
November 14, 2017

Leighton Walker
City of Riviera Beach Utility District
600 W Blue Heron Blvd
Riviera Beach, FL 33404

**Subject: Palm Beach Shores Water Main Improvement Project
CMA Proposal No. P17.137.03**

Dear Mr. Walker:

Chen Moore and Associates (CMA) is pleased to submit the attached of Services to provide civil engineering for the Palm Beach Shores Water Main Improvement Project for the Riviera Beach Utility District. The project is located on Lake Drive and Inlet Way in the Town of Palm Beach Shores.

BACKGROUND

The Town of Palm Beach Shores is planning on resurfacing the “outer loop” roads. Before completing this work, the Town has requested that the Riviera Beach Utility District replace the aging asbestos concrete water mains within the proposed roadway improvement area.

This scope of work includes all civil engineering design and construction engineering inspection services necessary for the completion of the project. The project design is anticipated to begin immediately upon receiving Notice to Proceed (NTP).

The anticipated submittals for the Project include:

30% Conceptual Design
60% Design
90% Design and Permit
100% Bid Documents

The “Client” is the Riviera Beach Utility District (RBUD)

The “Town” is the Town of Palm Beach Shores

The “Consultant” is Chen Moore and Associates (CMA)

SCOPE OF SERVICES

The professional engineering services and the associated fees are described below.

TASK 1 - FIELD INVESTIGATION AND COORDINATION

1.1 Survey Coordination: ENGINEER shall coordinate with a licensed surveyor in order obtain the required topographic data within the project limits. Survey will extend 50 feet outside of the intersections. Licensed surveyor shall establish a control traverse and bench marks (North American Vertical Datum of 1988) at sufficient intervals to support the topographic survey to be utilized on the design plans. Locate

all above ground features within the right-of-way of the existing roads according to the following schedule, including pavement, paved swales, sidewalks, fences, light poles, handrails, storm manholes, catch basins, electric boxes, handholes, curbs, valve boxes, sanitary sewer manholes, driveway types, edges and corners, trees, overhanging trees in the right-of-way, meter boxes, centerline and crown of the roads, irrigation systems, fire hydrants and valves, overhead utilities. Locate underground features of sanitary manholes, storm manholes, and catch basins. This will not constitute a boundary or right-of-way survey as defined in the Minimum Technical Standards for Land Surveying and Mapping. Ownership and title searches are not included. Easements will be based on information obtained from record plats.

1.2 Utility Coordination: ENGINEER will review all existing record drawings, design plans, utility atlases, and GIS data for the project area to develop the alignment of the proposed piping. ENGINEER shall perform a Sunshine One design ticket call, send letters to all identified utilities, collect utility location information and digitize utility locations for drawings. ENGINEER shall coordinate with a subsurface utility engineering (SUE) firm for the performance of up to 25 utility testholes to locate any existing underground utilities within the project limits. SUE firm shall provide equipment and labor, or the services of a qualified subconsultant, for exploratory subsurface test holes ("soft digs") for certain existing underground utilities as determined by the ENGINEER.

1.3 Field Verification: ENGINEER shall conduct field visits to assess the existing conditions of the project area.

1.4 Geotechnical Coordination: ENGINEER will coordinate with a geotechnical engineering firm to perform soil borings in the project area. It is estimated that two (2) soil borings will be performed.

1.5 Coordination with RBUD: ENGINEER will coordinate with the RBUD for the water replacement design parameters.

1.6 Coordination with TOWN: ENGINEER will coordinate with TOWN for plan review and scheduling.

TASK 2 – 30% CONCEPTUAL DESIGN SUBMITTAL

2.1 Plans: ENGINEER will prepare and submit conceptual design drawings to Project Manager for review. The drawings will consist of the existing conditions and a conceptual design for review by the RBUD and TOWN. The existing conditions plans will be based on survey, GIS data including parcels, aerials and RBUD existing water and sewer data. Chen Moore and Associates will submit up to 2 half size (11"x17") plan sets to the RBUD and TOWN as part of this submittal.

2.2 Progress Meeting RBUD: ENGINEER will attend one review meeting with RBUD to discuss the 35% plans and obtain any review comments.

2.3 Progress Meeting TOWN: ENGINEER will attend one review meeting with TOWN to discuss the 35% plans and obtain any review comments.

TASK 3 – 60% DESIGN SUBMITTAL

3.1 Plans: ENGINEER will prepare and submit design drawings to Project Manager for review. The drawings will consist of the existing conditions, preliminary design with profiles for review by the RBUD and TOWN. Chen Moore and Associates will submit up to 2 half size (11"x17") plan sets to the RBUD and TOWN as part of this submittal.

3.2 Cost Estimate: ENGINEER shall submit a cost estimate of the probable construction costs which will reflect the proposed improvements included within the 60% design plans.

3.2 Progress Meeting RBUD: ENGINEER will attend one review meeting with RBUD to discuss the 60% plans and obtain any review comments.

3.4 Progress Meeting TOWN: ENGINEER will attend one review meeting with TOWN to discuss the 60% plans and obtain any review comments.

TASK 4 – 90% DESIGN PLANS AND PERMIT

4.1 Design Submittal Utility: ENGINEER shall prepare a 90% design submittal, which will include the plans for the proposed utility design. Chen Moore and Associates will submit up to 2 half size (11"x17") plan sets to the RBUD as part of this submittal. The 90% design submittal will incorporate comments from RBUD regarding design adjustments.

4.2 Technical Specifications: ENGINEER shall prepare technical specifications required to perform the work within the 90% plans.

4.3 Permit Submittal: ENGINEER shall prepare and submit applications for the permits necessary to authorize the project to be bid. The potential permits include:
-Palm Beach County Health Department (Water / Sewer Permits)

4.4 Cost Estimate: ENGINEER shall submit a cost estimate of the probable construction costs which will reflect the proposed improvements included within the 90% design plans.

4.5 Progress Meeting: ENGINEER will attend up one progress meeting with the RBUD and one progress meeting with the TOWN to discuss the 90% plan submittal and any review comments from the agencies.

TASK 5 – 100% FINAL DESIGN

5.1 Design Submittal: ENGINEER shall prepare a 100% final design plan which addresses previous review comments from the RBUD, TOWN and all regulatory agencies including the plans and relevant details for the following disciplines: existing conditions, utility relocations and maintenance of traffic plans. ENGINEER will submit up to 2 half size (11"x17") plan sets.

5.2 Contract Documents: ENGINEER shall prepare 100% construction documents including technical specifications, final quantity list and additional special provisions as required by the RBUD and TOWN.

5.3 Cost Estimate: ENGINEER shall prepare a final cost estimate which will indicate all construction costs for items within the final design drawings.

TASK 6 – BIDDING ASSISTANCE

CMA will provide services during bidding.

6.1 Pre-Bid Meeting: ENGINEER shall assist with the preparation of materials and attend a pre-bid meeting to be attended by any interested contractor. The purpose of the meeting will be to outline any special site conditions and clarify any contractor questions.

6.2 Issue Construction Documents: ENGINEER shall prepare and provide one set of construction documents to the RBUD and TOWN. The RBUD will reproduce the construction sets and distribute to contractors as necessary.

6.3 Respond to Questions / Addendums: ENGINEER shall assist RBUD and TOWN by responding to all written inquiries made by contractors regarding utility relocation and prepare one addendum to clarify contract questions.

6.4 Bid Analysis: ENGINEER shall assist with bid analysis when necessary.

TASK 7 – REIMBURSABLES

The following are estimated costs of reimbursable expenses. The RBUD will only pay for those services which were used.

7.1 Printing: The costs for the printing and reproduction costs for submittal material will be billed to the project.

7.2 Utility Locates: The costs for utility locates will be billed to the project.

7.3 Geotechnical Investigation: The costs for test holes will be billed to the project.

7.4 Survey: The costs for the topographic survey will be billed to the RBUD.

ASSUMPTIONS

- This proposal does not include any services required for easement or right-of-way acquisitions.
- This proposal does not include any services during construction.
- All review comments from the RBUD and TOWN on each design submittal shall be provided to ENGINEER at one time. Any revisions due to additional comments may result in the need for additional services.
- RBUD / TOWN shall provide all required respective permit fees.
- This proposal does not include sanitary sewer replacement, rehabilitation or condition assessment.

- Restoration will match existing conditions. Investigation into drainage issues or grading design is not included.

DELIVERABLES

Chen Moore and Associates will provide the following deliverables at each submittal:

Design plans:

- 2 half size sets (11"x17") at 90% and 100% submittal
- 4 half size sets (11"x17") for permitting submittals
- 1 half size set (11"x17") for bidding purposes
- 1 digital CAD copy for bidding purposes
- 1 digital PDF copy for bidding purposes

Technical Specifications:

- 1 set at 100% submittal
- 1 set for bidding purposes

Digital Copies:

- Final Design Drawings (AutoCAD format)
- Final Design Drawings (PDF format)
- Technical specifications (Word format)
- Technical specifications (PDF format)

SCHEDULE OF SERVICES

Chen Moore and Associates will complete Tasks 1 and 2 within 45 days of the Notice to Proceed (NTP). Task 3 will be completed within 60 days of receipt of comments on Task 2. Task 4 will be completed within 30 days of the approval of Task 3. Task 5 will be completed within 30 days of the approval of permits (Task 4). Task 6 will be performed according to the RBUD schedule. Task 7 will be performed in conjunction with the other tasks.

ENGINEERING FEES

The fees for the above tasks are as follows.

	Total per Task
TASK 1 – FIELD INVESTIGATION AND COORDINATION	\$10,820
TASK 2 – 35% CONCEPTUAL DESIGN SUBMITTAL	\$16,560
TASK 3 – 60% DESIGN SUBMITTAL	\$20,980
TASK 4 – 90% DESIGN PLANS AND PERMIT	\$30,400
TASK 5 – 100% DESIGN	\$14,340
TASK 6 – BIDDING ASSISTANCE	\$4,790
TASK 7 – REIMBURSABLES	\$56,500
TOTAL	\$154,390

The tasks will be billed according to the following schedule. Lump Sum Tasks will be billed on a monthly basis according to the percentage completion of the project. Reimbursable Expenses will be billed at cost to the RBUD.

Lump Sum Tasks Total (Task 1 - Task 6)	\$97,890
Reimbursable Expenses (Task 7)	\$56,500
Total Budget	\$154,390

See Exhibit B for a breakdown of fees.

Should you have any questions, please do not hesitate to contact me at my office at (561) 746-6900 x 1035, my cell phone at (954) 650-7996 or send me an electronic message at sdombrowski@chenmoore.com.

Respectfully submitted,



CHEN MOORE AND ASSOCIATES
Suzanne Dombrowski/Project Manager
Senior Engineer

Attachment(s): Exhibit A
 Exhibit B

Town of Palm Beach Shores Conceptual Water and Roadway Improvements



- Legend**
- Proposed Water Meter
 - Ex Water Meter to Remain
 - Fire Hydrant
 - Water Valves
 - 8" Tap into Ex 10" WM
 - 3" Tie In
 - 8" Tie In
 - Proposed Watermain
 - Abandon Less than 10" Ex WM
 - Less than 10" Ex WM to Remain
 - Ex 10" WM to Remain
 - Pavement Overlay
 - Special Paver
 - Palm Beach Shores Boundary



Riviera Beach Utility District
Palm Beach Shores Water Main Improvement Project - Fee Proposal

Chen Moore and Associates Project # P17.137.003

	Subconsultant Costs		Professional Staffing					Project Manager	Principal	Total
	Clerical	Senior Technician	Inspector	Senior Inspector	Associate Engineer	Senior Engineer				
Hourly Rate	\$65.00	\$85.00	\$85.00	\$140.00	\$115.00	\$140.00	\$160.00	\$200.00		
TASK 1 – FIELD INVESTIGATION AND COORDINATION										
1.1 Survey Coordination					6		2			\$1,010
1.2 Utility Coordination	8	16			8		2			\$3,120
1.3 Field Verification		8			24		8			\$4,720
1.4 Geotechnical Coordination					4		2			\$780
1.5 Coordination with RBUD					4		4			\$1,100
1.6 Coordination with TOWN					4		4			\$1,100
Task 1 Total	\$520	\$2,040	\$0	\$0	\$5,060	\$0	\$3,200	\$0		\$10,820
TASK 2 – 35% CONCEPTUAL DESIGN SUBMITTAL										
2.1 Plans		80			40		16	2		\$14,360
2.2 Progress Meeting RBUD					4		4			\$1,100
2.3 Progress Meeting TOWN					4		4			\$1,100
Task 2 Total	\$0	\$6,800	\$0	\$0	\$5,520	\$0	\$3,840	\$400		\$16,560
TASK 3 – 60% DESIGN SUBMITTAL										
3.1 Plans		60			40		12	2		\$12,020
3.2 Cost Estimate		32			24		8			\$6,760
3.3 Progress Meeting RBUD					4		4			\$1,100
3.4 Progress Meeting TOWN					4		4			\$1,100
Task 3 Total	\$0	\$7,820	\$0	\$0	\$8,280	\$0	\$4,480	\$400		\$20,980
TASK 4 – 90% DESIGN PLANS AND PERMIT										
4.1 Design Submittal		80			60		20	1		\$17,100
4.2 Technical Specifications					32		8			\$4,960
4.3 Permit Submittal		20			20		4			\$4,640
4.4 Cost Estimate		16			8		2			\$2,600
4.5 Progress Meeting					4		4			\$1,100
Task 4 Total	\$0	\$9,860	\$0	\$0	\$14,260	\$0	\$6,080	\$200		\$30,400
TASK 5 – 100% DESIGN										
5.1 Design Submittal		60			32		8	1		\$10,260
5.2 Contract Documents					16		2			\$2,160
5.3 Cost Estimate		8			8		2			\$1,920
Task 5 Total	\$0	\$5,780	\$0	\$0	\$6,440	\$0	\$1,920	\$200		\$14,340
TASK 6 – BIDDING ASSISTANCE										
6.1 Pre-Bid Meeting					6		2			\$1,010
6.2 Issue Construction Documents					4		1			\$620
6.3 Respond to Questions/Addendums					8		4			\$1,560
6.4 Bid Analysis	8				8		1			\$1,600
Task 6 Total	\$520	\$0	\$0	\$0	\$2,990	\$0	\$1,280	\$0		\$4,790
TASK 7 – REIMBURSABLES										
7.1 Printing		\$250								
7.2 Utility Locates		\$11,250								
7.3 Geotechnical Investigation		\$5,000								
7.4 Survey		\$40,000								
Task 7 Total	\$56,500									

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TASK 2 – 35% CONCEPTUAL DESIGN SUBMITTAL	\$16,560
TASK 3 – 60% DESIGN SUBMITTAL	\$20,980
TASK 4 – 90% DESIGN PLANS AND PERMIT	\$30,400
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TASK 6 – BIDDING ASSISTANCE	\$4,790
TASK 7 – REIMBURSABLES	\$56,500
TOTAL	\$154,390
Lump Sum Tasks Total (Task 1 - Task 6)	\$97,890
Reimbursable Expenses (Task 7)	\$56,500
Total Budget	\$154,390