

October 9, 2026

Nancy Hausrath
Utilities Director
City of Hagerstown
1 Clean Water Circle
Hagerstown, MD 21740

**Subject: City of Hagerstown Wastewater Treatment Plant Improvements Phase 1 –
Construction Phase Services**

Dear Ms. Hausrath:

Black & Veatch is pleased to submit the enclosed scope of work and budget for construction phase services for the City of Hagerstown Wastewater Treatment Plant Improvements Phase 1 project. The proposed services will provide project and engineering management, construction administration, submittal and request-for-information reviews, payment application review, record drawings, full-time resident project representation, special inspections, change management, and technical support for construction issues.

The scope also includes construction phase support for the demolition contract, design and implementation support for the planned fiber-loop change order, an updated Plant O&M Manual, and startup and commissioning assistance. These services are intended to support the City throughout construction, facilitate coordination among the City, Contractor, and project team, and help confirm that the completed work is consistent with the contract documents and intended facility performance.

Black & Veatch proposes to provide the services on a time-and-materials basis for a not-to-exceed amount of \$2,841,509, in accordance with the enclosed scope, assumptions, and fee information. We appreciate the opportunity to continue supporting the City on this important project and look forward to working with you during construction.

Very truly yours,

Black & Veatch Corporation



Betsy Baldwin, P.E.
Project Manager

Enclosures:
Exhibit A: Scope of Work
Exhibit B: 2026 Billing Rates
Exhibit C: Fee Sheet

AGREEMENT FOR ENGINEERING SERVICES

EXHIBIT A

CONTRACT AMENDMENT NO. 3 - HAGERSTOWN WWTP IMPROVEMENTS DETAILED DESIGN CONSTRUCTION PHASE SERVICES

Background and Purpose

The City of Hagerstown (OWNER) has asked Black & Veatch (ENGINEER) to design various improvements to the Hagerstown Wastewater Treatment Plant (WWTP).

The goal of this project is to rehab, replace, and modify the various processes listed herein to improve reliability, functionality, flexibility, and safety of WWTP processes and operations. The Hagerstown WWTP has a rated capacity of eight (8) MGD and a peak day capacity of thirty (30) MGD. The project will include improvements to several areas/processes of the WWTP to provide treatment of the rated and peak capacity flows.

The purpose of this amendment is for the ENGINEER to provide engineering services during the construction of the WWTP Improvement Phase 1. The project includes the following work:

- Headworks Facility Upgrades, including two (2) new center-flow screens, a small heated building around the screening channels, and replacement of the gates.
- Replacement of two (2) plant drain plug valves downstream of the Headworks
- Two (2) In-Plant Pumps and Gate Replacement in the diversion chamber
- Process Optimization for Nutrient Removal Improvements
 - Nitrate based Internal Mixed Liquor Recirculation (IMLR) control
 - Enhance phosphorus removal reliability through new chemical feed facility and abandon in place the existing Ferric Chloride Storage Tank
- Replacement of three (3) RAS Pumps and addition of one (1) WAS Pump in the Operations Building Basement
- Modification of Primary Sludge Pump discharge piping in the Operations Building Basement
- Replacement of Operations Building Sanitary Sewer Grinder Pumps
- Site Improvements: BNR Concrete Stair Repair and Concrete repair around Headworks
- Electrical Upgrades
- Improvements to the HVAC in the Operations Building
- Rehabilitation of shower and locker room area of the Pelletizer Facility

This amendment also provides engineering services during construction for the WWTP Demolition Project that is planned to occur before the WWTP Improvement Phase 1 project described above.

A. Scope of Services

As part of the Construction Phase services, the Engineer shall provide construction and operational support services to the OWNER with the proposed improvements as outlined in the previous section at the Hagerstown Wastewater Treatment Plant over the course of construction, including pre-construction activities. These are outlined in more detail in the following tasks denoted below.

TASK 1 – PROJECT MANAGEMENT AND ADMINISTRATION

Task 1.01 – Project Management

Perform administrative tasks associated with project management, staffing, invoices, progress reports, and other project management tasks for the project duration.

Task 1.02 – Engineering Management

Perform discipline-management oversight for submittal reviews, RFI reviews, twenty (20) hybrid monthly meetings, eight (8) conference calls or other project-related meetings, project coordination, technical guidance, and other miscellaneous items supporting construction-phase services. This task also includes preparation and distribution of meeting agendas and minutes. This task includes meetings with the OWNER separate from meetings with the Contractor under Task 4.

Task 1.03 – Project Administration

Administration including monthly reporting, invoicing, and schedule management.

Invoices will be completed monthly and will include labor and expenses by month. Black & Veatch shall submit a Monthly Progress Report to the OWNER with each monthly invoice. An electronic copy (PDF) of the invoice and progress report will be submitted.

Task 1.04 - Payment Application Review

Review Contractor payment applications and provide recommendations to the OWNER regarding the acceptability of payments based on observed progress of the Work. Review of twenty-three (23) payment applications has been assumed.

This task includes forty-six (46) hours at two (2) hours on average per review of an anticipated twenty-three (23) Contractor payment applications.

Task 1.05 – Administrative Requirements for the MDE Construction Permit, Environmental Reviews or Loan Closing

Preparation of construction permit requirements, completion of certifications, letters, checklists, or other documents required by MDE for the OWNER to complete loan closing. Services for this task may take place prior to Construction NTP being issued by the OWNER. This task includes a budget of fifty (50) hours.

TASK 2 – SUBMITTAL REVIEWS

Task 2.01 – Submittal Reviews

Receive, log, and review Contractor administrative submittals, certifications, product samples, O&M manuals, and other data, including construction schedules and schedule updates, submitted by the Contractor for review and approval, as requested by the OWNER, for the Phase 1 Improvements project. This amendment assumes four hundred seventy-one (471) total submittal reviews. It is anticipated that ENGINEER will take the lead on this effort with input provided by the OWNER on critical items. Submittals are anticipated to be reviewed and returned within fourteen (14) calendar days from the date of receipt by ENGINEER, except where extenuating circumstances warrant a longer review period such as for major electrical equipment submittals and others. Major electrical submittals may take up to twelve (12) hours for review. All documentation for this item will be through Procore.

Task 2.01 includes two thousand three hundred eighty-two (2,382) total hours at five (5) hours on average per shop drawing review. In addition to the general civil/mechanical review, this also includes reviews from various disciplines including Architectural, Structural, Electrical, Building Mechanical, Instrumentation & Controls and Wastewater Process.

Task 2.02 – RFI Reviews and Responses

Receive, log, and develop responses to the Contractor's Requests for Information (RFIs). Review of two hundred ten (210) RFIs has been assumed. All documentation for this item will be through Procore.

This task assumes nine hundred forty-five (945) total hours at four and one-half (4.5) hours on average per RFI response. Similar to shop drawings and O&M reviews, this includes technical review and input from various disciplines and drawing support.

TASK 3 – RECORD DRAWINGS

Task 3.01 – Record Drawings

Prepare electronic record drawings to document changes occurring during the course of

construction, based on Contractor and OWNER red lines as-builts. These drawings will reflect the actual construction performed and will provide a basis for future modifications. Drawing set includes two hundred seventeen (217) sheets. Task includes five hundred ninety-seven (597) total hours at an estimated two and three-quarters (2.75) hours per drawing sheet to complete record drawings. The Record Drawings will also reflect the changes made during the Demolition Contract. A PDF copy and AutoCAD or Revit models of the record drawings will be provided.

TASK 4 – RESIDENT PROJECT REPRESENTATIVE

Task 4.01 – Resident Project Representative

ENGINEER will provide a full-time resident project representative (RPR) to observe the progress of the Work and determine, in general, if the Work is proceeding in accordance with the Phase 1 Improvements Contract Documents. Prepare daily written observation reports. Additionally, this representative will act as a liaison between ENGINEER, CONTRACTOR, and OWNER for tracking progress in the field, any issues occurring, potential changes and change management, and providing overall updates on the construction project. A senior Construction Manager has been planned for coverage of the full-time RPR leave or other absences or instances where inspection is needed beyond normal working hours.

It is anticipated that there will be one (1) RPR on-site, with others providing supplemental coverage during periods of increased construction activity, to help ensure quality control and project documentation. The assumptions for RPR meeting attendance have been noted below.

1. Participate in monthly progress meetings with the OWNER and Contractor. This task assumes twenty (20) monthly meetings.
2. Participate in weekly construction coordination meetings with the City and Contractor. This task assumes one hundred ten (110) weekly meetings.
3. Review Contractor work plans and construction schedule. This task assumes twenty (20) monthly schedule reviews.
4. Review and evaluation of Contractor deviations and change requests. The assumed deviations or changes are described in Task 8.
5. Assist with project closeout, including substantial and final completion inspections, punchlist development and verification, and review of Contractor closeout documentation for general conformance with the Contract Documents.

ENGINEER will provide additional site visits by the design team to monitor the Work, discuss changes, and attend progress meetings. This includes an estimated five (5) visits by the Engineering Manager, as well as visits by the civil/process mechanical engineering team.

A total of four thousand eight hundred ninety-one (4,891) hours are anticipated for site visits.

TASK 5 – DIRECT EXPENSES

Task 5.01 – Expenses

This task provides a budget for travel expenses incurred by the ENGINEER, including the RPR, to visit the site. The following types of visits are anticipated:

- a. Engineering Manager
- b. Local Civil Process Mechanical
- c. Discipline staff
- d. Wastewater Process Engineers for Startup
- e. RPR

TASK 6 – SPECIAL INSPECTIONS

Task 6.01 – Special Inspections

Third party special inspections are planned to be subcontracted for the testing and construction observation services related to site work, compacted fill and backfill, pavement construction, foundations, cast-in-place concrete, masonry, and structural steel. A total budget of thirty-five thousand dollars (\$35,000) is estimated for this task for the Phase 1 Improvements Project.

TASK 7 – DEMOLITION CONTRACT CONSTRUCTION PHASE SERVICES

Under a separate construction contract between the OWNER and a demolition contractor, prior to commencement of the Phase 1 Improvements Contract described in Task 2 – 6, a two (2)~~1~~ month construction period is anticipated for demolition of key areas of the plant to prepare the facility for construction. The ENGINEER will provide the following services during this demolition contract period.

Task 7.01 – Pre-Construction

ENGINEER will attend the pre-construction meeting in person with up to three (3) engineers and prepare the agenda and meeting minutes. The meeting duration is anticipated to be one and one-half (1.5) hours.

Task 7.02 – Inspection and Site Visits

ENGINEER will provide an estimated one hundred eighty (180) hours to observe the progress of the Work and determine, in general, if the Work is proceeding in accordance with the Contract Documents. The engineers will prepare soft copy written observation reports. Additionally, this representative will act as a liaison between ENGINEER, CONTRACTOR, and OWNER for tracking progress in the field, any issues occurring, potential changes and change management, and

providing overall updates on the demolition project.

Task 7.03 – Submittals

Receive, log and review Contractor administrative submittals, certifications, waste management plans and other data, including construction schedules, applications for payment, and schedule updates, submitted for review and approval by the Contractor as requested by the Owner. This task assumes forty-two (42) total submittal reviews. It is anticipated that ENGINEER will take the lead on this effort with input provided by the OWNER on critical items. Submittals are anticipated to be reviewed and returned within fourteen (14) calendar days from the date of receipt by ENGINEER, except where extenuating circumstances warrant a longer review period such as for major electrical equipment submittals and others. All documentation for this item will be through Procore.

Task 2.01 includes one hundred sixty-eight (168) total hours at four (4) hours on average per shop drawing review. In addition to the general civil/mechanical review, this also includes reviews from various disciplines including Architectural, Structural, Electrical, Building Mechanical, and Instrumentation & Controls.

Task 7.04 – Contractor Issues

The ENGINEER shall provide services related to the identification, evaluation, and resolution of construction issues that arise during execution of the Work. Such services shall include interpreting the Contract Documents, evaluating field conditions that differ from those anticipated during design, and providing technical recommendations to facilitate construction progress while maintaining compliance with project requirements.

The Engineer shall investigate design, operational, process, structural, civil, mechanical, electrical, instrumentation, and control system issues identified during construction and shall coordinate with the OWNER, Contractor, and other stakeholders as necessary to develop and implement appropriate resolutions. Services may include field observations, review of contractor-proposed modifications, evaluation of substitutions, constructability assessments, and preparation of sketches, supplemental drawings, technical memoranda, or other documentation required to communicate corrective actions.

The Engineer shall assess the impact of construction issues on project scope, schedule, budget, plant operations, safety, regulatory compliance, and long-term reliability of the wastewater treatment facility.

A budget of ninety-two (92) hours has been anticipated.

Task 7.05 – RFI Review and Response

Receive, log and develop response for Contractor's Request for Information (RFI). Review of ten (10) RFI's has been assumed. All documentation for this item will be through Procore.

This task assumes forty-five (45) total hours at four and one-half (4.5) hours on average per RFI response. Similar to shop drawings and O&M reviews, this includes technical review and input from various disciplines and drawing support to clarifying any drawing items.

TASK 8 – CHANGE MANAGEMENT

Engineer will review Change Proposals and Change Orders to the OWNER, as appropriate, and prepare draft Work Change Directives and Field Orders as requested by OWNER. Engineer will provide draft responses for each change order to the OWNER. Engineer's estimated level of effort is based on twenty-six (26) Field Orders, ten (10) Work Change Directives, twenty (20) Requests for Proposals, and ten (10) Change Orders. A budget of four (4.5) hours is anticipated for each Field Order, Work Change Directive and Change Orders. A budget of five (5) hours is anticipated for review of each Requests for Proposals. The ENGINEER will provide cost estimates to review change proposals for scope and cost. A total of eighty (80) hours of cost estimating is anticipated for change management.

The estimated change management support described shall support either the Phase 1 Improvements Contract or the Demolition Contract.

Changes shall be limited to those directly related to the Contract Work.

See the additional planned Change Order 1 described in Task 9.

Task 8.01 – Construction Issues

At OWNER's request, Engineer will assist with: (a) evaluating disputes between the Contractor and OWNER during the Phase 1 Improvements project; (b) providing advice and recommendations regarding the resolution of those disputes; and (c) consulting with and advising OWNER on all claims between or among OWNER and Contractor arising from or in connection with the Work.

A budget of one hundred and thirty-two (132) hours has been anticipated.

Task 8.02 – Additional Design Services During Construction

An allowance of \$150,006 for additional design services during construction has been budgeted for use upon OWNER approval for changes to the design. Design services may include, but not limited to: additional effort for use on change management related to this project, unanticipated plant equipment or process failures, plant damages due to high flow events or severe weather, or coordination with the scope of other projects impacting the plant process, site or utilities.

TASK 9 – CHANGE ORDER #1

At OWNER request, a new fiber loop around the plant in a ductbank will be designed and issued as an early Change Order during construction. The loop will parallel the routing of the new twelve (12) inch water main loop through the plant. The fiber loop will connect existing communications between the plant PLCs and equipment, including anticipated future addition of security cameras along and within the plant fence. Up to 8 site plan and Instrumentation drawings may be revised to reflect this change. A virtual one hour review meeting will be held with plant staff to confirm connections and routing. This change order is not included in the effort described in Task 8, bringing the total anticipated number of change orders to eleven (11).

A budget of 104 hours is anticipated.

TASK 10 – UPDATED PLANT O&M MANUAL

The Engineer shall review the prior Maryland Department of the Environment (MDE) draft O&M Manual Checklist and initial submittal from November 2026 and evaluate the impacts of the completed plant improvement Phase 1 project on existing operating, maintenance, safety, and process documentation. The ENGINEER shall collect and review available record drawings, equipment submittals, manufacturer documentation, and existing O&M materials, including scanning and digitizing hard-copy O&M manuals that are not currently available in electronic format. Based on this review, the ENGINEER shall update the Plant O&M Manual to reflect current facility conditions, equipment, operating procedures, maintenance requirements, process control strategies, and safety practices.

To improve long-term accessibility and document management, the ENGINEER shall develop a SharePoint site to serve as a centralized repository for the Plant O&M Manual and supporting reference documents. The SharePoint site shall be organized to facilitate document storage, retrieval, and future updates by Utility staff. Upon completion, the ENGINEER shall provide training to Utility personnel on the content, organization, and use of the updated O&M Manual, as well as separate training on administration, maintenance, and future updating of the SharePoint site and associated document library.

A draft Plant O&M will be submitted to the OWNER for review and a 2 hour review workshop with up to three (3) engineers in person and one (1) virtual will be held to receive comments. The OWNER will provide a single set of comments prior to the ENGINEER finalizing the plant O&M update.

A budget of four hundred and fifty-five (455) hours is anticipated.

TASK 11 – STARTUP AND COMMISSIONING

The Engineer shall provide startup and commissioning support services following substantial completion of construction to assist the Owner in achieving successful operation of the new and modified wastewater treatment facilities. Services shall include coordination with the OWNER, Contractor, equipment suppliers, and operations staff to plan, execute, document, and evaluate startup and commissioning activities necessary to demonstrate compliance with the Contract Documents and intended design performance.

The Engineer shall review and monitor commissioning activities, including equipment inspections, functional or demonstration testing, process verification, control system validation, and integrated system startup. The Engineer shall observe testing procedures, review test results, and provide technical recommendations regarding corrective actions required to address deficiencies identified during startup and commissioning.

A budget of one hundred and eighty nine (189) hours is anticipated.

B. Compensation

The Engineer agrees that the total payment of all City-approved tasks described under this Scope of Services shall not exceed two million eight hundred forty one five hundred and nine dollars (\$2,841,509). See 2026 Billing Rates in Exhibit B and Change Order Fee Sheet in Exhibit C.

This is a time and materials amendment based on the rates provided in Agreement Exhibit B. Level of effort for this project is included in Agreement Exhibit C. Materials necessary to complete a request will be reimbursed at cost with a valid receipt.

C. Schedule

Construction NTP is anticipated in December 2026 that the project will be completed by November 2028.

Assumptions

1. Work under this Amendment will be at the direction of Owner. Scope and budget are estimated based on our current understanding and anticipation of the requirements. Scope and budget will be adjusted in coordination with the Owner's Project Manager as work progresses.
2. The review of wage rates is not anticipated.
3. Supplemental Services (Not Included in Scope of Work and Shall Require Amendment)

Any work requested by Owner that is not included in one of the items listed in any other

phase will be classified as supplemental services. Supplemental services shall include, but are not limited to:

1. Meetings not mentioned in the above scope with local, State, or Federal agencies to discuss the project.
2. Supplemental engineering work required to meet the requirements of regulatory or funding agencies that become effective subsequent to the date of this agreement.
3. Changes in the general scope, extent, or character of the project, including, but not limited to:
 - a. Changes in size or complexity.
 - b. Changes in project scope
 - c. Method of financing.
 - d. Owner's schedule, design, or character of construction.
 - e. Revision of previously accepted studies, reports, design documents, or construction contract documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes, or orders enacted subsequent to the preparation of such studies, reports, documents, or designs; or are required by any other causes beyond Engineer's control.
4. Rights-of-way, easements, or property acquisition services of any kind.
5. Surveying, geotechnical, material testing, or environmental services.
6. Value engineering reviews or services.
7. Assistance in correction of warranty items during the correction period.
8. Revisions of design, drawings, and specifications to incorporate changes arising from value-engineering-type reviews.
9. Additional Construction Phase Services beyond the services scheduled and budgeted herein.
10. Hazardous materials testing and subsequent provisions for hazardous material handling and disposal.
11. Special consultants or independent professional associates requested or authorized by Owner.
12. Preparation for litigation, arbitration, or other legal or administrative proceedings; and appearances in court or at arbitration sessions, in connection with bid protests, change orders or construction incidents.
13. Appearances at public meetings, public hearings, or before special boards.
14. Assistance in financial transactions for the project, except services noted above.
15. Evaluation of unusually complex or unreasonably numerous claims submitted by Contractor or others in connection with the Work.

16. Additional or extended services during construction made necessary by (1) work damaged by fire or other cause during construction, (2) a significant amount of defective or neglected work by any Contractors, (3) acceleration of the progress schedule involving services beyond normal working hours, (4) default by any Contractor, and (5) failure of the Contractor to complete the Work within the construction Contract Time.
4. Notwithstanding anything to the contrary contained herein, CONSULTANT shall have no liability for advice or assistance gratuitously provided by CONSULTANT or any of its officers, employees, agents or subcontractors but not required pursuant to the contract or as part of the scope of work.
5. ENGINEER will procure PROCOR software for construction administration and provide access to OWNER and CONTRACTOR.
6. Delays in NTP may impact the ability to complete the project by November 2028 and require additional services to complete the construction phase services.

This Request for Services and the above-referenced Agreement constitute the complete understanding of the Parties for the Services specified herein.

IN WITNESS WHEREOF, the Parties have executed this Request for Services, intending to be legally bound.

CITY OF HAGERSTOWN, MD

BLACK & VEATCH CORPORATION

By: _____

By: _____

Printed Name: Nancy Hausrath

Printed Name: Kent A. Lackey, PE

Title: Director of Utilities

Title: Senior Vice President

Date: _____ Date: _____

Exhibit B – 2026 Billing Rates

Exhibit C – Fee Sheet

		Staffing Summary									
	Client Position	SENIOR ENGINEER/PROJECT MANAGER	ENGINEERING MANAGER	PROJECT ASSISTANT	JR PROJECT CONTROLS	JR PROJECT CONTROLS	ENGINEER III	Sr Construction Inspector (Adv)	ENGINEER II	ENGINEER III	ENGINEER III
	Discipline	PM&S - Project Management	EDS - Design/Engineering Management	PM&S - Project Controls	PM&S - Project Accounting	PM&S - Project Billing	Construction - Field Coordination	Construction - Field Coordination	EDS - Virtual Design & Data Solutions	EDS - Structural	EDS - Architectural
	Sub-Discipline	PM - PM	EM/DM - Gen	PJC - General	Accounting - General	Billing - General	Fld Coord - General	Fld Coord - General	VDDS - Design Coord	Struct - Struct	Arch - Arch
	HOURS\COST TOTALS IN USD \$:	734	1,266	50	50	50	4,184	284	551	316	275
	MIDPOINT BILLING RATE IN USD:	\$ 291.20	\$ 265.20	\$ 156.00	\$ 150.80	\$ 150.80	\$ 202.80	\$ 317.20	\$ 182.00	\$ 202.80	\$ 202.80
	CONTRACT TOTALS IN USD \$:	\$ 213,740.80	\$ 335,743.20	\$ 7,800.00	\$ 7,540.00	\$ 7,540.00	\$ 848,515.20	\$ 90,084.80	\$ 100,282.00	\$ 64,084.80	\$ 55,770.00
Task	Description										
Task 1	Task 1 - Project Management & Admin (Ph. 100)										
1/.01	Project Management	396									
1/.02	Engineering Management		308								
1/.03	Project Billing					50					
1/.04	Project Controls			50							
1/.05	Project Accounting				50						
1/.07	Payment Application Review	25	25								
1/.08	MDE Admin or Loan Closing Document Preparat	17									
	Task 1 Subtotals	438	333	50	50	50					
Task 2	Task 2 - Submittal (Ph. 200)										
2/.02	Structural									220	
2/.03	Architecture										201
2/.04	Electrical/I&C										
2/.05	Building Mechanical										
2/.06	Civil	88	66								
	Task 2 Subtotals	88	66							220	201
Task 3	Task 3 - Record Drawings (Ph. 300)										
3/.01	Project Management	9									
3/.02	Engineering Management		26								
3/.03	Field										
3/.04	CAD								495		
	Task 3 Subtotals	9	26						495		
Task 4	Task 4 - Resident Project Rep. (Ph. 400)										
4/.01	RPR Full-Time						4,070				
4/.02	RPR Part-Time							275			
4/.10	Engineer Site Visits		132								
	Task 4 Subtotals		132				4,070	275			
Task 5	Task 5 - Direct Expenses (Ph. 500)										
5/.01	Wilkinson Site Visits										
5/.02	Local Staff Mileage										
5/.03	Discipline staff visit										
5/.04	Startup										
5/.10	Inspector Mileage										
	Task 5 Subtotals										
Task 6	Task 6 - Special Inspection Sub (Ph. 600)										
6/.01	Triad - Ph. 1										
	Task 6 Subtotals										

	Staffing Summary										
	Client Position	SENIOR ENGINEER/PROJECT MANAGER	ENGINEERING MANAGER	PROJECT ASSISTANT	JR PROJECT CONTROLS	JR PROJECT CONTROLS	ENGINEER III	Sr Construction Inspector (Adv)	ENGINEER II	ENGINEER III	ENGINEER III
	Discipline	PM&S - Project Management	EDS - Design/Engineering Management	PM&S - Project Controls	PM&S - Project Accounting	PM&S - Project Billing	Construction - Field Coordination	Construction - Field Coordination	EDS - Virtual Design & Data Solutions	EDS - Structural	EDS - Architectural
	Sub-Discipline	PM - PM	EM/DM - Gen	PJC - General	Accounting - General	Billing - General	Fld Coord - General	Fld Coord - General	VDDS - Design Coord	Struct - Struct	Arch - Arch
	HOURS\COST TOTALS IN USD \$:	734	1,266	50	50	50	4,184	284	551	316	275
	MIDPOINT BILLING RATE IN USD:	\$ 291.20	\$ 265.20	\$ 156.00	\$ 150.80	\$ 150.80	\$ 202.80	\$ 317.20	\$ 182.00	\$ 202.80	\$ 202.80
	CONTRACT TOTALS IN USD \$:	\$ 213,740.80	\$ 335,743.20	\$ 7,800.00	\$ 7,540.00	\$ 7,540.00	\$ 848,515.20	\$ 90,084.80	\$ 100,282.00	\$ 64,084.80	\$ 55,770.00
Task	Description										
Task 7	Task 7 - Demo RFP CPS (Ph. 800)										
7/.02	Pre-Con	9					4				
7/.03	Inspection and Site Visits	18					110	9			
7/.04	Submittals	22	18							4	4
7/.05	Contractor Issues	22	18							4	4
7/.06	RFIs		17								
	Task 7 Subtotals	71	53				114	9		8	8
Task 8	Task 8 - Change Management (Ph. 700)										
8/.01	Field Orders	22	44								
8/.02	Work Change Directives		31								
8/.03	Review of Change Proposals		66								
8/.04	Estimating for Changes										
8/.05	Change Orders		40								
8/.07	Construction Issues	22	88								
8/.08	Design Services During Construction	33	110						33	44	22
	Task 8 Subtotals	77	379						33	44	22
Task 9	Task 9 - Change Order #1 (Ph. 900)										
9/.01	Develop Fiber Loop Adjacent to 12" Water Line	7	23						23		
	Task 9 Subtotals	7	23						23		
Task 10	Task 10 - Updated Plant O&M (Ph. 1000)										
10/.02	Review prior MDE draft		4								
10/.03	Update Plant O&M manual	4	9								
10/.04	Collect and Scan O&Ms not in soft copy										
10/.05	Create Sharepoint site										
10/.06	Provide Training on content		4								
10/.07	Provide Training on maintenance of the site										
	Task 10 Subtotals	4	17								
Task 11	Task 2.02 - RFIs (Phase 202)										
11/.01	RFIs (Task 2.02 in SOW)	22	176							44	44
	Task 11 Subtotals	22	176							44	44
Task 12	Task 11 - Startup (Phase 1100)										
12/.02	Startup	18	44								
12/.03	RDT Support		17								

	Staffing Summary										
	Client Position	ENGINEER III	ENGINEER III	ENGINEER II	ENGINEERING MANAGER	SENIOR ENGINEER	PROCESS/TECHN ICAL SPECIALIST	CLIENT DIRECTOR	SENIOR ESTIMATOR/ADVI SOR	ENGINEER II	JR PROJECT CONTROLS
	Discipline	EDS - Electrical	EDS - Mechanical	EDS - Civil	EDS - Civil	EDS - Civil	PM&S - Project Management	PM&S - Project Management	PM&S - Estimating	EDS - Civil	PM&S - Project Admin Support
	Sub-Discipline	Elec - Low/Medium Voltage	Mech - Buildings - FP	Civil - Site Development	Civil - Treatment Facilities	Civil - Treatment Facilities	Technical Specialist	PM - PD/CD	Estim - General	Civil - Treatment Facilities	Admin - Gen
	HOURS\COST TOTALS IN USD \$:	329	305	1,227	1,072	143	108	22	80	690	33
	MIDPOINT BILLING RATE IN USD:	\$ 202.80	\$ 202.80	\$ 182.00	\$ 265.20	\$ 291.20	\$ 369.20	\$ 338.00	\$ 317.20	\$ 182.00	\$ 150.80
	CONTRACT TOTALS IN USD \$:	\$ 66,721.20	\$ 61,854.00	\$ 223,223.00	\$ 284,294.40	\$ 41,641.60	\$ 39,873.60	\$ 7,436.00	\$ 25,376.00	\$ 125,580.00	\$ 4,976.40
Task	Description										
Task 1	Task 1 - Project Management & Admin (Ph. 10)										
1/.01	Project Management							22			33
1/.02	Engineering Management										
1/.03	Project Billing										
1/.04	Project Controls										
1/.05	Project Accounting										
1/.07	Payment Application Review										
1/.08	MDE Admin or Loan Closing Document Preparat			33							
	Task 1 Subtotals			33				22			33
Task 2	Task 2 - Submittal (Ph. 200)										
2/.02	Structural										
2/.03	Architecture										
2/.04	Electrical/I&C	165									
2/.05	Building Mechanical		220								
2/.06	Civil			407	407	88	35			408	
	Task 2 Subtotals	165	220	407	407	88	35			408	
Task 3	Task 3 - Record Drawings (Ph. 300)										
3/.01	Project Management										
3/.02	Engineering Management										
3/.03	Field			35						32	
3/.04	CAD										
	Task 3 Subtotals			35						32	
Task 4	Task 4 - Resident Project Rep. (Ph. 400)										
4/.01	RPR Full-Time										
4/.02	RPR Part-Time										
4/.10	Engineer Site Visits			198	198		18				
	Task 4 Subtotals			198	198		18				
Task 5	Task 5 - Direct Expenses (Ph. 500)										
5/.01	Wilkinson Site Visits										
5/.02	Local Staff Mileage										
5/.03	Discipline staff visit										
5/.04	Startup										
5/.10	Inspector Mileage										
	Task 5 Subtotals										
Task 6	Task 6 - Special Inspection Sub (Ph. 600)										
6/.01	Triad - Ph. 1										
	Task 6 Subtotals										

		Staffing Summary									
	Client Position	ENGINEER III	ENGINEER III	ENGINEER II	ENGINEERING MANAGER	SENIOR ENGINEER	PROCESS/TECHN ICAL SPECIALIST	CLIENT DIRECTOR	SENIOR ESTIMATOR/ADVI SOR	ENGINEER II	JR PROJECT CONTROLS
	Discipline	EDS - Electrical	EDS - Mechanical	EDS - Civil	EDS - Civil	EDS - Civil	PM&S - Project Management	PM&S - Project Management	PM&S - Estimating	EDS - Civil	PM&S - Project Admin Support
	Sub-Discipline	Elec - Low/Medium Voltage	Mech - Buildings - FP	Civil - Site Development	Civil - Treatment Facilities	Civil - Treatment Facilities	PM - PM	PM - PD/CD	Estim - General	Civil - Treatment Facilities	Admin - Gen
	HOURS\COST TOTALS IN USD \$:	329	305	1,227	1,072	143	108	22	80	690	33
	MIDPOINT BILLING RATE IN USD:	\$ 202.80	\$ 202.80	\$ 182.00	\$ 265.20	\$ 291.20	\$ 369.20	\$ 338.00	\$ 317.20	\$ 182.00	\$ 150.80
	CONTRACT TOTALS IN USD \$:	\$ 66,721.20	\$ 61,854.00	\$ 223,223.00	\$ 284,294.40	\$ 41,641.60	\$ 39,873.60	\$ 7,436.00	\$ 25,376.00	\$ 125,580.00	\$ 4,976.40
Task	Description										
Task 7	Task 7 - Demo RFP CPS (Ph. 800)										
7/.02	Pre-Con			11							
7/.03	Inspection and Site Visits			62							
7/.04	Submittals	4	4	59						68	
7/.05	Contractor Issues	4	4	22			22				
7/.06	RFIs			17						17	
	Task 7 Subtotals	8	8	171			22			85	
Task 8	Task 8 - Change Management (Ph. 700)										
8/.01	Field Orders			7	42						
8/.02	Work Change Directives										
8/.03	Review of Change Proposals				34						
8/.04	Estimating for Changes								80		
8/.05	Change Orders										
8/.07	Construction Issues				22						
8/.08	Design Services During Construction	66	33	82	138		33				
	Task 8 Subtotals	66	33	89	236		33		80		
Task 9	Task 9 - Change Order #1 (Ph. 900)										
9/.01	Develop Fiber Loop Adjacent to 12" Water Line	7		14						7	
	Task 9 Subtotals	7		14						7	
Task 10	Task 10 - Updated Plant O&M (Ph. 1000)										
10/.02	Review prior MDE draft										
10/.03	Update Plant O&M manual					22					
10/.04	Collect and Scan O&Ms not in soft copy			35							
10/.05	Create Sharepoint site			22	11						
10/.06	Provide Training on content			18							
10/.07	Provide Training on maintenance of the site			18							
	Task 10 Subtotals			93	11	22					
Task 11	Task 2.02 - RFIs (Phase 202)										
11/.01	RFIs (Task 2.02 in SOW)	83	44	187	176	33				136	
	Task 11 Subtotals	83	44	187	176	33				136	
Task 12	Task 11 - Startup (Phase 1100)										
12/.02	Startup				44					22	
12/.03	RDT Support										

									Hours	Labor
	Client Position	SR. TECHNICAL SPECIALIST	ENGINEER III	SENIOR ENGINEER/PROJECT MANAGER	PROJECT ASSISTANT	ENGINEER III	PROCESS/TECHNICAL SPECIALIST	PROCESS/TECHNICAL SPECIALIST		
	Discipline	EDS - Mechanical	EDS - Instrumentation & Controls	EDS - Process Engineering	PM&S - Project Admin Support	EDS - Process Engineering	EDS - Process Engineering	EDS - Process Engineering		
	Sub-Discipline	Mech - Sys - Equip	I&C - Instrumentation, Controls, and Automation (ICA)	Proc Eng - Operations	Admin - Doc Control	Proc Eng - Operations	Proc Eng - Wastewater	Proc Eng - Wastewater		
	HOURS\COST TOTALS IN USD \$:	11	89	165	110	33	55	11	12,243	
	MIDPOINT BILLING RATE IN USD:	\$ 327.60	\$ 202.80	\$ 291.20	\$ 156.00	\$ 202.80	\$ 369.20	\$ 369.20		
	CONTRACT TOTALS IN USD \$:	\$ 3,603.60	\$ 18,049.20	\$ 48,048.00	\$ 17,160.00	\$ 6,692.40	\$ 20,306.00	\$ 4,061.20		\$ 2,729,997.40
Task	Description									
Task 1	Task 1 - Project Management & Admin (Ph. 10)									
1/.01	Project Management								451	\$ 127,728
1/.02	Engineering Management								308	\$ 81,682
1/.03	Project Billing								50	\$ 7,540
1/.04	Project Controls								50	\$ 7,800
1/.05	Project Accounting								50	\$ 7,540
1/.07	Payment Application Review								50	\$ 13,910
1/.08	MDE Admin or Loan Closing Document Preparat								50	\$ 10,956
Task 1 Subtotals									1,009	\$ 257,156
Task 2	Task 2 - Submittal (Ph. 200)									
2/.02	Structural								220	\$ 44,616
2/.03	Architecture								201	\$ 40,763
2/.04	Electrical/I&C		66						231	\$ 46,847
2/.05	Building Mechanical								220	\$ 44,616
2/.06	Civil	11							1,510	\$ 341,546
Task 2 Subtotals									2,382	\$ 518,388
Task 3	Task 3 - Record Drawings (Ph. 300)									
3/.01	Project Management								9	\$ 2,621
3/.02	Engineering Management								26	\$ 6,895
3/.03	Field								67	\$ 12,194
3/.04	CAD								495	\$ 90,090
Task 3 Subtotals									597	\$ 111,800
Task 4	Task 4 - Resident Project Rep. (Ph. 400)									
4/.01	RPR Full-Time								4,070	\$ 825,396
4/.02	RPR Part-Time								275	\$ 87,230
4/.10	Engineer Site Visits								546	\$ 130,198
Task 4 Subtotals									4,891	\$ 1,042,824
Task 5	Task 5 - Direct Expenses (Ph. 500)									
5/.01	Wilkinson Site Visits									
5/.02	Local Staff Mileage									
5/.03	Discipline staff visit									
5/.04	Startup									
5/.10	Inspector Mileage									
Task 5 Subtotals										
Task 6	Task 6 - Special Inspection Sub (Ph. 600)									
6/.01	Triad - Ph. 1									
Task 6 Subtotals										

									Hours	Labor	
	Client Position	SR. TECHNICAL SPECIALIST	ENGINEER III	SENIOR ENGINEER/PROJECT MANAGER	PROJECT ASSISTANT	ENGINEER III	PROCESS/TECHNICAL SPECIALIST	PROCESS/TECHNICAL SPECIALIST			
	Discipline	EDS - Mechanical	EDS - Instrumentation & Controls I&C -	EDS - Process Engineering	PM&S - Project Admin Support	EDS - Process Engineering	EDS - Process Engineering	EDS - Process Engineering			
	Sub-Discipline	Mech - Sys - Equip	Instrumentation, Controls, and Automation (ICA)	Proc Eng - Operations	Admin - Doc Control	Proc Eng - Operations	Proc Eng - Wastewater	Proc Eng - Wastewater			
	HOURS\COST TOTALS IN USD \$:	11	89	165	110	33	55	11	12,243		
	MIDPOINT BILLING RATE IN USD:	\$ 327.60	\$ 202.80	\$ 291.20	\$ 156.00	\$ 202.80	\$ 369.20	\$ 369.20			
	CONTRACT TOTALS IN USD \$:	\$ 3,603.60	\$ 18,049.20	\$ 48,048.00	\$ 17,160.00	\$ 6,692.40	\$ 20,306.00	\$ 4,061.20		\$ 2,729,997.40	
Task	Description										
Task 7	Task 7 - Demo RFP CPS (Ph. 800)										
7/.02	Pre-Con								24	\$ 5,434	
7/.03	Inspection and Site Visits								199	\$ 41,688	
7/.04	Submittals								183	\$ 37,539	
7/.05	Contractor Issues								100	\$ 26,551	
7/.06	RFIs								51	\$ 10,696	
Task 7 Subtotals									557	\$ 121,909	
Task 8	Task 8 - Change Management (Ph. 700)										
8/.01	Field Orders								115	\$ 30,488	
8/.02	Work Change Directives								31	\$ 8,221	
8/.03	Review of Change Proposals								100	\$ 26,520	
8/.04	Estimating for Changes								80	\$ 25,376	
8/.05	Change Orders								40	\$ 10,608	
8/.07	Construction Issues								132	\$ 35,578	
8/.08	Design Services During Construction						22		616	\$ 149,986	
Task 8 Subtotals							22	1,114	\$ 286,777		
Task 9	Task 9 - Change Order #1 (Ph. 900)										
9/.01	Develop Fiber Loop Adjacent to 12" Water Line		23						104	\$ 22,230	
Task 9 Subtotals			23						104	\$ 22,230	
Task 10	Task 10 - Updated Plant O&M (Ph. 1000)										
10/.02	Review prior MDE draft			11					15	\$ 4,264	
10/.03	Update Plant O&M manual			143	22				200	\$ 55,032	
10/.04	Collect and Scan O&Ms not in soft copy								35	\$ 6,370	
10/.05	Create Sharepoint site				33				66	\$ 12,069	
10/.06	Provide Training on content			11	11	33			77	\$ 15,948	
10/.07	Provide Training on maintenance of the site				44				62	\$ 10,140	
Task 10 Subtotals				165	110	33			455	\$ 103,823	
Task 11	Task 2.02 - RFIs (Phase 202)										
11/.01	RFIs (Task 2.02 in SOW)								945	\$ 211,754	
Task 11 Subtotals									945	\$ 211,754	
Task 12	Task 11 - Startup (Phase 1100)										
12/.02	Startup						33	11	172	\$ 48,828	
12/.03	RDT Support								17	\$ 4,508	

		Subcontract	Travel Expenses	Field/Misc Expenses	Project Total
	Client Position	Triad - Special Inspections			
	Discipline				
	Sub-Discipline				
	HOURS\COST TOTALS IN USD \$:	\$ 35,000.00			
	MIDPOINT BILLING RATE IN USD:				
	CONTRACT TOTALS IN USD \$:	\$ 35,000.00	\$ 48,000.00	\$ 28,512.00	\$ 2,841,509.40
Task	Description				
Task 1	Task 1 - Project Management & Admin (Ph. 100)				
1/.01	Project Management				\$ 127,728
1/.02	Engineering Management				\$ 81,682
1/.03	Project Billing				\$ 7,540
1/.04	Project Controls				\$ 7,800
1/.05	Project Accounting				\$ 7,540
1/.07	Payment Application Review				\$ 13,910
1/.08	MDE Admin or Loan Closing Document Preparation				\$ 10,956
	Task 1 Subtotals				\$ 257,156
Task 2	Task 2 - Submittal (Ph. 200)				
2/.02	Structural				\$ 44,616
2/.03	Architecture				\$ 40,763
2/.04	Electrical/I&C				\$ 46,847
2/.05	Building Mechanical				\$ 44,616
2/.06	Civil				\$ 341,546
	Task 2 Subtotals				\$ 518,388
Task 3	Task 3 - Record Drawings (Ph. 300)				
3/.01	Project Management				\$ 2,621
3/.02	Engineering Management				\$ 6,895
3/.03	Field				\$ 12,194
3/.04	CAD				\$ 90,090
	Task 3 Subtotals				\$ 111,800
Task 4	Task 4 - Resident Project Rep. (Ph. 400)				
4/.01	RPR Full-Time				\$ 825,396
4/.02	RPR Part-Time				\$ 87,230
4/.10	Engineer Site Visits				\$ 130,198
	Task 4 Subtotals				\$ 1,042,824
Task 5	Task 5 - Direct Expenses (Ph. 500)				
5/.01	Wilkinson Site Visits		\$ 8,190		\$ 8,190
5/.02	Local Staff Mileage		\$ 4,000		\$ 4,000
5/.03	Discipline staff visit		\$ 4,840		\$ 4,840
5/.04	Startup		\$ 2,420		\$ 2,420
5/.10	Inspector Mileage		\$ 28,530	\$ 28,512	\$ 57,042
	Task 5 Subtotals		\$ 47,980	\$ 28,512	\$ 76,492
Task 6	Task 6 - Special Inspection Sub (Ph. 600)				
6/.01	Triad - Ph. 1	\$ 35,000			\$ 35,000
	Task 6 Subtotals	\$ 35,000			\$ 35,000

		Subcontract	Travel Expenses	Field/Misc Expenses	Project Total
	Client Position	Triad - Special Inspections			
	Discipline				
	Sub-Discipline				
	HOURS\COST TOTALS IN USD \$:	\$ 35,000.00			
	MIDPOINT BILLING RATE IN USD:	0.00%			
	CONTRACT TOTALS IN USD \$:	\$ 35,000.00	\$ 48,000.00	\$ 28,512.00	\$ 2,841,509.40
Task	Description				
Task 7	Task 7 - Demo RFP CPS (Ph. 800)				
7/.02	Pre-Con				\$ 5,434
7/.03	Inspection and Site Visits				\$ 41,688
7/.04	Submittals				\$ 37,539
7/.05	Contractor Issues				\$ 26,551
7/.06	RFIs				\$ 10,696
	Task 7 Subtotals				\$ 121,909
Task 8	Task 8 - Change Management (Ph. 700)				
8/.01	Field Orders				\$ 30,488
8/.02	Work Change Directives				\$ 8,221
8/.03	Review of Change Proposals				\$ 26,520
8/.04	Estimating for Changes				\$ 25,376
8/.05	Change Orders				\$ 10,608
8/.07	Construction Issues				\$ 35,578
8/.08	Design Services During Construction		\$ 20		\$ 150,006
	Task 8 Subtotals		\$ 20		\$ 286,797
Task 9	Task 9 - Change Order #1 (Ph. 900)				
9/.01	Develop Fiber Loop Adjacent to 12" Water Line				\$ 22,230
	Task 9 Subtotals				\$ 22,230
Task 10	Task 10 - Updated Plant O&M (Ph. 1000)				
10/.02	Review prior MDE draft				\$ 4,264
10/.03	Update Plant O&M manual				\$ 55,032
10/.04	Collect and Scan O&Ms not in soft copy				\$ 6,370
10/.05	Create Sharepoint site				\$ 12,069
10/.06	Provide Training on content				\$ 15,948
10/.07	Provide Training on maintenance of the site				\$ 10,140
	Task 10 Subtotals				\$ 103,823
Task 11	Task 2.02 - RFIs (Phase 202)				
11/.01	RFIs (Task 2.02 in SOW)				\$ 211,754
	Task 11 Subtotals				\$ 211,754
Task 12	Task 11 - Startup (Phase 1100)				
12/.02	Startup		\$ 2,420		\$ 51,248
12/.03	RDT Support				\$ 4,508