

MEMORANDUM



To: Theresa Webb, CPPO, Purchasing Official
From: Jeff Streitmatter III, P.E., Project Management Div. Manager
Date: October 16, 2019
Subject: Project Name; Construction Phase Services for the Lake
Manatee WTP Filter Upgrade
Contractor; Carollo Engineers, Inc.
Work Assignment # 59

Attached is Work Assignment No. 59 for Construction Phase Services for the Lake Manatee WTP Filter Upgrade. The fee estimate for this work assignment, in the amount of \$2,459,806 has been reviewed by the appropriate County staff and found to be acceptable. This Work Assignment replaces the old WA#27, which assumed an 18 month construction time, which is now 24 months based on the construction contract. Carollo rates have also been increased. The final cost of this work Assignment was determined through negotiation with the consultant. The services are 4.8% of the construction cost of \$50,785,411.77. Once WA#27 is disencumbered, those funds will be applied towards WA# 59. Upon approval, please provide the authorized IFAS Work Assignment number. The funding source for this work assignment is utility rates.

Please contact Robert Halbach, P.E., Project Manager , if you have any questions regarding the attached documents.

Thank you for your continued assistance.

JS/rh

A handwritten signature in blue ink, appearing to be "JH", is written over the typed name "JS/rh".

cc: Chad Butzow, P.E., Director, Public Works
Sia Mollanazar, P.E., Deputy Director, Engineering Services
Carmen Mosley, MA, Senior Fiscal Services Division Manager
Robert Halbach, P.E., Project Manager
Project File: 1.1

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

T1700197

PRISCILLA TRACE * REGGIE BELLAMY * STEPHEN R. JONSSON * MISTY SERVIA * VANESSA BAUGH * CAROL WHITMORE * BETSY BENAC
District 1 District 2 District 3 District 4 District 5 District 6 District 7

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March 22, 2019

Jeff Goodwin
Deputy Director - Utilities
Manatee County Utilities Department
4410 66th Street West
Bradenton, FL 34210

Subject: Agreement 16-2334CD Engineering Services for Utilities Engineer of Record Amendment to Hourly Rate Schedule and Addition of Subconsultants

Dear Jeff,

Carollo Engineers, Inc. would like to request the following modifications to the existing Hourly Rate Schedule.

Name	Current Job Title	Proposed Job Title
Joe Hanlon, PE	Senior Technical Advisor I	Senior Technical Advisor II
Norm Anderson, PE	Senior Technical Advisor I	Senior Technical Advisor II
Dan Hugaboom, PE	Senior Technical Advisor I	Senior Technical Advisor II
Brian Graham, PE	-	Senior Technical Advisor II
Laura Baumberger, PE	Senior Project Manager	Senior Technical Advisor I
Sandeep Sethi, PhD, PE	Senior Project Manager	Senior Technical Advisor I
Dean Milton, PE	Senior Project Manager	Senior Technical Advisor I
Richard Humphreys, PE	Senior Project Manager	Senior Technical Advisor I
Steve Snell	Senior Engineer Scientist II	Senior Project Manager
William Marshall, PE	Senior Engineer Scientist II	Senior Project Manager
Erica Stone, PhD, PE	Project Manager	Senior Engineer/Scientist I
Angelica Gregory, PhD, PE	Senior Engineer	Project Manager
Tyler Smith	Project Engineer I	Project Engineer II
Kevin Christensen	Project GIS Analyst	Senior Project Analyst

Note that some of the individuals in the table are not listed in the current agreement. However they have performed work on past and on-going work assignments, so their Current Job Title was informally established based on the rate we invoiced for their services.

We would be happy to provide the professional resumes for any of the individuals listed above.

Jeff Goodwin
Deputy Director - Utilities
Manatee County Utilities Department
March 22, 2019

Page 2

If you need additional information regarding this request please let me know.

Sincerely,

CAROLLO ENGINEERS, INC.



Dean Milton, PE
Vice President

DM:sw

cc: Mark Simpson, Deputy Director - Utilities

AGREEMENT 16-2334CD

WORK ASSIGNMENT NUMBER: 59

Pursuant to the Manatee County, Florida, Agreement for Professional Engineer Of Record Services entered into by and between MANATEE COUNTY, a political subdivision of the State of Florida, hereinafter referred to as "COUNTY" and Carollo Engineers Inc., hereinafter referred to as "CONSULTANT," a determination has been made by 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 CONSULTANT is hereby authorized to perform or render the particular services of work described as follows:

TITLE OF THE PROJECT: 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 1 through 3 as follows:

Attachment 1, Scope of Services

Attachment 2, Hourly Fee Schedule – Job Title – Name of Employee Assigned^{Note 1}

Attachment 3, Schedule

Note 1: Job Title & Name of Employee shall be consistent with Exhibit B Fee Rate Schedule. Any deviations shall require written approval by COUNTY prior to work being authorized.

Compensation to CONSULTANT for rendering all of the above identified services and products shall not exceed \$2,459,806. Compensation for the tasks shall not exceed the amounts set forth as follows:

Task 10: Construction Phase Services - \$2,434,155

Task 11: Warranty Phase Assistance - \$25,651

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.

CONSULTANT agrees to perform or render services in accordance with the Agreement 16-2334CD for Professional Utilities Engineer of Record Services and this Work Assignment.

CAROLLO ENGINEERS, INC.

By: 

Print Name: Sandeep Sethi

Title: Vice President

Date: October 11, 2019

By: 

Print Name: Robert S. Cushing

Title: Senior Vice President

Date: October 11, 2019

**MANATEE COUNTY, a political
subdivision of the State of Florida**

By: _____
Theresa Webb, CPPO, CPPB, CPSM, CPM
Purchasing Official

DATE: _____

ATTACHMENT 1

MANATEE COUNTY GOVERNMENT WORK ASSIGNMENT NO: 59

CONSTRUCTION PHASE SERVICES FOR THE LAKE MANATEE WTP FILTER UPGRADE

SCOPE OF SERVICES CAROLLO ENGINEERS, INC October 11, 2019

PROJECT DESCRIPTION

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 2014, the COUNTY initiated design phases services for the Lake Manatee WTP Filter Upgrade project. The design phase included preliminary design, final design, membrane procurement, membranes supplier bid evaluation and pilot testing, permitting, and bidding.

The following Scope of Work to be provided by the Consultant describes the professional services associated with the construction, start-up and the warranty phase of the Lake Manatee WTP Filter Upgrade project.

SCOPE OF WORK

TASK 10 – CONSTRUCTION SERVICES

The Consultant will provide services for each phase of construction to establish that the work being performed by the General Contractor is in conformance to the requirements of the Contract. The Consultant will provide the services of a full-time Resident Project Representative (RPR) and a quarter-time Resident Engineer (RE) for the duration of construction activities.

The Consultant will not be responsible for the means, methods, techniques, sequences, or procedures or construction selected by General Contractor, or the safety precautions and programs incident to the work of General Contractor.

The current ongoing projects that could affect this project include:

- SCADA system upgrade project at the WTP (from HSQ SCADA software to Citect SCADA software).

10.1 Resident Project Representative and Resident Engineer Services

The services of one (1) full-time RPR will be provided for the duration of the construction and startup for the purpose of handling field communications with the General Contractor, monitoring the day-to-day construction activities, inspecting critical materials, installations, or facilities, verifying field conditions in accordance with the Contract Documents, and coordinating and managing various processes (e.g., submittals, RFI and RFAs, change order and payment requests) between the Consultant and the General Contractor. Therefore, besides providing construction inspection and preparing daily inspection reports, the RPR will be responsible for providing various additional services such as conducting the progress meetings, tracking submittals, preparing field memos and clarifications, tracking RFIs, reviewing monthly progress payment requests, reviewing construction schedule, reviewing change order requests, among other duties described in the tasks below.

The Consultant will provide the services of one (1) quarter-time RE for the duration of the construction, startup, and training period. The RE will serve as the liaison between the design and design team and the construction. The RE shall accompany the RPR to periodically observe the progress of construction and inspect critical materials, installations, or facilities. The RE will assist the RPR with the monthly progress reports that present the activities of the past period and anticipated activities of the upcoming period. The RE shall provide other related Project services as required.

It is assumed that the General Contractor will provide on-site office space for the RPR and RE.

10.2 Weekly Progress and Monthly Status Meeting

The Consultant's RPR and RE will participate in weekly progress and monthly status meetings with the General Contractor, Subcontractors and other COUNTY representatives throughout the construction phase to keep the COUNTY informed of the project progress, and obtain input and direction as required for outstanding project issues. Prior to each meeting, Consultant will prepare relevant information to be addressed. Meeting objectives will be to reach decisions on pertinent issues relative to the specific topic being addressed. The Consultant will capture COUNTY-approved decisions through meeting minutes, to be distributed to meeting attendees for review and approval. Following receipt of comments, the Consultant will prepare final minutes for distribution.

Consultant will attend construction project meetings to discuss issues and monitor activities. Consultant's Project Manager and/or Design Manager shall attend monthly project meetings as required to maintain overview and design intent throughout the construction phase. It is assumed that the construction phase will last up to twenty-four (24) months.

Additional Consultant experts will participate in progress meetings on an as-requested basis by conference call.

10.3 Review of Construction Schedule

The Consultant will review the General Contractor's Construction Schedule. The Consultant will collaborate with General Contractor on modifications to the schedule until both the Consultant and General Contractor are satisfied that the schedule accurately reflect the appropriate schedule of activities for the Project.

10.4 Submittals Review

Consultant will review key submittals provided by the construction contractor related to the membranes and supporting equipment. The Consultant's review shall be for conformance with the overall design concept and contract documents. Such review or other action shall not extend to compliance with the information given in the contract documents, to means, methods, sequences, techniques, procedures of construction selected by the construction contractor, or to safety precautions and programs associated thereto. The Consultant will receive and review maintenance and operating schedules and instructions, operation and maintenance manuals, and guarantees, which are to be assembled by the General Contractor in accordance with the contract documents.

The submittal process will be managed through the COUNTY's E-Builder system. The Consultant will review submittals from the General Contractor (i.e., samples, schedules, and shop drawings) for conformance to the design concept of the project and for compliance with the Contract Documents; and will assemble written guarantees and operating manuals required of the General Control. The submittal reviews will be managed to provide timely review and response to the General Contractor's submittals. The Consultant will review and return submittals within the calendar days set forth in the Contract Documents for the project.

10.5 RFIs and RFAs

Requests for Information (RFIs) and Requests for Alternates (RFAs) from the General Contractor will be managed through the COUNTY's E-Builder system. The Consultant will prepare responses to the RFIs and RFAs to provide the field personnel the appropriate level of information relative to the request. The Consultant will respond to general requests for information and/or alternates from the General Contractor to provide supplemental information. The Consultant will issue clarifications to the General Contractor as required to clarify discrepancies in the Contract Documents. Should an RFA require additional design effort by the Consultant, General Contractor shall

compensate Consultant for this work. The Consultant shall keep a log showing the receipt and response date of each RFI or RFA.

10.6 Change Order Requests and Work Directives

The Consultant will review and analyze Change Order Requests, whether initiated by the COUNTY or the General Contractor. The Consultant will initiate Change Order Requests only after review and acceptance by the COUNTY.

Consultant review and analysis of Change Order Requests will include scope and pricing information submitted by the General Contractor as part of the request, and will include field review and discussions with the General Contractor and COUNTY regarding the request.

The Consultant will process Change Orders for the project. These services will include, but not be limited to:

- Development of the Change Order documents to include the background, justification, and cost analysis of the Change Orders.
- Negotiation of the Change Orders with the General Contractor
- Preparation of the Change Orders for the COUNTY'S execution
- Assist with Executive Summary preparation
- Other support services as required

10.7 Review Pay Requests

The RPR, RE, and other Consultant engineers, on a monthly basis, will estimate the compensation due the General Contractor by the COUNTY. This estimate will constitute a representation based on such observations and the data comprising the application for payment, that the work has progressed to the level indicated. The RPR review will include a numerical and mathematical check of quantities, values, percentages of the completed work, schedule, and if applicable, schedule recovery plan.

10.8 Final Inspections

One formal inspection will be conducted jointly with the RPR, Resident Engineer, Discipline Engineers, COUNTY representatives, the General Contractor, and Subcontractors for Substantial Completion and one formal inspection for Final Completion. Additional informal inspections will be conducted by the RPR and RE during the final stages of construction before Substantial and before Final Completion. A formal punch list of incomplete work will be developed jointly with the RPR, RE, and the COUNTY field representatives after Substantial Completion and will be issued to the General Contractor in accordance with the Contract Documents. Multiple, informal punch lists may be prepared jointly by the RPR and RE to aid the General Contractor with the closeout of the Project construction.

10.9 Start-Up Services

Consultant will provide services for assistance and monitoring of start-up activities associated with the membrane system.

10.9.1 Factory Acceptance Tests

Contract documents require factory acceptance testing (FAT) of major project components prior to delivery to the construction site. These tests are intended to confirm proper operation and compliance with contract documents. The Consultant will review and provide comments on the protocol submitted by Contractor outlining FAT activities. Consultant will plan for and attend a one-week factory acceptance test for each of the following systems:

- **Microfiltration Membrane System:** One process engineer and one electrical/I&C engineer will attend the FAT. Five 8-hour days are included in the scope for witnessed factory testing of the membrane system.
- **PLC Control Panels:** The factory acceptance test will be attended by one process engineer and one electrical/I&C engineer.
- **Motor Control Centers:** The factory acceptance test will be attended by one process engineer and one electrical/I&C engineer.
- **Permeate Pumps:** The factory acceptance test will be attended by one process engineer.

10.9.2 Development of Facility Start-up Protocol

Consultant shall oversee the development of a systematic system startup protocol for the facility prior to the completion of the construction phase of the project. Operation and startup assistance shall generally follow procedures outlined in the Contract Documents. The purpose of this plan is to assist the Contractor in assuring the plant is operational and ready for 7-day testing. Consultant will review Contractor's proposed plan and assist to define initial process setpoints and operational parameters. Consultant shall be available to resolve startup and process issues, and provide consultation and recommendations. Consultant shall provide two (2) days of on-site services to address questions from the COUNTY and Contractor.

10.9.3 Facility Start-up Coordination

Consultant will be on-site for the duration of the start-up and acceptance activities at the plant. These activities include functional and operational testing. All equipment is to be tested prior to startup to confirm compliance with the contract documents. The Consultant shall review the functional test plan prepared by the Contractor and MSS and oversee its execution. Consultant shall provide a written summary of the results of the testing, summarize deficiencies and remedies. Once all equipment is tested and ready for operation, 7-day operational testing of the plant will be conducted.

10.9.4 Operational Training

Once equipment is certified for operation, functional testing has been completed and prior to operational testing, training of individual equipment is to be provided by equipment manufacturers. Contractor shall submit materials outlining on-site training activities. Consultant shall review these materials through the submittal process to confirm proper training is being provided. The RPR shall attend equipment manufacturer's training activities to confirm key components are described and relevant information is conveyed through the training seminars.

In addition, the Consultant shall also conduct process training for the membrane system and the chemical facilities. Training will be tailored to cover the treatment process design and operating intent, and will supplement training provided by the equipment manufacturer or supplier.

10.9.5 Direct Integrity Test (DIT) Validation

The validation of the DIT is a field activity that is scheduled after the field functional testing of the membrane system and the calibration of all the field instruments. Consultant will review the protocol prepared by the MSS supplier for integrity testing and will submit the protocol to FDEP for review and approval. The Consultant will also attend integrity testing of the membrane system.

10.9.6 Short-Term Testing (Initial Performance Testing)

Consultant will provide a full-time on-site presence for up to two (2) weeks during the short-term (7 days) initial performance testing (IPT) of the membrane system. This task budget assumes that up to one (1) retest of the 7-day IPT may be required. The Consultant will negotiate and review proposed remedies for performance shortfalls identified during the testing with the COUNTY, General Contractor, and MSS. The Consultant will also review the draft and final testing reports from the membrane system supplier and provide comments to the COUNTY.

10.9.7 Long-Term Testing

The MSS will be obligated to verify the performance of their equipment for a 12-month monitored testing period. During this time, the MSS is obligated to provide periodic updates and a final report that must demonstrate the system meets their Guaranteed Performance Schedule. The Consultant will provide assistance to the COUNTY to confirm that the monitoring is properly conducted, help interpret the testing results, help verify that the MSS makes appropriate modifications to address any deficiencies, and/or to provide operational assistance as requested by the COUNTY.

It is assumed there will be weekly on-site meetings for the first month of the monitoring period, and bi-weekly (2 times per month) on-site meetings for the remaining 11 months. The meetings will be used to review performance data. It is assumed that an average of four (4) hours per week for the duration of the long-term test period will be required to analyze performance data and assist in negotiating solutions to performance

short falls. Consultant shall review up to three (3) drafts of the MSS long-term test report for conformance with performance criteria.

10.10 Follow-up Training

Consultant will provide follow-up training services. Intermediate training sessions will be given twice during the 5th month of operation and a one-day training session will be given during the 11th month of operation. These training activities will allow the COUNTY to operate the facilities for a period of time and determine areas or facilities that need additional training. It is expected that the COUNTY will provide an advanced list of items to be included in the training sessions.

During the 11th month of operation and prior to the end of the construction warranty period (one year), the Consultant will conduct a site visit to verify compliance of facilities with contract documents prior to the expiration of the Contractor's warranty. Consultant will determine if items and components are no longer within specified compliance or plant staff has observed issues during plant operations.

10.11 Electronic Operations and Maintenance Manual

Consultant will prepare an electronic operations and maintenance manual for the LMWTP. The manual will be delivered prior to start up.

The Consultant shall prepare an electronic Operations and Maintenance (O&M) Manual for the new facilities. The facility O&M Manual will be designed to complement the equipment manufacturer's O&M Manuals and will cover each process and contain a process description in sufficient detail to describe the process to operators in a direct format. Process chemistry and chemical application will also be covered.

Each chapter for the major systems will consist of the following sections, as applicable:

- Background
- Theory
- Operating Strategies
- Equipment & Control Description
- Procedures
- Design Criteria
- Troubleshooting
- Safety
- Alarms
- Figures

The facility O&M manual will cover other operational basics including design criteria, intended operation of the processes, start-up, shutdown, monitoring and troubleshooting procedures, alternate operations modes, and special process safety considerations. These procedures will be field verified by the Consultant with assistance from the facility staff.

10.11.1 Workshops

Up to two workshops (each up to 4 hours) will be held with the COUNTY prior to content development activities to provide an overview of the content to be developed, coordinate content with existing O&M manuals, to identify key COUNTY staff to review draft chapters, and to establish a review schedule. The COUNTY will be provided with

interim deliverables of completed O&M sections as the construction of major areas of the facility are completed. As each chapter is completed, Consultant will submit draft chapters to the COUNTY for their review and comment. The COUNTY will provide comments to the Consultant for incorporation into the final O&M manual.

10.11.2 Final Validation and Field Verification

Prior to submitting the final version of the O&M manual and transferring to the COUNTY, Consultant will conduct a detailed final validation and field verification process. Through this important quality control activity, Consultant will verify that:

- Content has been field-verified and checked at the installation.
- Photographs are current and are reflective of well-maintained and clean conditions.
- Relevant documentation, such as scanned documents, figures, and drawings are appropriately categorized for insertion into the database.
- Standard Operating Procedures are accurate and reflect actual “as-operated” conditions.

10.11.3 Orientation Training

Consultant will provide orientation training to facility staff after the O&M manual has been completed. User orientation training will consist of orientation sessions for general system users to learn how to use and navigate the O&M manual.

10.12 Record Drawings

The Consultant will review the progress of development of the General Contractor’s record drawings monthly throughout the course of construction. Upon completion of construction, the Consultant shall produce an end-of-project set of Record Drawings for the COUNTY.

The Consultant will revise the contract drawings to show as-constructed conditions and will furnish one electronic copy, one (1) reproducible Mylar copy, and three (3) original sets to the COUNTY. Record drawings will be provided prior to final completion.

10.13 Periodic Reviews and Site Visits by Membrane Experts

Consultant will provide both reviews and site visits by Consultant’s membrane system experts during key milestones through the construction and startup phases. On average, these site visits will be approximately quarterly, and timed to match with key construction or startup milestones related to the membrane system components. This task budget assumes up to 160 labor hours for the membrane system expert reviews and site visits.

Deliverables for Task 10:

- Monthly Progress and Inspection Reports Status Meeting Notes - one (1) electronic PDF file to be delivered to the COUNTY'S Project Manager.
- Construction Status Meeting Notes - one (1) electronic PDF file to be delivered to each meeting attendee.
- Construction Status Meeting Notes - one (1) electronic PDF file to be delivered to each meeting attendee.
- One (1) electronic (PDF) copies of draft and final comments on the construction schedule
- Submittal Review Response – one (1) electronic response (PDF) per submittal and resubmittal
- RFI response – one (1) electronic response (PDF) per RFI
- RFA response – one (1) electronic response (PDF) per RFA
- Change Order – one (1) electronic response (PDF or Work) per change order request
- Pay Request Review comments – one (1) electronic response (PDF) per pay request
- Five (5) electronic (PDF) copies of the Substantial Completion punch list
- Five (5) electronic (PDF) copies of the Final Completion punch list
- Five (5) electronic (PDF) copies of draft and final comments on the membrane system performance test plans
- Five (5) electronic (PDF) copies of draft and final comments on results of the Short-Term Testing reports
- Five (5) electronic (PDF) copies of draft and final comments on results of the Long-Term Testing reports
- Operation and Maintenance Manual
 - One (1) electronic copy uploaded to E-Builder
 - One (1) hard copy of the completed CD-ROM based O&M Manual
 - One (1) electronic (PDF) copy of the completed CD-ROM based O&M Manual
- Record Drawings
 - Three (3) hard copies of stapled edge bound 24" x 36" drawings, signed/sealed
 - One (1) hard copy of 24" x 36" drawings (Mylar)
 - One (1) compact disc including drawings in DWG and PDF format

TASK 11 - WARRANTY PHASE ASSISTANCE

Consultant will provide services during the warranty period to assist the COUNTY with operational problems with the membrane system, working with MSS to resolve problems or warranty issues with the membrane system equipment and to provide the COUNTY with operational assistance to improve the membrane system performance. These services will provided on as-requested basis and the budget is based on twenty-four (24) months at 4 hours per month.

WORK ASSIGNMENT ASSUMPTIONS:

Because of the nature of this project, certain assumptions apply to this Scope of Services. To the extent possible, these assumptions are stated within this document and are reflected in the budget.

- COUNTY shall attend all meetings to maintain the progress of the project according to the schedule.

PROJECT SCHEDULE

The contract start date will be the day of the approval of the Work Assignment. In lieu of an attachment detailing the construction phase services schedule, it is noted that the project milestones and deliverables will follow the construction schedule submitted by General Contractor, and reviewed and accepted by Consultant and COUNTY.

CA3 - Subconsult.

Estimated Fee Proposal:

For these services and task, we have estimated our fees as follows:

Architectural Conformed Drawings Services

~~\$ 960.00~~ Completed

Architect – 1 hrs. @\$/150.00 Hr.
Intern Architect – 8 hrs. @\$90.00/Hr.
Admin – 2 hrs. @\$45.00/Hr.

Architectural Construction Services Phase

Chemical Building

\$ 23,760.00

Architect – 72 hrs. @\$/150.00 Hr.
Intern Architect – 144 hrs. @\$90.00/Hr.

Architect: 24 mos. x 3 hrs. x \$150.00/hr. Intern Architect: 24 mos. x 6 hrs. x \$90.00/hr.

*To be billed in equal payments, based upon proposed Construction Schedule

Post Construction Services (As-Builts) \$ 1,500.00
CAD/Draftsmen 20 Hrs. @ \$75.00/Hr.

Total Estimated Fee for these Phases ~~\$ 25,260.00~~ \$24,300

Bay B Building

\$ 29,520.00

Architect - 96 Hrs. @ \$150.00/Hr.
Intern Architect -168 Hrs. @ \$90.00/Hr.

Architect: 24 mos. x 4 hrs. x \$150.00/hr.: Intern Architect: 24 mos. x 7 hrs. x \$90.00/hr.

To be billed in equal payments, based upon proposed Construction Schedule

Post Construction Services (As-Builts) \$ 2,400.00
CAD/Draftsmen - 32 Hrs. @ \$75.00/Hr.

Total Estimated Fee for these Phases \$ 31,920.00

Mechanical Engineering*:

\$ 9,938.00

Construction Services

Principal – 6 hr. @\$172.00/hr.
Engineer – 34 hrs. @\$130.00/hr.
Construction Inspector – 34 hrs. @ \$75.00/hr.
CADD/Tech – 16 hrs. @\$75.00/hr.
Admin Assistant – 16 hrs. @\$46.00/hr.

*rate schedule has been updated in conformance with ATP Engineering's current contract with Manatee County.

