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July 16, 2020

The Honorable John J. Tecklenburg
Mayor, City of Charleston
50 Broad Street
Charleston, South Carolina 29401

Re: Status of City of Charleston, U.S. 17 / Septima Clark Drainage Project Application for
Financial Assistance from the South Carolina Transportation Infrastructure Bank (the Bank)

Dear Mayor Tecklenburg,

I am pleased to report that, at its meeting of July 7, 2020, the South Carolina Transportation Infrastructure Bank Board (the Board) approved providing financial assistance for your application, the US 17 /Septima Clark Drainage project, subject to certain conditions. After a thorough analysis of your application, the Board approved a grant in an amount up to \$21,500,000 to construct improvements to US/ 17 Septima Clark Parkway as described in the application for financial assistance. The local match for the project is from the City of Charleston's Drainage Fund and the King Street Gateway TIF, as explained in the application. The Bank's provision of financial assistance also requires approval of the Department of Transportation Commission (Commission) and the Joint Bond Review Committee (JBRC), and an executed Intergovernmental Agreement (IGA) between the parties in a form determined by the Bank. It is my understanding that the Commission approved Bank-approved applications at their meeting July 16, 2020, and that the JBRC potentially plans to review Bank-approved applications at its next meeting currently scheduled for August 11, 2020. Please note that, due to COVID-19 concerns, these dates are tentative and subject to change.

The next step will involve the Bank and the City of Charleston beginning the process of executing an IGA. At the appropriate time, counsel for the Bank will prepare the IGA between the Bank and the City of Charleston, and distribute to all parties for review. As time progresses, the Bank will ask for updates to the project status and timeframe in which the Bank's financial assistance of \$21,500,000 will be needed. The Bank also will need the contact information for the City's representatives who will work with us on preparing the IGA and providing project updates in the future. You may send this information to Tami Reed by email at reedtb@scdot.org.

Please do not hesitate to contact me if you have other questions.

Sincerely,

A handwritten signature in black ink that reads "John B. White, Jr." in a cursive style.

John B. White, Jr.
Chairman

US17 / Septima Clark Parkway Project

City of Charleston, South Carolina



Application for FY2019 Financial Assistance

Estimated Total Project Cost:	\$197,000,000
Requested STIB Funding:	\$21,500,000
City Match:	\$21,500,000

Submitted by the City of Charleston, SC to the
South Carolina Transportation Infrastructure Bank

September 25, 2019



TABLE OF CONTENTS

EXECUTIVE SUMMARY5

DESCRIPTION OF PROJECT8

1. PUBLIC BENEFIT

A. Public Benefit Ranked by Importance.....13

1.1 Traffic Studies/Traffic Volumes/Accident Data.....21

1.2. Urgency of Project21

1.3 Resolution from Local Governing Body21

1.4 Advisory Coordinating Council for Economic Development Certificate21

1.5 Current and Five Year History of Unemployment Data21

1.6 Resident Support.....22

1.7 State and Local Planning.....23

1.8 Regional and Statewide Significance23

1.9 Alternative Transportation Plans24

1.10 Environmental Impact24

1.11 Project Milestones24

1.12 Project Status.....25

1.13 Entity Contact List26

1.14 Project Score & Criteria27

2. FINANCIAL PLAN

2.1 Total Project Cost.....28

2.2 Local Contributions28

2.3 Local Funding Sources and Amounts28

2.4 Amount of Assistance Requested.....29

2.5 Type of Assistance Requested29

2.6 Other Proposed Sources of Funding29

2.7 Schedule of Anticipated Cash Flow 30

2.8 Schedule of Project Revenues	31
2.9 Commitment to Future Maintenance	32
2.10 Contingency Plan	32
2.11 Adoption of Impact Fees	32
2.12 Adoption of Local Hospitality Tax or Fee.....	32
2.13 Adoption of Local Sales Tax.....	32
2.14 Adoption of User Fee.....	32
2.15 Implementation of Tax Increment Financing Districts.....	33
2.16 Implementation of an Assessment Program.....	32
2.17 Development Agreement Programs.....	33
2.18 Zoning & Land Use Controls.....	33
2.19 Discount Rate 5%.....	33
2.20 Project Cost Estimate Inflation Rate.....	33
2.21 Condemnation Named Party Responsibility.....	33
2.22 Other Sources of Funding Sought.....	34
2.23 Potential Obstacles.....	34
2.24 Local Financial Support	34

LIST OF FIGURES

1. Project Location	10
2. Project Components	11
3. TIGER Grant Collection System Project Limits.....	12

LIST OF TABLES

1. Funding Sources	29
2. Anticipated Cash Flow Requirements	30
3. Schedule of Project Revenues	31

APPENDIX

A-1 The US 17 Septima Clark Parkway Transportation Infrastructure
Reinvestment Project Benefit Cost Analysis Report dated September 2009

A-2 Resolutions from the City of Charleston and SC General Assembly 2009

A-3 Unemployment Data 2008 – 2018

A-4 Letters of Support 2011

A-5 State and Local Planning Lists and Plans

A-6 Regulatory Permits and Approvals

EXECUTIVE SUMMARY

The City of Charleston is requesting an amendment to the First Amended and Restated Intergovernmental Agreement for the US 17/Septima Clark Parkway Project (Project) in the City of Charleston, South Carolina (Agreement). As you may know, a Final Application was submitted to the STIB by the City of Charleston for the Project on August 10, 2011. The Board of Directors subsequently found that the City's Application met the applicable state law criteria as an eligible and qualified project for financial assistance. An Agreement was entered into between the City and the STIB, effective on August 21, 2012. The Agreement was subsequently amended as of October 1, 2015. The Agreement set out terms for the City to receive STIB funding to construct the US17 Septima Clark project, for correcting deficiencies, repairing existing infrastructure, and supporting the advancement and sustainability of transportation along the US17 corridor through peninsular Charleston.

The City is requesting an amendment to the Agreement for two reasons. First, the Agreement (as amended) currently expires on April 30, 2021. The expected completion date of the fourth phase of the Project is June 2022. The fifth and final phase of the Project is anticipated to take another 18 months with the expected completion date of December 2023. The City has been working diligently on this Project but will need additional time to complete the project.

Second, the Agreement (as amended) identifies a total estimated Project cost of \$154 million comprised of a STIB grant of \$88 million and the City provided local match and other financial contributions of \$66 million. This cost estimate was prepared in 2011 during the height of the Great Recession. Since 2011, a number of factors have contributed to a significant increase in the estimated Project cost. The economy has shifted from recession to an economic boom both in the Country and especially in the Charleston region. In addition, Charleston has been impacted by 4 federally declared disaster events in the last 4 consecutive years, leading to increased drainage related construction resources (a problem further exacerbated by other recent large scale hurricane impacts outside the Charleston region), slowed construction rates on the Project, and the perception of an increased risk environment for the local construction market. These factors have led to an updated total estimated Project cost of \$197 million. The City proposes amending the Agreement to increase the City and local contribution to the Project by \$21.5 million for a total of \$87.5 million and the STIB contribution by \$21.5 million for a total of \$109.5 million; a 50/50 cost share of the additional funding needs. We are requesting this financial assistance from the 2019 STIB funds that are currently available.

The progress the City has made on the construction of the Project is readily apparent despite interruptions of major storm events and changes to the construction environment. The City has completed the surface drainage collection system and urban connectivity and safety improvements partially funded by the Federal TIGER grant. The 8 drop shaft with vortex boxes have been installed. The excavation of the access shafts and deep

tunnel system connecting to the drop shafts with final concrete lining is currently in progress. Construction is also underway on the wetwell and outfall system and the mitigation projects for the related salt marsh impacts are also completed. Furthermore, the City has identified the potential to leverage the Project into providing additional benefits by installing another deep shaft and tunnel addition to relieve flooding in an additional 27 acres of the Medical District. This addition would provide drainage to the emergency room access roads that experienced heavy flooding during the recent hurricane events. This new work is currently being funded for design by the City and would provide additional relief to the hospital district but it is dependent upon the successful completion of the original project. The last four years of catastrophic weather have demonstrated the vulnerability of the Project area to disruption by flooding even as the area has continued to increase its economic impacts to the statewide economy.

The City requests the opportunity to meet and discuss amending the Agreement to extend the time for completion of the Project and to seek the STIB's assistance in partnering with the City to fund the increase in Project cost. We ask this in recognition of the Statewide Project benefits as identified in the original grant application and enhanced by additional development in recent years. This Project is an outstanding example of the STIB fulfilling its purpose in providing financial assistance to governments who are contributing their own funds to construct and improve highway and infrastructure facilities that provide a public benefit and economic development Statewide. The City would appreciate the STIB's assistance in completing this valuable project.

Project Eligibility

The US 17/Septima Clark Parkway Project is a currently funded STIB project and is eligible to receive funding based on the 2019 financial assistance criteria. The Project meets both the \$25 million project cost requirement and the match requirement for projects with a total cost in excess of \$50 million. The STIB funds combined in hybrid format with the City's funds, those it has received through competitive grant processes, and with the other sources outlined in the financial plan herein, will allow this project to be completed. When reviewed by the STIB in 2011, the project was listed on the Berkeley Charleston Dorchester Council of Governments (BCDCOG) Transportation Improvement Program List (TIP) and the South Carolina Statewide Transportation Improvement Plan (STIP) report. The project is currently listed as a funded project on the TIP.

The US17/Septima Clark Parkway Project provides public benefits in all three of the following areas: the enhancement of mobility and safety; promotion of economic development; and increase in the quality of life and general welfare of the public. The Project will mitigate the existing hazards associated with flooding, including improving the reliability of this critical transportation asset and supporting the sustainability and continued economic viability for operations of the South Carolina Ports Authority (SPA) and the Medical University of South Carolina (MUSC). According to the 2011 data included in the City of Charleston's original STIB application, the cumulative economic impact of this project is approximately \$2.52 billion.

CONTACT PERSON

The Honorable John J. Tecklenburg
Mayor, City of Charleston
50 Broad Street
Charleston, South Carolina 29401

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DESCRIPTION OF PROJECT

The Spring / Fishburne US17 Drainage Basin encompasses approximately 500 acres or about twenty percent (20%) of peninsular Charleston (See Figure 1). The project to improve drainage within this basin has been identified as a high priority in the City's effective Master Drainage Plan. Centered about the basin and area of improvement is US17, an at grade route between bridges crossing the Cooper and Ashley rivers and serving the eastern terminus of I-26.

Septima Clark Parkway, a portion of US17 also previously referred to as the Crosstown, was constructed in 1968. The Federal Highway Administration acquired by condemnation a 100 foot wide and 3200 foot long swath of land in the middle of a residential neighborhood in the upper peninsula of the City of Charleston to build the six-lane highway connecting U.S. Highway 17 North to U.S. Highway 17 South. The newly constructed road ran from the old Cooper River Bridge on the east to the Ashley River Bridge on the west. Because it cut through the heart of the City from one river to the other, it quickly became known as the Crosstown.

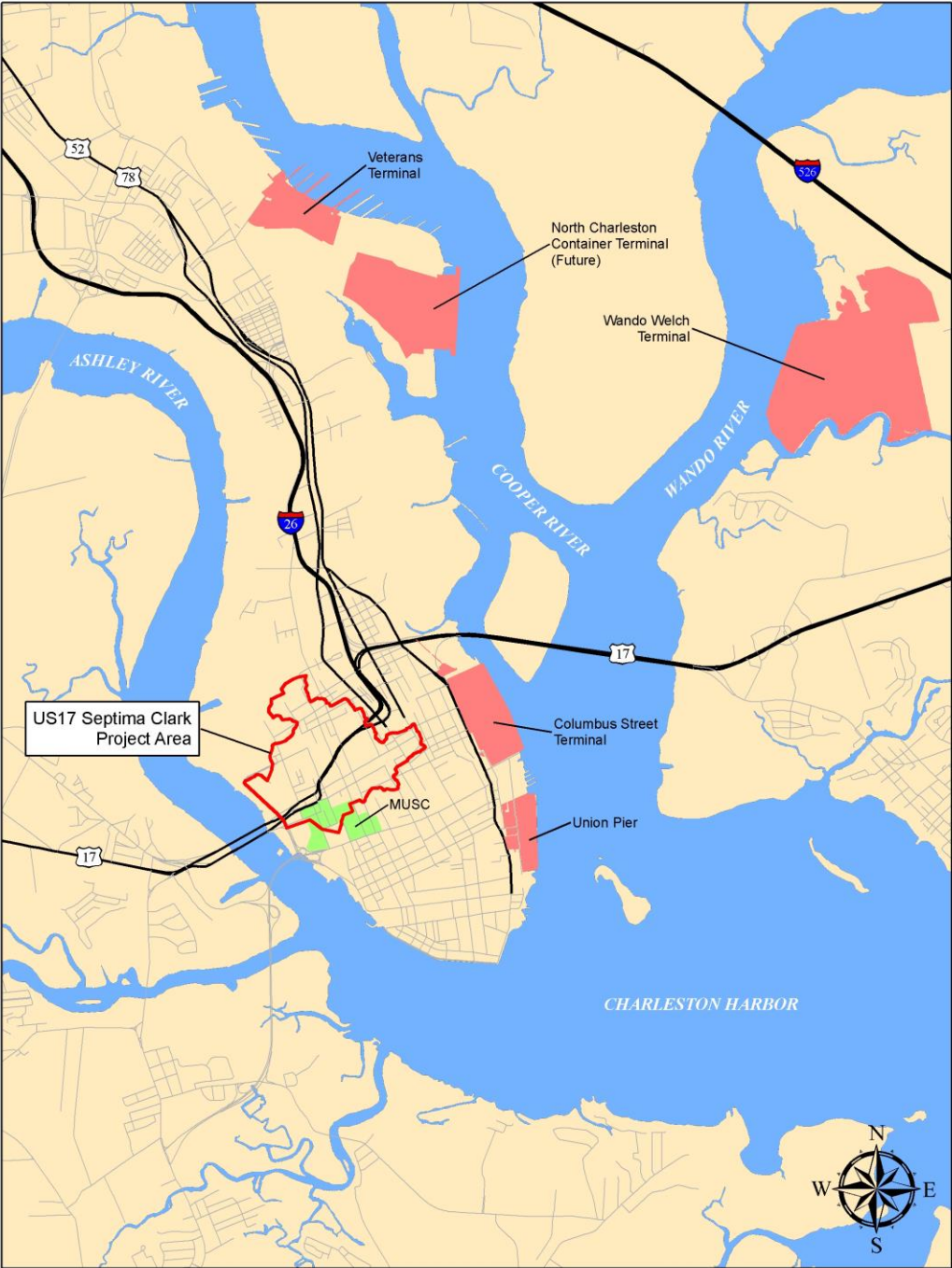
The work undertaken by the Federal Highway Administration in the 1960's did not take into account the consequences we now understand of paving with impervious asphalt a 100 foot wide parcel of land in the middle of a drainage basin formed by the natural topography of the land between two rivers. The route severed the existing road and drainage network and did not provide the area with an adequate drainage system to address the impact of the increase in impervious area or the impact to the existing drainage basin and collection system network. As a six-lane Federal highway running north-south and connecting the Cooper River and Ashley River bridge crossings, it provided a travel route for over 63,600 vehicles per day based on SCDOT's 2018 Average Daily Traffic Count. This route also serves as the lifeline for emergency service vehicles associated with three major hospitals, the only level one trauma center in the Lowcountry, and the City of Charleston's Police Department. As a designated evacuation route serving the region during hurricane season, its reliability and use immediately preceding and during the onset of tropical events is critical. This Federal route is maintained by SCDOT.

The City has carefully studied the flooding and transportation impacts over the years. In 2004, a Preliminary Engineering Report (PER) was commissioned that outlined recommended drainage improvements for alleviating frequent stormwater flooding. Recommendations were supported by hydrologic and hydraulic considerations and a conceptual design development for improvements. The long term solution to this flooding is the construction of a series of deep stormwater conveyance tunnels, a large stormwater pumping station at the edge of the Ashley River and a number of local neighborhood stormwater drainage improvements.

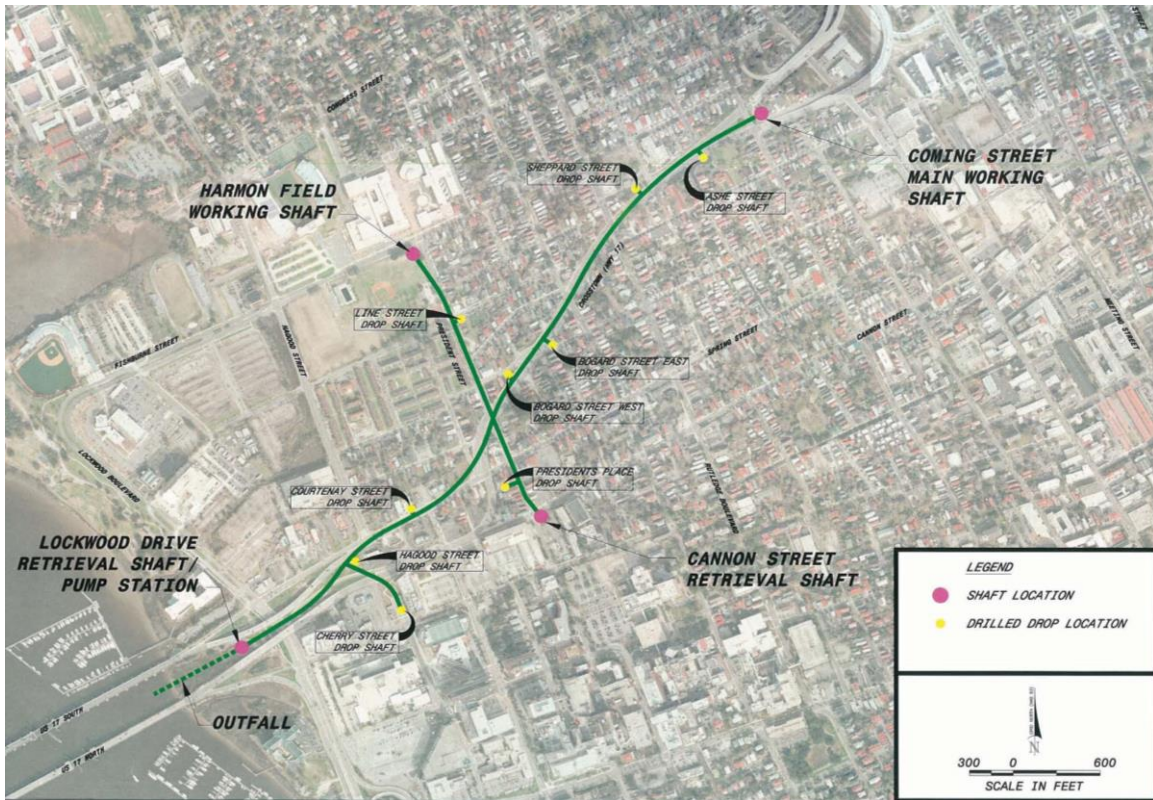
The PER led to the implementation of the Detailed Design which further defined the project requirements and developed detailed technical memoranda to document the design approach for each component of the project and ensure that the proposed improvements are technically feasible for construction. This Detailed Design provided the City with an estimated construction cost and scheduling strategy for construction of these improvements. All drawings and specifications are complete. All required regulatory permits and approvals have been received, to include but not limited to the US Army Corps of Engineers 404 Permit, the South Carolina Department of Health and Environmental Control (SCDHEC) NPDES Permit, the SCDHEC Office of Ocean and Coastal Resource Management (OCRM) Critical Area and 401 Water Quality Certification and OCRM Coastal Zone Consistency Certification, the SCDOT Encroachment Permit and all local permitting and approvals.

The City of Charleston started Phase I of the US17/ Septima Clark Parkway project in May of 2011 and has since completed Phase I, Phase II, and is in construction on Phase III and Phase IV. This major tunnel and pump project has been designed to alleviate flooding within the Spring and Fishburne Drainage Basins including the surrounding streets and neighborhoods. The project includes more than 8,200 linear feet of deep tunnel for stormwater conveyance, 4 access/working shafts, 8 drop shafts, a 550-ft long triple-barrel outfall into the Ashley River, an updated surface collection and conveyance system including more than 18,000 linear feet of new stormwater pipe and more than 500 new structures, and a pump station capable of pumping more than 360,000 gallons per minute located between the Ashley Bridges. This project will serve more than 500 acres of the west peninsula and will keep the Septima Clark Parkway open during most rain events when complete. The expected completion date for the final phase of the Project is December 2023.

Figure 1
US17 Septima Clark Transportation and Drainage Improvements
Project Location



**Figure 2
Project Components**



The City of Charleston submitted an application for a \$146 million grant from the U.S. Department of Transportation under the 2009 American Recovery and Reinvestment Act (ARRA) – Transportation Improvements Generating Economic Recovery (TIGER) program to complete this project. The City was awarded a \$10 million grant under this program (one of the fifty one projects selected out the over fourteen hundred applications submitted to the USDOT) to proceed with a portion of the collection system component of the project. The City elected to install drainage improvements and transportation safety enhancements for US 17 (Septima Clark Parkway) from Coming Street to Spring Street (approximately 0.6 miles) and along side streets that intersect this section of US17. The funded TIGER project component of the project is completed and included:

- Approximately 5,550 linear feet of storm drain piping varying in size from 15-inch reinforced concrete to 48-inch reinforced concrete and associated drainage structures. Existing 2,000 linear feet of storm drain systems cleaned and inspected.
- Milling, demolitions and removal of existing pavement and installation of new pavement and associated striping and signage and street lighting for the six lane section of US 17 Septima Clark Parkway from the Coming Street intersection to the Spring Street intersection (approximately 0.6 Miles).

- A concrete median wall (approx, 2,500 linear feet), curbing (approx, 9,300 linear feet) and 4-inch concrete sidewalk.
- An Intelligent Transportation System was installed to monitor and manage traffic along this route.

This project was advertised, bid and awarded in accordance with Federal, State and Local procurement regulations. Figure 3 depicts the TIGER Grant Collection System project limits.

Figure 3
TIGER Grant Collection System Project Limits



The City of Charleston continues to lead in exploring solutions to the problems caused by the original road construction in an environmentally sensitive area. As a result, this project works to enhance and complete the basic road project begun more than 40 years ago. The City is pleased to continue this partnership among our Federal, State and municipal governments to address vital concerns of public health, safety and quality of life to each and every one of the citizens we serve.

I. PUBLIC BENEFIT

A. This Project presents a significant number of public benefits. The City of Charleston has ranked public benefits in the order of importance from the perspective of the applicant.

1. Promotion of Economic Development

A detailed Benefit Cost analysis, titled “The US 17 Septima Clark Parkway Transportation Infrastructure Reinvestment Project Benefit Cost Analysis Report” was completed in September 2009 for this project and is included in **Appendix A-1**. In summary, the economic impact of this Project can best be described by the cumulative value of benefits for the Project estimated to be \$2.52 billion

- SPA Terminal Connectivity – US 17 is a vital coastal north-south link and provides connectivity between the various port facilities in the area with Interstates 26 and 526 allowing for distribution of goods from the port terminals to the rest of the State and Nation. The area port facilities provide over 187,600 jobs and are a significant resource in the over \$53 billion in trade that is generated in the State Economy. Recurring flooding and/or traffic accidents significantly reduces the capacity of US17 and occasionally brings traffic along the route to a standstill. Due to US17’s connectivity with the other major routes in the area, these capacity reductions extend onto Interstate 26, the Arthur C. Ravenel Bridge (US17) connecting Charleston with Mount Pleasant and US17 South across the Ashley River. As motorists seek alternate routes to avoid the congestion, Interstate 526 becomes the primary alternate route and it experiences congestion related delays. Inability of port related traffic to arrive and depart the port facilities greatly impacts the efficiency of port operations, making the Charleston port facilities a less attractive alternative to other Southeastern U.S. port facilities such as Norfolk, VA and Savannah, GA. The transportation and drainage improvements associated with this Project will ensure that these capacity reductions and interruptions are minimized to allow for the efficient movement of port related goods throughout the region.
- Maintaining and Supporting the MUSC - The MUSC had expressed an interest in moving its facility to an area without the repetitive threat of floods. If this facility moves, it will likely decrease access to health care and have a negative impact on the immediate area’s economy. The Project provides multiple long-term benefits to the Charleston Metropolitan Statistical Area (MSA). The City is well on its way to becoming a premier biotechnology and medical hub. In March 2009, MUSC’s Hollings Institute received a prestigious National Cancer Center designation. It is the only one in the state of State of South Carolina and was the 64th such designated center in the US. As part of this recognition, the Hollings Institute received an award of \$7.3 million (over a 5-year period) to help support its efforts.

- The MUSC Biomedical Research West Edge Area Redevelopment Project (“West Edge”) - The West Edge Project (formerly known as “Horizon”) is a research park that is further developing MUSC’s reputation as a biomedical research hub and will provide over 4.8 million square feet of commercial space. The ongoing redevelopment includes office space, lodging, retail space, and parking structures. The Project will serve as a national model for urban infill development as it incorporates all the necessary elements to support a knowledge-based economy. Upon completion, the local economy will realize an estimated benefit of \$121.6 million.
- Medical Centers – The U.S. 17 Septima Clark Parkway area is served by three medical facilities: MUSC, Roper St. Francis, and the Veterans Administration Hospital. These institutions currently employ over 15,500 people and provide beds to over 1,200 patients. During flood events access to each of the facilities and hospital business activity is negatively impacted. According to self-reported annual statistics, the hospitals admit more than 54,400 patients and serve more than 1,600,000 outpatients annually. A reduction in the number of patients seen and/or admitted to a medical facility represents a loss in revenue. Once the Project is completed and flooding is mitigated, an increase of \$77.5 million in business activity is expected as a result of access to these medical facilities over the 50 year evaluation period, in present value dollars. The MUSC has also completed a recent new Children’s Hospital, the Shawn Jenkins Children’s Hospital opens in 2019 with 250 beds and a rooftop helicopter pad specifically designed to support the U.S. Coast Guard’s new Jayhawk helicopter for emergency and disaster situations. This facility is another location that must have access during flooding and disaster events to keep MUSC functional.
- Increased Business Activity - The Project produces a measurable amount of increased business activity in Charleston.
- Commercial Properties – The primary consequence of flooding to commercial properties is the loss of business. A thorough analysis was completed to quantify the anticipated increase in business activity once the project is finished and flooding is remediated. Over the 50 year evaluation period, in present value dollars, the increase in business activity is \$126.4 million.
- Tourism – Charleston consistently appears on national publications’ lists of best U.S. cities to visit. Area attractions reported more than 7.28 million visitors in 2018, and the average person visiting Charleston spends about \$228 per day. In 2008, area attractions reported 1.5 million visitors. This is an increase of 5.8 million visitors in the past 10 years. The area’s tourism trade has been impacted by different flooding events.

2. Enhancement of Mobility and Safety

- Increased Pedestrian Safety - US17 presented a series of safety hazards to pedestrians. The route as originally constructed, bisected the community's historic street grid and had small, ineffective raised medians separating the directional travel lanes, lacking ample preventative management for crossing pedestrians attempting to continue movement along the original and adjacent street grid. As such, many pedestrians crossed US17 dangerously. The Project included enhancements which were mindful of pedestrian use, including larger raised medians, enhanced traffic signaling, enhanced pedestrian markings, and improved lighting, all of which have been completed. The improvements to the drainage system, the construction of a raised/landscaped center median, the construction of new sidewalks with landscaping, along with high visibility crosswalks, and the use of intelligent transportation systems, represent a substantial cumulative safety improvement for the traveling public and for the local community.
- Increased Vehicular Safety - It is anticipated that the Project will also reduce the number of vehicular accidents on US17 due to sudden stops for flooding. Accident history for the US 17 Septima Clark Parkway reported 1,076 vehicular and pedestrian accidents for the period of January 2015 to September 2019. The predominate cause of accidents was rear-end collisions, caused by sudden stops due to flooding of the US 17 corridor. This was aggravated by high traffic volume increasing the incidence of rear-end accidents along the facility. The Project improvements will make the US 17 Septima Clark Parkway safer for the motorists by alleviating roadway and intersection flooding.
- Uninterrupted Access to Emergency Facilities, Medical Care and Level 1 Trauma Center – The South Carolina National Guard Readiness Center, District U.S. Army Corps of Engineers Headquarters, the City of Charleston Police Headquarters, as well as two fire stations are located within or adjacent to the flooded areas, and are often inaccessible during storm events. Each of these disaster response teams utilizes US17 for maneuvering about the region and requires access in any conditions, particularly during or following storm events. The stormwater drainage improvements will serve to protect and maintain this level of access.
- Uninterrupted Access to Evacuation Routes - Another significant risk to public safety is the unreliability of hurricane evacuations during flood events on US17 as it serves as a local evacuation route and direct conduit to Interstate 26, a primary hurricane evacuation route. A flooding event which coincides with a hurricane evacuation order significantly increases risk to which the region and traveling public are exposed.

- Public Transportation - The Charleston Area Regional Transit Authority (“CARTA”) provides public bus service. Many of the bus routes traversing the area are impacted by frequent flooding. The bus fleet is encouraged to avoid crossing flooded streets as water infiltrating engines can cost a significant amount to repair

US 17 NORTH (HURRICANE EVACUATION ROUTE)



CHERRY STREET (at MUSC and VA HOSPITALS)



BEE STREET (at MUSC)



3. Increase in the Quality of Life and General Welfare of the Public.

- Reduced Residential and Commercial Damage -As a result of completing the Project, there will be a reduction in recurring damage to residential and commercial buildings in the affected area. A thorough study of flood damage in the area along with damage cost estimates from the Federal Emergency Management Agency (FEMA) showed that the project will save residential and commercial flood damages over the 50 year evaluation period, stated in present dollars of \$252 million for major flooding events, and nearly \$42 million for minor flooding events.
- Safe and Reliable Routes to School – Five public schools are located in the area affected by flooding along US17: Burke Middle School and Burke High School (the City’s only inner city public high school), Mitchell Elementary School, Charleston Development Academy (the only chartered elementary school in a federally-subsidized housing project in the US), C-E Middle School, and Buist Academy. A number of private schools in the area are affected as well. School attendance has been linked to graduation rates and higher incomes over the life of the graduate. Completion of the project and remediation of the flooding will facilitate safer and more reliable routes to school, supporting school attendance.
- Reduced Flood Debris – Significant amounts of storm debris are created during flood events. Structural debris, garbage, tree limbs, vegetation and road waste are swept into the environment as well as the sewer system. This creates both direct hazards to those attempting to traverse the area, as well as damage to the storm sewer system and conveyance of pollutants into the outfalls (rivers). Mechanical screenings, sedimentation basin, and the resultant flood alleviation from the Project will minimize storm debris.
- Improved Community Revitalization and Rehabilitation - The area of the Charleston peninsula accessed by US17 is a diverse combination of demographics, land-uses and architecture, and is in the heart of the Martin Luther King Jr. District. As previously stated, alleviating flooding in the area will improve revitalization and rehabilitation in this important community. Eliminating residential damage from floods, providing economic stability for the commercial entities in the area, and providing access for citizens to vital healthcare is integral to a thriving urban community. The Project provides these benefits while maintaining or improving the character of the existing neighborhoods.

- Enhanced Alternative Transportation Opportunities - In the year 2000, Hillary Rodham Clinton and then Secretary of Transportation Rodney Slater designated the Greenway adjacent to the U.S. 17 Septima Clark Parkway as one of our nation's 16 National Millennium Trails. The Millennium Trails initiative was part of the White House Millennium Council's efforts to stimulate national and local activities to "honor the past and imagine the future." The public/private partnership was led by the Department of Transportation, Rails-to-Trails Conservancy, and a collaboration of other agencies and organizations. A key element of this partnership was the construction of a bridge and adjacent pedestrian and bicycle lanes. These important alternative transportation lanes are inaccessible during storm events during flooding. Completion of the Project and remediation of the flooding will open these lanes and support the Millennium Trails initiative.
- Improved Accessibility to Public Transportation for Economically Disadvantaged Populations - During times of flooding, non-drivers and Senior Citizens in the affected areas have no access to public transportation or the ability to utilize pedestrian sidewalks and walkways. By eliminating flooding and the associated hazards, the Project will create improved accessibility for the economically disadvantaged population within the area.
- Improved Water Quality - During flooding, sediment, debris, and contaminants are swept from the flooded areas via stormwater runoff through the sewer system, into the Ashley River. Flooding conditions along roadways inundate the chassis of crossing vehicles and in some occasions lead to the stalling and eventual flooding of vehicles, causing the transfer of oils and fuels into the runoff. Flooding conditions within private property increases the chances of domesticated animal waste being contacted and directly transported by runoff. Completing the Project and alleviating frequent flooding within the basin, will limit the contact or contact time with contaminated surfaces, and pollutants currently transported to the Ashley River experienced will be eliminated or greatly reduced.

PRESIDENT STREET SOUTH OF CANNON STREET (through MUSC)



FISHBURNE STREET (ACCESS ROUTE to BURKE HIGH SCHOOL)



1.1 Traffic Studies/Traffic Volumes/Accident Data

US17 between the Lockwood Drive and Interstate 26 carries 64,500 vehicles per day according to SCDOT 2018 data. According to City of Charleston Police accident reports for the period of January 2015 through September 2019, 1,076 accidents were reported in the project corridor. A predominate cause of accidents was rear-end collisions, caused by sudden stops due to flooding of US17. This was aggravated by high traffic volume increasing the incidence of rear-end accidents along the facility.

1.2 Urgency of Project

The ongoing negative impact to mobility and safety, quality of life and general welfare of the public and to economic stability and development noted in the above paragraphs demonstrate the urgency in completing this Project as soon as possible. The drainage problems that this project proposes to remedy will only worsen over time as already over burdened drainage systems continue to age. This will result in continued significant reductions in access to evacuation routes, emergency response facilities, port traffic routes and other damages recurring with flooding conditions. The Project is currently under construction with Phases I-IV (surface improvements, access and drop shafts, deep tunnels, and wetwell/outfall) complete or in progress with Phase V (pump station) remaining.

1.3 Resolution from Local Governing Body

On August 26, 2019, the City of Charleston Council approved to submit the request to the STIB for an amendment to the agreement between the STIB and City of Charleston on behalf of the US 17/ Septima Clark Parkway Project. Previous documentation from the original application submission is 2011 can be found in **Appendix A-2**, including the City's Resolution dated September 2009 and the Concurrent Resolution from the General Assembly of the State of South Carolina dated May 19, 2009.

1.4 Advisory Coordinating Council for Economic Development Certificate

This is not applicable to the City of Charleston's 2019 US17/Septima Clark Parkway project.

1.5 Current and Five Year History of Unemployment Data

The historical unemployment data for the Charleston-North Charleston-Summerville, SC Metropolitan Statistical Area from 2008 to 2018 is included in **Appendix A-3**. Source of the data is the SC Department of Employment and Workforce.

1.6 Resident Support

Letters and resolutions of support for this Project from original application submission in 2011 can be found in **Appendix A-4**. Updated Letters of Support for the 2019 application will be sent after the fact from key partners such as Charleston County, Town of Mount Pleasant, SCPA, and MUSC.

- 1) South Carolina State Ports Authority (SCPA)
- 2) South Carolina Department of Transportation
- 3) Berkley-Charleston-Dorchester Council of Governments (BCD COG)
- 4) City of Charleston Fire Department
- 5) City of Charleston Police Department
- 6) Housing Authority of the City of Charleston
- 7) Charleston Water System
- 8) Roper St. Francis Healthcare
- 9) Medical University of South Carolina (MUSC)
- 10) The Citadel
- 11) Charleston County School District
- 12) Cannonborough Elliotborough Neighborhood Association
- 13) Lake Frances Properties Neighborhood Council
- 14) Westside Neighborhood Association
- 15) Nichol Chapel AME Church
- 16) Area Residents

1.7 State and Local Planning (MPO's)

The Project has been listed in the following planning lists, copies of which are located in **Appendix A-5**:

- 1) Charleston County Hazard Mitigation Plan 2019 - 2024
- 2) Berkeley Charleston Dorchester Council of Governments Transportation Improvement Program List (BCDCOG TIP)
- 3) South Carolina Statewide Transportation Improvement Plan (STIP) Report

1.8 Regional and Statewide Significance

- **Interstate Commerce** - It is estimated that the Charleston Port Facility provides 187,600 jobs paying \$10.2 billion in wages to South Carolinians. In all, trade pumps nearly \$53 billion in the state economy and generates \$912 million in state and local taxes. US17 is the main roadway infrastructure linking Charleston's Port to the East and Southeast regions of the United States. US17 is the primary north – south route for the coastal counties of Horry, Georgetown, Charleston, Colleton and Beaufort Counties and links the popular recreational and tourist areas of Hilton Head Island, Beaufort, Charleston and Myrtle Beach.
- **Uninterrupted Access to Evacuation Routes** – Also noted under Enhancement of Mobility and Safety, the unreliability of hurricane evacuations during flood events on the US17 is of regional significance. US17 serves as a local evacuation route and direct conduit to Interstate 26, a primary hurricane evacuation route. A flooding event which coincides with a hurricane evacuation order significantly increases risk to which the region is exposed.
- **Uninterrupted Access to Medical Care and Level 1 Trauma Center** – As previously stated under Enhancement of Mobility and Safety, US17 and adjacent City streets provide access to medical facilities including the Lowcountry's only Level 1 trauma center. During times of flooding, access is blocked to these vital facilities. Other Level 1 Trauma Centers in South Carolina are located in Columbia (over 103 miles away), Spartanburg (over 183 miles away), and Greenville (over 197 miles away). For a person requiring trauma care, traveling to another trauma center located over 100 miles away may have an impact on their chance of survival.

1.9 Alternative Transportation Plan

The Project is already partially funded by the STIB and other agencies with Phases I and II completed and Phases III and IV currently under construction. The Project area is heavily impacted by flooding and safety impacts along the US-17 corridor. Due to the topography of the area, there was not a reasonable alternative to the implementation of a deep tunnel pumping system to relieve the flooding. The traffic and pedestrian safety improvements as well as the neighborhood connectivity issues being addressed stem from the original issues with the US-17 road development. An alternative to relocate the major highway corridor would have a negative impact on a much greater population and is not feasible. Alternatives were considered in the original Preliminary Engineering Report for the project area prior to the original STIB application. Alternatives to not completing the Project from its current level of progress are not feasible due to the high level of progress on what was already determined to be the most feasible option.

1.10 Environmental Impact

The City of Charleston has received permits for this Project from SCDOT (August 2009 and April 2010), Department of the Army (November 2008 and August 2009), DHEC (August 2009), and the City of Charleston (August 2009). Please see **A-6 Regulatory Permits and Approvals**.

1.11 Project Milestones

Spring Fishburne Project Timeline		
Phase	Start	End (Completed or Planned)
I	May 2011 - actual	Jan 2013 – actual
II	June 2015 - actual	Dec 2017 - actual
III	July 2016 – actual	July 2020 - anticipated
IV	March 2019 – actual	June 2022 – anticipated
V	June 2022 – anticipated	December 2023 - anticipated

1.12 Project Status

The US17/ Septima Clark Parkway Project is a phased project to be completed in a total of five phases.

- Phase I made significant improvements to pedestrian safety, vehicular safety, and traffic efficiency along and directly adjacent to the Septima Clark Parkway from Spring Street to Coming Street. 175 stormwater structures and 5,500 linear feet (LF) of pipe ranging from 18-inch diameter to 48-inch diameter were installed in this same stretch of roadway.
- Phase II included work that added more than 12,000 linear feet of new stormwater pipe ranging in size from 15-inch to 54-inch and more than 300 stormwater structures (catch basins, inlets, junction boxes, conflict structures, etc) were installed in areas of the Spring Street and Fishburne Street basins outside of the Septima Clark Parkway. Eight drop shafts with vortex boxes were also constructed during this phase that connects the surface collection and conveyance system to the deep tunnel system.
- Phase III includes the construction of 8,232 linear feet of 12-foot diameter tunnel up to 150-feet below the ground surface, two 30-foot diameter working shafts, and two 20-foot diameter exit shafts. The main line tunnel is approximately 1 mile long running east-west under U.S.17 from between the Ashley River bridges to Coming Street. The President Street tunnel is approximately half mile north-south running under President Street from Harmon Field to Cannon Street and intersecting the main line tunnel more than 140 feet below the intersection of U.S.17 and President St. Jay Dee Construction, Inc. out of Livonia, MI mobilized in early July 2016 and is expected to complete this phase by July 2020.
- Phase IV includes the construction of the wet well for the large stormwater pumps and the triple box culvert outfall into the Ashley River. This phase started in March of 2019 and the expected completion date is June of 2022. With the completion of this phase of the project, some interim drainage improvements should be realized.
- Phase V is the final phase of the project and is expected to start in June of 2022 and complete by December 2023. This phase includes a new pump station between the Ashley River Bridges with three pumps each capable of pumping 120,000 gallons per minute, three 850 horse power diesel engines to power the pumps (thereby eliminating the need for electricity to run the pumps in the event of a power failure), and one back-up diesel generator to run the electrical and control systems in the event of a power failure. Once Phase 5 is complete and the pump station is online, the Crosstown and surrounding areas should remain passable in all but the very worst storm events.

1.13 Entity Contact List

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1.14 Project Score & Criteria

The project was listed in the Berkeley Charleston Dorchester Council of Governments (BCDCOG) Transportation Improvement Program List (TIP) and the South Carolina Statewide Transportation Improvement Plan (STIP) report. Documents can be found in **Appendix A-5**.

II. FINANCIAL PLAN

2.1 Cost of Project

The total cost of the Project is estimated to be \$197 million. The source of this estimate includes

- 1) Actual engineering costs incurred for master planning, preliminary and final design and permitting (\$8 million).
- 2) Actual construction and engineering costs for construction of Phases I and II
- 3) Actual bid results from Phases III and IV
- 4) Construction costs using recent competitive bid results and RS Means Construction Cost Data for Phase V. A copy of the Estimate of Construction Cost is included in the Appendix.

2.2 & 2.3 Local Funding Sources and Amounts

The City of Charleston received grant funding for this project in the amount of \$22.5 million, which consisted of a \$10 million 2009 ARRA Tiger grant from the US Department of Transportation and a \$12.5 million grant award from the 2012 SC Department of Transportation Federal Match Program. In addition to these grants, the City has been awarded \$88 million from the STIB for phases III and IV of this Project.

The City of Charleston has provided over \$23.2 million (approximately 12% of the total Project costs) in funding for this Project and has already committed to provide an additional \$21.5 million in funding through the King Street Gateway Tax Increment Finance District and millage dedicated specifically for drainage projects.

Table 1 Funding Sources (Amounts in Millions)

Source	Amount (\$millions)	Percent
City & USDOT	\$20.8	11%
City & SCDOT	\$31.5	16%
STIB	\$109.5	55%
City	\$35.2	18%
Total	\$197	100%

2.4 & 2.5 Amount and Form of Assistance Required from the STIB

The City of Charleston requests \$21.5 million in additional funding from the State Transportation Infrastructure Bank. This assistance would be used with the City’s financial contribution to the Project and other funding described in Table 1 above to meet the total cost of \$197 million.

The City understands that STIB financial support is often funded from proceeds of STIB revenue bonds. Due to the significant municipal and other funding sources for this Project, the requested STIB contribution could be made over a four-year period should the Board decide to fund the Project from sources other than bond proceeds. In such event, the City would suggest the Board consider funding this Project from revenues which remain available to the STIB after all payments required by the STIB revenue bond documents. Such an approach would allow the STIB contribution to the Project to be made out of cash flow on a pay as you go basis in annual amounts as displayed in Table 3 on page 25 of this application. Should this approach be taken, the City requests that the first such payment be made in the fiscal year commencing July 1, 2020 from revenues available as of the fiscal year ending June 30, 2021.

2.6 Other Proposed Sources of Funds

The City of Charleston has currently obligated \$44.7 million to the Project. The City continues to work with the USACE, The U.S. Department of Homeland Security, and other federal agencies to provide funding assistance.

As evidenced by the contribution of Funding Sources shown in Table 1 above, the City is not asking for a complete grant to pay the cost of the project. Neither is the City asking for a loan from the State Transportation Infrastructure Bank. Rather, the City is

requesting the State Transportation Infrastructure Bank join the City, the South Carolina Department of Transportation, the United States Department of Transportation and other Federal agencies in partnership to accomplish this infrastructure improvement so vitally important to our City, Region, State and Country. The level of support requested from the State Transportation Infrastructure Bank is 56% of the total project cost with the City agreeing to match the additional funding beyond the original award at a 50% match.

2.7 Schedule of Anticipated Cash Flow Requirements

To date, over \$82.3 million has been expended towards the Project. Of this amount, the City of Charleston has contributed \$23.7 million. These costs were incurred from 2004 through 2018 as indicated in Table 2 below. The 2019 costs are partially incurred as the project continues.

Table 2: Anticipated Cash Flow Requirements (Amounts in Millions)

Project Component	2004-2018	2019	2020	2021	2022	2023	Component Total
Pre Design & Planning	6.5						6.50
Phase 1 – Surface Collection	14.3						14.30
Phase 2 – Surface Collection	31.5						31.5
Phase 3 – Tunnels & Shafts	29.0	10.0	5.5				44.5
Phase 4 – Pump Station Wetwell & Outfall	1.0	5.0	19.0	20.0	20.0		65.0
Phase 5 – Pump Station Mechanical			1.0	2.0	16.0	16.2	35.2
Annual Total	82.3	15.0	25.5	22.0	36.0	15.7	197.0

2.8 Schedule of Project Revenues

Table 3 below summarizes the anticipated revenues for the Project. The additional STIB funding will be used to complete the pump station wetwell and outfall and begin the final component of the project, the pump station mechanical in 2022 and 2023. The remaining required funding will be provided by the City and/or other federal funding sources.

Table 3: Schedule of Project Revenues (Amounts in Millions)

Funding Source	2004-2018	2019	2020	2021	2022	2023	Total
City & USDOT	20.8						20.8
City & SCDOT	31.5						31.5
STIB	22.4	22.6	16.5	16	10.5		88.0
STIB – Additional Funding			5.5	5.5	5.5	5.0	21.5
City			1.0	2.0	16.0	16.2	35.2
Annual Total	74.7	22.6	23.0	23.5	32.0	21.2	197.0

2.9 Commitment to Future Maintenance

The useful life of the Project is anticipated to be 50 years based upon the materials and equipment specified for inclusion in the project. This useful life assumes adequate maintenance of all electrical and mechanical equipment as well as periodic resurfacing of pavements and cleaning of surface collection system components.

The City of Charleston will assume maintenance responsibility for the pump station, outfall, tunnels and shafts. Upon final approval and acceptance of the Project, SCDOT will assume maintenance of the streets and surface drainage collection system within their right-of-way. The SCDOT currently has maintenance responsibilities for the streets and drainage systems within their right-of-way as the City received an Encroachment Permit from SCDOT for improvements within the right-of-way. No additional maintenance costs to SCDOT are anticipated as a result of this Project.

2.10 Contingency Plan

This project is currently in construction with the exception of the proposed Phase V pump station. The contingency plan for the project is to use local funds raised from the millage dedicated to drainage capital projects and the King Street Gateway TIF to continue the project on an extended schedule to generate the necessary revenue. The priority of the project and the ability to accelerate completion with additional funding is the driver of this application.

2.11 through 2.14 & 2.16 City Adoption of Impact Fees, Local Hospitality Tax or Fee, Local Sales Tax, User Fees, Assessments.

The City has adopted a property tax levy and a stormwater utility fee for stormwater management and operation as noted above. The City has a long history of funding its Stormwater Utility System. At an election held November 3, 1987, the voters of the City approved \$9,500,000 general obligation bonds to construct City drainage improvements. The proceeds of those bonds were used to construct stormwater improvements at the intersection of Calhoun and East Bay and also in West Ashley. In connection with those bonds and continuing to present day, City Council has imposed on an annual basis ad valorem property tax millage to defray debt service/stormwater costs. Pursuant to the Stormwater Management and Sediment Reduction Act adopted by the South Carolina General Assembly in 1991, which, among other things, authorizes local governments to establish stormwater utility systems and to fund their operations through a fee or tax, City Council established the City's Stormwater Management Utility System which, pursuant to that State law, imposed a Stormwater Utility Fee. The South Carolina Attorney General challenged the City's imposition of the fee on State properties arguing that the State is exempt from all provisions of the 1991 legislation. The South Carolina Supreme Court unanimously rejected that argument and ruled in favor of the City of Charleston in a decision dated February 16, 1999. Pursuant to the State law and the South Carolina Supreme Court, the City continues to impose its Stormwater Utility Fee. The City's record of applying budgeted tax moneys as well as funds generated by the Stormwater

Utility Fee and its anticipated future commitment of those funds to Stormwater Management is not only eminently reasonable but also justification for funding support from State and Federal sources to meet the cost of the project.

2.15, 2.17 & 2.18 City Establishment of Tax Increment Financing Districts, Development Agreements or Land Use Control to assist in Financing the Project

In 1984, the South Carolina General Assembly adopted the Tax Increment Finance Law which, among other things, permits municipalities to establish Redevelopment Project Areas for purpose of constructing public infrastructure improvements. Pursuant to this legislation, City Council established the King Street Gateway Redevelopment Project Area in 1993. Public infrastructure improvements authorized by that Ordinance include drainage throughout this Tax Increment Finance District. The City contributes certain of the TIF revenues generated by the District to defray the cost of the project.

2.19 Discount Rate 5%

The 5% discount rate is \$9,850,000 which reduces the total project cost from \$197,000,000 to \$187,150,000.

2.20 Project Cost Estimate Inflation Rate

A cost estimate inflation rate of 3% per year has been assumed for this Project.

2.21 Condemnation Named Party Responsibility

Twenty four (24) property acquisition transactions were identified for this Project. Nine (9) of these requirements are on City or SCDOT properties and nine (9) of the requirements are for subsurface easements for the tunnel 140 feet below the surface. Property acquisitions have been completed for the project with no additional acquisitions expected. While condemnation is not anticipated, the City of Charleston will serve as the named party if a condemnation is required.

The City of Charleston is responsible for all aspects of the planning, design, right-of-way acquisition, and construction of the Project. The City of Charleston will assume maintenance responsibility for the pump station, outfall, tunnels and shafts. Upon final approval and acceptance of the Project, SCDOT will assume maintenance of the streets and surface drainage collection system within their right-of-way.

2.22 Other Sources of Funding Sought

The City of Charleston has attempted to obtain funding for the Project from the following outside resources:

- 1) Application for a 2009 ARRA TIGER (TIGER I) grant to fund the original \$146 million construction Project cost. The City received a grant award in the amount of \$10 million which was utilized for construction of the first phase of the Project as previously noted.
- 2) Application for a 2010 ARRA TIGER (TIGER II) grant in the amount of \$25 million to fund the remaining surface collection system portion of the Project. Two \$12.5 million projects were identified. The City was not awarded a grant.
- 3) The City submitted an application for \$25 million to participate in the SCDOT Federal Match Program for 2012, such that the City would receive \$12.5 million in funding from the program. The City was awarded the grant which allowed the City to complete the remainder of the collection system component division of the project.
- 4) The City has approached the US Army Corps of Engineers (USACE) to provide funding as a Federal Flood Control Investment Project. The City and USACE are continuing these discussions.
- 5) The City has approached the US Department of Homeland Security for funding assistance and is continuing these discussions.

2.23 Potential Obstacles

Given the current status of the Project to having completed Phases I and II, Phase III and IV underway with Phase V with an anticipated end date of June 2023, obtained all regulatory permits and having conducted several public meetings which demonstrate overwhelming support from the Project areas businesses, residents and traveling general public, there are few potential obstacles to completion of this Project.

The primary obstacle is currently funding. The City has identified its funding sources for this project but it will take time to generate the funding necessary to complete the entire project. The primary risk to the project is that a catastrophic storm will impact the City. With the additional STIB funding the project timeframes could be significantly accelerated as demonstrated in this application which greatly reduces the risk to storm exposure.

2.24 Local Financial Support

The City of Charleston has provided over \$23.2 million (approximately 12% of the total Project costs) in funding for this Project and has already committed to provide an additional \$21.5 million in funding through the King Street Gateway Tax Increment Finance District and millage dedicated specifically for drainage projects. The City is committed to completing this critical project.

APPENDIX

A-1 The US 17 Septima Clark Parkway Transportation Infrastructure Reinvestment Project Benefit Cost Analysis Report dated September 2009

A-2 Resolutions from the City of Charleston and SC General Assembly 2009

A-3 Unemployment Data 2008 – 2018

A-4 Letters of Support 2011

A-5 State and Local Planning Lists and Plans

A-6 Regulatory Permits and Approvals