



December 10, 2020

John" Jack" Walsh, P.E., Director
City of Cocoa Utilities Department
351 Shearer Blvd
Cocoa, FL 32922
(Via E-Mail jwalsh@cocoafl.org)

RE: LAKES AT COCOA GROVE – UTILITY EXTENSIONS
BUSSEN-MAYER PROJECT NUMBER: 402208

Dear Mr. Walsh:

Pursuant to your request, Bussen-Mayer Engineering Group, Inc. (BMEG) is pleased to present this Task Order quote and proposal under our Continuing Consultant Contract with the City of Cocoa Utilities Department (CCUD), for professional engineering and consulting services relating to the above referenced project. We understand that this project consists of providing utility service (water and sewer) to the proposed Lakes at Cocoa Grove subdivision, per a stipulated Settlement Agreement, via extension of a forcemain, reuse main and waterline of undetermined size from existing CCUD facilities located in the adjacent road right-of-ways to the entrance of the proposed residential subdivision. The subdivision is located at the northeast corner of the intersection of Interstate 95 and S.R. 528, and Tax Parcel ID #24-35-10-00-3. Approximately 350 single family lots will be developed. The contemplated utility extensions are as follows;

- a. Waterline – connection to the existing 12" watermain located on the west side of Grissom Parkway and extension along Osage St./Angelica St. or the adjacent canal right-of-way.
- b. Forcemain – connection to the existing 12" forcemain located on the west side of Grissom Parkway and extension along Osage St./Angelica St. or the adjacent canal right-of-way.
- c. Reuse – connection to the existing 12" Reclaimed Watermain located on the east side of Grissom Parkway and extension along Osage St./Angelica St. or the adjacent canal right-of-way.

Looping of the waterline at Bahia St. is included, as well as design of direct bore crossings for the waterline and reuse main from the project entrance south across and under S.R. 528. All utilities will be extended within the existing public right-of-ways of Osage St., Angelica St., Bahia St., and S.R. 528, or the canal right-of-way.

This proposal generally provides the required surveying, existing utilities investigation, soils analysis, engineering design and permitting services required for development of complete construction documents. Bidding and construction phase services are not included.

Based on this information we propose to provide the following specific scope of services in a timely fashion;

A. SURVEYING SERVICES

1. We will prepare a Right-of-Way Survey of the project limits, based on the recorded right-of-way deeds or maps available to the Surveyor. The project survey limits will include the Bahia St. right-of-way from the north side of Seville Ave. to the project limits, the Osage St./Angelica St. right-of-way from the east side of Grissom Pkwy. (or alternatively the drainage canal right-of-way).

The boundary survey will include field flagging of existing right-of-way monumentation and/or setting of new corner monumentation as required. Right-of-way monuments will be placed at the PC and PT of all curves in the road or at 1,000 foot intervals (max). The survey will meet Florida Minimum Technical Standards and will be prepared in our standard 24"x36" format.

2. We will request underground utility locates through the Sunshine One Call process, prior to completion of the right-of-way survey. We will locate all above ground surface markings provided by the utility company representatives and reflect available information on the final survey. We will also conduct coordination with representatives from AT&T, FPL, City Gas, and the Brevard County Utilities Department, in order to obtain and plot any record information that is available for their specific utilities.
3. We will provide survey stakeout and boring locations as necessary for the geotechnical services described herein (i.e. design borings). We will obtain ground shots at each boring location.
4. We will complete a topographic investigation of the project limits, extending 25 feet outside of each project limit or right-of-way line. This topographic investigation will include the location of above ground improvements within the project limits, together with elevations on a 100 foot grid (max). Sections will be taken at 100 foot intervals. Complete data (ditch elevations, inverts, rims, pipe size, etc.) will be obtained for any existing drainage improvements or sewer system improvements within the project limits. All topographic information will be shown on the boundary survey, and will be based on NAV Datum of 1988.
5. We will establish baseline control points (construction baseline) and benchmark locations for construction purposes.
6. Deliverables to include four (4) copies of the certified survey, together with an AutoCAD copy and a certified pdf. copy of the survey in digital format.

B. ENGINEERING SERVICES

1. We will collect and review available data from the City, County, FDOT and utilities companies on existing and proposed facilities, sizes, elevations, materials, and operational data. This includes detailed on-site inspections. All available data will be included in the project existing conditions info presented in the plans.

2. We will complete water, sewer and reuse system calculations to determine appropriate line sizing and provide the applicable calculations booklets. (Note! Lift Station design for the subdivision is the responsibility of the developer).
3. We will complete a Geotechnical exploration and evaluation report including relevant pavement cores along the alignment (by Ardaman and Associates – subconsultant). This work will include four (4) pavement cores (one in Bahia St., and 3 along Osage/Angelica), together with five (5) roadside core borings.
4. We will prepare 30% Documents for review by the City's Utilities Department. These documents will include, at a minimum, the following information:
 - a. Right-of-way and topographic survey.
 - b. Proposed utilities routing, sizing, and location plan (water, sewer FM, Reuse Main).
 - c. Identification of potential utility conflict locations.
 - d. Geotechnical Report.
 - e. Preliminary design plans and details.
 - f. Preliminary construction cost estimate.
5. We will prepare 60% Documents for review by the City's Utilities Department. These documents will include, at a minimum, the following information:
 - a. Adjudicated review comments from the 30% submittal.
 - b. Preliminary specifications
 - c. 60% Drawings including preliminary cross-sections, plan and profile drawings, construction details and direct bore or bore and jack at the S.R. 528 crossing.
 - d. Updated cost estimate.
6. We will prepare 90% Documents for review by the City's Utilities Department. These documents shall provide sufficient detail for construction, including the following:
 - a. Adjudicated 60% review comments.
 - b. Permitting and Bidding schedule.
 - c. Updated cost estimate.
 - d. All required permit applications in draft form for City review and signature.
 - e. Complete utility construction plans for final review.
7. We will prepare, submit and pursue approval of the following required construction permit applications;
 - a. City of Cocoa Utilities Department/FDEP Sewage Collection System Permit (Dryline FM).
 - b. City of Cocoa Utilities Department/FDEP Water Distribution System Permit.
 - c. Brevard County Public Works Right-of-Way Use permit (if required)
 - d. FDEP/NPDES Notice of Intent for Construction Discharge Permit
 - e. FDOT Utility Permit
8. Upon receipt of the required permits, we will prepare 100% design plans and specifications for bid. Along with the Bid Documents, the following items will be included:
 - a. Adjudicated 90% review comments.
 - b. Updated bid schedule and preliminary construction schedule.
 - c. Final Cost Estimate.

- d. Final certified utility construction plans.
- 9. Permit Assistance -Permitting services will include responses to all Agency Requests for Additional Information (RAI) as required to obtain the permit. All permit application fees shall be paid by the Consultant, up to the maximum limit shown in Exhibit A attached.

We have prepared this proposal based on the following assumptions and conditions:

- 1. Bidding and construction phase services are not included. A separate proposal can be provided at the appropriate time for any required bidding and construction phase services.
- 2. Right-of-way and/or easement acquisition not included (not anticipated as a requirement).
- 3. Construction phasing is not included (not anticipated as a requirement).
- 4. Surveying services will meet Florida Minimal Technical Standards as set forth in Chapter 61G17-6 F.A.C. pursuant to Section 472.027 F.S.
- 5. Elevations to be based on NAVD 1988 datum; survey control to be based on NAD1983 datum (State Plane Coordinates).
- 6. Roadway realignment, structural design, and/or drainage system design is not included (not anticipated as a requirement).
- 7. Redesign of other existing utilities to address conflicts is not included.
- 8. ESTIMATED PROJECT SCHEDULE
(NTP = Notice to Proceed)
 - a. Surveying Services 120 days from NTP
 - b. Geotechnical Report 90 days from NTP
 - c. 30% submittal 180 days from NTP
 - d. 60%submittal 90 days from City response
 - e. 90% submittal & permit applications 90 days from City response
 - f. 100% plans and bid documents 45 days from City response and receipt of permits

Our proposed lump sum fee for providing the above described services would be as follows:

A.	SURVEYING SERVICES	\$26,000.00
B.	ENGINEERING SERVICES	\$75,900.00
B.3.	GEOTECHNICAL SERVICES	\$ 9,800.00
TOTAL		\$101,900.00

These fees are based on the estimated man-hour breakdown attached and our standard hourly rates, as itemized and reflected in Exhibit "A" attached.

Invoicing for this project will be in accordance with the following schedule:

INVOICE PROCEDURES AND PAYMENT: BUSSEN-MAYER ENGINEERING GROUP, INC. shall submit invoices to the Client for work accomplished during each calendar month. For services provided on a Lump Sum basis, the amount of each monthly invoice shall be determined on the "percentage of completion method" whereby **BUSSEN-MAYER ENGINEERING GROUP, INC.** will estimate the percentage of the total work (provided on a Lump Sum basis) accomplished during the invoicing period.

It is hereby acknowledged that this **TASK ORDER** is an addendum to the master contract approved by the City of Cocoa on February 23, 2018 for engineering design, permitting and services for construction of utility conveyance system upgrades and expansions, and as such, this TASK ORDER is subject to all conditions and stipulations contained in said contract.

Should you have any questions or comments regarding this proposal, please feel free to contact the undersigned. This proposal is valid for a period of sixty (60) days from the date herein and subject to change thereafter. If you wish us to proceed with the above described services, please issue a work order number and Notice to Proceed for this project. Thank you for the opportunity to provide these services, and we look forward to working with you on this project.

Sincerely,

BUSSEN-MAYER ENGINEERING GROUP, INC.

A handwritten signature in blue ink, appearing to read "Joe Mayer", is written over a light blue horizontal line.

Joseph W. Mayer, P.E.
President

Exhibit "A"
Man-Hour Breakdown-Basic Scope
LAKES AT COCOA GROVE UTILITIES EXTENSION
BMEG# 402208
12/10/20

	Hours	Rate	Subtotal	
A. SURVEYING SERVICES				
1. Right-of-Way survey (multiple roadways)				
Surveyor	20.00	\$ 105	\$ 2,100	
2-Man Field Crew	48.00	\$ 100	\$ 4,800	
AutoCAD Technician	54.00	\$ 70	\$ 3,780	
Subtotal			\$	
				10,680
2. Sunshine One utility locates/permit/ soft digs				
Surveyor	4.00	\$ 105	\$ 420	
2-Man Field Crew	12.00	\$ 100	\$ 1,200	
Office Assistant	6.00	\$ 45	\$ 270	
Subtotal			\$	
				1,890
3. Survey stakeout for coring locations.				
Surveyor	2.00	\$ 105	\$ 210	
2-Man Field Crew	6.00	\$ 100	\$ 600	
AutoCAD Technician	2.00	\$ 70	\$ 140	
Subtotal			\$	
				950
4. Topographic survey.				
Surveyor	12.00	\$ 105	\$ 1,260	
2-Man Field Crew	40.00	\$ 100	\$ 4,000	
AutoCAD Technician	72.00	\$ 70	\$ 5,040	
Subtotal			\$	
				10,300
5. Establish construction baseline and benchmark locations.				
Surveyor	4.00	\$ 105	\$ 420	
2-Man Field Crew	8.00	\$ 100	\$ 800	
AutoCAD Technician	8.00	\$ 70	\$ 560	
Subtotal			\$	
				1,780
6. Deliverables/reimbursables				
Subtotal			\$	400
SURVEYING SERVICES TOTAL				\$ 26,000
B. ENGINEERING SERVICES				
1. Review of available data.				
Project Engineer	4.00	\$ 135	\$ 540	
Project Manager	6.00	\$ 115	\$ 690	
Engineering Technician	8.00	\$ 85	\$ 680	
AutoCAD Technician	4.00	\$ 70	\$ 280	
Office Assistant	4.00	\$ 45	\$ 180	
Subtotal			\$	
				2,370
2. Utility Modeling/Calculations				
Project Engineer	16.00	\$ 135	\$ 2,160	
Project Manager	56.00	\$ 115	\$ 6,440	
Engineering Technician	18.00	\$ 85	\$ 1,530	
Subtotal			\$	
				10,130

3. Preparation of 30% documents for review by Client.				
Project Engineer	12.00	\$ 135	\$ 1,620	
Project Manager	16.00	\$ 115	\$ 1,840	
Engineering Technician	40.00	\$ 85	\$ 3,400	
AutoCAD Technician	88.00	\$ 70	\$ 6,160	
Office Assistant	4.00	\$ 45	\$ 180	
Subtotal			\$	13,200
B.3. Soils Testing (Ardaman)				
Subtotal			\$	9,800
4. Preparation of 60% documents for review by Client.				
Project Engineer	8.00	\$ 135	\$ 1,080	
Project Manager	20.00	\$ 115	\$ 2,300	
Engineering Technician	44.00	\$ 85	\$ 3,740	
AutoCAD Technician	120.00	\$ 70	\$ 8,400	
Office Assistant	4.00	\$ 45	\$ 180	
Subtotal			\$	15,700
5. Preparation of 90% documents for review by Client.				
Project Engineer	6.00	\$ 135	\$ 810	
Project Manager	16.00	\$ 115	\$ 1,840	
Engineering Technician	32.00	\$ 85	\$ 2,720	
AutoCAD Technician	48.00	\$ 70	\$ 3,360	
Office Assistant	4.00	\$ 45	\$ 180	
Subtotal			\$	8,910
6. Preparation, submit and pursue permit approvals.				
Project Engineer	12.00	\$ 135	\$ 1,620	
Project Manager	20.00	\$ 115	\$ 2,300	
Engineering Technician	20.00	\$ 85	\$ 1,700	
Office Assistant	10.00	\$ 45	\$ 450	
Subtotal			\$	6,070
6.A. Permit Application Fees (maximum limit):				
Subtotal			\$	3,500
7. Preparation of 100% design plans, specifications and bid documents.				
Project Engineer	8.00	\$ 135	\$ 1,080	
Project Manager	12.00	\$ 115	\$ 1,380	
Engineering Technician	12.00	\$ 85	\$ 1,020	
AutoCAD Technician	20.00	\$ 70	\$ 1,400	
Office Assistant	12.00	\$ 45	\$ 540	
Subtotal			\$	5,420
8. Reimbursables				
Subtotal			\$	800
ENGINEERING SERVICES TOTAL				\$ 75,900
TASK ORDER SERVICES TOTAL				\$101,900