NFWF	NATIONAL FISH AND WILDLIFE FOUNDATION GRANT AGREEMENT	1. NFWF PROPOSAL ID: 67037	2. NFWF GRANT ID: 0318.19.067037
		3. UNIQUE ENTITY IDENTIFIER (DUNS #) 077990786	4. INDIRECT COST RATE (REFERENCE LINE 17 for RATE TERMS) N/A

5. SUBRECIPIENT TYPE	6. NFWF SUBRECIPIENT
State or Local Government	City of Charleston, South Carolina
7. NFWF SUBRECIPIENT CONTACT	**8. NFWF GRANTS ADMINISTRATOR/NFWF CONTACT INFORMATION**
Sarah Fichera City of Charleston, South Carolina 2 George Street Charleston, SC 29401 Tel: 843-720-2535 ficheras@charleston-sc.gov	Amanda Crawford National Fish and Wildlife Foundation 1133 15th Street, N.W. Suite 1000 Washington, D.C. 20005 Tel:202-857-0166 Fax: 202-857-0162 Amanda.Crawford@nfwf.org

9. PROJECT TITLE
Johns Island Restoration Plan To Improve Flood Resiliency (SC)

10. PROJECT DESCRIPTION
Reduce barriers to coastal resilience by producing a preliminary floodplain restoration planning framework that will integrate ecological function to increase the overall resilience of Johns Island's communities, fish and wildlife. Project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the island.

11. PERIOD OF PERFORMANCE	12. TOTAL AWARD TO SUBRECIPIENT	13. TOTAL FED. FUNDS	14. TOTAL NON-FED. FUNDS
July 1, 2020 to April 1, 2021	$117,500	$117,500	N/A

15. FEDERAL MATCH REQUIREMENT	16. NON-FEDERAL MATCH REQUIREMENT
N/A	$117,500

17. SUBRECIPIENT INDIRECT COST RATE TERMS
The rate specified in Line 4 reflects that the Subrecipient has elected not to claim an indirect cost rate and that this election shall apply throughout the project's period of performance.

18. TABLE OF CONTENTS

SEC.	DESCRIPTION
1	NFWF Agreement Administration
2	NFWF Agreement Clauses
3	Representations, Certifications, and Other Statements – General
4	Representations, Certifications, and Other Statements Relating to Federal Funds- General
5	Representations, Certifications, and Other Statements Relating to Federal Funds – Funding Source Specific
6	Other Representations, Certifications, Statements and Clauses

19. FUNDING SOURCE INFORMATION/FEDERAL AND NON-FEDERAL						
A. FUNDING SOURCE (FS)	**B. NFWF FS ID**	**C. FS AWARD DATE TO NFWF**	**D. FAIN**	**E. TOT FED. AWARD TO NFWF**	**F. TOT OBLG. TO SUBRECIPIENT**	**G. CFDA**
National Oceanic and Atmospheric Administration	FC.R416	February 7, 2020	NA20NOS4730002	$49,511,000	$117,500	11.473

20. NOTICE OF AWARD

The National Fish and Wildlife Foundation (NFWF) agrees to provide the NFWF Award to the NFWF Subrecipient for the purpose of satisfactorily performing the Project described in a full proposal as identified on line 1 and incorporated into this Grant Agreement by reference. The NFWF Award is provided on the condition that the NFWF Subrecipient agrees that it will raise and spend at least the amount listed on lines 15 and 16 in matching contributions on the Project, as applicable. The Project must be completed, with all NFWF funds and matching contributions spent, during the Period of Performance as set forth above. All items designated on the Cover Page and the Table of Contents are incorporated into this Grant Agreement by reference herein. NFWF Subrecipient agrees to abide by all statutory or regulatory requirements, or obligations otherwise required by law, required of a subrecipient of Federal grant or cooperative agreement funds. Subrecipient is obligated to notify NFWF if any of the information on the Cover Page changes in any way, whether material or immaterial.

A. NAME AND TITLE OF AUTHORIZED SUBRECIPIENT SIGNER (*Type or Print*)		**D. NAME AND TITLE OF NFWF AWARDING OFFICIAL** Holly A. Bamford, PhD, Chief Conservation Officer	
B. SUBRECIPIENT **BY**	**C. DATE**	**E. NATIONAL FISH AND WILDLIFE FOUNDATION** **BY**	**F. DATE**

See Reporting Schedule on the following page.

21. REPORTING DUE DATES/SUBRECIPIENT REPORTING SCHEDULE

Task Due Date	Reporting Task
October 31, 2020	Annual Financial Report
December 31, 2020	Interim Programmatic Report
July 1, 2021	Final Financial Report
July 1, 2021	Final Programmatic Report

NFWF

SECTION 1 AGREEMENT ADMINISTRATION

1.1. Project Description/Purpose of Grant.

Reduce barriers to coastal resilience by producing a preliminary floodplain restoration planning framework that will integrate ecological function to increase the overall resilience of Johns Island's communities, fish and wildlife. Project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the island.

1.2. Amendments.

During the life of the Project, the NFWF Subrecipient is required to inform the NFWF Grants Administrator of any changes in contact information or in the Project scope of work, as well as any difficulties in completing the performance goals articulated by the Project description immediately. If the NFWF Subrecipient determines that the amount of the budget is going to change in any one budget category by an amount that exceeds 10% of the Award, the NFWF Subrecipient must seek prior written approval from the Grants Administrator. NFWF Subrecipients must seek an amendment request upon determination of a deviation from the original Grant Agreement as soon as such deviation is detected. However, NFWF may initiate the amendment if NFWF determines an amendment is necessary at any time. Amendment requests are to be submitted via NFWF's Easygrants system.

1.3. Matching Contributions.

Matching Contributions consist of cash, contributed goods and services, volunteer hours, and/or property raised and spent for the Project. Matching Contributions for the purposes of this Project must meet the following criteria: (1) Are verifiable from the NFWF Subrecipient's records; (2) Are not included as contributions for any other Federal award; (3) Are necessary and reasonable for the accomplishment of project or program objectives; (4) Are allowable under OMB Cost Principles; (5) Are not paid by the U.S. Government under another Federal award except where the Federal statute authorizing a program specifically provides that Federal funds made available for such program can be applied to matching or cost sharing requirements of other Federal programs when authorized by Federal statute; (6) Are provided for in the approved budget when required by the Federal awarding agency; (7) Are committed directly to the project and must be used within the period of performance as identified in this Grant Agreement; (8) Otherwise conform to the law; and, (9) Are in compliance with the requirements of Section 2 of this Grant Agreement concerning Compliance with Anti-Corruption, Anti-Money Laundering, Terrorist Financing, and Trafficking in Persons Statutes and Other Restrictions.

1.3.1. Documentation and Reporting of Matching Contributions. The NFWF Subrecipient must retain detailed time records for contributed services and original receipts and appraisals of real property and comparable rentals for other contributed property at its place of business in the event of an audit of the NFWF Subrecipient as required by applicable Federal regulations.

1.3.2. Cash, Goods and Services, and/or Property. The NFWF Subrecipient must report to NFWF as a part of the Final Report, the Matching Contributions received by the NFWF Subrecipient and expended in connection with the Project. Fair market value of donated goods and services, including volunteer hours, shall be computed as outlined in §200.306 of 2 CFR Subtitle A, Chapter II, Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, (hereinafter "OMB Uniform Guidance"),regardless of whether this Grant Agreement is federally funded.

1.3.3. Property. The NFWF Subrecipient may have a third party donor submit a letter to NFWF, documenting the fair market value and date of a Matching Contribution and stating that the donation is non-Federal, voluntary, and intended to qualify as a Matching Contribution. A letter provided to document a donation of real property must be accompanied by an appraisal by a certified appraiser; a letter provided to document rental of equipment or space must list three comparable rentals in the location of the Project.

1.4. Payment of Funds.

To be eligible to receive funds, NFWF Subrecipient must (1) return to NFWF an original executed copy of the grant agreement for the Project; (2) submit any due financial and programmatic reports; and (3) submit a complete and accurate payment request. NFWF Subrecipient may request funds by submitting a Payment Request via Easygrants. NFWF Subrecipient may request advance payment of funds prior to expenditure provided that (1) NFWF Subrecipient demonstrates an immediate need for advance payment; and (2) NFWF Subrecipient documents expenditure of advanced funds on the next payment request and/or required financial report to NFWF. Approval of any advance payment of funds is made at the sole discretion of NFWF, based on an assessment of the NFWF Subrecipient's needs. In all other cases, funds are disbursed on a reimbursable basis. NFWF reserves the right to retain up to ten percent (10%) of funds until submission and acceptance of the final reports.

1.5. Reports.

1.5.1 Interim Programmatic and Financial Reports.

The NFWF Subrecipient will submit interim programmatic and financial reports to NFWF based on the reporting schedule in Line 21 of the Cover Sheet to this Agreement. The interim programmatic report shall consist of written statements of Project accomplishments since Project initiation, or since the last reporting period, and shall be uploaded via NFWF's Easygrants system. The interim financial report shall consist of financial information detailing cumulative receipts and expenditures made under this Project since Project initiation, and shall be uploaded via NFWF's Easygrants system.

1.5.2. Annual Financial Report.

An annual financial report detailing cumulative receipts and expenditures made under this Project is required annually, due on October 31st of each year of the grant term. In the annual financial report, the NFWF Subrecipient must report the amount of NFWF Funds expended during NFWF's fiscal year (October 1 – September 30). The NFWF Subrecipient must enter a justification when there is a difference between the amount disbursed by NFWF and the amount expended by the grantee. Failure to submit an annual financial report in a timely manner will delay payment of submitted payment requests.

1.5.3. Final Reports.

No later than 90 days after the completion of the Project, the NFWF Subrecipient will submit (1) a Final Financial Report accounting for all Project receipts, Project expenditures, and budget variances (if any) compared to the approved budget; (2) a Final Programmatic Report summarizing and evaluating the accomplishments achieved during the Period of Performance; (3) copies of any publications, press releases and other appropriate products resulting from the Project; and (4) Photographs as described in Section 1.5.3.1 below. The final reports and digital photo files should be uploaded via NFWF's Easygrants system. Any requests for extensions of the final reports submission date must be made in writing to the NFWF Grants Administrator and approved by NFWF in advance.

1.5.3.1. Photographs.

Together with the Final Programmatic Report NFWF Subrecipient will submit a representative number (minimum of 5) of high-resolution (minimum 300 dpi) photographs depicting the Project. Photographs should be uploaded via NFWF's Easygrants system as individual .jpg files. NFWF requests, as appropriate for the

Project, before-and-after images of the Project, images of species impacted by the Project, and images of staff/volunteers working on the Project. In the Final Programmatic Report narrative include for each submitted photograph the date the photograph was taken, the location of the photographed image, caption, photo credit, and any other pertinent information. By uploading photographs to NFWF's Easygrants system the NFWF Subrecipient certifies that the photographs are unencumbered and may be used by NFWF and Project Funders as part of or separately from the permissions pertaining to the use of posting of Final Reports in Section 2.

1.5.4 Significant Developments.

The NFWF Subrecipient shall report on events that may occur between the scheduled performance reporting dates that have a significant impact on the Project. Such reporting shall be made as soon as the following conditions become known:

1.5.4.1 Problems, delays, or adverse conditions which will materially impair the ability to meet the Project objective. This disclosure must include a statement of the action taken, or contemplated, and any assistance needed to resolve the matter; and,

1.5.4.2 Favorable developments which enable meeting time schedules and objectives sooner or at less cost than anticipated or producing more or different beneficial results than originally planned.

1.5.5. Certification and Representation.

For each report in this section, except for 1.5.4, NFWF Subrecipient shall include the appropriate certification and representation pursuant to section 4.8.

1.6. Access to Records.

NFWF Subrecipient shall maintain all records connected with this Agreement for a period of at least three (3) years following the date of final payment or the close-out of all pending matters or audits related to this Agreement, whichever is later. NFWF or any of its authorized representatives shall have access to such records and financial statements upon request, as shall Inspectors General, the Comptroller General of the United States or any of their authorized representatives if the Funding Source or any funding entity (*i.e.,* a secondary funding source) is a federal agency and/or any portion of the Project provided herein is paid with federal funds. NFWF Subrecipient must maintain records that demonstrate its compliance with federal statutory and regulatory requirements and that it is meeting the subaward project goals. Records for real property and equipment acquired with federal funds must be retained for at least three (3) years following disposition.

SECTION 2 NFWF AGREEMENT CLAUSES

2.1. Restrictions on Use of Funds.

The NFWF Subrecipient agrees that any funds provided by NFWF and all Matching Contributions will be expended only for the purposes and programs described in this Grant Agreement. No funds provided by NFWF pursuant to this Grant Agreement or Matching Contributions may be used to support litigation expenses, lobbying activities, or any other activities not authorized under this Grant Agreement or allowable under the Federal Cost Principles set forth in the OMB Uniform Guidance.

2.2. Assignment.

The NFWF Subrecipient may not assign this Grant Agreement, in whole or in part, to any other individual or other legal entity without the prior written approval of NFWF.

2.3. Subawards and Contracts.

When making subawards or contracting, NFWF Subrecipient (1) shall abide by all required granting and contracting procedures, including but not limited to those requirements of the OMB Uniform Guidance; (2) shall ensure that all applicable federal, state and local requirements are properly flowed down to the subawardee or contractor, including but not limited to the provisions of the OMB Uniform Guidance; and (3) shall ensure that such subaward or contracting complies with the requirements in Section 2.9.2 of this Grant Agreement concerning Compliance with Anti-Corruption, Anti-Money Laundering, Terrorist Financing, and Trafficking in Persons Statutes and Other Restrictions. NFWF Subrecipient shall also include in any subaward or contract a similar provision to this, requiring the use of proper grant and contracting procedures and subsequent flow down of federal, state and local requirements to lower-tiered subawardees and contractors.

2.4. Unexpended Funds.

Any funds provided by NFWF and held by the NFWF Subrecipient and not expended at the end of the Period of Performance will be returned to NFWF within ninety (90) days after the end of the Period of Performance.

2.5. Publicity and Acknowledgement of Support.

The NFWF Subrecipient gives NFWF the right and authority to publicize NFWF's financial support for this Grant Agreement and the Project in press releases, publications and other public communications. NFWF Subrecipient agrees to: (i) give appropriate credit to NFWF and any Funding Sources identified in this Grant Agreement for their financial support in any and all press releases, publications, annual reports, signage, video credits, dedications, and other public communications regarding this Grant Agreement or any of the project deliverables associated with this Grant Agreement, subject to any terms and conditions as may be stated in Section 5 and Section 6 of this Agreement; and (ii) include the disclaimer provided for herein. The NFWF Subrecipient must obtain prior NFWF approval for the use relating to this Award of the NFWF logo or the logo of any Funding Source.

2.5.1. Disclaimers.

Payments made to the NFWF Subrecipient under this Grant Agreement do not by direct reference or implication convey NFWF's endorsement nor the endorsement by any other entity that provides funds to the NFWF Subrecipient through this Grant Agreement, including the U.S. Government, as applicable, for the Project. All information submitted for publication or other public releases of information regarding this Grant Agreement shall carry the following disclaimer:

For Projects funded in whole or part with Federal funds: "The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Government or the National Fish and Wildlife Foundation and its funding sources. Mention of trade names or commercial products

does not constitute their endorsement by the U.S. Government, or the National Fish and Wildlife Foundation or its funding sources."

For Projects not funded with Federal funds: "The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions of the National Fish and Wildlife Foundation or its funding sources. Mention of trade names or commercial products does not constitute their endorsement by the National Fish and Wildlife Foundation or its funding sources."

2.6. Posting of Final Reports.

The NFWF Subrecipient hereby acknowledges its consent for NFWF and any Funding Source identified in this Grant Agreement to post its final reports on their respective websites. In the event that the NFWF Subrecipient intends to claim that its final report contains material that does not have to be posted on such websites because it is protected from disclosure by statutory or regulatory provisions, the NFWF Subrecipient shall so notify NFWF and any Funding Source identified in this Grant Agreement and clearly mark all such potentially protected materials as "PROTECTED," providing an accurate and complete citation to the statutory or regulatory source for such protection.

2.7. Website Links.

The NFWF Subrecipient agrees to permit NFWF to post a link on any or all of NFWF's websites to any websites created by the NFWF Subrecipient in connection with the Project.

2.8. Evaluation.

The NFWF Subrecipient agrees to cooperate with NFWF by providing timely responses to all reasonable requests for information to assist in evaluating the accomplishments of the Project for a period of five (5) years after the project end date, unless if any litigation, claim, or audit is started (irrespective of the NFWF Subrecipient's involvement in such matter) before the expiration of the 5-year period, the records shall be retained until all litigation, claims or audit findings or pending matters involving the records have been resolved and final action taken. NFWF shall notify NFWF Subrecipient if any such litigation, claim or audit takes place so as to extend the retention period.

2.9. Compliance with Laws.

2.9.1 In General. The NFWF Subrecipient agrees to conduct all such activities in compliance with all applicable Federal, State, and local laws, regulations, and ordinances and to secure all appropriate necessary public or private permits and consents. The terms of this provision will survive termination of this Grant Agreement and must be flowed down to any and all contractors, subcontractors or subrecipients entered into by NFWF Subrecipient in the performance of this Grant Agreement.

2.9.2. Compliance with Anti-Corruption, Anti-Money Laundering, Terrorist Financing, and Other Restrictions.

2.9.2.1. The NFWF Subrecipient shall ensure that no payments have been or will be made or received by the NFWF Subrecipient in connection with this Agreement in violation of the U.S. Foreign Corrupt Practices Act of 1977, as amended (15 U.S.C. §dd-1 *et seq.*), the UK Bribery Act 2010, or any other applicable anti-corruption laws or regulations in the countries in which the NFWF Subrecipient performs under this Grant Agreement.

2.9.2.2. The NFWF Subrecipient shall not provide material support or resources directly or indirectly to, or knowingly permit any funds provided by NFWF pursuant to this Grant Agreement or Matching Contributions to be transferred to, any individual, corporation or other entity that the NFWF Subrecipient knows, or has reason to know, commits, attempts to commit, advocates, facilitates, or participates in any terrorist activity,

or has committed, attempted to commit, advocated, facilitated or participated in any terrorist activity, including, but not limited to, the individuals and entities (1) on the master list of Specially Designated Nationals and Blocked Persons maintained by the U.S. Department of Treasury's Office of Foreign Assets Control, which list is available at www.treas.gov/offices/enforcement/ofac;(2) on the consolidated list of individuals and entities maintained by the "1267 Committee" of the United Nations Security Council at http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml; (3) on the consolidated list maintained by the U.S. Department of Commerce at http://export.gov/ecr/eg_main_023148.asp, or (4) on such other list as NFWF may identify from time to time.

2.9.2.3 . The NFWF Subrecipient shall ensure that its activities under this Grant Agreement comply with all applicable U.S. laws, regulations and executive orders regarding money laundering, terrorist financing, U.S. sanctions laws, U.S. export controls, restrictive trade practices, boycotts, and all other economic sanctions or trade restrictions promulgated from time to time by means of statute, executive order, regulation or as administered by the U.S. Department of State, the Office of Foreign Assets Control, U.S. Department of the Treasury, or the Bureau of Industry and Security, U.S. Department of Commerce.

~~2.10. Arbitration.~~

~~All claims, disputes, and other matters in question arising out of, or relating to this Grant Agreement, its interpretation or breach, shall be decided through arbitration by a person or persons mutually acceptable to both NFWF and the NFWF Subrecipient. Notice of the demand for arbitration shall be made within a reasonable time after the claim, dispute, or other matter in question has arisen. The award rendered by the arbitrator or arbitrators shall be final. The terms of this provision will survive termination of this Grant Agreement.~~

~~2.11. Indemnity.~~

~~The NFWF Subrecipient shall indemnify and hold harmless NFWF, any Funding Source identified in this Grant Agreement, their respective officers, directors, agents, and employees in respect of any and all claims, injuries, losses, diminution in value, damages, liabilities, whether or not currently due, and expenses including without limitation, settlement costs and any legal or other expenses for investigating or defending any actions or threatened actions or liabilities arising from or in connection with the Project. The terms of this provision will survive termination of this Grant Agreement.~~

2.12. Insurance.

The NFWF Subrecipient agrees to obtain and maintain all appropriate and/or required insurance coverages against liability for injury to persons or property from any and all activities undertaken by the NFWF Subrecipient and associated with this grant agreement in any way. NFWF reserves the right to require additional insurance limits and policies based on specific activities under this Grant Agreement, that NFWF be named insured on all applicable insurance policies, and that the NFWF Subrecipient provide a certificate of insurance and/or copies of applicable insurance policies as requested by NFWF. The terms of this provision will survive termination of this Grant Agreement.

2.13. Choice of Law/Jurisdiction.

This Grant Agreement shall be subject to and interpreted by the laws of the State of South Carolina, without regard to choice of law principles. By entering into this Grant Agreement, the NFWF Subrecipient agrees to submit to the jurisdiction of the courts of the State of South Carolina. The terms of this provision will survive termination of this Grant Agreement.

2.14. Termination.

2.14.1. Upon the occurrence of any of the following enumerated circumstances, NFWF may terminate this Grant Agreement, or any portion thereunder, for default effective upon receipt by the NFWF Subrecipient of NFWF's written notice of termination, or as otherwise specified in the notice of termination:

2.14.1.1. The NFWF Subrecipient is adjudged or becomes bankrupt or insolvent, is unable to pay its debts as they become due, or makes an assignment for the benefit of its creditors; or,

2.14.1.2. The NFWF Subrecipient voluntarily or involuntarily undertakes to dissolve or wind up its affairs; or,

2.14.1.3. In the event of suspension or debarment by the Government of the NFWF Subrecipient; or,

2.14.1.4. In the event of any breach of the requirements set forth in Section 2 of this Grant Agreement concerning Compliance with Anti-Corruption, Anti-Money Laundering, Terrorist Financing, and Trafficking in Persons Statutes and Other Restrictions; or,

2.14.1.5. In the event NFWF learns that NFWF Subrecipient has an organizational conflict of interest, or any other conflict of interest, as determined in the sole discretion of NFWF, that NFWF believes cannot be mitigated; or,

2.14.1.6. After written notice and a reasonable opportunity to cure the perceived non-compliance with any material term of this Grant Agreement. The cure period shall be considered the timeframe specified by the Government, if any, minus one (1) to five (5) days or as agreed upon by the Parties in writing, or if no time is specified by the Government, ten (10) days or as otherwise agreed upon by the Parties. Within this time period the NFWF Subrecipient shall, as determined by NFWF, (a) satisfactorily demonstrate its compliance with the term(s) originally believed to be in non-compliance; or (b) NFWF, at its sole discretion, may determine that NFWF Subrecipient has satisfactorily demonstrated that reasonable progress has been made so as not to endanger performance under this Grant Agreement.

2.14.2. Either Party may terminate this Grant Agreement by written notice to the other Party for any reason by providing thirty (30) days' prior written notice to the other Party. NFWF shall have the right to terminate this Agreement in whole or in part at any time, if the Funding Source issues an early termination under the funding agreement(s) covering all or part of the Project at issue hereunder.

2.14.3. In the event of termination of this Grant Agreement prior to Project completion, the NFWF Subrecipient shall immediately (unless otherwise directed by NFWF in its notice if NFWF initiated the termination) undertake all reasonable steps to wind down the Project cooperatively with NFWF, including but not limited to the following:

2.14.3.1. Stop any portion of the Project's work that is incomplete (unless work to be completed and a different date for termination of work are specified in NFWF's notice).

2.14.3.2. Place no further work orders or enter into any further subawards or contracts for materials, services or facilities, except as necessary to complete work as specified in NFWF's notice.

2.14.3.3. Terminate all pending Project work orders, subawards, and contracts for work that has not yet commenced.

2.14.3.4. With the prior written consent of NFWF, promptly take all other reasonable and feasible steps to minimize and/or mitigate any damages that may be caused by the failure to complete the Project, including but not limited to reasonable settlements of any outstanding claims arising out of termination of Project work orders, subawards, and contracts.

2.14.3.5. Deliver or make available to NFWF all data, drawings, specifications, reports, estimates, summaries, and such other information and material as may have been accumulated by the NFWF Subrecipient under this Grant Agreement, whether completed or in progress.

2.14.3.6. Return to NFWF any unobligated portion of the Award.

2.15. Entire Agreement.

These terms and conditions, including the Attachments hereto, constitute the entire agreement between the Parties relating to the Project described herein and supersede all previous communications, representations, or agreements, either oral or written, with respect to the subject matter hereof. No representations or statements of any kind made by any representative of a Party, which are not stated herein, shall be binding on said Party.

2.16. Severability.

Each provision of this Grant Agreement is distinct and severable from the others. If one or more provisions is or becomes invalid, unlawful, or unenforceable in whole or in part, the validity, lawfulness and enforceability of the remaining provisions (and of the same provision to the extent enforceable) will not be impaired, and the Parties agree to substitute a provision as similar to the offending provision as possible without its being invalid, unlawful or unenforceable.

2.17. Interpretation and Construction.

2.17.1. This Grant Agreement shall be interpreted as a unified contractual document with the Sections and the Attachments having equal effect, except in the event of any inconsistency between them. In the event of a conflict between any portion of this Grant Agreement and another portion of this Grant Agreement, first the Sections will apply, then any supplemental attachments.

2.17.2. The title designations of the provisions to this Grant Agreement are for convenience only and shall not affect the interpretation or construction of this Grant Agreement.

2.17.3. Every right or remedy conferred by this Grant Agreement upon or reserved to the Parties shall be cumulative and shall be in addition to every right or remedy now or hereafter existing at law or in equity, and the pursuit of any right or remedy shall not be construed a selection.

2.17.4. The failure of NFWF to exercise any right or privilege granted hereunder or to insist upon the performance and/or compliance of any provision of this Grant Agreement, a referenced contractual, statutory or regulatory term, or an Attachment hereto, shall not be construed as waiving any such right, privilege, or performance/compliance issue, and the same shall continue in full force and effect.

2.17.5. Notwithstanding any express statements regarding the continuation of an obligation beyond the expiration or termination of this Grant Agreement, the rights and obligations of this Grant Agreement which by their nature extend beyond its expiration or termination shall remain in full force and effect and shall bind the Parties and their legal representatives, successors, heirs, and assigns.

SECTION 3 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS GENERAL

3.1. Binding Obligation.

By execution of this Grant Agreement, NFWF Subrecipient represents and certifies that this Grant Agreement has been duly executed by a representative of the NFWF Subrecipient with full authority to execute this Grant Agreement and binds the NFWF Subrecipient to the terms hereof. After execution by the representative of the NFWF Subrecipient named on the signature page hereto, this Grant Agreement represents the legal, valid, and binding obligation of the NFWF Subrecipient, enforceable against the NFWF Subrecipient in accordance with its terms.

3.2. Additional Support.

In making this Award, NFWF assumes no obligation to provide further funding or support to the NFWF Subrecipient beyond the terms stated in this Grant Agreement.

3.3. Compliance with Laws.

By execution of this Grant Agreement and through its continued performance hereunder, the NFWF Subrecipient represents and certifies that it is conducting all such activities in compliance with all applicable Federal, State, and local laws, regulations, and ordinances and to secure all appropriate necessary public or private permits and consents.

3.4. Conflicts of Interest.

By execution of this Grant Agreement, NFWF Subrecipient acknowledges that it is prohibited from using any Project funds received under this Grant Agreement in a manner which may give rise to an apparent or actual conflict of interest, including organizational conflicts of interest, on the part of the NFWF Subrecipient. Such a conflict of interest would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract. The officers, employees, and agents of NFWF Subrecipient may neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or parties to subcontracts. An organizational conflict of interest is defined as a relationship that because of relationships with a parent company, affiliate, or subsidiary organization, the non-Federal entity is unable or appears to be unable to be impartial in conducting a procurement action involving a related organization. The NFWF Subrecipient represents and certifies that it has adopted a conflict of interest policy that, at a minimum, complies with the requirements of the OMB Uniform Guidance, and will comply with such policy in the use of any Project funds received under this Agreement. NFWF Subrecipient may set standards for situations in which the financial interest is not substantial or the gift is an unsolicited item of nominal value. The standards of conduct must provide for disciplinary actions to be applied for violations of such standards by officers, employees, or agents of NFWF Subrecipient. If NFWF Subrecipient becomes aware of any actual or potential conflict of interest or organizational conflict of interest, during the course of performance of this Grant Agreement, NFWF subrecipient will immediately notify NFWF in writing of such actual or potential conflict of interest, whether organizational or otherwise.

SECTION 4 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS RELATING TO FEDERAL FUNDS

4.1. If the Funding Source or any funding entity (*i.e.,* a secondary funding source) is a federal agency and/or any portion of the Project provided herein is paid with federal funds, the NFWF Subrecipient must read and understand certain applicable Federal regulations, including but not limited to, the following in Sections 4 and 5 of this Agreement as set forth herein.

If the NFWF Subrecipient is a Non-Profit Organization, Institution of Higher Education, State, Local or Tribal Government, it will need to understand and comply with the OMB Uniform Guidance (including related Supplements as may be applicable to a specific federal funding source(s), and Appendices as may be applicable), in addition to other applicable Federal regulations.

If NFWF Subrecipient subawards any portion of the Project under this Agreement to a third-party, NFWF Subrecipient shall, at a minimum, flow down those requirements and provisions required to be flowed down pursuant to the applicable regulations set forth above.

4.2. A-133 and 2 CFR § 200 Subpart F Audits.

It is the responsibility of subrecipients that are Non-Profit Organizations, State, Local or Tribal Governments to arrange for the conduct of audits as required by either OMB Circular A-133, "Audits of States, Local Governments, and Non Profit Organizations" or 2 CFR Part 200, Subpart F – Audit Requirements, whichever is applicable.

4.3. Interest.

Any interest earned in any one year on Federal funds advanced to the NFWF Subrecipient that exceeds $500 must be reported to NFWF, and the disposition of those funds negotiated with NFWF. Interest amounts up to $500 per year may be retained by the Subrecipient for administrative expense.

4.4. Subrecipient Debarment and Suspensions.

Unless NFWF Subrecipient has submitted a written justification fourteen (14) days prior to execution of this Grant Agreement, stating the reason that this term does not apply, which has been expressly accepted and approved by NFWF prior to execution, by and through NFWF Subrecipient's execution of this Grant Agreement, NFWF Subrecipient warrants and represents its initial and continued compliance that it is not listed on the General Services Administration's, government-wide System for Award Management Exclusions (SAM Exclusions), in accordance with the OMB guidelines at 2 C.F.R Part 180 that implement E.O.s 12549 (3 C.F.R., 1986 Comp., p. 189) and 12689 (3 C.F.R., 1989 Comp., p. 235), "Debarment and Suspension." The NFWF Subrecipient further provides that it shall not enter into any subaward, contract or other agreement using funds provided by NFWF with any party listed on the SAM Exclusions in accordance with Executive Orders 12549 and 12689. The SAM Exclusions can be found at https://www.sam.gov/portal/public/SAM/.

4.5. Mandatory Disclosure.

NFWF Subrecipient must disclose, in a timely manner, in writing to NFWF all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award. Failure to make required disclosures can result in any of the remedies described in this Grant Agreement, including termination, and any remedies provided under law, including suspension or debarment by cognizant federal authorities.

4.6. Trafficking in Persons.

Pursuant to section 106(a) of the Trafficking Victims Protection Act of 2000, as amended (22 U.S.C. 7104(g)) (codified at 2 C.F.R. Part 175), NFWF Subrecipient shall comply with the below provisions. Further, NFWF Subrecipient shall flow down these provisions in all subawards and contracts, including a requirement that Subrecipients similarly flow down these provisions in all lower-tiered subawards and subcontracts. The provision is cited herein:

l. Trafficking in persons.

a. *Provisions applicable to a recipient that is a private entity.*

1. You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not—
   - i. Engage in severe forms of trafficking in persons during the period of time that the award is in effect;
   - ii. Procure a commercial sex act during the period of time that the award is in effect; or
   - iii. Use forced labor in the performance of the award or subawards under the award.
2. We as the Federal awarding agency's pass-through entity may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity —
   - i. Is determined to have violated a prohibition in paragraph a.1 of this award term; or
   - ii. Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either—
     - A. Associated with performance under this award; or
     - B. Imputed to you or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement),".

b. *Provision applicable to a recipient other than a private entity.* We as the Federal awarding agency's pass-through entity may unilaterally terminate this award, without penalty, if a subrecipient that is a private entity-

1. Is determined to have violated an applicable prohibition in paragraph a.1 of this award term; or
2. Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph a.1 of this award term through conduct that is either—
   - i. Associated with performance under this award; or
   - ii. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement),".

c. *Provisions applicable to any recipient.*

1. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a.1 of this award term.
2. Our right to terminate unilaterally that is described in paragraph a.2 or b of this section:
   - i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and
   - ii. Is in addition to all other remedies for noncompliance that are available to us under this award.
3. You must include the requirements of paragraph a.1 of this award term in any subaward you make to a private entity.

d. *Definitions.* For purposes of this award term:

1. "Employee" means either:
   - i. An individual employed by you or a subrecipient who is engaged in the performance of the project or program under this award; or
   - ii. Another person engaged in the performance of the project or program under this award and not compensated by you including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing or matching requirements.
2. "Forced labor" means labor obtained by any of the following methods: the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.
3. "Private entity":

i. Means any entity other than a State, local government, Indian tribe, or foreign public entity, as those terms are defined in 2 CFR 175.25.

ii. Includes:

A. A nonprofit organization, including any nonprofit institution of higher education, hospital, or tribal organization other than one included in the definition of Indian tribe at 2 CFR 175.25(b).

B. A for-profit organization.

4. "Severe forms of trafficking in persons," "commercial sex act," and "coercion" have the meanings given at section 103 of the TVPA, as amended (22 U.S.C. 7102).

4.7. Subrecipient Monitoring Requirements.

NFWF Subrecipients receiving federal funds understand that NFWF may require NFWF Subrecipient to take corrective action measures in response to a deficiency brought to NFWF and NFWF Subrecipient's attention during the course of an audit.

4.8. Certification and Representation.

NFWF Subrecipient must submit those certifications and representations required by Federal statutes, or regulations to NFWF on an annual basis. Submission may be required more frequently if the NFWF Subrecipient entity fails to meet a requirement of a Federal award.

Programmatic and financial reports or payment requests under a Federal award must be submitted by a representative of the NFWF Subrecipient who has the NFWF Subrecipient's full authority to render such reports and requests for payment and certify to the following at time of submission:

> By signing this [report] [payment request], I certify to the best of my knowledge and belief that the [report] [payment request] is true, complete, and accurate. [The expenditures, disbursements and cash receipts are for the purposes and objectives set forth in the terms and conditions of the Grant Agreement.]. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-3812).

4.9. 41 United States Code (U.S.C.) 4712, Enhancement of Recipient and Subrecipient Employee Whistleblower Protection:

(a) This award, related subawards, and related contracts over the simplified acquisition threshold and all employees working on this award, related subawards, and related contracts over the simplified acquisition threshold are subject to the whistleblower rights and remedies established at 41 U.S.C. 4712.

(b) Recipients, their subrecipients, and their contractors awarded contracts over the simplified acquisition threshold related to this award, shall inform their employees in writing, in the predominant language of the workforce, of the employee whistleblower rights and protections under 41 U.S.C. 4712.

(c) The recipient shall insert this clause, including this paragraph (c), in all subawards and contracts over the simplified acquisition threshold related to this award.

4.10. 41 USC §6306, Prohibition on Members of Congress Making Contracts with Federal Government.

No member of or delegate to Congress or Resident Commissioner shall be admitted to any share or part of this award, or to any benefit that may arise therefrom; this provision shall not be construed to extend to an award made to a corporation for the public's general benefit.

4.11. Executive Order 13513, Federal Leadership on Reducing Text Messaging while Driving.

(Sub)Recipients are encouraged to adopt and enforce policies that ban text messaging while driving, including conducting initiatives of the type described in section 3(a) of the order.

4.12. 43 CFR §18 New Restrictions on Lobbying.

The NFWF Subrecipient agrees to comply with 43 CFR 18, New Restrictions on Lobbying, including the following certification:

(a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the
NFWF Subrecipient, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying" in accordance with its instructions.

(c) The NFWF Subrecipient shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all Subrecipients shall certify accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

SECTION 5 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS RELATING TO FEDERAL FUNDS – FUNDING SOURCE SPECIFIC

FC.R416

Pre-Award Matching Contributions.

The NFWF Subrecipient may begin accumulating pre-award matching contribution costs for Funding Source FC.R416 as of July 1, 2019. This pre-award waiver is only applicable to matching contributions; the NFWF Award listed on line 12 of the Cover Page of this Agreement must be expended within the period of performance listed on line 11.

Department of Commerce (DOC) Compliance Requirements.

The NFWF Subrecipient must comply with the terms and conditions of a DOC financial assistance award, including applicable provisions of the OMB Uniform Guidance (2 C.F.R. Part 200), and all associated Terms and Conditions set forth in the Department of Commerce Financial Assistance Standard Terms and Conditions Dated April 30, 2019, available at http://www.osec.doc.gov/oam/grants_management/policy/. See 2 C.F.R. § 200.101(b)(1) (Applicability), which describes the applicability of 2 C.F.R. Part 200 to various types of Federal awards and §§200.330-332 (Subrecipient monitoring and management). Additionally, the NFWF Subrecipient must flow these requirements down to all subrecipients and contractors, including lower tier subrecipients.

Equipment Reporting.

Equipment or supplies (aggregate supplies, not per unit) at a cost of $5,000 or greater per unit value, including its fair market value, must be inventoried at least once every two years and at award closeout (2 CFR 200.313). NFWF Subrecipients may use the outdated SF-428 form series to report on tangible property or submit their own customized report including a description of federally owned equipment, identification information, acquisition cost, and acquisition date. More guidance on property definitions and forms is posted online at coast.noaa.gov/funding/forms.html.

Handling of Environmental Data or Peer Reviewed Publications.

a) Data Sharing: Environmental data collected or created under this Grant, Cooperative Agreement, or Contract must be made publicly visible and accessible in a timely manner, free of charge or at minimal cost that is no more than the cost of distribution to the user, except where limited by law, regulation, policy, or national security requirements. Data are to be made available in a form that would permit further analysis or reuse: data must be encoded in a machine-readable format, preferably using existing open format standards; data must be sufficiently documented, preferably using open metadata standards, to enable users to independently read and understand the data. The location (internet address) of the data should be included in the final report. Pursuant to NOAA Information Quality Guidelines, data should undergo quality control (QC) and a description of the QC process and results should be referenced in the metadata. Failure to perform quality control does not constitute an excuse not to share data. Data without QC are considered "experimental products" and their dissemination must be accompanied by explicit limitations on their quality or by an indicated degree of uncertainty.
b) Timeliness: Data accessibility must occur no later than publication of a peer-reviewed article based on the data, or two years after the data are collected and verified, or two years after the original end date of the grant (not including any extensions or follow-on funding), whichever is soonest, unless a delay has been authorized by the NOAA funding program.
c) Disclaimer: Data produced under this award and made available to the public must be accompanied by the following statement: "These data and related items of information have not been formally disseminated by NOAA, and do not represent any agency determination, view, or policy."

d) Failure to Share Data: Failing or delaying to make environmental data accessible in accordance with the submitted Data Management Plan, unless authorized by the NOAA Program, may lead to enforcement actions, and will be considered by NOAA when making future award decisions. Funding recipients are responsible for ensuring these conditions are also met by sub-recipients and subcontractors.

e) Funding acknowledgement: Federal funding sources shall be identified in all scholarly publications. An Acknowledgements section shall be included in the body of the publication stating the relevant Grant Programs and Award Numbers. In addition, funding sources shall be reported during the publication submission process using the FundRef mechanism (http://www.crossref.org/fundref/) if supported by the Publisher.

f) Manuscript submission: The final pre-publication manuscripts of scholarly publications produced with NOAA funding shall be submitted to the NOAA Institutional Repository at http://library.noaa.gov/repository after acceptance, and no later than upon publication, of the paper by a journal. NOAA will produce a publicly-visible catalog entry directing users to the published version of the article. After an embargo period of one year after publication, NOAA shall make the manuscript itself publicly visible, free of charge, while continuing to direct users to the published version of record.

g) Data Citation: Publications based on data, and new products derived from source data, must cite the data used according to the conventions of the Publisher, using unambiguous labels such as Digital Object Identifiers (DOIs). All data and derived products that are used to support the conclusions of a peer-reviewed publication must be made available in a form that permits verification and reproducibility of the results.

Scientific Integrity.

a) *Maintaining Integrity.* The NFWF Subrecipient shall maintain the scientific integrity of research performed pursuant to this grant or financial assistance award including the prevention, detection, and remediation of any allegations regarding the violation of scientific integrity or scientific and research misconduct, and the conduct of inquiries, investigations, and adjudications of allegations of violations of scientific integrity or scientific and research misconduct. All the requirements of this provision flow down to subrecipients.

b) *Peer Review.* The peer review of the results of scientific activities under a NOAA grant, financial assistance award, or cooperative agreement shall be accomplished to ensure consistency with NOAA standards on quality, relevance, scientific integrity, reproducibility, transparency, and performance. NOAA will ensure that peer review of "influential scientific information" or "highly influential scientific assessments" is conducted in accordance with the Office of Management and Budget (OMB) Final Information Quality Bulletin for Peer Review and NOAA policies on peer review, such as the Information Quality Guidelines.

c) In performing or presenting the results of scientific activities under the NOAA grant, financial assistance award, or cooperative agreement and in responding to allegations regarding the violation of scientific integrity or scientific and research misconduct, the NFWF Subrecipient and all subrecipients shall comply with the provisions herein and NOAA Administrative Order (NAO) 202-735D, Scientific Integrity, and its Procedural Handbook, including any amendments thereto. That Order can be found at https://nrc.noaa.gov/ScientificIntegrityCommons.aspx.

d) *Primary Responsibility.* The NFWF Subrecipient shall have the primary responsibility to prevent, detect, and investigate allegations of a violation of scientific integrity or scientific and research misconduct. Unless otherwise instructed by the grants officer, the recipient shall promptly conduct an initial inquiry into any allegation of such misconduct and may rely on its internal policies and procedures, as appropriate, to do so.

e) By executing this grant, financial assistance award, or cooperative agreement the NFWF Subrecipient provides its assurance that it has established an administrative process for performing an inquiry, investigating, and reporting allegations of a violation of scientific integrity or scientific and research misconduct; and that it will comply with its own administrative process for performing an inquiry, investigation, and reporting of such misconduct.

f) The NFWF Subrecipient shall insert this provision in all subawards at all tiers under this grant, financial assistance award, or cooperative agreement.

SECTION 6 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS RELATING TO NON-FEDERAL FUNDS – FUNDING SOURCE SPECIFIC

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10.)

CPR COMMITTEE and/or COUNCIL AGENDA

TO: John J. Tecklenburg, Mayor

FROM: Joe Swaim / Andrew Jones **DEPT.** Stormwater Management

SUBJECT: BARBERRY WOODS IMPROVEMENTS – FEE AMENDMENT #1

REQUEST: Approval of Fee Amendment #1 with WK Dickson & Co., Inc. in the amount of $192,745.00 for additional engineering and design services for drainage improvements in the Barberry Woods area of Johns Island. This fee amendment will add an additional 60 calendar days to the contract.

COMMITTEE OF COUNCIL: Ways & Means **DATE:** September 22, 2020

COORDINATION: This request has been coordinated with: *(attach all recommendations/reviews)*

	Yes	N/A	Signature of Individual Contacted	Attachment
CPR Committee Chair	☐	☐	Amy Wharton	☐
Corporate Counsel	☐	☐		☐
Dir. of SW Management	☒	☐		☐
	☐	☐		☐

FUNDING: Was funding previously approved? Yes ☒ No ☐ N/A ☐

If yes, provide the following: Dept/Div SW Mgmt-Proj. Mgmt Acct # 050371-52238

Balance in Account $192,745.00 Amount needed for this item $192,745.00

NEED: Identify any critical time constraint(s).

CFO's Signature: Amy Wharton

FISCAL IMPACT: **Approval of Fee Amendment #1 will increase the professional services contract by $192,745.00 (from $498,050.00 to $690,795.00). Funding for this fee amendment is coming from a National Fish & Wildlife Grant ($117,500.00) and Drainage Fund ($117,500).**

Mayor's Signature: _____
John J. Tecklenburg, Mayor

ORIGINATING OFFICE PLEASE NOTE: A FULLY STAFFED/APPROVED (except Mayor's Signature) PACKAGE IS DUE IN THE CLERK OF COUNCIL'S OFFICE NO LATER THAN 10:00 A.M THE DAY OF THE CLERK'S AGENDA MEETING.

This is **EXHIBIT K**, consisting of [10] pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated [August 6, 2020].

AMENDMENT TO OWNER-ENGINEER AGREEMENT
Amendment No. 1

The Effective Date of this Amendment is: _____.

Background Data

Effective Date of Owner-Engineer Agreement:

Owner: City of Charleston

Engineer: W. K. Dickson & Co., Inc.

Project: Barberry Woods Drainage

Nature of Amendment: [Check those that are applicable and delete those that are inapplicable.]

X Additional Services to be performed by Engineer
_____ Modifications to services of Engineer
_____ Modifications to responsibilities of Owner
X Modifications of payment to Engineer
X Modifications to time(s) for rendering services
_____ Modifications to other terms and conditions of the Agreement

Description of Modifications:

Please refer to Attachment A, Scope of Services, dated July 28, 2020.

Agreement Summary:

Original agreement amount:	$ 498,050.00
Net change for prior amendments:	$ 0.00
This amendment amount:	$ 192,745.00
Adjusted Agreement amount:	$ 690,795.00

Change in time for services (days or date, as applicable): 60 Additional Calendar Days

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The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect.

OWNER: City of Charleston, SC	ENGINEER: W. K. Dickson & Co., Inc.
By:	By:
Print name:	Print name: Scott Sigmon
Title:	Title: Vice President
Date Signed:	Date Signed: 8-7-2020

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ATTACHMENT A

SCOPE OF SERVICES
CITY OF CHARLESTON, SC
JOHNS ISLAND RESTORATION PLAN TO IMPROVE FLOOD RESILIENCY
JULY 28, 2020

As stated in its National Fish and Wildlife Federation (NFWF) application, the City outlined the following activities, outcomes, and metrics for the Johns Island Restoration Plan:

The Johns Island Restoration Plan to Improve Flood Resiliency will perform the following activities. Project work would take place through video and location specific meetings of technical team and project partners, desk research and modelling, and public workshops. Community outreach and engagement is also a necessary component of the project.

- *Test the data used to establish the zones, model surge and tidal impacts on the island within the two lowest zones (Wet, Ecological), and adjust all zone elevation recommendations, if necessary, to achieve appropriate flood risk reduction. Data testing would incorporate some TBD level of sea level rise into the zone recommendations.*
- *Identify, with City Planning and possibly Lowcountry Land Trust, tracts of undeveloped land on Johns Island on which the Strategy could be applied. Ideally, a number of large tracts could be located, or smaller, contiguous tracts could be identified.*
- *Assess and prioritize which tracts would provide highest benefit for flood risk mitigation and ecosystem function / connectivity.*
- *Prioritize which tracts are best suited for purchase, easement or other utilization strategies to achieve highest-benefit outcomes.*
- *Develop specific recommendations, pursuant to the safety zone strategy / flood risk mitigation, to inform the Charleston Comprehensive Plan (2020) Update and future Zoning Ordinance amendments.*

Outcomes

- *Protect critical infrastructure in and around the Johns Island basin;*
- *Promote community resilience around the basin and in surrounding communities;*
- *Enhance ecosystem services and benefits.*

Tracking Metrics

This Project will create 1 Engineering and Design Plan, engage 10 government stakeholders, reach 500 people, and involve volunteers to serve 300 hours.

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SCOPE OF WORK:

TASK 1 – PROJECT ADMINISTRATION

ENGINEER will administer the project in a manner so as to be responsive to the needs and schedule of the OWNER to assure the quality of the product. The following project administration efforts will include, but not be limited to, the following items:

1.1 Project Formulation

This task will also include project planning and formulation that will establish the management process to ensure the quality control program throughout the life of the project.

1.2 Project Billing Administration

ENGINEER shall oversee the project team relative to ensuring budget, schedule and conformance to the project scope on a day-to-day basis. The ENGINEER shall also provide a minimum of two project contacts for the OWNER so that at any time someone familiar with the project can be available to the OWNER if questions, comments, concerns, or other project needs arise.

ENGINEER shall maintain a cost accounting system throughout the life of the project and will maintain a project filing system throughout the life of the project to use for storage and retrieval of project documents. Project Management is anticipated to occur on an ongoing basis throughout the entire project.

This task also includes update the project schedule (formally) if during the life of the project a substantial deviation in the schedule occurs for any reason, where additional monthly management fees shall be renegotiated if the schedule is substantially extended due to the OWNER holding up delivery of scoped work or scope of work expansion. All other minor schedule updates will occur in the monthly project reporting.

All project final deliverables will be certified (signed, sealed and dated) by a professional engineer and/or surveyor and/or landscape architect registered in the state of South Carolina as necessary. ENGINEER will participate in project closeout and ensure it is completed on a timely basis.

The ENGINEER shall prepare and submit via email a monthly progress report to update the project schedule, list milestones achieved, review subgrantee progress and invoicing, provide current status of each major task, support and document schedule changes, update product costs and justify any proposed changes to the schedule or budgets. Monthly progress reports are due at the end of each month and shall approximately coincide with monthly project invoicing. Invoicing shall be itemized with worked hours and receipts of billed expenses and shall be complete and in a format acceptable for NFWF reimbursement.

1.3 Monthly Status Meetings

The ENGINEER shall meet with the OWNER's Project Manager as appropriate throughout the life of the project via conference call or be available to answer project related questions on a regular basis via phone calls and email. It is assumed that twelve meetings will be held over the phone or via a digital meeting platform. A County representative will be invited to participate in each meeting.

Deliverables: Monthly Progress Reports, Meeting Minutes capturing decision points from Monthly Status Meetings

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TASK 2 – NFWF GRANT COMPLIANCE

ENGINEER will assist the City of Charleston (OWNER) with ensuring that it maintains compliance with the grant requirements associated with the NFWF Emergency Coastal Resilience Fund grant for the Johns Island Restoration Plan project. These services will include:

Assistance with the preparation of grant reports throughout the project. Based on grant agreements for similar NFWF planning projects, this will include the following reports to provide updates on the overall project and the stated metrics and objectives to be achieved (as outlined in the grant application):

- Interim Programmatic Report – Submitted at the 6-month stage of the project, to include:
    - Project accomplishments
    - Project schedule milestones
    - Discussion of adjustments to the scope of work needed or projected to achieve project outcomes
    - Update metrics table
- Final Programmatic Report – Submitted upon completion of the project, to include:
    - Summary of accomplishments
    - Project outcomes and activities
    - Lesson learned
    - Overview of dissemination of project outcomes
    - Other project documents including pictures, reports, publications, news articles or relevant project information
    - Final update of metrics table
- Final Financial Report – Submitted to request reimbursement for eligible grant expenses, to include:
    - Documentation of the expenditure of matching funds
    - Complete final expenditure budget

The OWNER & ENGINEER will collaborate on the completion of these reports to ensure that they are complete and thorough prior to submission to NFWF. The OWNER will provide any information, financial records and data that it maintains for the project for preparation of the reports. These reports are submitted electronically through the NFWF grants portal, EasyGrants. The OWNER will give ENGINEER access to this portal on order to complete these reports. The ENGINEER will manage activities, scope, and coordination with the OWNER's NFWF subgrantee to assure billing, scope, product delivery, and reporting are organized and in accordance with NFWF and OWNER requirements.

Once finalized, the OWNER will provide a copy of the NFWF grant agreement to ENGINEER for review. Should this agreement include any additional special or specific grant administration requirements not outlined above, we will evaluate the level of effort necessary to assist the OWNER with these requirements and it will be covered under an amendment to this contract, if necessary.

Deliverables: Interim Programmatic Report, Final Programmatic Report, Final Financial Report

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TASK 3 – PROJECT INITIATION

Kick-off Meeting

ENGINEER will host a web-based meeting at the start of the project to include the Consultant Team, the City, and the County. Prior to the meeting, a draft agenda will be provided to the City and County and refined as needed to ensure all pertinent issues are efficiently discussed.

Locate and Assemble Existing Data

The data assembly and analysis are primarily desktop exercises of gathering, vetting, and downloading available information from federal, regional, and local sources to create a geodatabase and Base Map. This includes reviewing formats and resolution of the datasets for compatibility within subsequent modeling tasks. ENGINEER expects the OWNER to provide a foundation of previously compiled information and will also to reach out to contacts such as the SE Atlantic Landscape Conservation Cooperative, The Nature Conservancy's regional spatial analysts, DNR, SC State Historic Preservation Office (SHPO), Charleston County, and College of Charleston who we know to have access to information from special projects and prioritization exercises. Data sets will be used for planning level analysis and include ecology, hydrology, soils and landscape ecology.

Deliverables: Preliminary Geodatabase and Planning Level Base Map of Data sets as noted.

TASK 4 – STAKEHOLDER OUTREACH

The goal of this task is to reach 500 community members and generate active participation from ten separate government entities.

Initial outreach

The ENGINEER will develop a list of stakeholders based on participants in the Johns Island group and other Dutch Dialogues participants. Outreach will emphasize the development community, conservation organizations, homeowners and business groups. A communications structure will be set up using stakeholder email and web-based content for stakeholder updates.

Form Technical Advisory Group (TAG)

ENGINEER will confer with the City and County to winnow the compiled stakeholder list into a small working group of technical experts. We anticipate the TAG will be comprised of agency leaders from all levels of government, as well as academics, nonprofit conservationists, and knowledgeable citizens. Potential members of the TAG will be asked to contribute data and actively participate in the planning process.

Solicit Stakeholder Input

ENGINEER will host a web-based virtual meeting to provide an overview of the project and to solicit contributions and feedback from stakeholders on key considerations, concerns and specialized information.

Deliverables: Technical Advisory Group contact list

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TASK 5 – RECONNAISSANCE

Up to five members of the consulting team will participate in a two day windshield survey reconnaissance of the study area to develop a better understanding of conditions and opportunities, verify mapped data, and identify features missing from mapped data. Subsequent field visits will be performed under separate tasks.

Deliverable: Summary memorandum of any specific conditions or opportunities that were identified that require specific attention or input from the OWNER.

TASK 6 – FLOOD RISK ASSESSMENT

The existing Johns Island HEC-RAS (v. 5.0.7) planning model will be used and adapted for this planning effort. As needed, the existing model will be updated with any recent storm surge model and sea level-rise models, including recent NOAA models, to confirm impacts associated with starting water surface elevations or applicable boundary conditions. Existing hydraulic conveyances, including channels, drainage ditches, existing creeks, diversion berms and large-scale culverts, will be evaluated to confirm spatial location, size and associated friction factors. It is noted that this task includes modeling of significant attenuation facilities as included within the existing Johns Island model.

Once the existing model has been verified to match existing conditions and the planning study's overall assumptions, by comparing the DTM to known LIDAR topography and known land use values to appropriate hydraulic friction factors, data output from this model will be utilized with application shapefiles and GIS-related calculations. The data output that will be utilized includes Water Surface Elevations, floodplain widths, floodplain depth grids, water velocities, estimated peak flows and anticipated shear stresses. This effort includes the export of this model output data into a GIS-friendly output to facilitate these calculations. These calculations will help develop the draft risk tolerances that will be incorporated into further analysis tasks.

Deliverable: GIS output from this task will be provided to the OWNER in a database, and a final copy of the updated model will be provided to the OWNER documenting all significant edits.

TASK 7 – LIVING INFRASTRUCTURE POTENTIAL

This Task incorporates the following critical path items:

- ENGINEER will evaluate and refine the Elevation Zones identified in the Dutch Dialogues Charleston (*wet, ecological, transition, community*). Zones will be refined considering ecological and flood risk analyses performed in Tasks 3 & 6. These zones will form the basis for developing site criteria and making recommendations to current zoning and the comprehensive plan.
- Develop Proposed Site Evaluation Criteria and Identify Sites with Flood Attenuation & Conveyance Potential.
    - ENGINEER will combine Reconnaissance (Task 5) and Flood Risk Assessment (Task 6) with a parcel-level analysis. ENGINEER will propose site evaluation criteria that offers a transparent, science-driven ranking to compare potential utility for flood reduction. ENGINEER assumes one round of edits to proposed criteria from the OWNER.

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- With assistance from The Water Institute, ENGINEER will evaluate available land ownership data to identify potential patterns in parcel size, and apparent ownership type by zone. These patterns will inform subsequent analyses of suitability and feasibility of various restoration practices, funding options and market-based alternatives.

- Review Zoning, Comprehensive Plan and Development Standards to Identify Recommended Guidance - Current zoning data will be integrated into the geodatabase and analyzed. ENGINEER will submit a memorandum identifying sections of the Zoning and Comprehensive Plan that should incorporate findings from this analysis. These will include suggestions to guide land clearing, land disturbance, and revegetation standards as well as the conservation of water conveyance and flow patterns. OWNER feedback will be incorporated when this memo becomes a section of the final report in Task 13.
- Public Engagement - ENGINEER will host a virtual public meeting to share the overlay of the Reconnaissance (Task 5) and Flood Risk Assessment (Task 6) and solicit general comments on the criteria and site evaluation. Digital content will be initiated during this phase, but not all sections will be shareable with the public.

Deliverables: Draft Criteria for defining Living Infrastructure Potential, Zoning and Comprehensive Plan Memorandum, Compiled Feedback from Public Engagement

TASK 8 – CONSERVATION AND GREEN INFRASTRUCTURE LAND USE PRIORITIZATION

This task incorporates stakeholder feedback and informal knowledge, such as development interests, anticipated transportation projects, etc. to narrow down the priorities from the data-driven model into the practical plan that can guide decision-makers. This will require running the spatial model under different criteria, e.g. prioritizing landscape scale connectivity highly for conservation/preservation tracts and less so for tracts with flood storage potential. The following items are included within this task:

- Draft prioritization matrix - Using the data-driven site evaluation criteria, this task incorporates stakeholder feedback and informal knowledge, such as development interests, anticipated transportation projects, etc. to refine priority sites into a practical Prioritization Matrix that can guide decision-makers.

- Prioritization Matrix - In order to reach a comparative ranking of sites and identify parcels for purchase, easement, or utilization strategies, ENGINEER team will analyze matrix results, solicit feedback from the OWNER and TAG, and adjust the model (max 3 total iterations).

- TAG Meeting (Web-based) - ENGINEER will share draft Prioritization Matrix results with TAG and solicit site-specific feedback.

- Legal requirements - ENGINEER will draft a <5-page memo identifying constrictions or barriers to implementation in existing ordinance. OWNER feedback will be incorporated when this memo becomes a section of the final plan development report in Task 13.

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- Field verification - Priority parcels, easements, storage and conveyance systems, and ecosystem enhancement initiatives will be field verified by the ENGINEER team.

Deliverables: Draft Prioritization Matrix, Legal Requirements Draft Memorandum

TASK 9 – STAKEHOLDER (TAG) WORKSHOP NO. 1

The first stakeholder workshop is expected to last up to four (4) hours and will be focused on sharing data, analytical methods and results. ENGINEER will review criteria and the prioritization scheme and solicit stakeholder input via facilitated exercises and discussion.

It is assumed that this Stakeholder Workshop is intended as an in-person event. ENGINEER shall work with the OWNER to evaluate public health considerations for attendance, venue and other logistics. If a web-based virtual is more appropriate, ENGINEER shall utilize Mentimeter, a user-friendly online polling tool that is integrated into web-based meetings to receive and process stakeholder responses and feedback in real time.

Deliverable: Compiled Feedback from TAG Workshop No. 1

TASK 10 – DRAFT PRIORITIZATION AND RECOMMENDATIONS

Analyzing results to date in the zonal context , the project team will develop prioritized strategies and actions that advance the OWNER's goals. This task is envisioned as an iterative process to leverage the project team's diverse expertise in engineering, restoration science, landscape ecology, politics and policy. ENGINEER will employ a charette approach and will develop a viable path to implementation. Critical path items associated with this task include:

- Potential property and/or project location will be vetted through the Prioritization Matrix developed in Task 8;
- Provide recommendations of priority parcels, easements with approximate width and length, storage and conveyance locations, and ecosystem enhancement initiatives.

Deliverable:

Results and findings from this task will be memorialized in a memorandum that will serve as key sections in the final Plan. The memorandum will be distributed to the OWNER and the TAG.

TASK 11 – EVALUATE PRIVATE SECTOR SOLUTIONS

Existing markets for mitigation credits will be evaluated to identify trends in supply and demand and prices. Clean Water Act Section 404 mitigation credit market and Endangered Species Act conservation markets will be considered.

Based on priorities verified through Task 10 and applicable findings from the Barberry analyses, ENGINEER will consider additional market-based solutions that could be created to advance specific OWNER objectives. ENGINEER will evaluate potential synergies for transferrable development credits, flood storage credits, extended buffers and other ecosystem service-based metrics.

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Deliverables: Findings and recommendations from this task will be memorialized in a memorandum that will be incorporated into the final plan development report.

TASK 12 – STAKEHOLDER (TAG) WORKSHOP NO. 2

The second stakeholder workshop is expected to be web-based and last up to four (4) hours. This workshop will emphasize discussion of the prioritized actions described in the draft plan, the mechanics of execution, and the actions needed for successful implementation over time. Mentimeter will be used to receive and process stakeholder feedback. ENGINEER shall review stakeholder comments and integrate them as appropriate into the final documents.

Deliverable: Compiled Feedback from TAG Workshop No. 2

TASK 13 – JOHNS ISLAND RESTORATION PLAN DEVELOPMENT

PHASE 1 – DRAFT PLAN DEVELOPMENT

ENGINEER shall prepare a draft report describing the objectives, data, analytical methods, findings and results developed over the course of the project. Submittal to the OWNER for their review will include three (3) hardcopies and an electronic copy in pdf format. GIS data and model output will be provided electronically in native file formats. One round of comment/revisions is anticipated. Upon approval by the OWNER, the draft plan will be posted for stakeholder review.

PHASE 2 – FINAL PLAN DEVELOPMENT

ENGINEER shall prepare a final report describing the objectives, data, analytical methods, findings and results developed over the course of the project. Submittal will include three (3) hardcopies and an electronic copy in pdf format. GIS data and model output will be provided electronically in native file formats.

FEE:

ENGINEER's compensation is summarized below in Table 1 for Tasks 1 – 13 (as noted in the above Scope of Services) for the total fee amount of $192,745.00:

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Table 1: Compensation

Task Number	Task Description	Fee Amount
1.0	Project Administration	7,425
2.0	NFWF Grant Compliance	4,580
3.0	Project Initiation	23,266
4.0	Stakeholder Outreach	4,794
5.0	Reconnaissance	12,988
6.0	Flood Risk Assessment	26,275
7.0	Living Infrastructure Potential	21,176
8.0	Conservation and GI Land Use Prioritization	21,143
9.0	Stakeholder Workshop No.1	9,201
10.0	Draft Prioritization and Recommendations	16,240
11.0	Evaluate Private Sector Solutions	4,932
12.0	Stakeholder Workshop No. 2	10,451
13.0	Johns Island Restoration Plan Development	30,274
	Total	$192,745

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Grant Information

Title of Project
Johns Island Restoration Plan To Improve Flood Resiliency

Total Amount Requested	$ 117,500.00
Matching Contributions Proposed	$117,500.00
Proposed Grant Period	07/01/ 2019 - 12/31/ 2020

Project Description
The Johns Island Restoration Plan will reduce barriers to coastal resilience by producing a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure, that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. This project will influence revisions, already underway, to the City's Comprehensive Plan, land-use and zoning codes.

Project Abstract
The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate flooding and drainage constraints. The City of Charleston is requesting $117,500 in NFWF funding and contributing $117,500 in non-federal matching funds to meet the 1:1 match recommendation. The total project budget is $235,000 and will be completed within the 12-18 month period of performance.

Organization and Primary Contact Information

Organization	City of Charleston, South Carolina
Organization Type	State or Local Government
City, State, Country	,,
Region (if international)	
Primary Contact	Sarah Fichera
Position/Title	
Phone and E-mail	843-720-2535 x ; ficheras@charleston-sc.gov

Additional Contacts

Role	Name

Project Location Information

Project Location Description	Johns Island of Charleston, South Carolina
Project Country(ies)	North America - United States
Project State(s)	South Carolina
Project Congressional District(s)	District 1 (SC)

Permits and Approvals

Permits/Approvals Description:	Necessary stormwater permits from the City of Charleston's Stormwater Management Department.
Permits/Approvals Status:	Intend to Apply
Permits/Approvals Agency-Contact Person:	City of Charleston - Stormwater, Kinsey Holton
Permits/Approvals Submittal-Approval Date:	03/02/2020

Activities and Outcomes

Funding Strategy: Capacity, Outreach, Incentives
Metric: Resilience - Outreach/ Education/ Technical Assistance - # govt entities participating
Required: Recommended
Description: Enter the number of municipalities, local, state, and federal government entities participating in the project and add the names of these institutions in the notes.

Starting Value	0.00 # gov't entities participating
Target value	10.00 # gov't entities participating

Note:

Funding Strategy: Capacity, Outreach, Incentives
Metric: Resilience - Outreach/ Education/ Technical Assistance - # people reached
Required: Recommended
Description: Enter the number of people demonstrating a minimum level of knowledge, attitudes, or skills to enable them to become resiliency leaders. This metric refers to people other than staff or FTEs. In the notes include the hours of training and participant demographics.

Starting Value	0.00 # people reached
Target value	500.00 # people reached

Note:

Funding Strategy: Planning, Research, Monitoring
Metric: Resilience - Restoration planning/design/permitting - # E&D plans developed
Required: Recommended
Description: Enter the number of Engineering and Design plans developed. Generally there will be one plan per project to be constructed.

Starting Value	0.00 # E&D plans developed
Target value	1.00 # E&D plans developed

Note:

Funding Strategy: Capacity, Outreach, Incentives
Metric: Resilience - Volunteer participation - # of volunteer hours
Required: Recommended
Description: Enter the # of volunteer hours in this project

Starting Value	0.00 # of volunteer hours
Target value	300.00 # of volunteer hours

Note:

Title: Johns Island Restoration Plan To Improve Flood Resiliency
Organization: City of Charleston, South Carolina

I. PERSONNEL $0.00

Staff Name	Position	Annual Salary	Project Hours	Hourly Rate	LOE (%)	Project Salary	% Fringe	$ Fringe	Total Personnel
Totals						$0.00		$0.00	$0.00

II. TRAVEL $0.00

Domestic Airfare – Per Flight

Purpose/Destination	Unit Cost	Quantity	Total Cost
SubTotal			$0.00

International Airfare – Per Flight

Purpose/Destination	Unit Cost	Quantity	Total Cost
SubTotal			$0.00

Train – Per Ticket

Purpose/Destination	Unit Cost	Quantity	Total Cost
SubTotal			$0.00

Rental Car – Per Day

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Taxis – Per Trip

Purpose/Destination	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Mileage – Per Mile

Purpose/Destination	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Gasoline – Per Gallon

Purpose/Destination	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Per Diem (M&IE) – Per Day

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Lodging – Per Night

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

Meals (no M&IE) – Per Meal

Purpose/Destination	Days/Duration	Unit Cost	Quantity	Total Cost

SubTotal **$0.00**

III. EQUIPMENT $0.00

Item Name	Description	Unit Cost	Quantity	Total Cost

IV. MATERIALS & SUPPLIES $0.00

Type	Purpose	Unit of Measure	Unit Cost	Quantity	Total Cost

V. CONTRACTUAL SERVICES $117,500.00

Subcontract/Contract – Per Agreement

Contractor Name	Description	Total Cost
TBD Professional Services		$37,500.00

SubTotal **$37,500.00**

Title: Johns Island Restoration Plan To Improve Flood Resiliency
Organization: City of Charleston, South Carolina

Subgrant – Per Agreement

Subrecipient	Description	Total Cost
TBD Engagement		$50,000.00
TBD Monitoring		$30,000.00

SubTotal **$80,000.00**

VI. OTHER DIRECT COSTS **$0.00**

Type	Purpose	Unit of Measure	Unit Cost	Quantity	Total Cost

VII. TOTAL DIRECT COSTS **$117,500.00**

VIII. INDIRECT COSTS **$0.00**

Explanation of Modified Total Direct Cost Base(MTDC)	Rate Type	NICRA Expiration	$MTDC	Rate(%)	Total Cost

IX. TOTAL PROJECT COSTS **$117,500.00**

Title: Johns Island Restoration Plan To Improve Flood Resiliency
Organization: City of Charleston, South Carolina

Budget Narrative

Budget Narrative:

1. Personnel

Personnel -

2. Travel

Domestic Airfare - Per Flight -
International Airfare - Per Flight -
Train - Per Ticket -
Rental Car - Per Day -
Taxis - Per Trip -
Mileage - Per Mile -
Gasoline - Per Gallon -
Per Diem (M&IE) - Per Day -
Lodging - Per Night -
Meals (No M&IE) - Per Meal -

3. Equipment

Equipment -

4. Materials and Supplies

Materials and Supplies -

5. Contractual Services

Subcontract/Contract - Per Agreement -

Subgrant - Per Agreement -

6. Other Direct Costs

Other Direct Costs -

7. Indirect Costs

Indirect Costs -

Matching Contributions

Matching Contribution Amount:	$117,500.00
Type:	Cash
Status:	Received
Source:	The City of Charleston
Source Type:	Non-Federal
Description:	The City of Charleston will provide non-federal cash match funds to meet the 1:1 recommendation.

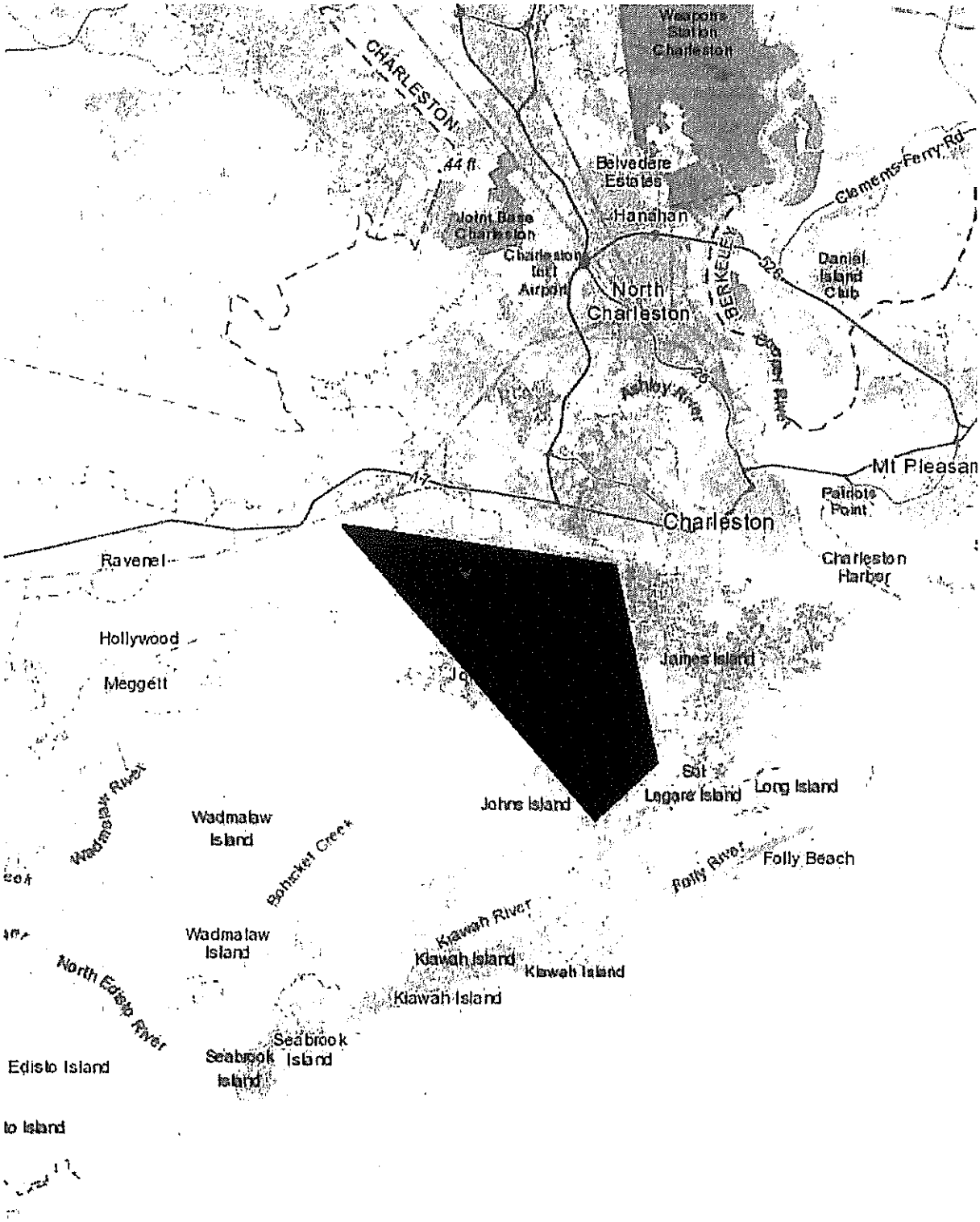
Total Amount of Matching Contributions:	$117,500.00

EasyGrantsID: 67037

National Fish and Wildlife Foundation – Emergency Coastal Resilience Fund 2019, Full Proposal

Title: Johns Island Restoration Plan To Improve Flood Resiliency

Organization: City of Charleston, South Carolina



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

The following pages contain the uploaded documents, in the order shown below, as provided by the applicant:

Upload Type	File Name	Uploaded By	Uploaded Date
ECRF Narrative 2019	City of Charleston_JI Narrative.pdf	Fichera, Sarah	11/12/2019
Project Map	JohnsIsland_NFWFgrant11.12.19.pdf	Fichera, Sarah	11/12/2019
Letters of Support	City of Charleston_JI Letters of Support.pdf	Fichera, Sarah	11/12/2019
Photos - Jpeg	JI Photo #1.JPG	Fichera, Sarah	11/12/2019
Photos - Jpeg	JI Photo #2.JPG	Fichera, Sarah	11/12/2019
Photos - Jpeg	Photo #3.JPG	Fichera, Sarah	11/12/2019
Statement of Litigation	City of Charleston_Statement of Litigation.pdf	Fichera, Sarah	11/12/2019
Board of Trustees, Directors, or equivalent	City Council Members 2019.pdf	Fichera, Sarah	11/12/2019
Other Documents	NFWF JI LOC_Clemson.pdf	Fichera, Sarah	11/12/2019
Other Documents	NFWF JI LOC_Sea Grant.pdf	Fichera, Sarah	11/12/2019
Other Documents	NFWF JI LOC_Water Inst.pdf	Fichera, Sarah	11/12/2019

The following uploads do not have the same headers and footers as the previous sections of this document in order to preserve the integrity of the actual files uploaded.

City of Charleston, South Carolina
Johns Island Restoration Plan to Improve Flood Resiliency

Executive Summary

The Johns Island Restoration Plan will reduce barriers to coastal resilience by producing a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

As of 2018, 29 housing developments planned or under construction on the island have a combined footprint of about 2,213 acres, almost half the size of Charleston's peninsula. City Planning has list of permitted but not built, and development permit applications that demonstrate the near term development pressures from which we can surmise that a future without changes approach will be substantially increase overall JI flood risk, and flood risk in low-lying (near Stono) areas, plus destroy / impair natural drainage, native (super-sponge-like) soils and ecosystem connectivity.

This project will influence revisions, already underway, to the City's Comprehensive Plan, land-use and zoning codes. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate flooding and drainage constraints. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects. With previous community engagement, planning, and prioritization, this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Coastal Community Context

"The Lowcountry landscape has been created through cycles of sea level highstands (interglacial warm periods) and lowstands (glacial periods or Ice Ages) over the last several hundred thousand years, stacking one barrier island complex upon another until the modern marine inundation. The Lowcountry formed as active beach ridges and estuaries and the modern barrier island system mimics these ancient systems. The modern Lowcountry coast -- harbors, estuaries, inlets, tidal rivers, ancient sea islands, hammock islands and uplands -- is a complex arrangement of modern and ancient barrier islands resting on the ancient marls mined for phosphates in the 19th century.

Lowcountry inlets, channels, creeks, and estuaries send huge volumes of water twice a day back and forth from the ocean. While some tidal systems are perpendicular to the coast, extending inland (Cooper, Ashley, and Stono rivers), others run parallel to the coast and drain the areas between uplands and the modern barrier islands

(Kiawah and Folly rivers). Each of these rivers has accumulating marshes and swamps. In some areas, hammock islands rise a few feet above the marsh and are being slowly inundated by sea level.

The topography, geology, and modern coastal environments define the near-surface hydrology of the region. Ancient and modern beach ridges have a high capacity for infiltration, while the lower areas between ridges tend to accumulate water, producing the upland swamps and wetlands common throughout the Lowcountry. Where many beach ridges are stacked together and form a wide ridge, the groundwater table generally sits closer to the land surface, draining slowly at the edges and maintaining high water tables except in times of extreme drought. The wide, relatively flat areas of ancient marshes and estuaries are usually slow to infiltrate water due to high water tables, and water must take long pathways to the modern river systems. Extreme wind and storm driven tidal surges are common and often destructive, depending on elevation and position. River and creek systems enable the inland transport of large volumes of water during these events, flooding the marshes and low-lying inland communities. Surge can be mitigated when low-lying areas are surrounded by healthy marshes and oyster reefs, which attenuate wave action and decelerate surge. As sea-levels rise marshes will be unable to keep up and turn into open water, increasing wave energy and surges into low-lying areas.

The Johns Island landscape is dominated by long, wide ridge systems (Maybank Highway) with multiple smaller ridges separated by former estuaries (e.g. Plowed Ground Road) that formed in both beach- and river-parallel systems. These ridge and swale systems, where infiltration can be very high, often have accumulations of upland peats in the narrow areas between the smaller ridges ranging from a few feet to over ten feet thick. These deposits are highly compressible, absorb and filter large volumes of water, and buffer the flow to other lowland areas. The high ridge systems are high infiltration areas with large capacity to store water.

Johns Island is the 4th largest Island on the US East Coast with a rich, diverse ecology and culturally significant history. The Island is under substantial development and transportation pressure, which add to its significant stormwater, tidal and surge risks. Johns Island functions as a natural storm surge buffer for much of the Charleston region west of the Ashley River; its protective role in the Lowcountry's landscape, like that of other sea and barrier islands, cannot be overstated.

Johns Island is also naturally resilient, designed to regenerate and protect itself in a layered system of sands and sediment, water courses, and marsh and upland vegetation. The dunes and sand ridges, which run parallel to the coast, naturally migrate, accrete and dissipate over time. The accretion, migration and dissipation processes are influenced by coastal forces of wind, waves, surge and erosion and are constantly underway. The ridges and dunes are compacted into stable formations and are naturally robust. The Maybank Corridor and parts of Bohicket and River Roads run atop and follow these high ground ridges.

Johns Island has an incredible forest canopy, productive soils, and rich ecological systems, all of which benefit the island's current and historic inhabitants. The Lowcountry's saltmarsh is an ecological keystone habitat for water, plants, fish and other crucial species and for the Gullah Geechee culture and people. Historic homes and properties are abundant. This ecology and community are also home for more recent residents, often concentrated in newer developments in which the widespread use of fill for elevation and drainage routing often impair watershed functionality and the Island's hydrology connecting ridge to river. The removal or covering of native topsoil and coastal forests and trees further reduce natural water infiltration and storage capacity." (The above text is an excerpt from the Dutch Dialogues Final Report. See attached).

Water Challenges: A pressing challenge on Johns Island is stormwater management: ponding, pooling, infiltration, and drainage. While drainage codes and guidelines are crucial management tools to address these problems, a crucial determinant of their magnitude is mean sea level, which increased by 6" between 1990 and 2016 in Charleston Harbor (NOAA Tides & Currents). Higher tides can slow or even reverse drainage outflows, and managing water in the soil and where it falls becomes all the more vital. Drainage regulations, overland

drainage siting and maintenance regimes, and development patterns must be updated to reflect current (and rising) tidal levels and account for future anticipated sea level rise. If these higher water levels are ignored, and overland drainage channels are undermaintained, the drainage infrastructure may fail to mitigate the direct, harmful consequences of stormwater management on the Island's ecology and people. Another primary and long-term risk on Johns Island is storm surge, which also will be exacerbated by rising sea levels. Residents and citizens, whether recent arrivals or long-term inhabitants, should not settle or build in risky surge, tidal or drainage zones.

Need for Plan: When the community plan was written, the city established an urban growth boundary with Charleston County to preserve the rural areas above Main Road, corralling new developments to the portion closest to the Stono River. But the boundary line wasn't drawn with topography in mind, so, inadvertently, it encourages growth in some of the lowest-lying areas. For instance, a 201-acre parcel on the Stono River near Dustan's property is zoned for residential development. The developer, American Star, has plans to build 205 homes on the site, which in some places sits as low as 5 feet above sea level. Dustan's maps show how the property would be inundated by storm surge similar to Tropical Storm Irma, which reached 9½ feet. If a property has zoning in place, and practically all of them do, the city can't turn down its development, regardless of how low or vulnerable the site might be. The city's only option is to change the zoning, but it's not a popular process.

The City does not currently require developers to use the land's natural assets to absorb water. Most developers choose detention ponds. To make them work in low-lying areas, many raise their foundations with sandy clay to create enough for a slope from the ground to the pond. That is why many of them clear-cut trees and remove the top soil. Developers can choose which drainage methods to use from the City's stormwater manual. Less intrusive options include porous pavements and rain gardens. But they're often overlooked. In 2018, the City partnered with the Green Infrastructure Center, a Virginia-based nonprofit, to study the connection between trees and flood mitigation. The organization has recommended that the City stop allowing developers to clear-cut forests, and require them to use the land's natural soils. Otherwise, the consultants said the island's developments will continue to cause flooding problems and water quality issues. (Source: Post and Courier, February 2018)

Current Efforts: The City's Stormwater Manual, in the process of revision, will include updates that are designed to lessen negative impacts of fill by considering volume-based requirements. Ordinance given initial approval by Council on October 22, 2019 to limit "fill and build" on Johns Island. The proposal's current language would ban developers from adding more soil on a property than it currently has. It also would require developers to keep soils at a certain consistency so they promote proper drainage.

Dutch Dialogues Charleston (DD CHS) posited a strategy to better manage the growing flood risk and development pressures on Johns Island as well as reinforce nature-based features on the island that reduce storm surge risk and will facilitate adaptation to sea level rise and increasing tidal flooding risks. This strategy is similar to land use goals found in the Johns Island Community Plan, adopted by City Council in Nov 2007. The DD CHS strategy identifies four "safety" zones in which flood risk management, land use, infrastructure and development could be assessed and jointly managed. These zones are: Wet Zone, Ecological Zone, Transition Zone, Community Zone. The zones are based upon water surface elevation, datum NAVD 88. They differ from, but can be adjusted to, the MLLW datum that is common in the SC Lowcountry. The Wet Zone is all between 0' -6'; the Ecological Zone is land between 6' and 10', the Transition Zone is land between 10' and 15', and the Community Zone is all land above 15'.

Project Area: The Dutch Dialogues Project Team identified four planning or safety zones – wet, ecological, transition, community – based upon elevation above local mean sea level (MSL).

The first "wet" zone is from zero to six feet above MSL, which coincidentally correlates with the impacts of the 10-year storm return period. As noted in the NOAA Coastal Surge / HTF summary, 10-yr design storms are quickly becoming the 2-yr design storm. Similarly, rainfall amounts associated with the previous 10-yr storm are now associated with the 2-yr storm. We recommend prohibiting future development in the wet zone. Marsh in this zone is essential for storm surge protection. In addition, marshland warrants robust ecological protection and restoration, possibly through the addition of living shorelines, although sediment accretion and marsh migration must be studied and encouraged. Sea walls and bulkheads should not be used, as they ultimately cause erosion and undermine natural lines of coastal defense. Adding access points for Johns Island residents to the river and marshes would provide recreation and health benefits and opportunities to educate citizens about the marsh ecosystem's role in surge protection.

The "ecological" zone exists from six to ten feet above MSL. This is primarily saltmarsh and low coastal forest, providing ecological connections, ecosystem services and water storage / sponge functions between the Island's lowland and highland. Only limited and adapted development should occur in the ecological zone, such as low density, pile-elevated, single-family homes -- with access provided by elevated roads (at +8 feet or more) and bridges -- with little-to-no landfill and no large-scale removal of existing soils and trees. Maintaining the existing coastal forest is essential: the average forest canopy should be maintained at 50% or more of land cover in this zone. The ecological zone carries substantial flood risk and can expect to get wet in a 100-year storm which, oddly, means a 1% chance of flooding in any year but also a 26% chance that a home with a 30-yr mortgage will flood once over the mortgage term. Those living in this zone should be fully aware of the risk they assume by living there.

The "transition" zone is defined as areas between 10-15ft above MSL. In the transition zone, development is possible, including clustered, elevated homes. Development here must respect the dynamic nature of the landscape, with fluctuating water levels and sufficient, maintained overland drainage channels, and the need for tailored flood risk reduction strategies. Fill should be sparingly used, primarily for road construction or to elevate only certain homes. The coastal forests in this zone should not be further degraded as trees are essential for storing and managing stormwater.

The "community" zone, at 15 feet and more above MSL, is on historic and stable sand ridges, the most prominent of which are along Maybank Ridge and Upper Burden Creek. This is stronger, higher, safer, and thus valuable ground, although it is neither scarce nor abundant. Clustered development combined with stormwater infiltration could be encouraged in this zone, especially where the soils readily infiltrate and store water. The existing water systems -- channels, swales, creeks, ditches -- in these zones must also be protected, maintained and not further compromised, filled or eliminated. These systems store and infiltrate stormwater, providing stormwater management and hydrologic balance. Clear rules to protect these hydrologic features must be developed and enforced.

With sea level rise, the risk curves change. The hundred-year storm today, with 2-feet of sea level rise, becomes a fifty-year storm, or one with a 2% annual chance of occurrence. 3-feet of sea level rise means the 100-year storm becomes a twenty-five-year storm. In short, increasing storm, surge, flood and occurrence are forecast in Charleston's future. Connections across the four zones are essential, as are other connections: between the salt marshes and freshwater zones, between the groundwater and surface water, between the tree canopy and tree roots, and between Johns Island residents and the natural systems – the "Island Life" – they want to embrace and sustain.

Critical Infrastructure: Evacuation routes, fire stations, utilities, hospitals—all need immediate, targeted, science-based, near-term planning for future surge, water level, storm frequency and rainfall increase. This is true even if residential and commercial development regulations are adjusted to reflect the new levels over time.

Policy & Regulation: Market-based strategies to achieve land-use recommendations should be supported via common-sense policy and regulations, including transfer of development rights, low-impact development, conservation easements, stormwater credits, and deployment of green infrastructure measures. Without such requirements and market-based mechanisms supporting them, Johns Island residents will carry substantially higher flood risks and potential for catastrophic or steady and likely irreversible physical and financial losses.

A primary goal is to reinforce the land, soil and water system's natural tendencies to store, manage and drain the area's stormwater. Our team acknowledges both the advantages and disadvantages of deploying wet pipes. The addition of bioswales, infiltration ponds, and restoration of former creek beds should be strongly encouraged. They should be designed and constructed to also provide amenity to connect new and existing neighborhoods with linear park-like and natural spaces and to connect residents to the landscape and ecology in which they live.

This new approach on Johns Island will require time to be carefully designed, developed and implemented. More science-based research is recommended to refine levels for each zone as a basis for all future planning, design, retrofits, and regulatory decision making. While implementation of this approach can be phased, immediate conservation of the Island's existing ecological assets should begin now: they cannot be replaced once gone. Development of a Johns Island Watershed Master Plan – a blue-green framework, across the entire Island, which would entail coordination with County officials and that informs or is integrated into an updated Johns Island Master or Zoning Plan is strongly recommended.

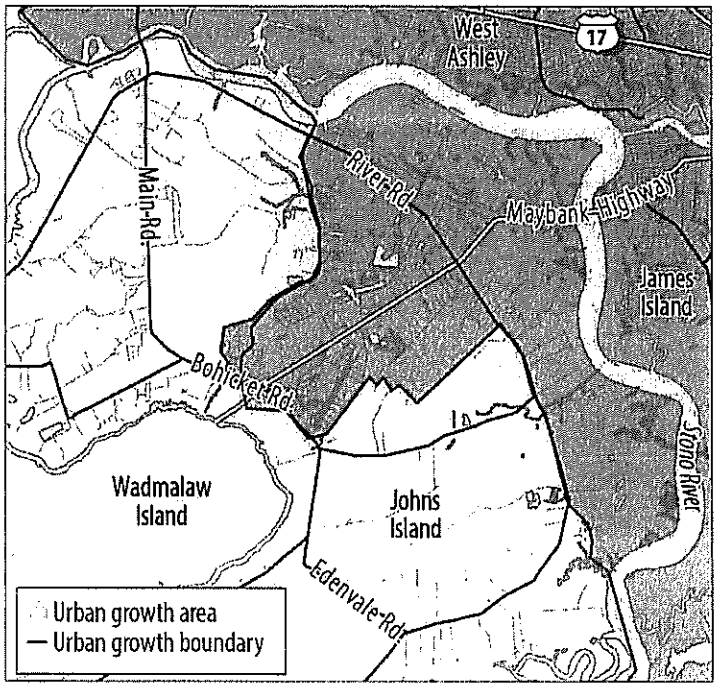
Johns Island Planning History:

- Key Dates/Plans:
  - 1988 Johns Island Plan
  - 1995 Johns Island Land Use Plan Update
  - 1999 Charleston County Comprehensive Plan (Established Urban Growth Boundary)
  - 2000 Charleston Century V Plan (City Comprehensive Plan) Formally establishes UGB in City to coordinate with Charleston County
  - 2007 Johns Island Community Plan
- History of intergovernmental coordination between city and county on Johns Island Planning
- Most portions of Johns Island within city limits were annexed and zoned prior to the existence of the Urban Growth Boundary.
- Plan to use Dutch Dialogues recommendations during 2020 Comprehensive Plan update to help guide land use recommendations

"Land use policy is the responsibility of local government, and the planning for Johns Island has been unique over the years. In the case of Johns Island, the responsibility falls under the jurisdiction of both Charleston City and County governments. Both jurisdictions have a solid understanding of the need for intergovernmental coordination. This is reflected in the intensive planning efforts for Johns Island to date. For nearly two decades, however, the decisions made regarding land use, zoning, and development on Johns Island have been led and determined by a consensus of citizens. During this time, two extensive land use plans were developed by residents and adopted by both governing agencies. The original Johns Island Plan was developed in 1988; its update was adopted in 1995." – Johns Island Community Plan, 2007

Johns Island's growth zone

The city and Charleston County established an urban growth boundary about a decade ago on Johns Island to preserve the rural areas above Main Road. It kept new developments within the portion closest to the Stono River.



SOURCE: ESRI STAFF

Activities

The Johns Island Restoration Plan to Improve Flood Resiliency will perform the following activities. Project work would take place through video and location specific meetings of technical team and project partners, desk research and modelling, and public workshops. Community outreach and engagement is also a necessary component of the project.

- Test the data used to establish the zones, model surge and tidal impacts on the island within the two lowest zones (Wet, Ecological), and adjust all zone elevation recommendations, if necessary, to achieve appropriate flood risk reduction. Data testing would incorporate some TBD level of sea level rise into the zone recommendations.
- Identify, with City Planning and possibly Lowcountry Land Trust, tracts of undeveloped land on Johns Island on which the Strategy could be applied. Ideally, a number of large tracts could be located, or smaller, contiguous tracts could be identified.
- Assess and prioritize which tracts would provide highest benefit for flood risk mitigation and ecosystem function / connectivity.
- Prioritize which tracts are best suited for purchase, easement or other utilization strategies to achieve highest-benefit outcomes.
- Develop specific recommendations, pursuant to the safety zone strategy / flood risk mitigation, to inform the Charleston Comprehensive Plan (2020) Update and future Zoning Ordinance amendments.

Outcomes

- Protect critical infrastructure in and around the Church Creek Basin;
- Promote community resilience around the basin and in surrounding communities;
- Enhance ecosystem services and benefits.

Tracking Metrics

This Project will create 1 Engineering and Design Plan, engage 10 government stakeholders, reach 500 people, and involve volunteers to serve 300 hours.

Matching Funds and Additional Leverage

The City of Charleston is requesting $117,500 in NFWF funding and will contribute $117,500 in non-federal matching funds to meet the recommended 1:1 match amount for a total project budget of $235,000. There is no federal funding contributed to this project.

Project Team

- City of Charleston –oversight, program management, grant management
- Water Institute – plan development, outreach
- SC Sea Grant – outreach
- Clemson – education, outreach

Upon award, TWI technical staff will engage with City staff, stakeholders and project partners in a 2-day Workshop to scope the project and its ecosystem components. This will establish the pre-project baseline assessment of the project's water system features, stormwater management challenges, and ecosystem features. These will be synthesized to provide high-level feasibility and alternatives analysis based upon stormwater management model outputs, best available science, immediately available land, and land likely to be acquired over the project term. TWI will develop a series of relevant GIS data layers to provide an indication of relevant potential threats, community benefits, and ecosystem benefits that could be realized through the project in the context of the local watershed. Post Workshop, TWI will technically assess alternatives of ecosystem metrics and performance (habitat restoration, floodplain restoration, instream restoration, land and wetland restoration), develop a recommended ecosystem monitoring protocol based around the prioritized potential ecosystem and community benefits as well as identified potential threats that could limit success of the project. TWI will summarize this data, conclusions and monitoring plan as a technical report to project partners and the City. TWI staff will prove quality assurance review of stormwater management model outputs and support to project partners leading the stormwater / FRM efforts along and near the Creek's channel and floodplain. TWI will work with partners and universities, as needed, providing technical advice to those carrying out project monitoring, data collection and analysis. TWI will engage in a 2-day mid-project Workshop with partners and City to assess project performance and unforeseen project needs. TWI will assist with public outreach and engagement activities (technical and qualitative) in pre-project, mid-project and project-completion phases, leveraging its efforts and relationships developed with Charleston stakeholders, citizens and agencies on community and natural systems resilience over the past 18 months. We are committed to completing the following activities during the grant period of performance from July 1, 2019 to December 31, 2020.

Representative Project Photos

Photo 1: Johns Island Elevation Map
Photo 2: Johns Island Water Level Map
Photo 3: Johns Island Elevation Zones

Designs, Site Maps and Letters of Support

See attached Designs, Site Maps and Letters of Support.

Johns Island

City of Charleston
Dept. of Planning, Preservation & Sustainability
Planning Division
2 George St, Third Floor
Charleston, SC 29401
www.charleston-sc.gov

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Date: 11/12/2019

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HOUSE VETERANS' AFFAIRS COMMITTEE
SUBCOMMITTEE ON TECHNOLOGY MODERNIZATION
SUBCOMMITTEE ON ECONOMIC OPPORTUNITY

HOUSE NATURAL RESOURCES COMMITTEE
SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES
SUBCOMMITTEE ON WATER, OCEANS, WILDLIFE

U.S. House of Representatives
Joe Cunningham
1st District, South Carolina

November 12, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I write to express support for the City of Charleston's application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The funding for Johns Island Restoration Plan will assist the community in flooding resiliency efforts as they face substantial development pressures. Specifically, the plan would produce a preliminary floodplain restoration planning framework to increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how nature-based infrastructure, such as stream naturalization, floodplain protection and enhancement, and wetland restoration/creation, can be used to mitigate current and future flood risk on the Island. The better understanding of the Island's natural systems, their role in reducing flood risk, and improving ecosystem functions is needed to support future City planning decisions.

This project will address revisions, already underway, to the City's Comprehensive Plan, land-use and zoning codes. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate flooding and drainage constraints. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects.

With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me at (843) 352-7572.

Sincerely,

Joe Cunningham
Member of Congress

530 JOHNNIE DODDS BLVD., SUITE 201
MT. PLEASANT, SC 29464
(843) 352-7572

710 BOUNDARY ST., SUITE 1D
BEAUFORT, SC 29902
(843) 521-2530

423 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3176

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A. Victor Rawl
Henry D. Schweers

Kristen L. Salisbury, Clerk
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1-800-524-7832
FAX (843) 958-4035
E-mail: ksalisbury@charlestoncounty.org

CHARLESTON COUNTY COUNCIL
LONNIE HAMILTON, III PUBLIC SERVICES BUILDING
4045 BRIDGE VIEW DRIVE
CHARLESTON, SOUTH CAROLINA
29405-7464

November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

Thank you for the opportunity to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

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With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

J. Elliott Summey
Chairman
Charleston County Council

United States Department of the Interior

FISH AND WILDLIFE SERVICE
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

November 12, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez:

The U.S. Fish and Wildlife Service (Service) – South Carolina Ecological Services Field Office supports the City of Charleston's application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

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With previous community engagement, planning, and prioritization, this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me at (843) 727-4707 ext. 227, or via email at thomas_mccoy@fws.gov.

Sincerely,

for Thomas D. McCoy
Field Supervisor

November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

We are writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

We, Rich Thomas and Dr. Philip Dustan, are residents of Johns Island. For the past two years we have been conducting water flow studies at four locations in the Burden Creek/Hoopstick Creek drainage basins of Johns Island, encompassing both developed, undeveloped, and mixed areas. We used high-quality surplus scientific equipment to record various water parameters around various rainfall events.

The results we have identified relate to effects of Fill and Build developments in the City of Charleston on Johns Island. These developments bring in massive amounts of impervious fill dirt into low-lying land to allow for housing to be built in areas that range from 8ft to 10 ft above mean sea level, thus altering the surface and subsurface hydrology, water balance, ecological and environmental health, and neighboring properties' flood risk. Our results (an example shown below relative water runoff from diverse landscapes is from Hurricane Dorian in September 2019, a storm that dumped six inches of water in a relatively short time) have demonstrated clearly the effects of these development on the water flow and water quality on Johns Island and surrounding marshes and rivers.

We are interested in the proposed project as a way to identify other effects related to development on Johns Island as well as any mitigation processes that could minimize further developments or the effects of existing developments. The recent Dutch Dialogues efforts focused on Johns Island as one study area, and identified recommendations to improve resiliency, protect ecological health, and minimize direct and ancillary damage related to these Fill and Build developments. Our results were considered by the Dutch Dialogues team and figured prominently in their results as relate to Johns Island.

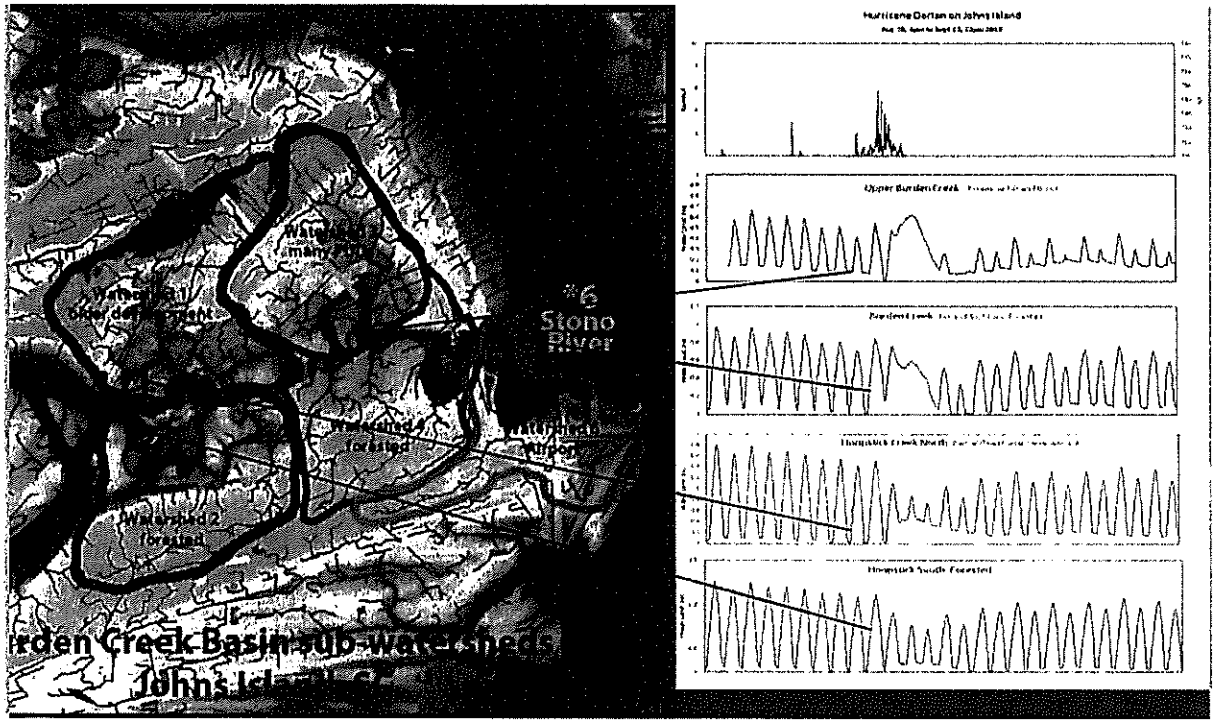
We hope that the proposed study will continue this process and improve Johns Island going forward. We as engaged citizens offer our efforts and knowledge to this study. Should you have any further questions about our efforts or interests in Johns Island we would be more than happy to discuss them with you.

Thank you for your consideration of this proposed effort.

Rich Thomas
Betsy Kerrison Parkway
Johns Island, SC
rich.thomas@pdq.net

Dr. Philip Dustan
Burden Creek Road
Johns Island
phil.dustan@gmail.com

Graphs of runoff from three primary watersheds on Johns Island during and after Hurricane Dorian, September 2019, demonstrating relative effects of a Fill and Build developed area (3), a semi-developed area (1), and a forested/marsh area (2) on water flow rates in creeks that drain the subject areas



The Plantation at Headquarters Island Property Owners Association
c/o AMCS, Inc.
2409-A Mall Dr.,
N. Charleston, SC 29406
Phone: (843) 224-2293 - Fax: (843) 735-7382
www.amcshoa.com

November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

This project will influence revisions, already underway, to the City's Comprehensive Plan, land-use and zoning codes. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate flooding and drainage constraints. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects.

With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Most sincerely yours,
At the Direction of the Board of Directors, HQIPOA

Megan Howard
Community Association Manager
AMCS, Inc.

CC: Don C. Ball, HQIPOA President

Department of Geology and Environmental Geosciences
Norman S. Levine, Associate Professor
Director of the Santee Cooper GIS Laboratory & the Low Country Hazards Center
Director of the South Carolina Earthquake Education and Preparedness Program
843.953.5308 | Fax 843.953.5446 | levinen@cofc.edu

COLLEGE of CHARLESTON

November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's Johns Island ECRF Submission 2019

Dear Chairman Rodriguez,

I am writing to express my strong commitment to the City of Charleston's Emergency Coastal Resilience Fund 2019 grant submission to the National Fish and Wildlife Foundation (NFWF). The City is requesting $117,500 in funding to support a project within the planning funding priority area.

The "Johns Island Restoration Plan to Improve Flood Resiliency (SC)," will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement , wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

This project will influence revisions, already underway and / or planned, to the City's Comprehensive Plan, land-use and zoning codes, an essential part of planning for a more resilient future. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate tidal flooding and drainage constraints. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues And a previous regional NOAA Coastal Resilience project, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects.

With previous community engagement as a guide, and the current planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Most sincerely yours,

Norman S. Levine
Associate Professor of Geology & Environmental Geosciences
Director of the Santee Cooper GIS Laboratory
Director of the Low Country Hazards Center
College of Charleston

CHARLESTON
WATERKEEPER®

Protecting the public's right to swimmable, drinkable, fishable water.

Andrew J. Wunderley, Esq.

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

November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

This project will influence revisions, already underway, to the City's Comprehensive Plan, land-use and zoning codes. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate flooding and drainage constraints. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects.

With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Andrew J. Wunderley
Executive Director Charleston Waterkeeper

Johns Island
Task Force
Respect ■ Protect ■ Enhance

November 12, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 2000
Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

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With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Most sincerely yours,

Michael G. McShane
Johns Island Task Force

The Johns Island Task Force meets monthly to advance the Vision created by a coalition of Johns Island residents and supporters from the adjacent sea islands. The Vision promotes the welfare of the diverse and vibrant community of Johns Island by seeking to maintain traditional rural land uses and communities. This includes the culture, history, agriculture, forestry, ecotourism, hunting, fishing, and equestrian activities

The Task Force includes residents of Johns and Wadmalaw Islands, the Johns Island Community Association, St Johns Water Company, representatives of four prominent local conservation organizations and delegates from the Town Councils of Kiawah Island and Seabrook Island.

LOWCOUNTRY
LAND TRUST

November 11, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)." The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure. Understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

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Lowcountry Land Trust has been conducting a Johns Island Community Conservation Initiative from December 2017 through December 2019 in order to identify resources providing important ecosystem services on Johns Island, and envisioning and developing new tools in addition to our traditional conservation easement and land acquisition approach in order to work with a wider array of landowners and community members. With this and other forms of previous community engagement, planning, and prioritization, I am confident the City of Charleston's proposed project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely yours,

Ashley Demosthenes

Ashley Demosthenes
President and CEO
Lowcountry Land Trust

Charleston Resilience Network

November 8, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

On behalf of the Charleston Resilience Network (CRN), I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)." The CRN is a collaboration of public, private, academic and non-profit organizations seeking to enhance the capacity of individuals, communities, institutions, businesses and systems within the Charleston region to survive, adapt and grow despite episodic natural disasters and chronic coastal hazards. Since 2015, CRN has provided a forum to share science-based information, enhanced access to high quality information and convened diverse stakeholders to build consensus around challenging flood hazard mitigation and adaptation approaches.

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

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With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Daniel J. Burger
Founder and Chair
Charleston Resilience Network
843-763-9178

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NOAA Restoration Center
2234 South Hobson Avenue
Charleston, SC 29455
843-740-1328

November 12, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez,

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/ creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Island is under substantial development pressure: understanding the Island's natural systems, their role in reducing flood risk (surge, stormwater, compound), and improving ecosystem functions is needed to underpin future City planning decisions.

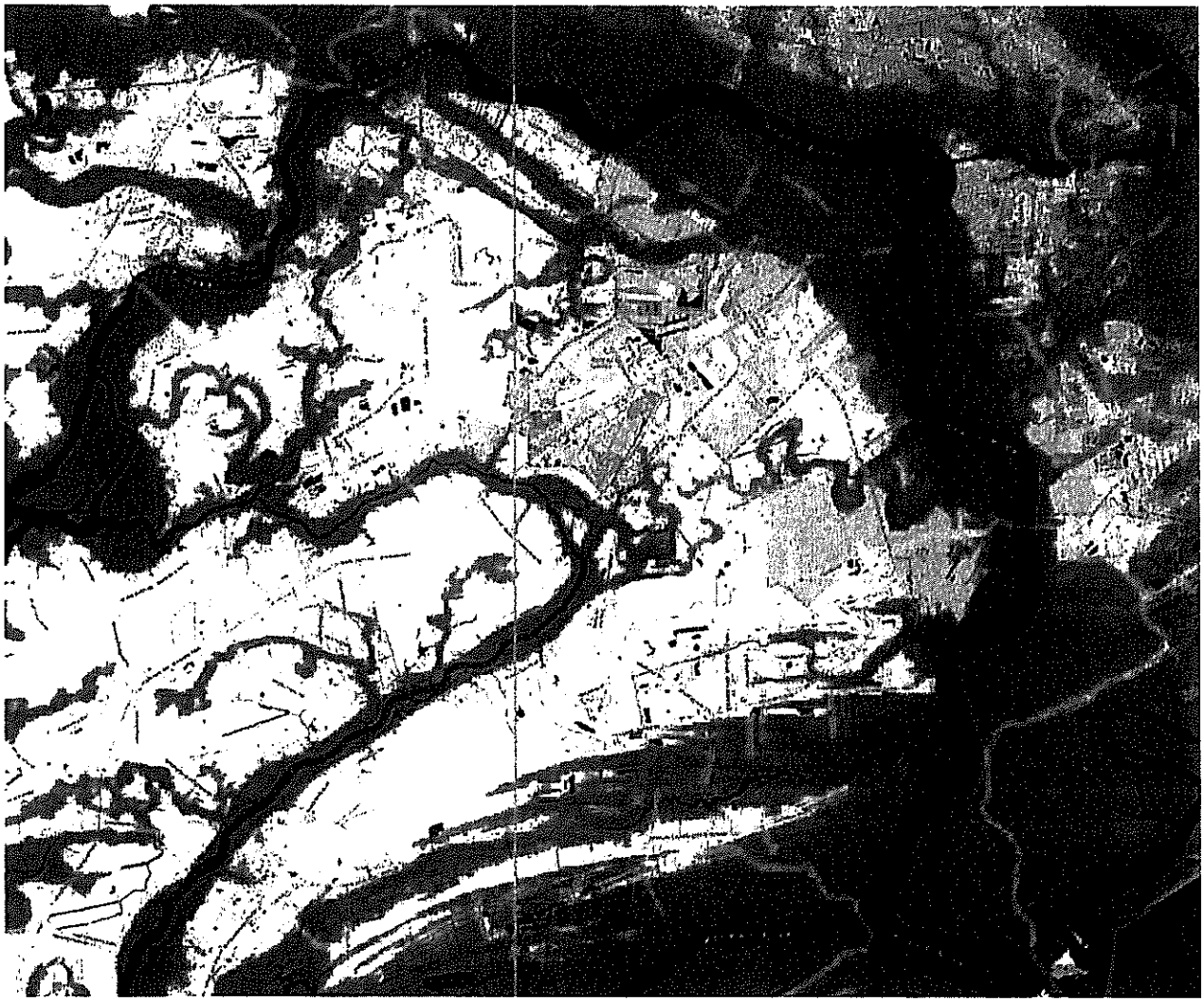
This project will influence revisions, already underway, to the City's Comprehensive Plan, land-use and zoning codes. This project also supports the City's Stormwater Department with its Barberry Woods project, in which the basin and downstream conveyances are being assessed to determine what watershed improvements can be made to alleviate flooding and drainage constraints. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects.

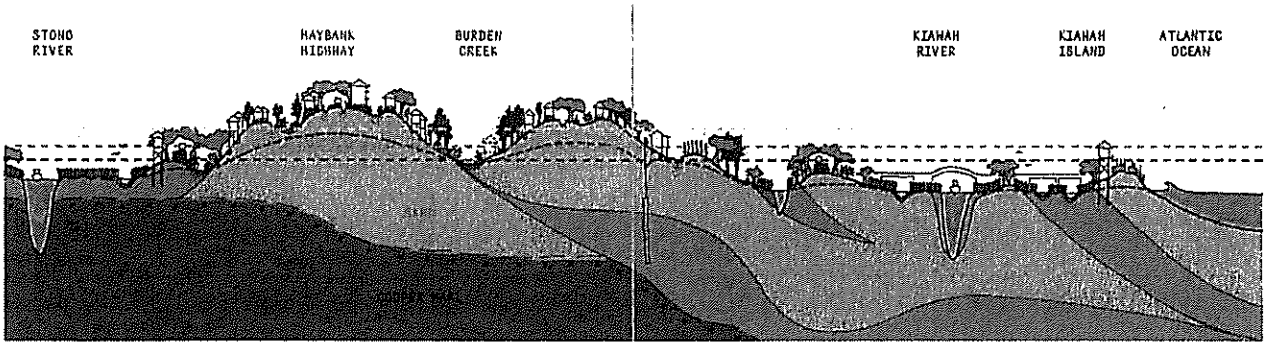
With previous community engagement, planning, and prioritization, I am confident this project will address barriers to coastal resilience by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request to support an important project in our community. If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Howard Schnabolk
South Atlantic Team Leader
NOAA Restoration Center




STONO
RIVER
HAYBANK
HIGHWAY
BURDEN
CREEK
KIAWAH
RIVER
KIAWAH
ISLAND
ATLANTIC
OCEAN

NFWF

Statement of Litigation

Instructions: Save this document on your computer and complete. The final narrative should not exceed two (2) pages; do not delete the text provided below. Once complete, upload this document into the on-line application as instructed.

Litigation: In the space provided below, state any litigation (including bankruptcies) involving your organization and either a federal, state, or local government agency as parties. This includes anticipated litigation, pending litigation, or litigation completed within the past twelve months. Federal, state, and local government applicants are not required to complete this section. If your organization is not involved in any litigation, please state below.

The City of Charleston, South Carolina is not required to complete this section as a local government agency.

City of Charleston

South Carolina

CITY OF CHARLESTON
COUNCIL MEMBERS 2019

District One Councilmember
F. Gary White, Jr.

District Two Councilmember
Kevin Shealy

District Three Councilmember
James Lewis, Jr.

District Four Councilmember
Robert M. Mitchell

District Five Councilmember
Marvin D. Wagner

District Six Councilmember
William Dudley Gregorie

District Seven Councilmember
Perry K. Waring

District Eight Councilmember
Michael S. Seekings

District Nine Councilmember
A.Peter Shahid, Jr.

District Ten Councilmember
Harry Griffin

District Eleven Councilmember
William A. Moody, Jr.

District Twelve Councilmember
Carol Jackson

Clemson Cooperative Extension Service
900 Clemson Road
Columbia, SC
(803) 722-1194

Clemson Cooperative Extension Service
900 Clemson Road
Columbia, SC
(803) 722-1194

November 12, 2019

Dear Chairman Rodriguez,

This letter is submitted on behalf of the Clemson Extension Carolina Clear program to express support of the 2019 NFWF Emergency Coastal Resilience Fund for the Johns Island Restoration Plant to Improve Flood Resiliency.

Carolina Clear is a program of Clemson University, which works to create regional partnerships with communities and educational partners to assist communities in meeting Phase II NPDES stormwater permit requirements for public education and involvement. The efforts of the regional partnerships emphasize water resource protection and pollution prevention. The Ashley Cooper Stormwater Education Consortium (ACSEC) is the Carolina Clear partnership effort for the Charleston, South Carolina tri-county area. Through this regional approach three county governments, eleven area municipalities and a host of education partners consisting of state agencies, non-profit organizations and universities, collaborate to provide a strategic, watershed- scale approach to stormwater education and community involvement in the Charleston, South Carolina region. The Church Creek Drainage Basin area is included in the jurisdiction of a Municipal Separate Storm Sewer System (MS4) which participates in the ACSEC.

The ACSEC will provide a list of certified Master Rain Gardener volunteers for preliminary site assessment and design. The ACSEC can also provide information on rain gardens and other landscape level best management practices in the form of a presentation with hands on components, such as measuring impervious areas and percolation and/or infiltration tests. Additionally, our organization can provide up to 50 copies of the award winning 2016 Guide to Rain Gardens in South Carolina manuals and a free rain gauge for anyone who installs a rain gauge.

If you have any questions regarding the ACSEC or Carolina Clear program, please contact me at 803-722-1194 (karen7@clemson.edu) or Beatriss Calhoun (beatris@clemson.edu).

Sincerely,

Karen Jackson
Water Resources Agent
Clemson University Cooperative Extension 900 Clemson Road
Columbia, SC 29229

Sea Grant | S.C. SEA GRANT CONSORTIUM
Coastal Science Serving South Carolina
287 Meeting Street, Charleston, S.C. 29401 • 843.953.2078 • www.scseagrant.org

November 10, 2019

Chairman Edwin R. Rodriguez, Jr.
National Fish and Wildlife Foundation
1133 Fifteenth Street NW, Suite 1000
Washington, DC 20005

Re: Letter of Support for the City of Charleston's ECRF Grant Submission 2019 (Johns Island)

Dear Chairman Rodriguez:

I am writing to support the application to NFWF's Emergency Coastal Resilience Fund (ECRF) for the "Johns Island Restoration Plan to Improve Flood Resiliency (SC)."

The Johns Island Restoration Plan will produce a preliminary floodplain restoration planning framework, grounded in the Island's existing natural infrastructure (floodplains, intertidal and marsh zones, creeks and drainage basins), that will integrate ecological function and development planning and thereby increase the overall resilience of the Island's communities, fish, and wildlife. The project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the Island. The Johns Island Restoration Plan flows from concepts developed in the Dutch Dialogues, which built in part from the Johns Island Community Plan, to minimize development impacts upon the natural water management systems and, in turn, incorporate these ideas into the City's planning approach and capital improvement projects.

The S.C. Sea Grant Consortium will assist framing the scope, dimensions, and expectations of the planning effort, which seeks to enhance Johns Island's capacity to be more resilience to increasing weather and climate hazards. Community engagement exercises will be organized, in consultation with the Project team, to share the goals of the scope of the planning Project, to keep community members informed and involved in the Project as planning progresses, and to share results of the Project and planning milestones for anticipated improvements that may result.

This, together with previous community engagement, planning, and prioritization, will ensure that barriers to coastal resilience will be addressed by identifying the low-lying areas on Johns Island where restoration project implementation would yield the greatest benefit for the community, fish, and wildlife.

Thank you in advance for your consideration of this request. Please feel free to contact me if you have any questions.

Sincerely,

M. Richard DeVoe
Executive Director

Enhancing the practical use and conservation of South Carolina's coastal and marine resources to foster a sustainable economy and environment.

MEMBER INSTITUTIONS
Clemson University • Coastal Carolina University • College of Charleston • Medical University of South Carolina
S.C. Department of Natural Resources • S.C. State University • The Citadel • University of South Carolina

CHAIRMAN
Dr. Harris Pastides, President Emeritus, University of South Carolina

EXECUTIVE DIRECTOR
M. Richard DeVoe

THE WATER INSTITUTE
OF THE GULF™

November 12, 2019

To Whom it May Concern:

This letter is submitted in full support of the City of Charleston's (City) Johns Island Planning Grant proposal for funding under the Emergency Coastal Resilience Fund program administered by the National Fish and Wildlife Foundation (NFWF). The Water Institute of the Gulf (The Institute) enthusiastically supports this project as it moves builds upon existing City planning efforts and will positively influence the City's Comprehensive Plan and Zoning Ordinance to increase community and ecosystem resilience on an important barrier island in the City

The Institute is a not-for-profit, independent research and technical services resource with a mission to support resilient coasts and sustainable water systems worldwide. Our work helps ensure livable communities and a thriving economy and environment. Our scientists and engineers conduct applied research to increase understanding of natural and human aspects of deltaic, coastal, and water systems; to develop tools that apply knowledge to restore coasts and ecosystems; and to reduce risk for people and infrastructure. We welcome the opportunity to provide our expertise to the City of Charleston, alongside the South Carolina-based partner organizations in this project who share our passion for advancing resilient coasts and sustainable water systems worldwide. The Institute has coastal and riverine expertise in Analytics and Integrated Decision Support, Integrated Natural Systems Modeling, Field Investigations, Ecology, and the Human Dimension/ Social Science. We develop and apply integrated decision support systems linking sensors, predictions, and analytics in a real-time framework that can support coastal planning preparedness, operations, and emergency response at local and regional scales. Our goal is to make links between data, models, and end users more seamless to provide high quality information to support effective analysis, project planning and design, and transparent decision making.

The Institute led Dutch Dialogues Charleston (DD CHS) alongside Waggonner & Ball Architects and the Royal Netherlands Embassy. DD CHS explored resilient landscape design and planning approaches for four prototypical Charleston areas, the largest of which was Johns Island (JI). JI challenges are stormwater management, tidal flooding, storm surge risk and flooding, compound flooding, heavy development pressure and rich, diverse ecosystems and natural areas under threat from that development. DD CHS (DD CHS) posited a strategy to mitigate the growing flood risk and reduce development impacts upon on JI natural features. This "four zone" strategy, by reinforcing natural features (marshes, wetlands, tidal reeks and floodplains), will also facilitate adaptation to sea level rise and enhance ecological quality and function for species, habit and ecosystem function and connectivity. This strategy is similar to land use goals found in the Johns Island Community Plan, adopted by City Council in Nov 2007.

1110 River Road S. Suite 200
Baton Rouge. LA 70825
www.thewaterinstitute.org | (225) 448-2813

Upon award, The Institute would further scope the DD CHS JI four-zone strategy with partners and key stakeholders and refine, via high-level QAQC of existing surge, tidal and stormwater modeling, the target elevations for those zones. Alongside partners and City staff, The Institute would:

- analyze existing, large and small undeveloped land tracts on JI
- assess their FRM and ecosystem-enhancement potential
- co-determine FRM and ecosystem benefits of creating contiguous small tracts through acquisition and easements on JI
- assist in the development of policy recommendations for the City to inform the 2020 Comprehensive Plan update and future changes to the Zoning Ordinance
- support public outreach, stakeholder engagement, meetings, and workshops associated with this grant to ensure widespread understanding and support of the four-zone approach.

The Institute is pleased to provide additional information on its contributions to the Church Creek ECRF proposal as needed.

Respectfully,

Jennifer Butler

Jennifer Butler
Vice-President for Administration & CFO

NFWF	NATIONAL FISH AND WILDLIFE FOUNDATION GRANT AGREEMENT	1. NFWF PROPOSAL ID: 67037	2. NFWF GRANT ID: 0318.19.067037
		3. UNIQUE ENTITY IDENTIFIER (DUNS #) 077990786	4. INDIRECT COST RATE (REFERENCE LINE 17 for RATE TERMS) N/A

5. SUBRECIPIENT TYPE	6. NFWF SUBRECIPIENT
State or Local Government	City of Charleston, South Carolina
7. NFWF SUBRECIPIENT CONTACT	**8. NFWF GRANTS ADMINISTRATOR/NFWF CONTACT INFORMATION**
Sarah Fichera City of Charleston, South Carolina 2 George Street Charleston, SC 29401 Tel: 843-720-2535 ficheras@charleston-sc.gov	Amanda Crawford National Fish and Wildlife Foundation 1133 15th Street, N.W. Suite 1000 Washington, D.C. 20005 Tel:202-857-0166 Fax: 202-857-0162 Amanda.Crawford@nfwf.org

9. PROJECT TITLE
Johns Island Restoration Plan To Improve Flood Resiliency (SC)

10. PROJECT DESCRIPTION
Reduce barriers to coastal resilience by producing a preliminary floodplain restoration planning framework that will integrate ecological function to increase the overall resilience of Johns Island's communities, fish and wildlife. Project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the island.

11. PERIOD OF PERFORMANCE	12. TOTAL AWARD TO SUBRECIPIENT	13. TOTAL FED. FUNDS	14. TOTAL NON-FED. FUNDS
July 1, 2020 to April 1, 2021	$117,500	$117,500	N/A

15. FEDERAL MATCH REQUIREMENT	16. NON-FEDERAL MATCH REQUIREMENT
N/A	$117,500

17. SUBRECIPIENT INDIRECT COST RATE TERMS
The rate specified in Line 4 reflects that the Subrecipient has elected not to claim an indirect cost rate and that this election shall apply throughout the project's period of performance.

18. TABLE OF CONTENTS

SEC.	DESCRIPTION
1	NFWF Agreement Administration
2	NFWF Agreement Clauses
3	Representations, Certifications, and Other Statements – General
4	Representations, Certifications, and Other Statements Relating to Federal Funds- General
5	Representations, Certifications, and Other Statements Relating to Federal Funds – Funding Source Specific
6	Other Representations, Certifications, Statements and Clauses

19. FUNDING SOURCE INFORMATION/FEDERAL AND NON-FEDERAL						
A. FUNDING SOURCE (FS)	**B. NFWF FS ID**	**C. FS AWARD DATE TO NFWF**	**D. FAIN**	**E. TOT FED. AWARD TO NFWF**	**F. TOT OBLG. TO SUBRECIPIENT**	**G. CFDA**
National Oceanic and Atmospheric Administration	FC.R416	February 7, 2020	NA20NOS4730002	$49,511,000	$117,500	11.473

20. NOTICE OF AWARD			
The National Fish and Wildlife Foundation (NFWF) agrees to provide the NFWF Award to the NFWF Subrecipient for the purpose of satisfactorily performing the Project described in a full proposal as identified on line 1 and incorporated into this Grant Agreement by reference. The NFWF Award is provided on the condition that the NFWF Subrecipient agrees that it will raise and spend at least the amount listed on lines 15 and 16 in matching contributions on the Project, as applicable. The Project must be completed, with all NFWF funds and matching contributions spent, during the Period of Performance as set forth above. All items designated on the Cover Page and the Table of Contents are incorporated into this Grant Agreement by reference herein. NFWF Subrecipient agrees to abide by all statutory or regulatory requirements, or obligations otherwise required by law, required of a subrecipient of Federal grant or cooperative agreement funds. Subrecipient is obligated to notify NFWF if any of the information on the Cover Page changes in any way, whether material or immaterial.			
A. NAME AND TITLE OF AUTHORIZED SUBRECIPIENT SIGNER (*Type or Print*)		**D. NAME AND TITLE OF NFWF AWARDING OFFICIAL** Holly A. Bamford, PhD, Chief Conservation Officer	
B. SUBRECIPIENT **BY**	**C. DATE**	**E. NATIONAL FISH AND WILDLIFE FOUNDATION** **BY**	**F. DATE**

See Reporting Schedule on the following page.

21. REPORTING DUE DATES/SUBRECIPIENT REPORTING SCHEDULE

Task Due Date	Reporting Task
October 31, 2020	Annual Financial Report
December 31, 2020	Interim Programmatic Report
July 1, 2021	Final Financial Report
July 1, 2021	Final Programmatic Report

SECTION 1 AGREEMENT ADMINISTRATION

1.1. Project Description/Purpose of Grant.

Reduce barriers to coastal resilience by producing a preliminary floodplain restoration planning framework that will integrate ecological function to increase the overall resilience of Johns Island's communities, fish and wildlife. Project will evaluate how and where stream naturalization, floodplain protection and enhancement, wetland restoration/creation, and other nature-based infrastructure can be used to mitigate current and likely future flood risk on the island.

1.2. Amendments.

During the life of the Project, the NFWF Subrecipient is required to inform the NFWF Grants Administrator of any changes in contact information or in the Project scope of work, as well as any difficulties in completing the performance goals articulated by the Project description immediately. If the NFWF Subrecipient determines that the amount of the budget is going to change in any one budget category by an amount that exceeds 10% of the Award, the NFWF Subrecipient must seek prior written approval from the Grants Administrator. NFWF Subrecipients must seek an amendment request upon determination of a deviation from the original Grant Agreement as soon as such deviation is detected. However, NFWF may initiate the amendment if NFWF determines an amendment is necessary at any time. Amendment requests are to be submitted via NFWF's Easygrants system.

1.3. Matching Contributions.

Matching Contributions consist of cash, contributed goods and services, volunteer hours, and/or property raised and spent for the Project. Matching Contributions for the purposes of this Project must meet the following criteria: (1) Are verifiable from the NFWF Subrecipient's records; (2) Are not included as contributions for any other Federal award; (3) Are necessary and reasonable for the accomplishment of project or program objectives; (4) Are allowable under OMB Cost Principles; (5) Are not paid by the U.S. Government under another Federal award except where the Federal statute authorizing a program specifically provides that Federal funds made available for such program can be applied to matching or cost sharing requirements of other Federal programs when authorized by Federal statute; (6) Are provided for in the approved budget when required by the Federal awarding agency; (7) Are committed directly to the project and must be used within the period of performance as identified in this Grant Agreement; (8) Otherwise conform to the law; and, (9) Are in compliance with the requirements of Section 2 of this Grant Agreement concerning Compliance with Anti-Corruption, Anti-Money Laundering, Terrorist Financing, and Trafficking in Persons Statutes and Other Restrictions.

1.3.1. Documentation and Reporting of Matching Contributions. The NFWF Subrecipient must retain detailed time records for contributed services and original receipts and appraisals of real property and comparable rentals for other contributed property at its place of business in the event of an audit of the NFWF Subrecipient as required by applicable Federal regulations.

1.3.2. Cash, Goods and Services, and/or Property. The NFWF Subrecipient must report to NFWF as a part of the Final Report, the Matching Contributions received by the NFWF Subrecipient and expended in connection with the Project. Fair market value of donated goods and services, including volunteer hours, shall be computed as outlined in §200.306 of 2 CFR Subtitle A, Chapter II, Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, (hereinafter "OMB Uniform Guidance"),regardless of whether this Grant Agreement is federally funded.

1.3.3. Property. The NFWF Subrecipient may have a third party donor submit a letter to NFWF, documenting the fair market value and date of a Matching Contribution and stating that the donation is non-Federal, voluntary, and intended to qualify as a Matching Contribution. A letter provided to document a donation of real property must be accompanied by an appraisal by a certified appraiser; a letter provided to document rental of equipment or space must list three comparable rentals in the location of the Project.

1.4. Payment of Funds.

To be eligible to receive funds, NFWF Subrecipient must (1) return to NFWF an original executed copy of the grant agreement for the Project; (2) submit any due financial and programmatic reports; and (3) submit a complete and accurate payment request. NFWF Subrecipient may request funds by submitting a Payment Request via Easygrants. NFWF Subrecipient may request advance payment of funds prior to expenditure provided that (1) NFWF Subrecipient demonstrates an immediate need for advance payment; and (2) NFWF Subrecipient documents expenditure of advanced funds on the next payment request and/or required financial report to NFWF. Approval of any advance payment of funds is made at the sole discretion of NFWF, based on an assessment of the NFWF Subrecipient's needs. In all other cases, funds are disbursed on a reimbursable basis. NFWF reserves the right to retain up to ten percent (10%) of funds until submission and acceptance of the final reports.

1.5. Reports.

1.5.1 Interim Programmatic and Financial Reports.

The NFWF Subrecipient will submit interim programmatic and financial reports to NFWF based on the reporting schedule in Line 21 of the Cover Sheet to this Agreement. The interim programmatic report shall consist of written statements of Project accomplishments since Project initiation, or since the last reporting period, and shall be uploaded via NFWF's Easygrants system. The interim financial report shall consist of financial information detailing cumulative receipts and expenditures made under this Project since Project initiation, and shall be uploaded via NFWF's Easygrants system.

1.5.2. Annual Financial Report.

An annual financial report detailing cumulative receipts and expenditures made under this Project is required annually, due on October 31st of each year of the grant term. In the annual financial report, the NFWF Subrecipient must report the amount of NFWF Funds expended during NFWF's fiscal year (October 1 – September 30). The NFWF Subrecipient must enter a justification when there is a difference between the amount disbursed by NFWF and the amount expended by the grantee. Failure to submit an annual financial report in a timely manner will delay payment of submitted payment requests.

1.5.3. Final Reports.

No later than 90 days after the completion of the Project, the NFWF Subrecipient will submit (1) a Final Financial Report accounting for all Project receipts, Project expenditures, and budget variances (if any) compared to the approved budget; (2) a Final Programmatic Report summarizing and evaluating the accomplishments achieved during the Period of Performance; (3) copies of any publications, press releases and other appropriate products resulting from the Project; and (4) Photographs as described in Section 1.5.3.1 below. The final reports and digital photo files should be uploaded via NFWF's Easygrants system. Any requests for extensions of the final reports submission date must be made in writing to the NFWF Grants Administrator and approved by NFWF in advance.

1.5.3.1. Photographs.

Together with the Final Programmatic Report NFWF Subrecipient will submit a representative number (minimum of 5) of high-resolution (minimum 300 dpi) photographs depicting the Project. Photographs should be uploaded via NFWF's Easygrants system as individual .jpg files. NFWF requests, as appropriate for the

Project, before-and-after images of the Project, images of species impacted by the Project, and images of staff/volunteers working on the Project. In the Final Programmatic Report narrative include for each submitted photograph the date the photograph was taken, the location of the photographed image, caption, photo credit, and any other pertinent information. By uploading photographs to NFWF's Easygrants system the NFWF Subrecipient certifies that the photographs are unencumbered and may be used by NFWF and Project Funders as part of or separately from the permissions pertaining to the use of posting of Final Reports in Section 2.

1.5.4 Significant Developments.

The NFWF Subrecipient shall report on events that may occur between the scheduled performance reporting dates that have a significant impact on the Project. Such reporting shall be made as soon as the following conditions become known:

1.5.4.1 Problems, delays, or adverse conditions which will materially impair the ability to meet the Project objective. This disclosure must include a statement of the action taken, or contemplated, and any assistance needed to resolve the matter; and,

1.5.4.2 Favorable developments which enable meeting time schedules and objectives sooner or at less cost than anticipated or producing more or different beneficial results than originally planned.

1.5.5. Certification and Representation.

For each report in this section, except for 1.5.4, NFWF Subrecipient shall include the appropriate certification and representation pursuant to section 4.8.

1.6. Access to Records.

NFWF Subrecipient shall maintain all records connected with this Agreement for a period of at least three (3) years following the date of final payment or the close-out of all pending matters or audits related to this Agreement, whichever is later. NFWF or any of its authorized representatives shall have access to such records and financial statements upon request, as shall Inspectors General, the Comptroller General of the United States or any of their authorized representatives if the Funding Source or any funding entity (*i.e.*, a secondary funding source) is a federal agency and/or any portion of the Project provided herein is paid with federal funds. NFWF Subrecipient must maintain records that demonstrate its compliance with federal statutory and regulatory requirements and that it is meeting the subaward project goals. Records for real property and equipment acquired with federal funds must be retained for at least three (3) years following disposition.

SECTION 2 NFWF AGREEMENT CLAUSES

2.1. Restrictions on Use of Funds.

The NFWF Subrecipient agrees that any funds provided by NFWF and all Matching Contributions will be expended only for the purposes and programs described in this Grant Agreement. No funds provided by NFWF pursuant to this Grant Agreement or Matching Contributions may be used to support litigation expenses, lobbying activities, or any other activities not authorized under this Grant Agreement or allowable under the Federal Cost Principles set forth in the OMB Uniform Guidance.

2.2. Assignment.

The NFWF Subrecipient may not assign this Grant Agreement, in whole or in part, to any other individual or other legal entity without the prior written approval of NFWF.

2.3. Subawards and Contracts.

When making subawards or contracting, NFWF Subrecipient (1) shall abide by all required granting and contracting procedures, including but not limited to those requirements of the OMB Uniform Guidance; (2) shall ensure that all applicable federal, state and local requirements are properly flowed down to the subawardee or contractor, including but not limited to the provisions of the OMB Uniform Guidance; and (3) shall ensure that such subaward or contracting complies with the requirements in Section 2.9.2 of this Grant Agreement concerning Compliance with Anti-Corruption, Anti-Money Laundering, Terrorist Financing, and Trafficking in Persons Statutes and Other Restrictions. NFWF Subrecipient shall also include in any subaward or contract a similar provision to this, requiring the use of proper grant and contracting procedures and subsequent flow down of federal, state and local requirements to lower-tiered subawardees and contractors.

2.4. Unexpended Funds.

Any funds provided by NFWF and held by the NFWF Subrecipient and not expended at the end of the Period of Performance will be returned to NFWF within ninety (90) days after the end of the Period of Performance.

2.5. Publicity and Acknowledgement of Support.

The NFWF Subrecipient gives NFWF the right and authority to publicize NFWF's financial support for this Grant Agreement and the Project in press releases, publications and other public communications. NFWF Subrecipient agrees to: (i) give appropriate credit to NFWF and any Funding Sources identified in this Grant Agreement for their financial support in any and all press releases, publications, annual reports, signage, video credits, dedications, and other public communications regarding this Grant Agreement or any of the project deliverables associated with this Grant Agreement, subject to any terms and conditions as may be stated in Section 5 and Section 6 of this Agreement; and (ii) include the disclaimer provided for herein. The NFWF Subrecipient must obtain prior NFWF approval for the use relating to this Award of the NFWF logo or the logo of any Funding Source.

2.5.1. Disclaimers.

Payments made to the NFWF Subrecipient under this Grant Agreement do not by direct reference or implication convey NFWF's endorsement nor the endorsement by any other entity that provides funds to the NFWF Subrecipient through this Grant Agreement, including the U.S. Government, as applicable, for the Project. All information submitted for publication or other public releases of information regarding this Grant Agreement shall carry the following disclaimer:

For Projects funded in whole or part with Federal funds: "The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Government or the National Fish and Wildlife Foundation and its funding sources. Mention of trade names or commercial products

does not constitute their endorsement by the U.S. Government, or the National Fish and Wildlife Foundation or its funding sources."

For Projects not funded with Federal funds: "The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions of the National Fish and Wildlife Foundation or its funding sources. Mention of trade names or commercial products does not constitute their endorsement by the National Fish and Wildlife Foundation or its funding sources."

2.6. Posting of Final Reports.

The NFWF Subrecipient hereby acknowledges its consent for NFWF and any Funding Source identified in this Grant Agreement to post its final reports on their respective websites. In the event that the NFWF Subrecipient intends to claim that its final report contains material that does not have to be posted on such websites because it is protected from disclosure by statutory or regulatory provisions, the NFWF Subrecipient shall so notify NFWF and any Funding Source identified in this Grant Agreement and clearly mark all such potentially protected materials as "PROTECTED," providing an accurate and complete citation to the statutory or regulatory source for such protection.

2.7. Website Links.

The NFWF Subrecipient agrees to permit NFWF to post a link on any or all of NFWF's websites to any websites created by the NFWF Subrecipient in connection with the Project.

2.8. Evaluation.

The NFWF Subrecipient agrees to cooperate with NFWF by providing timely responses to all reasonable requests for information to assist in evaluating the accomplishments of the Project for a period of five (5) years after the project end date, unless if any litigation, claim, or audit is started (irrespective of the NFWF Subrecipient's involvement in such matter) before the expiration of the 5-year period, the records shall be retained until all litigation, claims or audit findings or pending matters involving the records have been resolved and final action taken. NFWF shall notify NFWF Subrecipient if any such litigation, claim or audit takes place so as to extend the retention period.

2.9. Compliance with Laws.

2.9.1 In General. The NFWF Subrecipient agrees to conduct all such activities in compliance with all applicable Federal, State, and local laws, regulations, and ordinances and to secure all appropriate necessary public or private permits and consents. The terms of this provision will survive termination of this Grant Agreement and must be flowed down to any and all contractors, subcontractors or subrecipients entered into by NFWF Subrecipient in the performance of this Grant Agreement.

2.9.2. Compliance with Anti-Corruption, Anti-Money Laundering, Terrorist Financing, and Other Restrictions.

2.9.2.1. The NFWF Subrecipient shall ensure that no payments have been or will be made or received by the NFWF Subrecipient in connection with this Agreement in violation of the U.S. Foreign Corrupt Practices Act of 1977, as amended (15 U.S.C. §dd-1 *et seq.*), the UK Bribery Act 2010, or any other applicable anti-corruption laws or regulations in the countries in which the NFWF Subrecipient performs under this Grant Agreement.

2.9.2.2. The NFWF Subrecipient shall not provide material support or resources directly or indirectly to, or knowingly permit any funds provided by NFWF pursuant to this Grant Agreement or Matching Contributions to be transferred to, any individual, corporation or other entity that the NFWF Subrecipient knows, or has reason to know, commits, attempts to commit, advocates, facilitates, or participates in any terrorist activity,

or has committed, attempted to commit, advocated, facilitated or participated in any terrorist activity, including, but not limited to, the individuals and entities (1) on the master list of Specially Designated Nationals and Blocked Persons maintained by the U.S. Department of Treasury's Office of Foreign Assets Control, which list is available at www.treas.gov/offices/enforcement/ofac;(2) on the consolidated list of individuals and entities maintained by the "1267 Committee" of the United Nations Security Council at http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml; (3) on the consolidated list maintained by the U.S. Department of Commerce at http://export.gov/ecr/eg_main_023148.asp, or (4) on such other list as NFWF may identify from time to time.

2.9.2.3 . The NFWF Subrecipient shall ensure that its activities under this Grant Agreement comply with all applicable U.S. laws, regulations and executive orders regarding money laundering, terrorist financing, U.S. sanctions laws, U.S. export controls, restrictive trade practices, boycotts, and all other economic sanctions or trade restrictions promulgated from time to time by means of statute, executive order, regulation or as administered by the U.S. Department of State, the Office of Foreign Assets Control, U.S. Department of the Treasury, or the Bureau of Industry and Security, U.S. Department of Commerce.

~~2.10. Arbitration.~~

~~All claims, disputes, and other matters in question arising out of, or relating to this Grant Agreement, its interpretation or breach, shall be decided through arbitration by a person or persons mutually acceptable to both NFWF and the NFWF Subrecipient. Notice of the demand for arbitration shall be made within a reasonable time after the claim, dispute, or other matter in question has arisen. The award rendered by the arbitrator or arbitrators shall be final. The terms of this provision will survive termination of this Grant Agreement.~~

~~2.11. Indemnity.~~

~~The NFWF Subrecipient shall indemnify and hold harmless NFWF, any Funding Source identified in this Grant Agreement, their respective officers, directors, agents, and employees in respect of any and all claims, injuries, losses, diminution in value, damages, liabilities, whether or not currently due, and expenses including without limitation, settlement costs and any legal or other expenses for investigating or defending any actions or threatened actions or liabilities arising from or in connection with the Project. The terms of this provision will survive termination of this Grant Agreement.~~

2.12. Insurance.

The NFWF Subrecipient agrees to obtain and maintain all appropriate and/or required insurance coverages against liability for injury to persons or property from any and all activities undertaken by the NFWF Subrecipient and associated with this grant agreement in any way. NFWF reserves the right to require additional insurance limits and policies based on specific activities under this Grant Agreement, that NFWF be named insured on all applicable insurance policies, and that the NFWF Subrecipient provide a certificate of insurance and/or copies of applicable insurance policies as requested by NFWF. The terms of this provision will survive termination of this Grant Agreement.

2.13. Choice of Law/Jurisdiction.

This Grant Agreement shall be subject to and interpreted by the laws of the State of South Carolina, without regard to choice of law principles. By entering into this Grant Agreement, the NFWF Subrecipient agrees to submit to the jurisdiction of the courts of the State of South Carolina. The terms of this provision will survive termination of this Grant Agreement.

2.14. Termination.

2.14.1. Upon the occurrence of any of the following enumerated circumstances, NFWF may terminate this Grant Agreement, or any portion thereunder, for default effective upon receipt by the NFWF Subrecipient of NFWF's written notice of termination, or as otherwise specified in the notice of termination:

2.14.1.1. The NFWF Subrecipient is adjudged or becomes bankrupt or insolvent, is unable to pay its debts as they become due, or makes an assignment for the benefit of its creditors; or,

2.14.1.2. The NFWF Subrecipient voluntarily or involuntarily undertakes to dissolve or wind up its affairs; or,

2.14.1.3. In the event of suspension or debarment by the Government of the NFWF Subrecipient; or,

2.14.1.4. In the event of any breach of the requirements set forth in Section 2 of this Grant Agreement concerning Compliance with Anti-Corruption, Anti-Money Laundering, Terrorist Financing, and Trafficking in Persons Statutes and Other Restrictions; or,

2.14.1.5. In the event NFWF learns that NFWF Subrecipient has an organizational conflict of interest, or any other conflict of interest, as determined in the sole discretion of NFWF, that NFWF believes cannot be mitigated; or,

2.14.1.6. After written notice and a reasonable opportunity to cure the perceived non-compliance with any material term of this Grant Agreement. The cure period shall be considered the timeframe specified by the Government, if any, minus one (1) to five (5) days or as agreed upon by the Parties in writing, or if no time is specified by the Government, ten (10) days or as otherwise agreed upon by the Parties. Within this time period the NFWF Subrecipient shall, as determined by NFWF, (a) satisfactorily demonstrate its compliance with the term(s) originally believed to be in non-compliance; or (b) NFWF, at its sole discretion, may determine that NFWF Subrecipient has satisfactorily demonstrated that reasonable progress has been made so as not to endanger performance under this Grant Agreement.

2.14.2. Either Party may terminate this Grant Agreement by written notice to the other Party for any reason by providing thirty (30) days' prior written notice to the other Party. NFWF shall have the right to terminate this Agreement in whole or in part at any time, if the Funding Source issues an early termination under the funding agreement(s) covering all or part of the Project at issue hereunder.

2.14.3. In the event of termination of this Grant Agreement prior to Project completion, the NFWF Subrecipient shall immediately (unless otherwise directed by NFWF in its notice if NFWF initiated the termination) undertake all reasonable steps to wind down the Project cooperatively with NFWF, including but not limited to the following:

2.14.3.1. Stop any portion of the Project's work that is incomplete (unless work to be completed and a different date for termination of work are specified in NFWF's notice).

2.14.3.2. Place no further work orders or enter into any further subawards or contracts for materials, services or facilities, except as necessary to complete work as specified in NFWF's notice.

2.14.3.3. Terminate all pending Project work orders, subawards, and contracts for work that has not yet commenced.

2.14.3.4. With the prior written consent of NFWF, promptly take all other reasonable and feasible steps to minimize and/or mitigate any damages that may be caused by the failure to complete the Project, including but not limited to reasonable settlements of any outstanding claims arising out of termination of Project work orders, subawards, and contracts.

2.14.3.5. Deliver or make available to NFWF all data, drawings, specifications, reports, estimates, summaries, and such other information and material as may have been accumulated by the NFWF Subrecipient under this Grant Agreement, whether completed or in progress.

2.14.3.6. Return to NFWF any unobligated portion of the Award.

2.15. Entire Agreement.

These terms and conditions, including the Attachments hereto, constitute the entire agreement between the Parties relating to the Project described herein and supersede all previous communications, representations, or agreements, either oral or written, with respect to the subject matter hereof. No representations or statements of any kind made by any representative of a Party, which are not stated herein, shall be binding on said Party.

2.16. Severability.

Each provision of this Grant Agreement is distinct and severable from the others. If one or more provisions is or becomes invalid, unlawful, or unenforceable in whole or in part, the validity, lawfulness and enforceability of the remaining provisions (and of the same provision to the extent enforceable) will not be impaired, and the Parties agree to substitute a provision as similar to the offending provision as possible without its being invalid, unlawful or unenforceable.

2.17. Interpretation and Construction.

2.17.1. This Grant Agreement shall be interpreted as a unified contractual document with the Sections and the Attachments having equal effect, except in the event of any inconsistency between them. In the event of a conflict between any portion of this Grant Agreement and another portion of this Grant Agreement, first the Sections will apply, then any supplemental attachments.

2.17.2. The title designations of the provisions to this Grant Agreement are for convenience only and shall not affect the interpretation or construction of this Grant Agreement.

2.17.3. Every right or remedy conferred by this Grant Agreement upon or reserved to the Parties shall be cumulative and shall be in addition to every right or remedy now or hereafter existing at law or in equity, and the pursuit of any right or remedy shall not be construed a selection.

2.17.4. The failure of NFWF to exercise any right or privilege granted hereunder or to insist upon the performance and/or compliance of any provision of this Grant Agreement, a referenced contractual, statutory or regulatory term, or an Attachment hereto, shall not be construed as waiving any such right, privilege, or performance/compliance issue, and the same shall continue in full force and effect.

2.17.5. Notwithstanding any express statements regarding the continuation of an obligation beyond the expiration or termination of this Grant Agreement, the rights and obligations of this Grant Agreement which by their nature extend beyond its expiration or termination shall remain in full force and effect and shall bind the Parties and their legal representatives, successors, heirs, and assigns.

SECTION 3 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS GENERAL

3.1. Binding Obligation.

By execution of this Grant Agreement, NFWF Subrecipient represents and certifies that this Grant Agreement has been duly executed by a representative of the NFWF Subrecipient with full authority to execute this Grant Agreement and binds the NFWF Subrecipient to the terms hereof. After execution by the representative of the NFWF Subrecipient named on the signature page hereto, this Grant Agreement represents the legal, valid, and binding obligation of the NFWF Subrecipient, enforceable against the NFWF Subrecipient in accordance with its terms.

3.2. Additional Support.

In making this Award, NFWF assumes no obligation to provide further funding or support to the NFWF Subrecipient beyond the terms stated in this Grant Agreement.

3.3. Compliance with Laws.

By execution of this Grant Agreement and through its continued performance hereunder, the NFWF Subrecipient represents and certifies that it is conducting all such activities in compliance with all applicable Federal, State, and local laws, regulations, and ordinances and to secure all appropriate necessary public or private permits and consents.

3.4. Conflicts of Interest.

By execution of this Grant Agreement, NFWF Subrecipient acknowledges that it is prohibited from using any Project funds received under this Grant Agreement in a manner which may give rise to an apparent or actual conflict of interest, including organizational conflicts of interest, on the part of the NFWF Subrecipient. Such a conflict of interest would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract. The officers, employees, and agents of NFWF Subrecipient may neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or parties to subcontracts. An organizational conflict of interest is defined as a relationship that because of relationships with a parent company, affiliate, or subsidiary organization, the non-Federal entity is unable or appears to be unable to be impartial in conducting a procurement action involving a related organization. The NFWF Subrecipient represents and certifies that it has adopted a conflict of interest policy that, at a minimum, complies with the requirements of the OMB Uniform Guidance, and will comply with such policy in the use of any Project funds received under this Agreement. NFWF Subrecipient may set standards for situations in which the financial interest is not substantial or the gift is an unsolicited item of nominal value. The standards of conduct must provide for disciplinary actions to be applied for violations of such standards by officers, employees, or agents of NFWF Subrecipient. If NFWF Subrecipient becomes aware of any actual or potential conflict of interest or organizational conflict of interest, during the course of performance of this Grant Agreement, NFWF subrecipient will immediately notify NFWF in writing of such actual or potential conflict of interest, whether organizational or otherwise.

SECTION 4 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS RELATING TO FEDERAL FUNDS

4.1. If the Funding Source or any funding entity (*i.e.,* a secondary funding source) is a federal agency and/or any portion of the Project provided herein is paid with federal funds, the NFWF Subrecipient must read and understand certain applicable Federal regulations, including but not limited to, the following in Sections 4 and 5 of this Agreement as set forth herein.

If the NFWF Subrecipient is a Non-Profit Organization, Institution of Higher Education, State, Local or Tribal Government, it will need to understand and comply with the OMB Uniform Guidance (including related Supplements as may be applicable to a specific federal funding source(s), and Appendices as may be applicable), in addition to other applicable Federal regulations.

If NFWF Subrecipient subawards any portion of the Project under this Agreement to a third-party, NFWF Subrecipient shall, at a minimum, flow down those requirements and provisions required to be flowed down pursuant to the applicable regulations set forth above.

4.2. A-133 and 2 CFR § 200 Subpart F Audits.

It is the responsibility of subrecipients that are Non-Profit Organizations, State, Local or Tribal Governments to arrange for the conduct of audits as required by either OMB Circular A-133, "Audits of States, Local Governments, and Non Profit Organizations" or 2 CFR Part 200, Subpart F – Audit Requirements, whichever is applicable.

4.3. Interest.

Any interest earned in any one year on Federal funds advanced to the NFWF Subrecipient that exceeds $500 must be reported to NFWF, and the disposition of those funds negotiated with NFWF. Interest amounts up to $500 per year may be retained by the Subrecipient for administrative expense.

4.4. Subrecipient Debarment and Suspensions.

Unless NFWF Subrecipient has submitted a written justification fourteen (14) days prior to execution of this Grant Agreement, stating the reason that this term does not apply, which has been expressly accepted and approved by NFWF prior to execution, by and through NFWF Subrecipient's execution of this Grant Agreement, NFWF Subrecipient warrants and represents its initial and continued compliance that it is not listed on the General Services Administration's, government-wide System for Award Management Exclusions (SAM Exclusions), in accordance with the OMB guidelines at 2 C.F.R Part 180 that implement E.O.s 12549 (3 C.F.R., 1986 Comp., p. 189) and 12689 (3 C.F.R., 1989 Comp., p. 235), "Debarment and Suspension." The NFWF Subrecipient further provides that it shall not enter into any subaward, contract or other agreement using funds provided by NFWF with any party listed on the SAM Exclusions in accordance with Executive Orders 12549 and 12689. The SAM Exclusions can be found at https://www.sam.gov/portal/public/SAM/.

4.5. Mandatory Disclosure.

NFWF Subrecipient must disclose, in a timely manner, in writing to NFWF all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award. Failure to make required disclosures can result in any of the remedies described in this Grant Agreement, including termination, and any remedies provided under law, including suspension or debarment by cognizant federal authorities.

4.6. Trafficking in Persons.

Pursuant to section 106(a) of the Trafficking Victims Protection Act of 2000, as amended (22 U.S.C. 7104(g)) (codified at 2 C.F.R. Part 175), NFWF Subrecipient shall comply with the below provisions. Further, NFWF Subrecipient shall flow down these provisions in all subawards and contracts, including a requirement that Subrecipients similarly flow down these provisions in all lower-tiered subawards and subcontracts. The provision is cited herein:

I. Trafficking in persons.

a. *Provisions applicable to a recipient that is a private entity.*

1. You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not—
   i. Engage in severe forms of trafficking in persons during the period of time that the award is in effect;
   ii. Procure a commercial sex act during the period of time that the award is in effect; or
   iii. Use forced labor in the performance of the award or subawards under the award.
2. We as the Federal awarding agency's pass-through entity may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity —
   i. Is determined to have violated a prohibition in paragraph a.1 of this award term; or
   ii. Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either—
      A. Associated with performance under this award; or
      B. Imputed to you or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement),".

b. *Provision applicable to a recipient other than a private entity.* We as the Federal awarding agency's pass-through entity may unilaterally terminate this award, without penalty, if a subrecipient that is a private entity-

1. Is determined to have violated an applicable prohibition in paragraph a.1 of this award term; or
2. Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph a.1 of this award term through conduct that is either—
   i. Associated with performance under this award; or
   ii. Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement),".

c. *Provisions applicable to any recipient.*

1. You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a.1 of this award term.
2. Our right to terminate unilaterally that is described in paragraph a.2 or b of this section:
   i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and
   ii. Is in addition to all other remedies for noncompliance that are available to us under this award.
3. You must include the requirements of paragraph a.1 of this award term in any subaward you make to a private entity.

d. *Definitions.* For purposes of this award term:

1. "Employee" means either:
   i. An individual employed by you or a subrecipient who is engaged in the performance of the project or program under this award; or
   ii. Another person engaged in the performance of the project or program under this award and not compensated by you including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing or matching requirements.
2. "Forced labor" means labor obtained by any of the following methods: the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.
3. "Private entity":

i. Means any entity other than a State, local government, Indian tribe, or foreign public entity, as those terms are defined in 2 CFR 175.25.

ii. Includes:

A. A nonprofit organization, including any nonprofit institution of higher education, hospital, or tribal organization other than one included in the definition of Indian tribe at 2 CFR 175.25(b).

B. A for-profit organization.

4. "Severe forms of trafficking in persons," "commercial sex act," and "coercion" have the meanings given at section 103 of the TVPA, as amended (22 U.S.C. 7102).

4.7. Subrecipient Monitoring Requirements.

NFWF Subrecipients receiving federal funds understand that NFWF may require NFWF Subrecipient to take corrective action measures in response to a deficiency brought to NFWF and NFWF Subrecipient's attention during the course of an audit.

4.8. Certification and Representation.

NFWF Subrecipient must submit those certifications and representations required by Federal statutes, or regulations to NFWF on an annual basis. Submission may be required more frequently if the NFWF Subrecipient entity fails to meet a requirement of a Federal award.

Programmatic and financial reports or payment requests under a Federal award must be submitted by a representative of the NFWF Subrecipient who has the NFWF Subrecipient's full authority to render such reports and requests for payment and certify to the following at time of submission:

> By signing this [report] [payment request], I certify to the best of my knowledge and belief that the [report] [payment request] is true, complete, and accurate. [The expenditures, disbursements and cash receipts are for the purposes and objectives set forth in the terms and conditions of the Grant Agreement.]. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-3812).

4.9. 41 United States Code (U.S.C.) 4712, Enhancement of Recipient and Subrecipient Employee Whistleblower Protection:

(a) This award, related subawards, and related contracts over the simplified acquisition threshold and all employees working on this award, related subawards, and related contracts over the simplified acquisition threshold are subject to the whistleblower rights and remedies established at 41 U.S.C. 4712.

(b) Recipients, their subrecipients, and their contractors awarded contracts over the simplified acquisition threshold related to this award, shall inform their employees in writing, in the predominant language of the workforce, of the employee whistleblower rights and protections under 41 U.S.C. 4712.

(c) The recipient shall insert this clause, including this paragraph (c), in all subawards and contracts over the simplified acquisition threshold related to this award.

4.10. 41 USC §6306, Prohibition on Members of Congress Making Contracts with Federal Government.

No member of or delegate to Congress or Resident Commissioner shall be admitted to any share or part of this award, or to any benefit that may arise therefrom; this provision shall not be construed to extend to an award made to a corporation for the public's general benefit.

4.11. Executive Order 13513, Federal Leadership on Reducing Text Messaging while Driving.

(Sub)Recipients are encouraged to adopt and enforce policies that ban text messaging while driving, including conducting initiatives of the type described in section 3(a) of the order.

4.12. 43 CFR §18 New Restrictions on Lobbying.

The NFWF Subrecipient agrees to comply with 43 CFR 18, New Restrictions on Lobbying, including the following certification:

(a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the
NFWF Subrecipient, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying" in accordance with its instructions.

(c) The NFWF Subrecipient shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all Subrecipients shall certify accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

SECTION 5 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS RELATING TO FEDERAL FUNDS – FUNDING SOURCE SPECIFIC

FC.R416

Pre-Award Matching Contributions.

The NFWF Subrecipient may begin accumulating pre-award matching contribution costs for Funding Source FC.R416 as of July 1, 2019. This pre-award waiver is only applicable to matching contributions; the NFWF Award listed on line 12 of the Cover Page of this Agreement must be expended within the period of performance listed on line 11.

Department of Commerce (DOC) Compliance Requirements.

The NFWF Subrecipient must comply with the terms and conditions of a DOC financial assistance award, including applicable provisions of the OMB Uniform Guidance (2 C.F.R. Part 200), and all associated Terms and Conditions set forth in the Department of Commerce Financial Assistance Standard Terms and Conditions Dated April 30, 2019, available at http://www.osec.doc.gov/oam/grants_management/policy/. See 2 C.F.R. § 200.101(b)(1) (Applicability), which describes the applicability of 2 C.F.R. Part 200 to various types of Federal awards and §§200.330-332 (Subrecipient monitoring and management). Additionally, the NFWF Subrecipient must flow these requirements down to all subrecipients and contractors, including lower tier subrecipients.

Equipment Reporting.

Equipment or supplies (aggregate supplies, not per unit) at a cost of $5,000 or greater per unit value, including its fair market value, must be inventoried at least once every two years and at award closeout (2 CFR 200.313). NFWF Subrecipients may use the outdated SF-428 form series to report on tangible property or submit their own customized report including a description of federally owned equipment, identification information, acquisition cost, and acquisition date. More guidance on property definitions and forms is posted online at coast.noaa.gov/funding/forms.html.

Handling of Environmental Data or Peer Reviewed Publications.

a) Data Sharing: Environmental data collected or created under this Grant, Cooperative Agreement, or Contract must be made publicly visible and accessible in a timely manner, free of charge or at minimal cost that is no more than the cost of distribution to the user, except where limited by law, regulation, policy, or national security requirements. Data are to be made available in a form that would permit further analysis or reuse: data must be encoded in a machine-readable format, preferably using existing open format standards; data must be sufficiently documented, preferably using open metadata standards, to enable users to independently read and understand the data. The location (internet address) of the data should be included in the final report. Pursuant to NOAA Information Quality Guidelines, data should undergo quality control (QC) and a description of the QC process and results should be referenced in the metadata. Failure to perform quality control does not constitute an excuse not to share data. Data without QC are considered "experimental products" and their dissemination must be accompanied by explicit limitations on their quality or by an indicated degree of uncertainty.
b) Timeliness: Data accessibility must occur no later than publication of a peer-reviewed article based on the data, or two years after the data are collected and verified, or two years after the original end date of the grant (not including any extensions or follow-on funding), whichever is soonest, unless a delay has been authorized by the NOAA funding program.
c) Disclaimer: Data produced under this award and made available to the public must be accompanied by the following statement: "These data and related items of information have not been formally disseminated by NOAA, and do not represent any agency determination, view, or policy."

d) Failure to Share Data: Failing or delaying to make environmental data accessible in accordance with the submitted Data Management Plan, unless authorized by the NOAA Program, may lead to enforcement actions, and will be considered by NOAA when making future award decisions. Funding recipients are responsible for ensuring these conditions are also met by sub-recipients and subcontractors.

e) Funding acknowledgement: Federal funding sources shall be identified in all scholarly publications. An Acknowledgements section shall be included in the body of the publication stating the relevant Grant Programs and Award Numbers. In addition, funding sources shall be reported during the publication submission process using the FundRef mechanism (http://www.crossref.org/fundref/) if supported by the Publisher.

f) Manuscript submission: The final pre-publication manuscripts of scholarly publications produced with NOAA funding shall be submitted to the NOAA Institutional Repository at http://library.noaa.gov/repository after acceptance, and no later than upon publication, of the paper by a journal. NOAA will produce a publicly-visible catalog entry directing users to the published version of the article. After an embargo period of one year after publication, NOAA shall make the manuscript itself publicly visible, free of charge, while continuing to direct users to the published version of record.

g) Data Citation: Publications based on data, and new products derived from source data, must cite the data used according to the conventions of the Publisher, using unambiguous labels such as Digital Object Identifiers (DOIs). All data and derived products that are used to support the conclusions of a peer-reviewed publication must be made available in a form that permits verification and reproducibility of the results.

Scientific Integrity.

a) *Maintaining Integrity.* The NFWF Subrecipient shall maintain the scientific integrity of research performed pursuant to this grant or financial assistance award including the prevention, detection, and remediation of any allegations regarding the violation of scientific integrity or scientific and research misconduct, and the conduct of inquiries, investigations, and adjudications of allegations of violations of scientific integrity or scientific and research misconduct. All the requirements of this provision flow down to subrecipients.

b) *Peer Review.* The peer review of the results of scientific activities under a NOAA grant, financial assistance award, or cooperative agreement shall be accomplished to ensure consistency with NOAA standards on quality, relevance, scientific integrity, reproducibility, transparency, and performance. NOAA will ensure that peer review of "influential scientific information" or "highly influential scientific assessments" is conducted in accordance with the Office of Management and Budget (OMB) Final Information Quality Bulletin for Peer Review and NOAA policies on peer review, such as the Information Quality Guidelines.

c) In performing or presenting the results of scientific activities under the NOAA grant, financial assistance award, or cooperative agreement and in responding to allegations regarding the violation of scientific integrity or scientific and research misconduct, the NFWF Subrecipient and all subrecipients shall comply with the provisions herein and NOAA Administrative Order (NAO) 202-735D, Scientific Integrity, and its Procedural Handbook, including any amendments thereto. That Order can be found at https://nrc.noaa.gov/ScientificIntegrityCommons.aspx.

d) *Primary Responsibility.* The NFWF Subrecipient shall have the primary responsibility to prevent, detect, and investigate allegations of a violation of scientific integrity or scientific and research misconduct. Unless otherwise instructed by the grants officer, the recipient shall promptly conduct an initial inquiry into any allegation of such misconduct and may rely on its internal policies and procedures, as appropriate, to do so.

e) By executing this grant, financial assistance award, or cooperative agreement the NFWF Subrecipient provides its assurance that it has established an administrative process for performing an inquiry, investigating, and reporting allegations of a violation of scientific integrity or scientific and research misconduct; and that it will comply with its own administrative process for performing an inquiry, investigation, and reporting of such misconduct.

f) The NFWF Subrecipient shall insert this provision in all subawards at all tiers under this grant, financial assistance award, or cooperative agreement.

SECTION 6 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS RELATING TO NON-FEDERAL FUNDS – FUNDING SOURCE SPECIFIC

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11.)

COMMITTEE / COUNCIL AGENDA

TO: John J. Tecklenburg, Mayor

FROM: Geona Shaw Johnson **DEPT.** Housing & Community Dev

SUBJECT: PARTICIPATION IN THE INTERAGENCY MULTIDISCIPLINARY SERVICE TEAM

REQUEST: Mayor and City Council are asked to approve the Coordinated Agency System Agreement that allows staff to participate with Charleston County and Service Providers across the Tri-County area to address a continuum of care for persons who are frequently in contact with the criminal justice system. The Homelessness Coordinator is the individual from the Department of Housing and Community Development that participates in these discussions and recommendations.

COMMITTEE OF COUNCIL: Ways and Means **DATE:** September 22, 2020

COORDINATION: This request has been coordinated with: *(attach all recommendations/reviews)*

	Yes	N/A	Signature of Individual Contacted	Attachment
Housing & Cmty Deve	X		Geona Shaw Johnson	X
Corporate Counsel	X			
BFRC/Budget Office	X			

FUNDING: Was funding previously approved? Yes [ ] No [x] N/A [ ]

If yes, provide the following: Organization Key _____ Account # _____

Balance in Account _____ Amount needed for this item $-0-

NEED: Identify any critical time constraint(s).

CFO's Signature: _____

FISCAL IMPACT:

Mayor's Signature: _____

John J. Tecklenburg, Mayor

ORIGINATING OFFICE PLEASE NOTE: A FULLY STAFFED/APPROVED (except Mayor's Signature) PACKAGE IS DUE IN THE CLERK OF COUNCIL'S OFFICE NO LATER THAN 10:00AM THE DAY OF THE CLERK'S AGENDA MEETING.

The Interagency Multidisciplinary Service Team of Charleston County – Coordinated Agency System Agreement

Purpose. The Interagency Multidisciplinary Service Team of Charleston County is a voluntary interdisciplinary coalition of Charleston County agencies who agree to meet for the purpose of: 1) maintaining open lines of communication, 2) aligning protocols, and 3) assisting those with chronic mental health, substance abuse, or co-occurring disorders, who are at high risk of being chronically arrested or hospitalized for activities related to their disabilities. The Interagency Multidisciplinary Service Team is committed to the development of treatment interventions to assist these persons on a case-by-case basis, for their benefit and that of the community. The members of the group agree to meet to discuss specific clients or patients in the community who might benefit from an individualized treatment/care plan created by Interagency Multidisciplinary Service Team members.

Membership. Group membership is open only to representatives of agencies who deal directly with the above designated community members. Adding members to the group will be by request to the Chair who will seek input from all Committee members prior to a decision.

Conflicts of Interest. Each participating agency shall take responsibility to identify and resolve any conflicts of interest or other ethical issues that may affect the agency's participation in any given case. All group members shall assist other group members in becoming aware of conflict of interest issues that may arise.

Confidentiality. Members of the Interagency Multidisciplinary Service Team agree that otherwise confidential or sensitive information shared for the purpose of helping clients and patients is not to be used for the purpose of prosecution or punishment of these persons. Shared information may be used in an interagency manner to assist clients and patients in living lawful, productive lives. Members of the group shall avoid citing sources of information disclosed at interagency meeting that could jeopardize the relationship any group member or helping agency might have with individuals. Some group members are subject to mandatory reporting requirements under State and/or Federal law. All members recognize that these reporting requirements supersede these guidelines, and as such, some information may not remain confidential, to the extent that it is subject to reporting requirements.

Participation. All Interagency Multidisciplinary Service Team members can be expected to comply with fiduciary or professional duties, if any, required of their relationship to the individual under discussion. Where in the judgment of a member he or she cannot participate in a collaborative discussion about a given individual under discussion, without compromising a legal, ethical, moral, or professional standard, the member or agency should not participate in Interagency Group discussions concerning that individual. Where confidential or privileged information about an individual is likely to be discussed, persons or agencies with conflicts of interest against the client or patient should remove themselves from the discussion room or other site of communication.

Legal Compliance. In performing its functions, The Interagency Multidisciplinary Service Team recognizes that members must comply with applicable Federal privacy and security regulations of the

Health Insurance Portability and Accountability Act (HIPAA) 45 C.F.R. Parts 160, 162 and 164 and the Federal Alcohol and Drug Confidentiality regulations 42 C.F.R., Part 2.

Consent Form. All members agree to utilize The Interagency Multidisciplinary Service Team CONSENT TO PARTICIPATE IN CARE COORDINATION form to ensure that confidential information is protected and released consistent with the above provisions.

Meeting Format. The meetings require verbal participation only. No individually identifiable health information or confidential drug and/or alcohol abuse therapy information will be exchanged in written format. No treatment notes will be recorded.

Commitment Statement:

_____(Organization/Agency) agrees to participate in the Interagency Multidisciplinary Service Team of Charleston County according to the terms of this collaboration agreement, and to engage with other partner participants to pursue the mission and purpose of the group to assist those with chronic mental health, substance abuse, or co-occurring disorders, who are at high risk of being chronically arrested or hospitalized for activities related to their disabilities.

_____(Organization/Agency) agrees to appoint the following executive: _____ (name of executive) as its representative in Interagency Multidisciplinary Service Team meetings and activities.

_____	_____
Name of executive representative	Title of executive representative
_____	_____
Name of authorized agent	Title of authorized agent
_____	_____
Signature of authorized agent	Date

Interagency Multidisciplinary Service Team (IMST)

CONSENT TO PARTICIPATE IN CARE COORDINATION.

This **Consent to Participate** provides authorization for the disclosure of the protected health information of:

_____ _____

Client / Patient Name Date of Birth

I consent to the disclosure of my use of services and treatment for the purposes of developing and accessing an individual care plan, and coordinating my care/treatment among Interagency Treatment Group members.

The Community Action Collaborative partners include:

- The City of Charleston
- Charleston Police Department
- One80 Place
- Charleston Municipal Court
- Probate Court
- Court of General Sessions
- Charleston County Magistrates Court
- Charleston County Sheriffs' Office
- XXX
- Criminal Justice Coordinating Committee
- Charleston Dorchester Mental Health
- Mount Pleasant Police Department
- Charleston Center
- Mount Pleasant Municipal Court
- South Carolina Department of Probation, Parole and Pardon Services
- North Charleston Municipal Court
- XXX

Members of the IMST have my permission to disclose, among themselves, my use of services and treatment in **oral format only**. The information shared will solely be used to develop a treatment plan, assess the plan's effectiveness, and to coordinate care. Written treatment records may not be disclosed without my separate written consent. No information shared between members of the IMST may be further disclosed to anyone outside the group, unless the client/patient signs a separate written authorization specifically consenting to such disclosure.

This consent is subject to revocation at any time (either written or verbally), except to the extent that the members of the IMST have already taken action in reliance upon it. If not previously revoked, this consent will expire on (list specific date, event, or condition): _____

_____

_____ _____

Client / Patient Signature Date

Notice to Recipient of Disclosure: This information has been disclosed to you from records protected by Federal confidentiality rules (42 CFR Part 2). The Federal rules prohibit you from making any further disclosure of this information unless further disclosure is expressly permitted by the written consent of the person to whom it pertains or as otherwise permitted by 42 CFR Part 2. A general authorization for the release of medical or other information is NOT sufficient for this purpose. The Federal rules restrict any use of the information to criminally investigate or prosecute any alcohol or drug abuse patient.

Revised 09.14.16

12.)

COMMITTEE / COUNCIL AGENDA

TO: John J. Tecklenburg, Mayor

FROM: Meg Thompson DEPT. PP&S/BNS

SUBJECT: MASC HOMETOWN ECONOMIC DEVELOPMENT GRANT APPLICATION

REQUEST: To approve the submission of a grant application to Municipal Association of South Carolina in the amount of $25,000 for the Implementation of new wayfinding signage in the Central Business District.

COMMITTEE OF COUNCIL: W&M DATE: September 22, 2020

COORDINATION: This request has been coordinated with: *(attach all recommendations/reviews)*

	Yes	N/A	Signature of Individual Contacted	Attachment
Corporate Counsel	☐	☐		☐
Cap. Proj. Cmte. Chair	☐	☐		☐
Grant Writer	X	☐	Sarah Fichera	☐
PP&S Operations Manager	☐	☐		☐

FUNDING: Was funding previously approved? Yes ☐ No X N/A ☐

If yes, provide the following: Dept./Div.: _____ Account #: _____

Balance in Account _____ Amount needed for this item _____

Does this document need to be recorded at the RMC's Office? Yes ☐ No X

NEED: Identify any critical time constraint(s).
BNS plans to submit the application by September 25, 2020.

CFO's Signature: _____

FISCAL IMPACT:
There is a 15% match. The City match will be in-kind by accounting for Business & Neighborhood Services staff time and fringe benefits.

Mayor's Signature: _____
John J. Tecklenburg, Mayor

ORIGINATING OFFICE PLEASE NOTE: A FULLY STAFFED/APPROVED (except Mayor's Signature) PACKAGE IS DUE IN THE CLERK OF COUNCIL'S OFFICE NO LATER THAN 10:00AM THE DAY OF THE CLERK'S AGENDA MEETING.

City of Charleston
South Carolina

JOHN J. TECKLENBURG
Mayor

JACOB LINDSEY
Director, Planning

MEMORANDUM

To: Mayor Tecklenburg and Members of Council
From: Jacob Lindsey, Director of Planning
Subject: Municipal Association of South Carolina Grant Submission FY 2020
Date: 15 September 2020

The purpose of this memorandum is to request permission for the City of Charleston's submission of the Municipal Association of South Carolina's (MASC) Hometown Economic Development grant application. The application must be submitted by September 25, 2020.

The application will be submitted by the Business and Neighborhood Services Division of the Planning Department. If awarded, the grant funding will support a pilot program to implement a strategic wayfinding system for Charleston's historic Central Business District to assist residents and visitors with navigating the district. Wayfinding is the process or activity of ascertaining one's position and following a route. The proposed wayfinding system will draw upon established best practices in cities across the U.S.

The City is requesting $25,000 in MASC funding. The grant requires an 85/15 cost care. The Business and Neighborhood Services Division plans to count staff time and fringe benefits as the in-kind match during the period of performance for a match total of $3,750. The total project budget is $28,750.

Please do not hesitate to contact Meg Thompson should you have any questions or concerns at <thompsonm@charleston-sc.gov> or (843) 958-6407.