MASTELLER & MOLER, INC.

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~ CIVIL ENGINEERS ~

EXHIBIT "C"

February 21, 2018

Mr. William Johnson, PE; Roadway Production Engineer INDIAN RIVER COUNTY ENGINEERING DIVISION 1801 27th Street Vero Beach, Florida 32960

RE: 45th Street Milling and Resurfacing Project 58th Avenue to 43rd Avenue IRC-1722 (FDOT SCOP FM No. 436848-1) Our File #1804

Dear Mr. Johnson:

Thank you for the opportunity to offer the expertise and experience of Masteller & Moler, Inc. relative to the above referenced project. Within this Proposal, Indian River COUNTY, the Client is referred to as "COUNTY". Masteller & Moler, Inc. is referred to as "CONSULTANT". CONSULTANT proposes to provide COUNTY with the necessary services to complete the following scope of work:

SECTION I - PROJECT LIMITS

The COUNTY desires to modify the existing two-lane 45th Street (generally between 58th Avenue & 43rd Avenue) through milling and resurfacing to create a relocated two-lane road with (2) 12' lanes and (2) 5' bike lanes as well as a 6' sidewalk. Within the limits of the roadway project, there will be a dedicated westbound left-turn lane added at the 58th Avenue intersection. Where feasible, the Roadway Plans shall provide for access management improvements at existing commercial operations along the corridor. The Plans shall also incorporate locations for Go-line Stops along the corridor. (No Architectural Designs to be included.)

New mast arm signalization improvements are to be provided at the 45th Street / 43rd Avenue intersection to replace the existing span wire systems as well as ADA compliant sidewalk landings at all four (4) corners. Pedestrian movement signal improvements are to be provided to complement the mast arm signal at 43rd Avenue.

The existing span wire support signalization at the 45th Street / 58th Avenue intersection shall be modified as needed to support this project. At said intersection, ADA compliant sidewalk landings shall be provided at all four (4) corners to include pedestrian movement signal improvements. No significant paving elevation changes along 58th Avenue are anticipated for this project.

To facilitate the roadway improvements, the project will also include piping and filling Indian River Farms Water Control District (IRFWCD) Sub-Lateral A-7 as necessary within the project limits. The culverting of Sub-Lateral A-7 will also require a parallel sloped underdrain system composed of a perforated pipe in rock surrounded by filter fabric. In addition, all culverts crossing under 45th Street shall be designed to be replaced with reinforced concrete pipe (RCP). All associated side street drainage connections will be part of this project.

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Utility adjustments to existing Indian River County Utilities water & sewer services are expected and will be part of this project.

It is understood the CONSULTANT will use one of the COUNTY's approved continuing service contract geotechnical consultants to perform a geotechnical investigation for this project to be used by CONSULTANT for this project. CONSULTANT shall coordinate with the geotechnical consultant and COUNTY to establish geotechnical scope of services. COUNTY shall pay the geotechnical consultant directly subject to CONSULTANT acceptance of the geotechnical services.

In addition, the COUNTY agrees to provide (in a timely manner) the following material, data, or services as required in connection with the work to be performed under this Agreement; all of which information the CONSULTANT may use and reasonably rely upon:

- A. Provide the CONSULTANT with traffic counts, preliminary data or reports available, existing location surveys, past topographic survey information, and related documents required to complete the construction documents.
- B. Provide the CONSULTANT with all available drawings, right-of-way maps, and other documents in the possession of the COUNTY pertinent to the project.
- C. The COUNTY will promptly execute all permit applications necessary to expedite the acquisition of any local, state or federal permits made necessary by the project.
- D. The COUNTY will reimburse CONSULTANT for all permit fees in an effort to expedite permit application submittals.

The PROJECT LIMITS are projected to extend 6,700 feet along 45th Street, 600 feet along 58th Avenue, and 600 feet along 43rd Avenue for a total project length of 7,900 feet (1.50 miles).

SECTION II - SCOPE OF SERVICES

As agreed upon between ENGINEER and the COUNTY, the ENGINEER shall provide Professional Engineering services to complete all tasks as outlined above as follows:

A. <u>Route Survey</u>: As the land surveying provided by the COUNTY was performed in 2008 and is out of date, a new updated survey of the project limits shall be performed by our land surveying affiliate, Masteller, Moler & Taylor, Inc. (MMT). The survey shall be completed on NAVD '88 datum.

B. <u>Roadway Improvement Construction Plans:</u>

Roadway set of plans shall consist of the following:

Construction Plan Sheets (11" x 17" Size)	30%	60%	90%	100%
Cover Sheet	Р	С	С	F
Summary of Pay Items	-	Р	С	F
Typical Sections	С	С	С	F



Summary of Quantities & General Notes	-	Р	С	F
Summary of Drainage Structures Sheets	-	Р	С	F
Project Layout	C	С	С	F
Plan and Profile Sheets (1" = 40' scale)(including Ditch & Sidewalk Profiles)	-	с	с	F
Intersection Plan & Details	-	Р	С	F
Special Details	-	Р	С	F
Drainage Structure Sheets	-	Р	С	F
Roadway Soil Survey	C	С	С	F
Cross Sections at 100 ft Intervals	-	Р	С	F
Erosion Control / SWPPP	-	Р	С	F
Signage & Pavement Marking Plans (40 scale double plan)	с	С	с	F
Signalization Plans	-	С	С	F
Construction Cost Estimate & Quantities	-	С	С	F

Notes: P = Preliminary; C = Complete, but subject to change; F = Final

The plans will be prepared based upon English units. Design will be conducted in AutoCAD.

The following additional data shall be utilized for development of the plans:

- 1. The Roadway Plans will be drawn at a scale of 1" = 40' prepared on 11" x 17" sheets;
- 2. The Roadway Plans shall be based on a design speed of 40 MPH with a posted speed limit of 35 MPH;
- 3. Roadway Plan sheets shall depict existing rights-of-way, section lines, property lines, temporary construction easements, and centerline of construction. Horizontal control points with state plane coordinates for all PC's, PT's, curve radius, curve length, and horizontal PI's shall be included on the Plan or summarized in an alignment table;
- 4. Roadway Plans shall include spot grades adequate to describe any proposed grading;
- 5. Match lines shall not be located within the limits of an intersection;
- 6. Soil boring information (to be provided by the COUNTY) shall be plotted on cross sections with soil classification and high season water table;
- 7. All quantities shall reference FDOT Pay Item Numbers;
- 8. All details shall reference FDOT Index Numbers;
- All specifications shall reference COUNTY and/or FDOT Specifications for Road and Bridge Construction. Any deviations from COUNTY and/or FDOT Specifications for Road and Bridge will be noted and clarified in the Technical Specifications on the Construction Plans;
- 10. 10% Submittal shall include Sub-lateral A-7 existing storage volume computations for the County's use in determining whether or not compensating storage will be required for piping of



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the existing sub-lateral <u>and</u> submittal of a Request for Verification of An Exemption to the SJRWMD;

11. 30%, 60%, 90%, and 100% Submittals shall include the following:

- i. Two (2) Sets of Signed & Sealed Final Plans (only).
- ii. One (1) Opinion of Probable Construction Cost (90% / 100%)
- iii. One (1) CD with Drawings in PDF Format & CADD.
- iv. The CONSULTANT will provide construction documents and calculations in sufficient quantity as required by the various reviewing agencies.

C. Drainage Analysis and Plans:

1. It is anticipated no treatment and/or attenuation analysis is required for this project as the roadway improvements portion of the project falls under St. Johns River Water Management District (SJRWMD) 62-330.051(4)(c) Exemption Criteria.

In the event treatment & attenuation computations are required by the SJRWMD for this project, <u>CONSULTANT shall perform the computations based on an off-site parcel of land to be selected by COUNTY</u>.

2. It is understood the IRFWCD will provide both the pipe size and invert elevations for the piping of Sub-Lateral A-7; therefore, no pipe sizing computations will be required for this project. Consultant shall provide the design for structures and the parallel underdrain system.

<u>Consultant shall, however, develop existing storage volume computations for Lateral A-7 for use by</u> <u>the COUNTY for determining whether or not compensatory storage volume will need to be</u> <u>developed to offset loss of storage caused by piping of the Sub-lateral</u>. The existing Sub-lateral A-7 storage computations described in this paragraph shall be provided as part of the 10% Submittal for this project.

- 3. Roadway swales and all storm sewer pipes crossing 45th Street to be included with this project. All non-RCP within the Indian River County right-of-way shall be replaced with RCP. RCP Culvert Cross-drain Replacements shall be sized to carry a 4" per hour flow rate.
- 4. A Stormwater Pollution Prevention Plan (SWPPP) will be developed in conjunction with this project. The site specific SWPPP is a requirement of both the EPA National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Construction Activities and the FDEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities.
- 5. Erosion & Sediment Control Plans / Notes

D. Jurisdictional Permitting:

The CONSULTANT shall prepare and submit permit applications for this project to the following agencies:



- 1. Indian River Farms Water Control District (IRFWCD): For piping of the IRFWCD Sub-Lateral A-7 and RCP culvert replacement drainage connection(s). This scope does not include permitting for any off-line compensatory storage system if determined required. (If required, the permitting of the off-line storage facility will be handled as an Additional Service.)
- St. Johns River Water Management District (SJRWMD): It is understood the roadway improvements including the piping of Sub-Lateral A-7 is exempt from SJRWMD permitting. The Consultant shall request documentation from the SJRWMD confirming the roadway improvements, including piping of Sub-Lateral A-7, are eligible for a Permit Exemption <u>as part of the 10% Submittal Phase for this project</u>.
- 3. U.S. Army Corps of Engineers (USACE): The closure of IRFWCD Sub-Lateral A-7 will require an USACE permit. Our services will include preparation of the permit application for said work.

The Consultant shall prepare permit sketches for submission to USACE for dredge and fill activities on $8.5'' \times 11''$ sheets. Sketches shall be neatly scaled, signed & sealed, and reproducible. The Consultant will prepare and submit the application package to the USACE. The application package includes the USACE standard forms and a compilation of supplemental materials such as permit sketches.

The Consultant will coordinate on the behalf of the COUNTY with each agency identified in this task. This may include up to two (2) meetings with the agencies to discuss requests for additional information (RAI), and written responses to two (2) RAIs including plan modifications. This scope assumes that environmental mitigation measures will not be necessary or required. This scope assumes that no biological assessments will be required for this project. In any event, coordination relating to threatened or endangered species issues will be responded to by the COUNTY's Environmental Department.

Permit application submittals will be made subsequent to the 60% plan set submittal approval by the COUNTY.

E. Signing and Pavement Markings Plans:

Signing and Pavement Markings Plans shall include: Separate Plan Sheets shall be made for Signing and Pavement Markings. Preparation of the plan layout, quantities (including signing and pavement marking quantity) and tabulation of quantities. All plans are to be prepared in accordance with the latest design standards and practices (MUTCD), FDOT Standard Specifications, Indexes, and shall be accurate, legible, complete in design, drawn at the same scale as the Roadway Plans, and furnished in reproducible form. Plans will be included with the Roadway Plans and submitted as indicated above.

F. Utility Coordination / Water & Sewer Service Adjustments:

The Consultant will coordinate with franchise utility operators in the vicinity of the project such that the proposed construction activities can be developed to minimize impacts to existing utilities located within the project limits. This includes coordinating with the COUNTY's Information Technology (I.T.) and Utilities Departments.

Specifically, we shall perform design services for the adjustment of twenty-six (26) existing water services serving properties on the south side of 45th Street between 58th Avenue and 43rd Avenue. An adjustment design shall also be prepared for an existing private force main service serving a property on the south



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side of 45th Street. Water valve, water meter, and sewer manhole adjustments are also included within this project.

Unless otherwise specified above, any utility permitting and relocation design required to accommodate the proposed improvements will be addressed as an additional service relative to this scope of work. This scope of work does not include any design services for adjustment of water mains and /or force mains other than as described above.

G. Signalization Plans:

Mast arm traffic signal configurations at the 45th Street / 43rd Avenue intersection and span wire supported signal modifications at the 45th Street / 58th Avenue intersection will be designed to meet (applicable) current COUNTY and FDOT standards. The pole analysis and design of the signal systems will be completed and submitted to COUNTY for review. Signalization Plans will be included with the Roadway Plans and submitted as indicated above.

SECTION III - TIME FOR COMPLETION & DELIVERABLES/WORK PRODUCT

Upon authorization to proceed by the COUNTY, final design documents are expected to take approximately 130 working days from the Notice to Proceed (NTP).

1. Project shall be completed as follows:

Task	Working Days Upon BOCC Approval
Route Survey	40 following NTP
IRFWCD A-7 Ex. Storage Comp. / SJRWMD Permit Determin	ation (10%) 15 following NTP
Schematic Submittal (30% Design Plans)	30 following 10% & Survey*
Preliminary Submittal (60% Design Plans)	60 following 30%
Complete Submittal (90% Design Plans)	20 following 60%
Final Submittal (Final Design Plans)	20 following 90%

*It is acknowledged by both parties CONSULTANT shall not proceed with 30% Schematic Design services until COUNTY has established and agreed to IRFWCD Sub-Lateral A-7 compensatory storage requirements.

2. Deliverables – The ENGINEER shall provide the COUNTY:

a.	IRFWCD A-7 Ex. Storage Computations / SJRWMD Exemption Determination (10%)	2 Sets
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- b. Schematic Construction Plans (11"x17") (30%)
- c. Preliminary Construction Plans (11"x17") (60%)
- d. Final Construction Plans (11"x17") (90%)
- e. Bid Ready Construction Plans (11"x17") (100%)
- f. Permit Application Forms As Required
- g. Related digital AutoCAD and PDF files



2 Sets

2 Sets

2 Sets

4 Sets

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SECTION IV - COMPENSATION

The **COUNTY** agrees to pay, and the **ENGINEER** agrees to accept a maximum not-to-exceed amount of \$ 308,000.00 for the above-described services rendered inclusive of expenses as identified in Sections I and II based on the following:

<u>Task</u>	Fee
Route Survey	\$ 33,500.00
Sub-lateral A-7 Existing Storage Computations	\$ 8,000.00
Roadway Construction Plans	\$ 126,000.00
Drainage Analysis and Plans	\$ 12,000.00
Treatment & Attenuation Analysis (If required)	\$ 15,000.00
Erosion Control and SWPPP	\$ 6,000.00
Jurisdictional Permitting	\$ 6,000.00
Signing and Marking Plans	\$ 18,000.00
Utility Coordination / Water & Sewer Service Adjustments	\$ 23,000.00
Signalization Plans	\$ 57 <i>,</i> 500.00
Project Total	\$ 305,000.00
Reimbursable Budget (excluding permit fees)	\$ 3,000.00
Total Project Fees	\$ 308,000.00

CONSULTANT shall invoice monthly for these services based on the percentage of completion of each task.

All and/or any "Additional Services" not described hereon shall be pre-approved by the **COUNTY**. Approved additional services shall be invoiced at the rates disclosed in the approved fee schedule with the **CONSULTANT** or based upon a negotiated lump sum.

GENERAL CONDITIONS

In addition, the following items are stipulated:

a) Application Fees

Any and all application fees required by permitting agencies will be paid for directly by the Owner/Client.

b) Scope of Work

The scope of work as outlined above is based on our estimate of the normal engineering and design services necessary. However, should the need arise for additional engineering design work by virtue of revisions or redesign required by you or any governmental reviewing agencies having jurisdiction, then additional billing will be based on the fee schedule included hereinafter under item (h), or this Contract can be renegotiated to the satisfaction of both parties.

c) Payment of Fees

Payment of all fees for services rendered shall be paid within thirty (30) days of billing. This project and the anticipated fees are predicated upon the prompt and continual satisfaction of our monthly invoices.



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Commencing on the thirty-first day, interest shall be added to the unpaid balance at the rate of one and onehalf percent (1-1/2%) per month or a total of eighteen percent (18%) per annum. In the event that the matter of delinquent payments shall be turned over to legal counsel for collection, legal fees, costs and recording fees incurred for collection shall be added to the outstanding amounts due.

d) <u>Release/Reuse of Documents</u>

All documents including drawings, disks, specifications and reports prepared or furnished by Masteller & Moler, Inc. (Engineer) or Engineer's Independent Professional Associates and Consultants pursuant to this agreement are instruments of service in respect of the Project and the Engineer shall retain all Ownership and property interests therein, whether or not the project is completed. To that end, Engineer may exercise his right to execute a copyright notice upon any document prepared by Engineer in connection with this project. All original documents shall remain the sole property and in the sole possession of Engineer.

Owner/Client will be provided and may retain copies of said documents for his use and information; however, said documents are not intended or represented to be suitable for reuse by Owner/Client or others on extensions of the project or on any other project. Any reuse without express written verification or adaptation by Engineer for the specific purpose intended, will be at Owner's/Client's sole risk and without liability or legal exposure to Engineer or to Engineer's Independent Professional Associates and Consultants. Owner/Client shall indemnify and hold harmless the Engineer and Engineer's Independent Professional Associates and Consultants from all claims, damages, losses and expenses including attorney's fees arising out of or resulting therefrom.

e) <u>Release/Reuse of Electronic Data</u>

All electronic data including drawings, specifications and reports prepared or furnished by Masteller & Moler, Inc. (Engineer) or Engineer's Independent Professional Associates and Consultants pursuant to this agreement are instruments of service in respect of the Project and the Engineer shall retain all ownership and property interests herein, whether or not the project is completed. To that end, the Engineer may exercise his right to withhold the release of any electronic data and evaluate each request on an individual basis. Any *Release/Reuse of Electronic Data* agreed upon by the Engineer shall automatically be encumbered by above stated Item (d) *Release/Reuse of Documents*.

f) Limitation of Liability

The Owner and Masteller & Moler, Inc. have considered the risks, rewards, and benefits of the project and the Engineer's total fee for services. Risks have been allocated such that the Owner agrees that, to the fullest extent permitted by law, the Engineer's liability to the OWNER for any and all injuries, claims, losses, expenses, damages, or claim expenses arising out of this agreement from any cause or causes shall not exceed the total fee received for the project. Such causes include but are not limited to the Engineer's negligence, errors, omissions, strict liability, breach of contract, or breach of warranty.

Pursuant to Florida Statute § 558.035, an individual employee or agent of Masteller & Moler, Inc. may not be held individually liable for damages resulting from negligence occurring within the course and scope of professional services rendered under this professional services contract.

g) Engineers Certification Definition

"Certification" shall mean a statement signed and/or sealed by a professional engineer representing that the engineering services have been performed by the professional engineer, and based upon the professional engineer's knowledge, information and belief, and in accordance with commonly accepted procedures



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consistent with applicable standards of practice, and is not a guarantee or warranty, either expressed or implied.

h) Additional Work Performed

Any and all work performed, other than that expressly delineated within this general contract, shall be billed at the following job classification and rates, as applicable:

Principal of Firm	\$ 175.00/hr.
Professional Engineer (PE)	\$ 150.00/hr.
Professional Surveyor	\$ 140.00/hr.
Project Manager	\$ 125.00/hr.
Field Crew Project Coordinator	\$ 100.00/hr.
CAD Draftsperson/Designer	\$ 100.00/hr.
Field Crew	\$ 125.00/hr.
Project Field Representation (Inspector)	\$ 80.00/hr.
Administrative (Typing, etc.)	\$ 70.00/hr.

No such work shall be undertaken, except upon receipt of verbal or written authorization of Owner/Client.

i) <u>Representations Relating to Work Performed</u>

The plans, designs and documents which are subject to this contract shall be prepared in a professional manner consistent with the profession's "Normal Standard of Care."

Nevertheless, no representations or warranties are made as to the success, approval or the issuance of permits on any application submitted by Owner/client based in whole or in part upon the plans, designs, or documents prepared by Masteller & Moler, Inc.

Backcharges will not be accepted by Masteller & Moler, Inc. unless we provide written agreement covering all corrective action and the total amount of the backcharge necessary to accomplish the corrective action.

j) <u>Reimbursables</u>

1) Print Costs

All photo copies, prints and facsimile transmissions will be billed at the following rates: Photo copies $8\frac{11}{5}$ x 11" \$0.25/sheet; photo copies $8\frac{11}{5}$ x 14" \$0.35/sheet; photo copies oversized \$0.50/sheet; blue line prints \$0.333/SF; reproducible sepias \$0.75/SF; reproducible mylars \$4.40/SF; facsimile transmissions $8\frac{11}{5}$ x 11" \$1.50/page, $8\frac{11}{5}$ x 14" \$1.75/page, and CD's \$10.00.

2) Miscellaneous - Express Mail, Telephone, Travel

If at any time information must be transmitted by express mail, these charges will be included on your monthly invoice at actual invoice cost. In addition, reimbursement for expenses such as telephone, travel, hotel, meals, etc. will be at actual costs incurred.

k) Price Guarantee

Prices quoted are firm for sixty (60) days from the date of this proposal.

I) <u>Compliance with Agency Regulations</u>

All work will be performed in accordance with appropriate City, COUNTY and State regulations relative to the proposed project.



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m) Assignment and Termination

While binding upon the parties, their successors or assigns, this Contract may not be transferred or assigned without the written consent of both parties. Owner/Client or Engineer shall have the right to terminate this Contract for any breach hereof after ten (10) days written notice. Should you exercise the right to terminate this Contract after ten (10) days written notice, Masteller & Moler, Inc. shall be compensated for services performed and expenses incurred to termination date.

We thank you for the opportunity to offer the services of our firm and look forward to working with you.

Sincerely yours, **MASTELLER & MOLER, INC.**

By Stephen E. Moler, PE Its Vice President SEM/cab

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MANHOUR FEE TABULATION

INDIAN RIVER COUNTY PROJECT # 1722 45TH STREET MILLING & RESURFACING PROJECT ENGINEERING DESIGN & PERMITTING SERVICES

TASKS	Principal / PE \$175.00 Hours Amount		QA/QC Project Mgr \$125.00 Hours Amount		ACAD Designer \$100.00 Hours Amount		Administrative \$70.00 Hours Amount		Estimated Fee	Proposed Fee
Route Survey	linuit		110413	Fanount	TIOUIS		nours	Amount	a tanan mandatatat	\$ 33,500.00
Sub-Lateral A-7 Storage & SJRWMD Permit Exemption Determination	20	\$ 3,500.00		\$-	40	\$ 4,000.00	8	\$ 560.00	\$ 8,060.00	\$ 8,000.00
Roadway Construction Plans	280	\$49,000.00	120	\$15,000.00	600	\$60,000.00	40	\$ 2,800.00	\$ 126,800.00	\$ 126,000.00
Drainage Analysis and Plans	36	\$ 6,300.00	12	\$ 1,500.00	40	\$ 4,000.00	12	\$ 840.00	\$ 12,640.00	\$ 12,000.00
Treatment & Attenuation Analysis	40	\$ 7,000.00	12	\$ 1,500.00	40	\$ 4,000.00	40	\$ 2,800.00	\$ 15,300.00	\$ 15,000.00
Erosion Control & SWPPP	12	\$ 2,100.00	4	\$ 500.00	36	\$ 3,600.00	0	\$ -	\$ 6,200.00	\$ 6,000.00
Jurisdictional Permitting	16	\$ 2,800.00		\$ -	32	\$ 3,200.00	12	\$ 840.00	\$ 6,840.00	\$ 6,000.00
Signing & Marking Plans	32	\$ 5,600.00	40	\$ 5,000.00	80	\$ 8,000.00	0	\$ -	\$ 18,600.00	\$ 18,000.00
Utility Coordination / Water & Sewer Adjustments	32	\$ 5,600.00	40	\$ 5,000.00	120	\$12,000.00	12	\$ 840.00	\$ 23,440.00	\$ 23,000.00
Signalization Plans										\$ 57,500.00

\$ 305,000.00