

TASK ORDER NO. 11281.n

Pursuant to the

MASTER AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN

CITY OF MERIDIAN (OWNER) AND JACOBS ENGINEERING GROUP INC. (ENGINEER)

This Task Order is made this 12th day of December, 2024, and entered into by and between the City of Meridian, a municipal corporation organized under the laws of the State of Idaho, hereinafter referred to as "City", and accepted by Jacobs Engineering Group, Inc., hereinafter referred to as "System Programmer" pursuant to the mutual promises, covenant and conditions contained in the Master Agreement for Professional Services (Category 7B) between the above mentioned parties dated October 1, 2024. The Project Name for this Task Order is as follows:

WRRF TERTIARY FILTRATION - PROCESS CONTROL (SOFTWARE INTEGRATION)

PROJECT UNDERSTANDING

The following Scope of Work describes the services that will be provided by the System Programmer to complete the Process Control Software Integration as described in the Conformed Documents for the City of Meridian Wastewater Resource Recovery Facility Tertiary Filtration Facilities Project number 2002003136 dated June 2023 hereinafter referred to as the "Project", completed by Stantec hereinafter referred to as "Engineer".

The process control system software integration services for the following equipment will be performed under this single task order:

- Process control system software configuration for automated monitoring and control of the new system functions, as specified in the Conformed Documents. Includes the following:
 - Programming for (2) new Programmable Logic Controllers (PLC):
 - SCFB3PLC0001
 - STFB3PLC0001
 - Updated programming for (1) existing PLC, SCFB1PLC0001.
 - Modifications to the existing plant control system Wonderware System Platform, Historian, and TopView alarm notification software.

- Configuration of (3) new Ethernet network switches listed in Table 3, Device List. All other network switches, including SCADA ring network switches and those provided by package system suppliers will be configured by others. Refer to enclosed Table 3, Device List, for a summary Ethernet Switches on this project.
- PLC configuration and testing for Ethernet communications to (8) Variable Frequency Drives (VFDs). VFD configuration is by others. Refer to enclosed Table 3, Device List, for a summary VFDs on this project.
- PLC configuration and testing for ethernet communications to (1) power monitor. Refer to Table 3, Device List, for a summary of power monitors on this project.
- PLC configuration and testing for (2) ethernet communications to (2) UPSs. Refer to Table 3, Device List, for a summary of UPSs on this project.
- SCADA PLC configuration and testing for Ethernet communications to (1) vendor package systems.
 - STFB3PLC0002 – Membrane Filtration System Vendor PLC

Work Approach

System Programmer will complete the work in a phased approach.

Software Planning: will include meetings with the Owner, Engineer, and Contractor to coordinate project schedule, control sequences, PLC code development, HMI graphics development, testing procedures, and testing coordination.

Software Development: will include PLC and HMI development, unwitnessed software test, witnessed software factory acceptance test, panel builder factory acceptance test.

Software Implementation: will include implementation of PLC and HMI programming, onsite loop testing, process control strategy/functional testing, closed loop testing, and performance testing as described in Section 01 75 00. This phase will also include training and final tuning.

SCOPE OF WORK

Task 1 - Project Management

The purpose of this task is to manage, coordinate and lead System Programmer activities and perform administration of the project control system software execution and control system software quality reviews. System Programmer will provide the resources necessary for project initiation and management throughout the project. Activities include contract administration, project accounting, Health & Safety Plan preparation, project documentation, monitoring progress, change management, periodic invoicing, and closeout and archiving. The estimated level of effort associated with these functions is based on a 78-week duration from Owner-issued notice-to-proceed to completion for the tasks described herein.

Change Management

Request for Change (RFC): Changes made by the Engineer, Owner, or Contractor to the City of Meridian Wastewater Resource Recovery Facility Tertiary Filtration Project Conformed

Contract Drawings and Specifications that impact this scope of work and or schedule will be submitted as an RFC by the Owner to the System Programmer prior to implementing the change. The System Programmer shall review the RFC and submit a response including cost and schedule impacts. The System Programmer may begin working on the change once terms are agreed upon and authorization is received from the Owner.

System Programmer Change Proposal (CP): If the System Programmer wants to propose an alternate solution to the Conformed Contract Drawings and Specifications or to suggest a change to the Contract, it will be done using a CP form. The System Programmer will provide information describing the change and the cost or credit being proposed and the schedule impacts. If a CP is accepted, or partially accepted by the Owner, the Owner will issue an RFC authorizing the change.

Request for Information (RFI): The System Programmer may request interpretation or clarification of the Conformed Contract Drawings and Specifications or the I/O list during the construction of the project. Either the Owner, Engineer, Contractor, or System Programmer may request additional information from one of the other parties. The request section of the form will be filled out by the party initiating the request. It will be sent to the Engineer. The Engineer will distribute it to the appropriate party for a written response. The written response will be returned to the Engineer who will distribute copies. If the response to an RFI causes a change to this Contract, the Owner shall be notified. If the Engineer and Owner concur, Owner will issue an RFC to the System Programmer.

Health and Safety Plan

Develop a Health and Safety Plan for Jacobs work throughout the project.

Deliverables:

- Completed RFC responses.
- Completed CP forms.
- Completed RFI forms.
- Monthly invoices and progress reports.
- Monthly schedule updates.

Task 2 - Construction Support Services

The purpose of this task is to coordinate construction schedules and equipment submittals with the Contractor and Owner in order to provide successful integration of the control system software.

- Participate in Pre-Construction meeting at the project site with Owner and Contractor (2 people at 4 hours each)
- Review Contractor's preliminary construction schedule
- Review 13 associated Contractor submittal packages from the following sections and provide review responses. Up to four re-submittals assumed (up to a total of 120 hours).
 - 01 32 00, CPM Construction Schedule

- 01 75 00, Equipment Testing and Plant Start Up
- 01 79 00, Owner Staff Training
- 40 63 13, SCADA Coordination Requirements
- 40 90 10, Control Strategies
- 40 91 00, Process Control Instrumentation Systems (includes all 40 91 subsections)
- 40 95 10, PLC Based Control System Hardware
- 40 95 13, Control Panels
- 40 95 20, PLC-Based Control Systems Software
- 26 08 00, Commissioning of Electrical Systems
- 26 24 19, Low Voltage Motor Control
- 26 29 23, Low Voltage Adjustable Frequency Drives
- 40 05 57, Actuators for Process Valves and Gates
- Review associated requests for information (RFIs) and provide responses. Up to 20 RFI responses assumed (up to a total of 20 hours).
- Incidental coordination with Contractor (maximum 78 hours, average 1 hour per week in accordance with Milestone Schedule below.)

Deliverables:

- Submittal review comments.
- RFI responses.

Task 3 - Software Planning

The purpose of this task is to coordinate planning activities with the Engineer, Owner and Contractor in order to define roles and responsibilities. Workshops are included to allow System Programmer, Owner and Engineer to review the control sequences, and to further define the details of the control sequences prior to beginning software development.

System Programmer Kickoff Meeting

- Schedule and lead one 2-hour workshop at the project site.
- Review procedures for exchanging information with Owner, Engineer, Contractor, System Integrator, and Package System Vendors including:
 - Contractor Submittals
 - System Programmer Submittals
 - Contractor RFIs
 - I/O List
 - Rack/Slot/Point assignments

- Start Up Records (maintained and submitted by Contractor per 01 75 00 C)
- Control Strategies (maintained and submitted by System Programmer for Engineer Approval)
- Training Plans (maintained and submitted by Contractor per 01 79 00 1.05A)
- Review Construction Schedule and determine update frequency.
- Reference Sections
 - 01 75 00, Equipment Testing and Start Up
 - 40 63 13, SCADA Coordination Requirements
 - 40 90 10, Control Strategies
 - 40 91 00, Process Control Instrumentation Systems (includes all 40 91 subsections)

Database setup

- Populate Commissioning database with PLC I/O tags, loop descriptions, and AOI assignments.

Control Sequences

- Lead one 5-hour Preliminary Control Sequence Workshop at the project site with Owner staff and Engineer to review the control sequences as described in Sections 40 90 10 to further define the details of the control sequences necessary for programming.
 - Notes from the workshop will be used by System Programmer to update the Control Sequence document.
 - Revised Control Sequences to be approved by Engineer and Owner. Once revised, the System Programmer will assess the quantity and level of changes resulting from the Preliminary Control Sequence Workshops and submit Change Proposal forms if needed prior to developing preliminary code and prior to scheduling Final Control Sequence Workshop.
 - System Programmer will follow the intent of the written control sequences through the use of the City's current software programming standards, while not requiring Requests for Change to transpose into the current standard.
- Lead one 2-hour Final Control Sequence Workshop at the project site with Owner staff and Engineer to review and finalize the control sequences. Workshop to include discussions related to custom control faceplates that will be developed on the project to provide operations the ability to configure setpoints for control functions.
 - Notes from the workshop will be used by the System Programmer to update the Control Sequences document. Revised Control Sequences to be approved by Engineer and Owner. Once revised, the System Programmer will assess the quantity and level of changes resulting from the Final Control Sequence Workshop and submit Change Proposal forms if needed prior to proceeding with task 4.

- All Control Sequence document edits to be completed by the System Programmer and approved by the Engineer and Owner.

IO List Evaluation and Assignments

- SCFB1PLC0001 – Existing Chemical Feed Building 1
 - System Programmer to evaluate the IO requirements defined in the contract documents and assign Rack/Slot/Point in the existing SCFB1 PLC panel.
 - Determine that there is enough spare capacity in the existing SCFB1 PLC panel and notify project team if additional IO cards need to be added.
 - Coordinate Rack/Slot/Point assignments with Contractor, Owner and Engineer.
- SCFB3PLC0001 – Chemical Feed Building 3 PLC Panel
 - Coordinate Rack/Slot/Point assignments with Contractor, Owner and Engineer.
- STFB3PLC0001 – Filter Building PLC Panel
 - Coordinate Rack/Slot/Point assignments with Contractor, Owner and Engineer.

Vendor Package Coordination Workshop

Jacobs will lead one 1 hour coordination workshop with the Filter Membrane Vendor to coordinate PLC to PLC communication strategies, data map, and control functionality.

Deliverables:

- Meeting minutes from System Programmer Kickoff meeting.
- Preliminary control sequences workshop notes.
- Final control sequences workshop notes.
- Revised control sequences document.
- IO list with Rack Slot Point assignments.
- Vendor package coordination workshop notes

Task 4 - Software Development

The purpose of this task is to complete the programming of the plant control system software, and to demonstrate the software functions to the Owner and Engineer, refer to enclosed Table 2, Subsystem Details, for a description of the systems included in this scope of work.

System Programmer will provide the following services for each of the 3 PLCs listed in Table 2:

PLC and HMI programming

- Based on the results of the final Control Sequences workshop.
- Up to 10 process graphics
- Up to 5 custom control pop-up graphics
- Modify Navigation graphic, Site plan graphic, and control network graphic.

- Modify up to 5 existing process graphics that are affected by the existing equipment modifications on the Project.
- Vendor package system programming for Membrane Filter Vendor package systems
 - PLC and HMI programming for the Vendor package to align with the vendor package coordination workshop.
 - All monitoring information available at Filter Membrane System will be displayed as monitor-only information at plant SCADA.
 - Up to 10 remote setpoint will be available at plant SCADA. Plant will be able to select whether setpoints setting is in SCADA Mode or Local Mode. Local mode means that setpoints are set at the local vendor control panel. Transition between SCADA and Local Mode will be bumpless, meaning that the setpoints will remain the same when switching between the two modes.

Draft HMI Graphics Review

Provide HMI screenshots of up to 5 major process graphics and 2 custom control popups digitally for review of concepts by City staff before labor is invested in development of all graphics required for the project.

System Programmer to lead a 2-hour workshop with within one week of providing the screenshots for review to demonstrate the concepts and collect Owner feedback. Owner staff will provide marked-up copies of the graphics identifying the desired changes within 1 week from completion of the graphics review workshop.

Unwitnessed Software Demonstration

Unwitnessed software demonstration test to confirm that the PLC and HMI programs are ready for the witnessed software demonstration test and that they meet the functional requirements of the project. This test does not include vendor package PLCs, VFDs, or smart overload devices.

Witnessed Software Demonstration

Lead 2 4-hour witnessed software demonstration. Witnessed software demonstrations are a repeat of the unwitnessed software demonstration test but witnessed by Owner and Engineer to verify functionality of PLC and HMI programs meet the project requirements.

Control Strategies Document

Maintain redline electronic copies of Control Strategies throughout the development and implementation phases of the project. Edits to Control Strategies will be submitted to Owner and Engineer for approval. (Note: System Programmer to maintain master copy of Control Strategies).

After the witnessed software demonstration, Control Strategies will be updated with screenshots from Jacobs Lab development environment. This document will be used in preliminary operator classroom training prior to the operational test phase.

System Test Plan Development

Develop system test plans for new systems for local interlocks and remote-control functionality based on Control Strategies developed in the project. System Test Plans to be reviewed by City staff and Engineer for approval prior to Software Implementation.

System Test Plans will be developed within the System Programmer Commissioning Database and will be exported into PDF format.

Filter Membrane Master Control Panel Factory Acceptance Test

System Programmer to attend the Filter Membrane Master Control Panel Factory Acceptance Test to verify proper construction of Filter Membrane Master Control Panel and Remote IO panels and verify PLC to PLC to System Platform communications. Refer to 40 91 00 J for additional information.

Filter Building PLC Factory Acceptance Test

System Programmer to attend the Filter Building PLC Factory Acceptance Test to verify proper construction of the Filter Building PLC by performing the following tests:

- Digital Inputs: Panel builder to simulate closed contact on digital input while system programmer monitors input.
- Digital Outputs: Panel builder to measure at output while system program forces on output in program.
- Analog Inputs: Panel builder to generate 4 ma, 8 ma, 12 ma and 20 ma on each analog input while system programmer monitors input.
- Analog outputs: Panel builder to measure output while system programmer forces output to 0%, 24%, 50%, 75% and 100% of full scale.
- System programmer to inspect panels and ensure all panels are build to drawings.

Chemical Feed Building 3 Factory Acceptance Test

System Programmer to attend the Chemical Feed Building 3 PLC Factory Acceptance Test to verify proper construction of the Chemical Feed Building PLC.

- Digital Inputs: Panel builder to simulate closed contact on digital input while system programmer monitors input.
- Digital Outputs: Panel builder to measure at output while system program forces on output in program.
- Analog Inputs: Panel builder to generate 4 ma, 8 ma, 12 ma and 20 ma on each analog input while system programmer monitors input.
- Analog outputs: Panel builder to measure output while system programmer forces output to 0%, 24%, 50%, 75% and 100% of full scale.
- System programmer to inspect panels and ensure all panels are build to drawings.

Deliverables:

- Up to 10 preliminary process graphics
- Up to 5 preliminary custom control pop-up graphics
- Witnessed Software Demonstration notes
- Updated control strategies document
- System Test Plans (in PDF format)
- Filter Membrane Control Panels Test notes, including punch list items for vendor
- Filter Building PLC Factory Acceptance Test Notes, including punch list items for the panel fabricator.
- Chemical Feed Building 3 Building PLC Factory Acceptance Test Notes, including punch list items for the panel fabricator.

Task 5 - Software Implementation

The purpose of this task is to install the Plant control system software additions, provide required field testing, provide Owner training, and to complete the system startup and tuning.

TopView Alarm List

Develop alarm list for the project to provide to the Owner for selecting and importing alarms into the TopView alarm notification software. Owner staff will coordinate with operations and import into TopView.

Configuration and Commissioning

- System Programmer will provide the following services for each of the subsystems listed in Table 2:
 - HMI software installation and configuration.
 - PLC software installation and configuration
- Ethernet communication configuration for (3) IO network switches.
- Ethernet communication configuration for (8) variable frequency drives (VFDs). All other VFD configuration is by others.
- SCADA network switch communication failure testing: network node failure testing to verify that network alarming is confirmed when a loss of communication occurs.

Testing Preparation

Prior to beginning each test phase, System Programmer will review Contractor test result submittals of each required prerequisite test to confirm systems are ready for System Programmer testing. System Programmer testing to commence no less than 2 weeks following review and approval of the Contractor's prerequisite test result submittals.

Upon completing each test phase, System Programmer will submit test results for Owner and Engineer approval and signature.

Component Test Phase

- Loop Testing as described in Section 40 91 00 3.2.C, in collaboration with Contractor. Test each instrument loop as an integrated system from field instruments and controlled devices to Wonderware. I/O counts based on Section 40 91 00, Supplement A.
 - Local I/O: 146 DI, 55 DO, 34 AI, 17 AO.
 - Network I/O: 287 DI, 260 DO, 94 AI, 15 AO.
 - 1 person, 160 hours total

System Test Phase

- Process Control Strategy/Functional Testing as described in Section 01 75 00 including debugging PLC control logic, exercising control narratives, verifying alarming functions and verifying interlocks.
 - 1 person 160 hours total
- Control System Closed Loop Testing as described in Section 01 75 00 including PID loop tuning.
 - 1 person, 56 hours total

Operational Test Phase

Perform Pre-Commissioning Test (PT) as described in Section 01 75 00 1.2 B.

- Each component of the system operates correctly with all other components of the system.
- Verify analog control loops operate in a stable manner.
- Verify hardwired and software equipment interlocks perform correctly.
- Verify process control sequences perform correctly.
- Verify PLC application programs performs monitoring and control functions correctly.
- Verify operator interface graphics represent the monitoring and control functions correctly.
- 1 person 80 hours total
- Operational Test Phase is considered complete when the software performs the functions as described in the process control narratives modified in Task 3.

Final Tuning

- Final tuning adjustments of all PID loops, timing sequences, and alarm setpoints.
- 1 person 40 hours total

Training

- Classroom training onsite following System Test Phase, prior to Operational Test Phase. 2 people for two 2-hour sessions (up to 8 hours total).

- Live control room training using Plant HMI and functional PLCs, after Operational Test Phase. 2 people for two 2-hour sessions (up to 8 hours total).

Deliverables:

- TopView Alarm List
- Software test documentation forms for signature by an Owner representative authorized to witness and approve successful test completion.
 - Component test results
 - System test results
 - Operational test results
- Final System Platform Galaxy Back Up
- Final PLC programs
- Final Updated Control Narrative with screenshots

ASSUMPTIONS:

- Because of System Programmer's experience and understanding of Owner's plant control system and programming standards, Section 40 95 20, PLC-Based Control Systems Software is replaced in entirety by this scope of work.
- Any software licenses required for this project are supplied by others and are not included in this scope of work.
- System Programmer to have remote access to PLC programming software and System Platform programming software during Task 5 to allow for remote assistance for small troubleshooting tasks.
- Control functionality is based on the conformed specifications.
 - Any functionality changes proposed during workshops will be reviewed and approved by the Engineer and Owner for functionality, schedule and budget impacts before proceeding with detailed PLC and HMI programming.
 - Any functionality changes proposed during Software Development, FAT, or Implementation will be reviewed and approved by the Engineer and Owner for functionality, schedule and budget impacts before implementing the change.
 - Any functionality changes that require modification to field equipment or the construction of field equipment shall be processed with the Contractor through the Contract Modification Procedures by the Engineer or Owner as required prior to implementing the functionality change, unless directed otherwise by the Engineer and Owner.
- PLC and HMI software planning and development for this project will be done remotely from the site, primarily in the Jacobs Boise office. Software implementation will take place at the site.

- PLC I/O to be programmed and tested is based on Section 40 95 10, Supplement A. Engineer, Contractor, or Owner changes to the I/O list shall be issued as an RFC. System Programmer shall have no less than 30 working days prior to loop testing to implement each change or as agreed to in the RFC response.
- System Programmer to use the Owner standard Allen Bradley ControlLogix version 32 and Wonderware ArchestrA system platform version 2023, R2.
- PLC programming effort is based on using the Owner's existing add-on instructions (AOIs) similar to those used on the Lift Station SCADA Upgrade project. Most up to date versions of AOIs to be provided by owner by System programmer kick off meeting.
 - Analog_Input_Scaling_V1
 - CoM_Interlock_v1
 - CoM_Sequencer_Start_Immediate_V2
 - Discrete_Alarm
 - E300_V2
 - LeadLag
 - LeadStandby
 - Motor_Fixed_Speed_v2
 - Motor_VariableSpeed_v2
 - PIDE_Control_v1
 - Totalizer1
- While programming in existing PLCs, system programmer will use the newest AOI version for all new objects. System programmer will not update out-of-date AOIs to newest AOIs.
- HMI programming effort is based on using the Owner's existing System Platform object templates similar to those used on the Lift Station SCADA Upgrade project.
- Historian configuration is not required as all historized objects will use owner standard templates that have the historian configuration already configured.
- PLC and HMI tagging format will be based on tags listed in Section 40 91 00, Supplement A.
- Programming for monitoring of vendor package systems will be similar to the methods and functions used on the Sidestream project.
- Owner will use tags in Section 40 91 00 for entering and assigning tags within the Plant Maintenance Management System (Hansen). Owner modification of tags to be completed prior to the software development phase of the project.
- TopView modifications will add up to 600 new alarms based on new PLC programs, importing of alarms into the live TopView system will be handled by Owner.

- Onsite software testing will not begin until preliminary equipment testing has been successfully completed by the Contractor and authorization to proceed is issued to System Programmer. Preliminary testing means that all wiring is complete and tested, field instrumentation is calibrated and operational, phase rotation has been confirmed on all 3-phase powered rotating machinery, all required manufacturer's startup service is complete (including receipt of Manufacturer's Certificate of Proper Installation, where required by specification), and local manual control of all equipment has been confirmed.
- Network switches for the main SCADA ring are configured by IT.
- Factory Acceptance Test for the Filter Membrane Control panels will not happen locally and therefore travel expenses are included. It is assumed that the FAT will happen in the contiguous US and only one FAT (up to one week) is required to cover all control panels.
- Factory Acceptance Test for the new STFB3 and SCFB3 PLCs will not happen locally and therefore travel expenses are included. It is assumed that the FAT will happen in the contiguous US and only one FAT (up to one week) is required to cover all control panels.
- Test results signed by Owner and Engineer are confirmation that testing has been completed successfully. Repeat of tests following sign off or additional testing beyond what is described in this scope are not included and will be resolved using contract modification procedures described in Task 1.
- Test delays or interruptions due to Contractor, Engineer, Owners or vendors work are not included and will be resolved using contract modification procedures described in Task 1.
- Failed tests resulting from Engineer errors, Contractor errors, equipment problems or issues outside the control of the System Programmer will be submitted by the System Programmer to the Owner for resolution by the associated parties. Impacts to programming will be resolved using contract modification procedures described in Task 1.
- System Programmer is not accountable for errors and omissions in the construction contract documents. Impacts to programming will be resolved using contract modification procedures described in Task 1.
- Contractor staff will be available for coordination and assistance with field equipment during software testing.
- System Programmer will use software test documentation forms for signature by an authorized Owner representative (similar to those used for previous work executed at the WWRf by System Programmer).
- Milestone schedule is based on Owner provided start date of November 1st, 2024 and an 18 month project duration.

- Temporary controls described in Section 01 75 00 are by others and are not included in this scope of work.
- Installation, testing and configuration of HVAC systems, networked telephone systems, distributed antenna system, and fire and alarm systems are by others and not included in this scope of work.
- Contractor RFIs associated with System Programmer tasks will be reviewed by System Programmer prior to Engineer issuing a response to the Contractor.
- Configuration of VFDs is by others.

TABLE 2: Subsystem Details

PLC	Hardwired I/O				Network I/O			
	DI	DO	AI	AO	DIE	DOE	AIE	AOE
SCFB1PLC0001	54	14	18	12	0	0	0	0
STFB3PLC0001	64	31	10	1	287	260	94	15
SCFB3PLC0001	28	10	6	4	0	0	0	0

TABLE 3: Device List

Device	Description	Type
SCFB3NSW0001	Chem Feed Bldg 3 Local IO NSW	Network Switch
STFB3NSW0001	Filter Building Local IO NSW	Network Switch
STFB3NSW0002	Filter Building MCC NSW	Network Switch
STFB3VFD0209	Equalization Pump 1	VFD
STFB3VFD0210	Equalization Pump 2	VFD
STFB3VFD0201	MF Feed Pump 1	VFD
STFB3VFD0202	MF Feed Pump 2	VFD
STFB3VFD0203	MF Feed Pump 3	VFD
STFB3VFD0204	MF Feed Pump 4	VFD
STFB3VFD0111	Tertiary Drain Pump 1	VFD
STFB3VFD0112	Tertiary Drain Pump 2	VFD
STFB3PLC0002	Filter PLC Panel	Vendor PLC Panel
STFB3MDP0001	Filter Building Power Meter	Power Meter
STFB3UPS0001	Filter Building UPS	UPS
SCFB3UPS0001	Chem Feed Bldg 3 UPS	UPS

Milestone Schedule

Project Management (Task 1)

Notice to Proceed:	November 1, 2024
System Programmer's Kickoff Meeting	December 15, 2024

Software Planning (Task 2)

Control Sequence Workshops	February 2025
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DEVELOPMENT (Task 3)

Software Development	March 2025 - January 2026
Unwitnessed Software Demonstration Test	October 2025
Witnessed Software Demonstration Test	November 2025

IMPLEMENTATION (Task 4)

Component Test Phase	January 2026
Operational Test Phase	March 2026
Training	April 2026
Final Completion	May 1, 2026

TIME OF COMPLETION AND COMPENSATION SCHEDULE

COMPENSATION AND COMPLETION SCHEDULE			
Task	Description	Estimated Due Date	Compensation
1	Project Management	▪ 11/1/24 - 5/1/26	\$40,413.00
2	Construction Support Services	▪ 11/1/24 - 5/1/26	\$26,417.00
3	Software Planning (Phase 1)	▪ 11/1/24 - 3/1/25	\$42,811.00
4	Software Development (Phase 2)	▪ 3/1/25 - 1/1/26	\$226,859.00
5	Software Implementation (Phase 3)	▪ 1/1/26 - 5/1/26	\$90,805.00
TASK ORDER TOTAL:			\$427,305.00

The Not-To-Exceed amount to complete all services listed above for this Task Order each fiscal year is Four Hundred Twenty-Seven Thousand, Three Hundred Five Dollars and 00/100 (\$427,305.00). No compensation will be paid over the Not-to-Exceed amount without prior written approval by the City in the form of a Change Order. Travel will be reimbursed at cost per the Master Agreement. No other expenses will be reimbursed through this agreement. All costs must be incorporated in the individual tasks within the Compensation and Completion Schedule above.

CITY OF MERIDIAN:

JACOBS ENGINEERING GROUP, INC.:

BY: _____

KEITH WATTS, Procurement Manager

BY:  _____

JEFF HODSON, Manager of Projects

Dated: _____

Dated: 12/16/2024

City Project Manager:

Brent Blake