

**Manatee County, BCC  
PURCHASE ORDER STATUS INQUIRY**

**PURCHASE ORDER INFORMATION**

<b>Vendor:</b> V013098	<b>CAROLLO ENGINEERS INC</b>	<b>PO Number:</b> W1800150	<b>Not Received</b>																					
	401 N CATTLEMAN RD STE 306	<b>PR Number:</b> WA006572																						
	SARASOTA, FL 34232	<b>Sec Code:</b> 2505																						
		<b>Dept:</b> PROJECT MANAGEMENT DEPARTMENT																						
<b>Confirm:</b>	<b>Requested by:</b> RUSSO-7349/MH	<b>Req. Dt:</b> 01/16/2018	<b>Blanket Number:</b> T1100085																					
<b>Account:</b>	<b>Approved by:</b>	<b>Apr Dt:</b>	<b>Blanket Amount:</b>	0.00																				
<b>Bid:</b>	<b>Printed by:</b>	<b>Prnt Dt:</b>	<b>Blanket Remaining:</b>	0.00																				
<b>Contract:</b>	<b>End Use:</b>		<b>Buyer:</b>																					
<b>Ship To:</b> S0205			<b>Req. Codes:</b>	<table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>WF</td> </tr> </table>																				WF
									WF															
<b>Bill To:</b>																								

**ITEMS**

PR Number	Item	Qty Ordered	Unit	Unit Price	Key	Object	Discount Charges	Extended	Catalog	Whse
WA006572	0001	63,951.00	TC	1.00	GL 4046050470	531000	0.00	63,951.00		
					JL 6050470	0001	0.00			

CO#4 TO WA#27 PO#W1400106- LAKE MANATEE
ULTRA FILTRATION MEMBRANE PROCESS UPGRADE
***
ADDITIONAL ELECTRICAL DESIGN SERVICES
***
ORIGINAL AMOUNT: \$ 4,885,785.00
CO#1: \$0.00
CO#2: \$137,442.00
CO#3: \$0.00
CO#4: \$63,951.00
NEW TOTAL: \$5,087,178.00

<u>Qty Received</u>	<u>Qty Paid</u>	<u>Qty Damaged</u>	<u>Receipt Date</u>	<u>Packing Slip</u>	<u>Receiver's User ID</u>
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<b>ITEM TOTALS:</b>	0.00	0.00
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<b>Not Received</b>	
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	<u>Qty Received</u>	<u>Qty Paid</u>
<b>WA006572 TOTALS:</b>	0.00	0.00

**ENCUMBRANCES**

Requisition	Item	Account Key	Batch ID	Post Date	EN Amount	PD Amount	Balance T
							Balance: _____

**OPEN HOLD ACTIVITY**

Item	Account Key	Check #	ST	Check Date	Qty	Unit Price	Paid Amount	Invoice #	Invoice Date
							0.00	<b>TOTAL PAID</b>	

**GRAND TOTALS FOR PURCHASE ORDER**

	<u>Qty Received</u>	<u>Qty Paid</u>	<u>Total Paid</u>
<b>W1800150 TOTALS:</b>	0.00	0.00	0.00

# MEMORANDUM

To: Purchasing Official  
From: Jeff Streitmatter III, P.E., Project Management Div. Manager  
Date: January 10, 2018  
Subject: **Work Assignment No. 27**  
**Change Order No. 4**  
**Lake Manatee Ultra Filtration Membrane Process Upgrade**  
**Carollo Engineers Inc.**



Attached is Change Order No. 4 to Work Assignment No. 27 with Carollo Engineers, Inc. for additional electrical design services. This Change Order changes the contract amount by \$63,951.00 from \$5,023,227.00 to \$5,087,178.00 and has been reviewed by the appropriate County staff and found to be acceptable. The total design services are 10.04% of the estimated construction cost of \$50,000,000. Upon approval, please provide the authorized IFAS Work Assignment number. The funding source for this work assignment is utility rates.

Please contact Anthony D. Russo, PE, Project Manager, if you have any questions regarding the attached document.

Thank you for your continued assistance.

JS/ar 

cc: Mike Gore, Director, Utilities  
Ron Schulhofer, Director, Public Works  
Sia Mollanazar, P.E., Deputy Director, Engineering Services  
Carmen Mosley, MA, Senior Fiscal Services Division Manager  
Anthony D. Russo, PE, Project Manager  
Project File: 6050470 1.1

Public Works Department  
Project Management Division  
1022 26<sup>th</sup> Avenue East, Bradenton, FL 34208-3926  
Phone number: (941) 708-7450

T1100055

AGREEMENT No. 11-1569BG

ENGINEERING SERVICES FOR UTILITIES ENGINEER OF RECORD

**WORK ASSIGNMENT NO.: 27**  
**CHANGE ORDER NO. 4 (MCC-B & MV FEEDER)**

Pursuant to the Manatee County, Florida, **Agreement No. 11-1569BG for Engineering Services For Utilities Engineer Of Record** entered into by and between the COUNTY OF MANATEE, hereinafter referred to as the "County" and **CAROLLO ENGINEERS, INC.**, hereinafter referred to as the "Consultant", a determination has been made by the County that there is a need for the performance of or rendering of services by the Consultant of a certain "Work Assignment" under the purview of said Agreement, and the Consultant is hereby authorized to perform or render the particular services of work described as follows:

**TITLE OF THE PROJECT: PRELIMINARY DESIGN, DESIGN, AND CONSTRUCTION PHASE SERVICES FOR THE LAKE MANATEE WTP FILTER UPGRADE**

**PHASES AND/OR TASKS OF PROFESSIONAL SERVICES AUTHORIZED:**

Consultant shall perform tasks as more specifically detailed in Attachments A thru B as follows:

<b><u>TITLE</u></b>	<b><u>COMPENSATION</u></b>
Original Work Assignment No. 27	\$4,885,785
Change Order No. 1	\$0
Change Order No. 2	\$137,442
Change Order No. 3	\$0
Change Order No. 4	\$63,951

Compensation to the Consultant for rendering all of the above identified services and products shall not exceed \$5,087,178. Compensation for the tasks shall not exceed the amounts shown.

Any modification to the project resulting in increases to prior cost estimate or potential overruns shall be communicated to the County in writing, prior to initiation of work, for approval.

County may authorize in writing, in advance, adjustments in the compensation for particular tasks established above, provided such adjustments do not exceed the maximum compensation authorized for this Work Assignment.

Partial compensation may be requested on a monthly basis for unit prices and actual hours incurred, but not to exceed the percentage of the task completed.

AGREEMENT No. 11-1569BG

ENGINEERING SERVICES FOR UTILITIES ENGINEER OF RECORD

**WORK ASSIGNMENT NO.: 27**  
**CHANGE ORDER NO. 4 (MCC-B & MV FEEDER)**

The CONTRACTOR agrees to perform or render services in accordance with the **Agreement for Engineering Services For Utilities Engineer Of Record** and this Work Assignment.

**CAROLLO ENGINEERS, INC.**  
**401 North Cattlemen Road, Suite 306**  
**Sarasota, Florida 34232**

By:   
\_\_\_\_\_

Robert S. Cushing, Senior Vice President  
Print name & title of above signer

Date: January 3, 2018

**MANATEE COUNTY**

By: \_\_\_\_\_

Theresa Webb, CPPO, CPPB, CPSM, C.P.M  
Purchasing Official

Date: \_\_\_\_\_

**ATTACHMENT A**

**MANATEE COUNTY GOVERNMENT  
WORK ASSIGNMENT NO: 27**

**CHANGE ORDER NO. 4 (MCC-B & MV FEEDER)**

**PRELIMINARY DESIGN, DESIGN, AND CONSTRUCTION PHASE SERVICES FOR  
THE LAKE MANATEE WTP FILTER UPGRADE**

**SCOPE OF SERVICES  
CAROLLO ENGINEERS  
January 3, 2018**

**CHANGE ORDER DESCRIPTION**

The Consultant and its subconsultants shall perform engineering services for Manatee County associated with the Preliminary Design, Design, and Construction Phase Services for The Lake Manatee WTP Filter Upgrade.

The Lake Manatee WTP includes a conventional surface water treatment train comprising coagulation, flocculation, sedimentation, and filtration. The multi-media filters are approaching the end of their useful life and need to be refurbished or replaced with another treatment process. In 2008, the COUNTY undertook pilot tests that included evaluation of several treatment alternatives, and based on the results of the treatment and economic evaluations an ultrafiltration (UF) system was proposed to retrofit the existing media filters. In 2010, the Consultant provided a peer review of a basis of design report (BODR) for the UF system prepared by McKim & Creed and Reiss Engineering. The peer review included evaluating the BODR in detail with respect to technical requirements, costs aspects, facility layouts, and project delivery methods. In October 2013, the ENGINEER completed an evaluation to select the best-suited UF hydraulic configuration (i.e., submerged or pressurized) for retrofit of the existing filters. The COUNTY elected to proceed with a submerged UF configuration, based on the results of the evaluation and recommendation from the ENGINEER.

The following Scope of Work to be provided by the Consultant describes the professional services for replacement of MCC-B and relocation of medium voltage (MV) feeders associated with the surface water treatment Filter Building at Lake Manatee WTP.

**SCOPE OF WORK**

**GENERAL**

The work to be performed by the Consultant may include but is not limited to the following tasks. These tasks are being modified to include the design services related to the

replacement of MCC-B and relocation of medium voltage (MV) feeders associated with the surface water treatment Filter Building at Lake Manatee WTP.

### **TASKS – 1, 3, 4, 5, 7, 8, 11**

There are no requested changes to these tasks.

### **TASK 2 – QUALITY MANAGEMENT**

This task is being modified to include Quality Management for additions to design due to replacement of MCC-B and relocation of medium voltage (MV) feeders.

### **TASK 6 – FINAL DESIGN**

The modified scope of services for this task consists of the following activities:

- Structural design of new tray system (to be located near existing influent channel of the surface water treatment Filter Building) for relocation of the MV feeders, per County request replacement of tray system (at same location) for existing chemical feed pipes, and design of pad for MCC-B.
- Mechanical design and layout of new tray system for relocation of the MV feeders, and per County request replacement of tray system for existing chemical feed pipes.
- Electrical & IC design for replacement of MCC-B and relocation of the MV feeders.
  - MCC-B Replacement: Perform field investigation, design 90% and 100% Submittal/Bid Set.
  - Relocation of Medium Voltage Feeders of Filter Building A: Perform field investigation, design 90% and 100% Submittal/Bid Set.
- Modifications to pertinent Technical Specifications to incorporate replacement of MCC-B and relocation of medium voltage (MV) feeders.
- Modifications and addition of pertinent drawings (structural, mechanical, E&IC) to incorporate replacement of MCC-B and relocation of medium voltage (MV) feeders.
- Modifications to Cost Estimate to incorporate replacement of MCC-B and relocation of medium voltage (MV) feeders.

### **TASK 9 – BIDDING SERVICES**

This task is being modified to include the bidding services related to the replacement of MCC-B and relocation of medium voltage (MV) feeders.

## TASK 10 – CONSTRUCTION SERVICES

Based on discussion with the County, it is assumed that no additional time will be required to accommodate the replacement of MCC-B and MV feeders, and these items can be accommodated in the original construction schedule (18 months) of the Lake Manatee WTP Filter Upgrade project.

The modified scope of services for this task consists of the following activities:

- **MCC-B Replacement:** Prepare conformed documents and review shop drawings associated with MCC-B replacement, answer RFI's and incorporate field changes, provide resident inspector and resident engineer services within the original construction schedule, provide one additional E&IC site visit, assist with start-up, testing, and prepare record drawings.
- **Relocation of Medium Voltage Feeders of Filter Building A:** Prepare conformed documents and review shop drawings associated with relocation of medium voltage feeders, answer RFI's and incorporate field changes, provide resident inspector and resident engineer services within the original construction schedule, conduct two additional E&IC site visits, assist with start-up, testing, and prepare record drawings.

## COMPENSATION

The table below summarizes the original authorized compensation and the requested revision for the individual tasks.

<b>Task No.</b>	<b>Task Description</b>	<b>Previous Contract Amount</b>	<b>Revised Contract Amount</b>	<b>Net Change this CO</b>
1	Project Management Services	\$301,095	\$301,855	\$760
2	Quality Management	\$120,212	\$120,212	-
3	Preliminary Design	\$804,576	\$804,576	-
4	Membrane Procurement Documents	\$285,724	\$285,724	-
5	Membrane Supplier Bid Eval. and Pilot Test	\$187,985	\$187,985	-
6	Final Design	\$1,513,856	\$1,559,247	\$45,391
7	Permitting Services	\$126,756	\$126,756	-
8	Selecting a General Contractor	\$48,170	\$48,170	-
9	Bidding Services	\$51,324	\$52,336	\$1,012
10	Construction Services	\$1,562,922	\$1,579,710	\$16,788
11	Warranty Phase Assistance	\$20,608	\$20,608	-
	<b>Totals</b>	<b>\$5,023,227</b>	<b>\$5,087,178</b>	<b>\$63,951</b>

## **PROJECT SCHEDULE**

Design Schedule: Total four additional weeks in the design schedule will be required to accommodate the design of the MCC-B replacement and MV feeder relocation. 90% and 100% design submittals for MCC-B replacement and MV feeder relocation will coincide with the design submittals for the overall Lake Manatee WTP Filter Upgrade project, which will thereby be adjusted by a total of four weeks.

Construction Schedule: Based on discussion with the County, it is assumed that no additional time will be required to accommodate the replacement of MCC-B and MV feeders, and these items can be accommodated in the original construction schedule (18 months) of the Lake Manatee WTP Filter Upgrade project.



CHANGE ORDER NO 4. - MCC-B & MV FEEDER  
 WORK ASSIGNMENT NO. 27  
 PRELIMINARY DESIGN, DESIGN, AND CONSTRUCTION PHASE SERVICES FOR THE LAKE MANATEE WTP FILTER UPGRADE

Task No.	Task and Sub-Task Description Hourly Rates (RFP 11-1569BG)	CAROLLO ENGINEERS											SUBCONSULTANT				TOTAL PROJECT COSTS
		Personnel	Principal	Senior Project Manager	Senior Engineer	Project Manager	Senior Project Engineer	Discipline Engineer	CADD Supervisor	Resident Inspector	Administrative Assistant	Carollo Labor Hours	Carollo Labor Cost	Computer Modeling @ \$12/hr	Hillers Electrical (Electrical/I&C)	Subconsultant Administration (10%)	
			\$190	\$165	\$159	\$140	\$130	\$119	\$81	\$97	\$69						
	<b>Total:</b>		28	0	0	21	16	0	13	0	3	81	\$11,600	\$156	\$47,450	\$4,745	\$63,951
2.0	<b>Quality Management</b>		4	0	0	0	0	0	0	0	0	4	\$760				\$760
6.0	<b>Final Design</b>		22	0	0	16	16	0	13	0	3	70	\$9,760	\$156	\$32,250	\$3,225	\$45,391
6.3	90% Design		14	0	0	12	12	0	9	0	3	50	\$6,836	\$108	\$20,820	\$2,082	\$29,846
6.3.1	Design Submittal		4			12	12		9		3	40	\$4,936		\$19,290		\$24,226
6.3.2	Detailed Quality Check		7									7	\$1,330				\$1,330
6.3.3	Design Review Workshop		1									1	\$190				\$190
6.3.4	Estimate of Probable Construction Costs		2									2	\$380				\$380
6.4	100% Design		8	0	0	4	4	0	4	0	0	20	\$2,924	\$48	\$11,430	\$1,143	\$15,545
6.4.1	Design Submittal		6			4	4		4			18	\$2,544		\$10,400		\$12,944
6.4.2	Final Estimate of Probable Construction Costs		2									2	\$380		\$1,030		\$1,410
9.0	<b>Bidding Services</b>		0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$920	\$92	\$1,012
9.1	Pre-Bid Conference											0	\$0				\$0
9.2	Respond to Bidders Questions											0	\$0		\$460		\$460
9.3	Prepare Addenda											0	\$0		\$460		\$460
9.4	Evaluate Bid Results and Documents											0	\$0				\$0
10.0	<b>Construction Phase Services</b>		2	0	0	5	0	0	0	0	0	7	\$1,080	\$0	\$14,280	\$1,428	\$16,788
10.1	Resident Engineer and Inspection Services												\$0		\$0		\$0
10.2	Preconstruction Conference												\$0		\$0		\$0
10.3	Weekly Progress and Monthly Status Meetings												\$0		\$2,760		\$2,760
10.4	Review of Construction Schedule												\$0		\$0		\$0
10.5	Submittals Review		1			4							\$750		\$6,420		\$7,170
10.6	RFIs and RFAs		1			1							\$330		\$1,140		\$1,470
10.7	Change Order Requests and Work Directives												\$0		\$600		\$600
10.8	Review Pay Requests												\$0		\$0		\$0
10.9	Final Inspections												\$0		\$1,000		\$1,000
10.10	Start-up Services												\$0		\$1,760		\$1,760
10.11	Follow-up Training												\$0		\$0		\$0
10.12	Electronic Operations and Maintenance Manuals												\$0		\$0		\$0
10.13	Record Drawings												\$0		\$600		\$600

Note: Based on discussion with the County, this budget estimate assumes that above items can be accommodated in the original construction schedule (18 months) of the Lake Manatee WTP Filter Upgrade project

Lake Manatee WTP UF - Medium Voltage Feeder Overhead Relocation Amendment  
HILLERS ELECTRICAL ENGINEERING, INC.  
Scope Fee Breakdown



12/9/2017

PHASE OF WORK	Rate	\$140.00	\$125.00	\$110.00	\$105.00	\$85.00	\$55.00	Total	Expenses	TOTAL
	Proj. Mgr.	Proj. Eng.	Const. Obsv	Cadd	Drafting	Secretarial	Hours	Hours	TASK COST	
<b>90% Design</b>										
Site Visit and Data Collection			8					8		\$1,000.00
90% Electrical Design	2	40		48				90		\$10,320.00
90% Specification	1	8						9		\$1,140.00
90% Cost Opinion	1	6						7		\$890.00
<b>100% Design</b>										
100% Electrical Design	1	24		24				49		\$5,660.00
100% Specification	1	4						5		\$640.00
100% Cost Opinion	1	4						5		\$640.00
<b>Bidding Services</b>										
bidding assistance/RFI		2		2				4		\$460.00
As-Bid drawings		2		2				4		\$460.00
<b>Construction Services</b>										
shop drawing review	1	24						25		\$3,140.00
Answer RFI's/RFA's	1	4						5		\$640.00
change orders request/work direct	1	2		2				5		\$600.00
2 Additional site visits		8	8					16		\$1,880.00
final inspection		8						8		\$1,000.00
facility start-up coordination			8					8		\$880.00
record drawings	1	2		2				5		\$600.00
<b>Total Hours</b>	<b>11</b>	<b>146</b>	<b>16</b>	<b>80</b>				<b>253</b>		
<b>Total Labor Cost</b>	<b>\$1,540.00</b>	<b>\$18,250.00</b>	<b>\$1,760.00</b>	<b>\$8,400.00</b>				<b>\$29,950.00</b>		<b>\$29,950.00</b>

\$13,350.00

\$6,940.00

\$20,290.00  
\$920.00

\$8,740.00

CE18 - MV Feeder

Lake Manatee WTP UF - MCC B Replacement Amendment  
HILLERS ELECTRICAL ENGINEERING, INC.  
Scope Fee Breakdown



12/9/2017									
Rate	\$140.00	\$125.00	\$110.00	\$105.00	\$85.00	\$55.00			
	Proj. Mgr.	Proj. Eng.	Const. Obsv	Cadd	Drafting	Secretarial	Total		TOTAL
PHASE OF WORK	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Expenses	TASK COST
<b>90% Design</b>									
90% Electrical Design	2	24		24			50		\$5,800.00
90% Specification	2	6					8		\$1,030.00
90% Cost Opinion	1	4					5		\$640.00
<b>100% Design</b>									
100% Electrical Design	2	12		16			30		\$3,460.00
100% Specification	1	4					5		\$640.00
100% Cost Opinion	1	2					3		\$390.00
<b>Permitting Serv-Building Department</b>									
<b>Bidding Services</b>									
<b>Construction Services</b>									
shop drawing review	2	24					26		\$3,280.00
Answer RFI's/RFA's		4					4		\$500.00
one site visit addition			8				8		\$880.00
facility start-up coordination			8				8		\$880.00
<b>Total Hours</b>	<b>11</b>	<b>80</b>	<b>16</b>	<b>40</b>			<b>147</b>		
<b>Total Labor Cost</b>	<b>\$1,540.00</b>	<b>\$10,000.00</b>	<b>\$1,760.00</b>	<b>\$4,200.00</b>			<b>\$17,500.00</b>		<b>\$17,500.00</b>

\$7,470.00

\$4,490.00

Design Total  
\$11,960.00

Const. Services Total  
\$5,540.00

CE18-MCC-B Replacement