



Consulting Engineers
Surveyors
Land Planners
Landscape Architects
Environmentalists

1298 Professional Drive
Myrtle Beach
South Carolina 29577

P. 843.692.3200
E. 843.692.3210

www.ddcinc.com

June 26, 2019

Transmitted via Email and Hand Delivery
jcurry@cityofmyrtlebeach.com

Ms. Janet Curry
Director of Public Works
City of Myrtle Beach
P.O. Box 2468
Myrtle Beach, South Carolina 29578

**Re: Proposal for Professional Services
Infrastructure Study and Master for the
Downtown Redevelopment**

Dear Ms. Curry:

First, thank you for your continued trust in DDC Engineers, Inc. and for the opportunity to assist the City of Myrtle Beach with this very important project. This is a challenging assignment because of the location, age, existing infrastructure and other factors associated with this area of the City. As you know, the existing gravity sewer system is very shallow and was constructed using clay pipe. Stormwater management is marginal at best and water supply must be upgraded to facilitate the proposed redevelopment of the area. Coupled with this is the need to convert overhead utilities to subsurface and, if at all possible, introduce natural gas to the infrastructure equation.

Because of the relatively high expense associated with implementation of the proposed improvements, part of this assignment must include development of a phasing plan as well as preliminary budgets for the various improvements, by phase.

As you know, DDC is a member of the Stantec team retained by Horry County and SCDOT to facilitate design of the Highway 501 Realignment improvements. Because of this assignment, DDC has already initiated some work adjacent to the "City Square and Arts District" which will be of benefit to this assignment. We propose to expand upon that work as the first of many steps toward a total revitalization of the infrastructure to serve this area of Myrtle Beach.

Because of this, the construction of the realignment of Highway 501 will happen first, and all proposed master plan improvements will need to be developed in conjunction with this roadway design.

As part of this proposal, we have developed a step-by-step approach not unlike many other assignments we've been responsible for in the City over the years. We clearly recognize that what we plan and ultimately design for this area could remain in place for many decades and, potentially a century or more. As such, careful consideration of means, methods, materials and phasing will be critical to the short term and long term success of this assignment.

Our proposed Scope of Work is as follows:

Step 1 - Surveys - DDC field crews have already physically surveyed the entire area, locating all visible features, as well as topography. We confirmed gravity sewer location, elevations, manhole depths, located water valves and hydrants and located all existing stormwater elements.

Upon completion of the field work, the data was reduced to mapping. This will serve as our base mapping for development of the master plan and will be available to use in final design of the infrastructure. Please note that while the area of the City Square and Arts District is roughly thirty-two (32) acres, we will likely need to extend the surveys sufficiently to allow the master planning

----- Owner's Initials

----- Authorized DDC Representative

work to tie properly to existing infrastructure components. As such, the survey element may need to encompass a larger area. We predict that we may need to survey roughly five (5) more acres in order to properly facilitate this assignment. In addition, there are some existing drainage features that may have to be surveyed outside the area.

Step 2 - Accumulation of Data - DDC has acquired all existing infrastructure information from Public Works and from our files. We have digitally entered this data into mapping to create an accurate infrastructure "existing conditions" map. As part of this assignment, we will augment this map with additional data and information gained from the additional field work, as well as from the work completed by others from the City.

This goal is to have a base map of the entire study area as well as key elements outside of the boundary that is both complete and accurate.

Step 3 - Infrastructure Planning - It is important to initiate planning of the gravity components first. Stormwater and gravity sewer components cannot be shifted vertically to avoid conflicts with other infrastructure elements. As such, stormwater and gravity sewer must be considered before other components.

Step 3a - Stormwater - Currently, stormwater infrastructure in this area is, for the most part, non-existent. DDC will develop a plan for drainage basins within the study area and will develop the location and size of future detention/retention basins, collection pipes and trunk lines necessary to collect and convey stormwater from the area under a design storm event (25 year reoccurrence, 24 hour duration event). We will analyze each basin and the overall system under 2, 5, 10, 25, 50 and 100 year storms utilizing computer modeling to ensure that structures are not flooded during up to and including a 100-year reoccurrence storm event. We will develop conceptual plan/profiles of the proposed system and add this information to the base mapping.

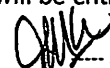
Step 3b - Sewer - As previously stated the sewer collection system in this part of the City must be replaced. In addition, it is likely that a new sewage pump station will be required in order to collect and transmit the sewage from the new system. The depth of the required replacement system, coupled with increased flows from the new buildings will be combined to produce a civil scenario requiring a pump station. In fact, we have already reviewed the potential for tying a "new" system to the existing sewer components in an adjoining sewage collection basin system.

As the stormwater system will likely present obstacles (conflicts), the potential conflict points must be carefully considered and well thought out in order to facilitate an efficient design.

Step 3c - Water Supply - The potable water system that serves this area is both old and under-sized. It is likely one of the oldest systems in the City. There were some improvements to the current system along Kings Highway in the late 1990's but the system needs to be expanded in order to handle the proposed redevelopment of the area.

Step 3d - Overhead / Underground Utility Conversion - It is likely that the City will wish to convert the overhead utilities, (power, cable, phone) to underground at some point. As part of this assignment, DDC will plan the location of the trunk lines and vaults necessary to facilitate this conversion. This work will coincide with planning for stormwater, sewer and water with the goal of having a plan in-place which will facilitate a conflict free design.

Step 3e - Sidewalk/Street Upgrades - The final element, and the only one actually seen by the public will be the development of sidewalks and roadway improvements. DDC will work with City staff to determine the scope and level of decoration desired by the City. As you know, the cost for hardscape and landscape elements, depending on choices made, can be expensive. In addition, the landscape elements can create additional maintenance and upkeep costs going forward. As such input from the City regarding this portion of the assignment will be critical.



----- Owner's Initials

----- Authorized DDC Representative

As part of this exercise, DDC will create roadway typical sections that will clearly depict the utility corridor scenario that will best allow for constructability and maintenance.

Step 4 - Estimates of Cost - Upon completion of the master plan, DDC will develop an "Engineer's Estimate of Probable Cost" for the infrastructure installation. Recognizing that the implementation will likely be phased due to cost and other factors, DDC will utilize a unit cost methodology to develop these estimates. By this methodology, estimates can be updated as conditions change and material and labor costs fluctuate due to economic conditions.

Step 5 - Project Phasing - With input from City staff, DDC will develop likely phasing scenarios. Due to the nature of this area, it may be difficult to phase stormwater or sewer installation. However, recognizing that the City may not be in the financial position to redevelop the infrastructure as one overall project, DDC will make every effort to develop a phasing plan that will work from both a civil infrastructure installation and financial standpoint.

Step 6 - Final Report - DDC will produce a final report which will describe and depict the various elements of the master plan to include Phasing and Estimates of Probable Cost. The report will be developed in such a way as to provide the reader with a clear and concise "roadmap" to development of the infrastructure necessary to serve this area of the City of Myrtle Beach.

PROPOSED FEES

DDC will complete this assignment for the lump sum fee of **Ninety-Eight Thousand Three Hundred and Eighty Dollars (\$98,380.00)**, with an additional budget item of \$8,400.00 for additional surveying if needed, accomplished based on hourly rates and invoiced monthly on a percent complete basis. The fee is derived as follows.

Step 1 - Additional Surveys (as needed)

Survey Crew	40 hrs	@	\$150.00/hr	\$ 6,000.00
Engineering Designer	24 hrs	@	\$100.00/hr	<u>2,400.00</u>
Budget of Hourly, N-T-E Subtotal:				\$ 8,400.00

Step 2 - Data Accumulation / Analysis and Input

Project Director	24 hrs	@	\$200.00/hr	\$ 4,800.00
Sr. Project Manager	40 hrs	@	\$150.00/hr	6,000.00
Engineering Designer	40 hrs	@	\$100.00/hr	<u>4,000.00</u>
Subtotal:				\$14,800.00

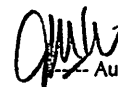
Step 3 - Infrastructure Planning

3a) Stormwater

Project Director	80 hrs	@	\$200.00/hr	\$16,000.00
Sr. Project Manager	80 hrs	@	\$150.00/hr	12,000.00
Engineering Designer	40 hrs	@	\$100.00/hr	<u>4,000.00</u>
Subtotal:				\$32,000.00

3b) Sewer

Project Director	32 hrs	@	\$200.00/hr	\$ 6,400.00
Sr. Project Manager	20 hrs	@	\$150.00/hr	3,000.00
Engineering Designer	20 hrs	@	\$100.00/hr	<u>2,000.00</u>
Subtotal:				\$11,400.00



----- Owner's Initials

----- Authorized DDC Representative

3c) Water Supply

Project Director	24 hrs	@	\$200.00/hr	\$ 4,800.00
Engineering Designer	30 hrs	@	\$100.00/hr	<u>3,000.00</u>
Subtotal:				\$ 7,800.00

3d) Overhead/Underground Utility Conversion

Sr. Project Manager	50 hrs	@	\$150.00/hr	\$ 7,500.00
Engineering Designer	20 hrs	@	\$100.00/hr	<u>2,000.00</u>
Subtotal:				\$ 9,500.00

3e) Sidewalk Street Upgrades

Principal Engineer	10 hrs	@	\$300.00/hr	\$ 3,000.00
Sr. Project Manager	16 hrs	@	\$150.00/hr	2,400.00
Engineering Designer	16 hrs	@	\$100.00/hr	<u>1,600.00</u>
Subtotal:				\$ 7,000.00

Step 4 - Estimates of Probable Cost

Senior Project Manager	24 hrs	@	\$150.00/hr	\$ 3,600.00
Engineering Designer	24 hrs	@	\$100.00/hr	<u>2,400.00</u>
Subtotal:				\$ 6,000.00

Step 5 - Develop Phasing Plan(s)

Senior Project Manager	20 hrs	@	\$150.00/hr	\$ 3,000.00
Engineering Designer	24 hrs	@	\$100.00/hr	<u>2,400.00</u>
Subtotal:				\$ 5,400.00

Step 6 - Develop Final Report

Principal Engineer	8 hrs	@	\$300.00/hr	\$ 2,400.00
Senior Project Manager	8 hrs	@	\$150.00/hr	1,200.00
Administrative	16 hrs	@	\$ 55.00/hr	<u>880.00</u>
Subtotal:				\$ 4,480.00

TOTAL FEES: \$98,380.00*

**Plus hourly surveying services if needed not-to-exceed \$8,400.00.*

If the services under this Proposal are delayed or continue for a period of more than one (1) year from the date of this Proposal, those fees which are based on hourly rates shall be increased based on DDC's hourly rates that are in effect at that time; any change in such fees shall apply only to the unfinished services as of the effective date of such change. Additionally, DDC shall have the right to increase contract fees if the project is delayed due to circumstances beyond DDC's control. Said increases shall be commensurate with the hourly rate increase.

SCHEDULE

DDC is prepared to initiate work immediately upon notice to proceed from the City. The key staff members who will be responsible for this assignment will be Eric K. Sanford, PE and Eli M. Jones, PE, supported by various members of the DDC team. It will be our goal to complete the assignment



----- Owner's Initials

Authorized DDC Representative

within eight (8) weeks of notice to proceed with the exception of the final report. We purpose to share our findings with City staff throughout the process, seeking input on each and every element. We believe the final report should reflect the findings and the wishes of the City regarding implementation and phasing. As such, the final report may follow by as much as three (3) additional weeks.

Please note that this assignment does not include final design, regulatory permitting or construction services. As such, the study will be the final product.

ADDITIONAL SERVICES

Attendance to and participation in public meetings such as presentations to City Council, DRC, etc., will be provided based on our published hourly rates. Changes in scope beyond that specifically discussed herein will be treated as additional services unless we are able to define the level of effort and scope in such a way as to allow DDC to provide a lump sum fee for consideration by City staff.

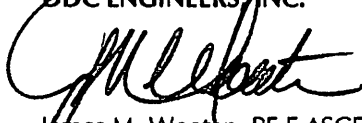
FORM OF AGREEMENT

We trust that our proposal will meet with your approval. If so, please sign below and return a copy to our office. This will serve as our Notice to Proceed, unless otherwise noted. A *Supplemental Agreement* will be forwarded to you for execution.

On behalf of each of us, we at DDC, thank you for the opportunity to be of service and for allowing our involvement in this exciting project for The City of Myrtle Beach.

Should you have questions or need any additional information, please contact Eric Sanford or me at your convenience. We look forward to hearing from you.

Sincerely,
DDC ENGINEERS, INC.



James M. Wooten, PE F.ASCE
President

JMW:cjt

Attachment - Rate Schedule

CC: Eric K. Sanford, PE
Eli M. Jones, PE
Proposal File

ACCEPTED: _____ DATE _____


Ms. Janet Curry - Public Works Director
The City of Myrtle Beach

**DDC ENGINEERS, INCORPORATED
RATE SCHEDULE I
2019**

HOURLY RATES FOR PERSONNEL			
Principal Engineer	\$300.00	Professional Land Surveyor	\$150.00
Director	\$200.00	Survey Crew	\$150.00
Senior Project Manager	\$150.00	Survey Manager	\$150.00
Project Engineer	\$125.00	One Man Survey Crew	\$135.00
Engineering Designer	\$100.00	Research/Expeditor	\$75.00
Engineer in Training (EIT)	\$110.00	Construction Coordinator	\$100.00
Stormwater Specialist	\$125.00	Construction Administration	\$100.00
Senior Planner	\$175.00	Construction Observer	\$100.00
Urban Planner	\$150.00	SCDHEC – CPESC Inspector	\$85.00
Sr. Landscape Architect	\$175.00	Field Engineer	\$100.00
Landscape Architect	\$150.00	Regulatory / Governmental Liaison	\$300.00
Landscape Designer	\$125.00		
Residential Landscape Designer	\$100.00	Expert Witness	\$500.00
GIS Analyst / Technician	\$150.00	Certified Arborist	\$150.00
Senior Environmentalist	\$150.00		
Graphic Designer	\$100.00		
Administrative	\$55.00		
REIMBURSABLE EXPENSES			

Blackline Prints	\$3.00/per sheet	Color Printing		
		Size	Color Bond	Photo Bond
Travel Expense	\$0.55/mile			
Photocopy – Color	\$0.30/sheet			
Photocopy – B/W	\$0.10/sheet	24 x 36	\$6.00 / sheet	\$11.00 / sheet
Outsourced Expenses	\$ Cost plus 15%	30 x 42	\$9.00 / sheet	\$15.00 / sheet
Courier – Local	\$30/trip	36 x 48	\$13.00 / sheet	\$18.00 / sheet
Courier - +20 miles	\$50/trip	54 x 60	\$25.00 / sheet	\$36.00 / sheet
		54 x 76	\$30.00 / sheet	\$40.00 / sheet
		54 x 96	\$39.00 / sheet	\$55.00 / sheet

THE ABOVE HOURLY RATES MAY BE INCREASED AFTER ONE (1) YEAR FROM DATE OF CONTRACT, OR APPROVED PROPOSAL.

---- Owner's Initials
 Authorized DDC Representative