

MOCK • ROOS
ENGINEERS • SURVEYORS • PLANNERS

November 11, 2016

Jonathan Reinsvold, P.E.
Senior Engineer
Village of Wellington
12300 Forest Hill Boulevard
Wellington, FL 33414

Ref. No.: B6702.00
Subject: C-8 Canal Culvert Replacement and Forest Hill Turn Lane Improvements
Design and Bid Phase Services

Dear Jonathan:

We are submitting the attached Revised *Proposal To Provide Services for the C-8 Canal Culvert Replacement and Forest Hill Turn lane Improvements Project*. Please review the attached documents and return one signed copy of the *Proposal* to our office as our authorization to proceed with the Scope of Services outlined in the proposal.

We will provide the Scope of Services on a lump sum basis for \$76,355.

If you have any questions please contact me at 683-3113, extension 293. Thank you for using Mock•Roos on this project. We look forward to working with you.

Sincerely,

MOCK, ROOS & ASSOCIATES, INC.



Thomas A. Biggs, P.E.
Executive Vice President

TAB:cbm
Enclosure
Copies: Bookkeeping

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Mock, Roos & Associates, Inc.

5720 Corporate Way, West Palm Beach, Florida 33407-2066, (561) 683-3113, fax 478-7248

**Proposal To Provide Services
For the C-8 Canal Culvert Replacement and
Forest Hill Boulevard Turn Lane Improvements**

Services to be provided by: Mock•Roos

Services provided to (“Wellington”): Village of Wellington

Proposal Date: November 11, 2016

Proposal Terms

A. Scope of Services:

Wellington desires to remove and replace the existing culverts within the C-8 Canal crossing Forest Hill Boulevard crossing with new appropriately sized RCP culverts, as well as all perform all roadway replacement associated with the installation. In addition, Wellington has recently completed traffic projections for Year 2021 for the westbound left turn at Forest Hill Boulevard and Stribling Way. Based on these projections, Wellington desires to add an additional 50 feet of storage within the turn lane as part of the restoration to this project. All improvements will be constructed in conformance with FDOT standards. It is anticipated that the existing culverts will be replaced with longer RCP culverts with headwalls to maximize Wellington’s ability to utilize the full width of the Forest Hill Boulevard right of way for MOT during construction.

Mock•Roos will perform the following scope of services:

B. Scope of Services:

Task 1 – Data Collection

1. Perform site visit to photo document existing conditions.
2. Coordinate with Wellington staff related to obtaining a design ticket through 811 as well as performing soft digs of existing Wellington-owned facilities.
3. Provide the services of a Professional Land Surveyor sub-consultant to perform a topographic survey within the proposed project area, and prepare base map including:
 - a. Major elevation changes to depict existing ground profile
 - b. Location (horizontal and vertical) of visible improvements
 - c. Location (horizontal and vertical) of above ground existing utilities

- d. Elevations across Forest Hill Boulevard with intermediate grades at significant grade breaks extending about 200 feet east and west of the C-8 Canal
- e. Horizontal and vertical locations of existing culverts and head/endwalls.
- f. Up to nine (9) canal cross-sections
- g. Locations of existing underground utilities as marked/soft dug in the field by Wellington staff

Provide up to three (3) signed and sealed copies of the survey.

- 4. Provide the services of a Geotechnical sub-consultant to perform two (2) Standard Penetration Test borings, each to a depth of 30 feet (one on each side, north and south, of Forest Hill Boulevard). Also, obtain up to two (2) roadway pavement cores to document existing surface, base and subgrade materials and thickness. Sub-consultant will classify the subsurface components and test the samples for the corrosion parameters of pH, resistivity, sulfates and chlorides. Sub-consultant will prepare a report documenting findings.

Task 2 – Preliminary Engineering

- 1. Perform hydrologic/hydraulic analysis and provide recommendation for the proposed culvert replacement size using the ICPR system model previously developed by Mock•Roos. This task will:
 - a. Update the existing routing model (last updated in 2010) and perform hydrologic and hydraulic storm routing models to determine localized surface water management system conditions under 5 year, 10 year, and 25 year storm events
 - b. Use the modeled conditions for each event to hydraulically evaluate two replacement culvert configurations
 - c. Modify the routing model to reflect each of the two (2) proposed culvert configurations and perform model runs for the selected storm events to evaluate potential effects to the distributed surface water management system
 - d. Since providing for bypass pumping during construction is an expensive construction cost, modify the routing model to reflect a zero flow at the crossing (simulating no stormwater by-pass during construction) and evaluate potential effects to the surface water management system
 - e. Conduct a conference call with Wellington staff to discuss the modeling results, culvert size options for the proposed crossing, and by-pass flow options during construction
- 2. Prepare and submit 40% construction drawings to Wellington for review. Meet with Wellington staff and incorporate comments. This submittal will include a conceptual depiction of proposed roadway improvements to be performed.

Task 3 – Design Phase Services

1. Prepare and submit a 90% construction drawings to Wellington for review. Meet with Wellington staff and incorporate comments.
2. Permitting. Replacing and upsizing the C-8 Canal culverts will be considered as maintenance and will not require any modification to the SFWMD permit. Since there will be no measurable increase in impervious area or increase in the pump discharge peak rate or volume to the C-51 Canal as a result of this project, no additional water quality storage compensation will be required. Therefore, no permitting should be required.
3. Prepare a Maintenance of Traffic Plan during construction. This Plan will provide the Contractor with a specific level of direction regarding the need to safely maintain vehicular and pedestrian traffic during each phase of construction. The tasks included in this element of work are:
 - a. Identification of Traffic Flow Requirements during Construction
 - b. Establish Construction Phasing
 - c. Establish Minimum Laneage Requirements & Standards
 - d. Develop Traffic Flow Options
 - e. Evaluate Adjacent Signal Timing at Stribling Way
 - f. Prepare Maintenance of Traffic Plans, including Plan views, details, and notes
 - g. Coordinate and meet with Traffic Consultants, Wellington, and Palm Beach County staff, as necessary

The Contractor will be responsible to prepare, submit, and implement, his official MOT plan to Wellington and Palm Beach County, meeting the minimum requirements established in the MOT Plan provided in the Contract Documents, prior to commencement of construction.

4. Provide a 100% contract document package to Wellington for bidding purposes. Bid Package will be prepared to supplement Wellington's standard front-end documents so that the project can be competitively advertised and bid. The package shall include:
 - a. Final Construction Drawings, including MOT Plans
 - b. Technical Specifications
 - c. Schedule of Bid Items
 - d. Engineer's Opinion of Probable Construction Cost (EOPCC)

Task 4 – Bid Phase Services

1. Perform limited bid phase services including:
 - Attend a pre-bid meeting at Wellington

- Respond to bidder's questions and assist Wellington to develop addendums as necessary.
- Provide a written recommendation of contractor award

C. Additional Services:

1. Any services not included in the Scope of Services will be considered Additional Services.
2. Additional Services can be provided upon Mock•Roos receiving a revised scope of services and approved change order from the Town.

D. Fees and Rates:

1. The total fee to provide the Scope of Services on a lump sum basis for \$76,355.
2. Mock•Roos can provide Additional Services at the Mock•Roos hourly rates in effect at that time, plus any reimbursable expenses, or for an agreed upon lump sum fee.

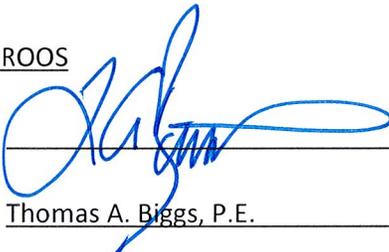
E. Conditions:

1. In case of discrepancies, the terms of this proposal supersede those of previous agreements.
2. No traffic study is included in these services.
3. All permitting fees to be paid directly by Wellington.
4. Bid Phase services are based on one Bid process.
5. Construction Phase Services may be authorized under a separate work authorization.

F. Acceptance and Authorization to Proceed:

1. This proposal is acceptable and Mock•Roos has authorization to proceed with the Scope of Services.

MOCK•ROOS

Signed:  _____

Name: Thomas A. Biggs, P.E.

Title: Executive Vice President

Date: November 11, 2016

WELLINGTON

Signed: _____

Name: _____

Title: _____

Date: _____

**Village of Wellington
C-8 Canal Culvert Replacement and Forest Hill Boulevard Turn Lane Improvements
Design and Bid Phase Services**

Task Description	Labor Classification						Subtotal	Subconsultant	Total
	Project Director	Senior Project Manager	Senior Engineer	Project Engineer I	Administrative Assistant				
Labor Hourly Billing Rate	\$185.00	\$165.00	\$155.00	\$100.00	\$60.00				
Total Hours	16	80	181	180	14				
Task 1 Data Collection									
1 Site Visit		2	2		1		\$ 700	\$ 700	
2 Coordinate Wellington Staff/Design Ticket/811		4			1		\$ 720	\$ 720	
3 Topographic Survey/Basemap		1	2	4	2		\$ 995	\$ 7,950	
4 Soils Exploration		1	2				\$ 475	\$ 5,100	
Task 2 Preliminary Engineering									
1 Hydrologic/Hydraulic Analysis								\$ 6,220	
Utilize Existing Routing Model (5, 10, 25)			8				\$ 1,240		
Hydraulically Evaluate Culvert Configurations (2)			6				\$ 930		
Perform Model Runs			12				\$ 1,860		
Evaluate Potential Zero Flow Effects			8				\$ 1,240		
Discuss Modeling Results		2	4				\$ 950		
2 40% Construction Drawings	4	12	20	40	2		\$ 9,940	\$ 9,940	
Task 3 Design Phase Services									
1 Prepare 90% Construction Drawings	8	20	40	60	2		\$ 17,100	\$ 17,100	
2 Permitting (NOT REQUIRED)							\$ -	\$ -	
3 Develop MOT Plan							\$ -	\$ 10,370	
Identify Traffic Flow Requirements During Const.		1	2				\$ 475		
Establish Construction Phasing		1	3				\$ 630		
Establish Minimum Laneage Requirements & Stds/		1	4				\$ 785		
Develop Traffic Flow Options		2	2	4			\$ 1,040		
Evaluate Adjacent Signal Timing			10	4			\$ 1,950		
Prepare MOT Plan (Plan, Details & Notes)		4	8	20			\$ 3,900		
Coordinate w/Traffic Consultants & Village		4	6				\$ 1,590		
4 Prepare 100% Contract Documents								\$ 14,505	
Final Construction Drawings	4	20	20	40			\$ 11,140		
Technical Specifications/Front End		2	8		2		\$ 1,690		
Schedule of Bid Items			2	4	2		\$ 830		
EOPCC		1	4		1		\$ 845		
Task 4 Bid Phase Services									
1 Perform Limited Bid Phase Services		2	8	4	1		\$ 2,030		
Subtotal	\$ 2,960	\$ 13,200	\$ 28,055	\$ 18,000	\$ 840		\$ 63,055	\$ 13,050	
				Total Mock•Roos Labor			\$ 63,055		
				Reimbursable			\$ 250		
				Subconsultant			\$ 13,050		
				Project Total			\$ 76,355		