

**AGREEMENT
FOR PROFESSIONAL SERVICES**

Between

**Prichard Water Works and Sewer
Board**

And

Hazen and Sawyer

FOR

**Water Source/Treatment and
Asset Evaluation**

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OWNER: [Prichard Water Works and Sewer Board]

PROJECT: [Water Source/Treatment and Asset Evaluation]

**AGREEMENT BETWEEN PRICHARD WATER WORKS AND SEWER BOARD
AND HAZEN AND SAWYER
FOR PROFESSIONAL SERVICES**

This Agreement, dated the _____ day of January , 2024 is made and entered into between
Prichard Water Works and Sewer Board (Owner, hereinafter "**OWNER**")
ATTN; John S. Young, Jr. LLC (Receiver)
c/o John S. Young, Jr. Sole Member of Receiver
125 East Clark Avenue
Prichard, AL 36610

and

Hazen and Sawyer (hereinafter "**ENGINEER**")
2 Chase Corporate Drive,
STE 170

Birmingham, AL 35244.

WHEREAS, the Receiver was appointed by the Circuit Court of Mobile County, Alabama in the case styled *Synovus Corporate Trust v. Water Works and Sewer Board of City of Prichard* by the order entered on November 10, 2012 ("Receiver Order"). Further Synovus Corporate Trust is the Indenture Trustee ("Trustee") as reflected in the Receiver Order;

WHEREAS, the Receiver is authorized to enter this Agreement on behalf of the Owner pursuant and subject to the terms of the Receiver Order;

WHEREAS, **OWNER's** Project, of which **ENGINEER's** services under this Agreement are a part, is generally identified as follows:
Water Source/Treatment and Asset Evaluation for the Water and Sewer System owned by the Prichard Water Works and Sewer Board ,
(hereinafter "**PROJECT**"); and

WHEREAS, **OWNER** requests **ENGINEER's** services in connection with the **PROJECT**;

NOW THEREFORE, in consideration of the mutual promises herein contained, **OWNER** and **ENGINEER** agree as follows:

Art. 1 THE AGREEMENT DOCUMENTS

- 1.1 Included Documents. The Agreement consists of: (1) this Agreement, including Schedule A, Scope of Services, and Schedule B, Compensation, attached hereto.
- 1.2 Entire Agreement. The Agreement represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral.
- 1.3 Modification. **Unless otherwise provided for herein**, no amendments, changes, alterations, or modifications of this Agreement shall be effective unless in writing and executed by **OWNER** and **ENGINEER**.

Art. 2. SCOPE OF SERVICES AND DIVISION OF RESPONSIBILITIES

- 2.1 OWNER Responsibilities. In addition to other responsibilities of **OWNER** as set forth in this Agreement, **OWNER** must designate its representative to fulfill the following responsibilities, at its expense, which **ENGINEER** shall rely upon:
 - a) Provide **ENGINEER** with all criteria and full information as to **OWNER's** requirements for the **PROJECT**, including design objectives and constraints, flexibility, expandability, capacity and performance requirements, budgetary limitations, operating and testing data, as-built drawings, and previous reports if any. Provide **ENGINEER** with copies of all design and construction standards that **OWNER** will require to be included in the Drawings and Specifications, and provide copies of **OWNER's** standard forms, conditions, and related documents for **ENGINEER** to include in the bid documents, when applicable.
 - b) Provide to **ENGINEER** any other available information pertinent to the **PROJECT** including reports and data relative to previous designs, or investigation at or adjacent to the Site.
 - c) Following **ENGINEER's** assessment of initially available **PROJECT** data and upon **ENGINEER's** request, provide or make available such additional **PROJECT** related information and data as is reasonably required to enable **ENGINEER** to complete its services. Such additional information or data includes the following:
 1. Property descriptions.
 2. Zoning, deed, and other land use restrictions.
 3. Property, boundary, easement, right-of-way, and other special surveys or data, including establishing relevant reference points.
 4. Explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions relating to existing surface or

- subsurface structures at the Site, or hydrographic surveys, with appropriate professional interpretation thereof.
5. Environmental assessments, audits, investigations, impact statements, and other relevant environmental or cultural studies as to the **PROJECT**, the Site, and adjacent areas.
 6. Data or consultations as required for the **PROJECT** but not otherwise identified in the Agreement or the Exhibits thereto.
- d) Provide prompt written notice to **ENGINEER** whenever **OWNER** observes or otherwise becomes aware of the presence at the Site of any environmental concern, or of any other development that affects the scope or time of performance of **ENGINEER** services, or any defect or nonconformance in **ENGINEER** services, the Work, or in the performance of any contractor.
 - e) Arrange safe access to and make all provisions for **ENGINEER** to enter upon public and private property as required for **ENGINEER** to perform services under the Agreement.
 - f) Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the **PROJECT** designed or specified by **ENGINEER** and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the **PROJECT**.

Art. 3. NOTICE TO COMMENCE WORK AND DURATION OF AGREEMENT

- 3.1 Commencement. **ENGINEER** is authorized to begin rendering services as of the effective date and issuance of Notice-to-Proceed and will terminate either: (1) upon the satisfactory completion of **ENGINEER's** scope of services set forth in Schedule A; (2) on the date specified in Schedule B, if such date is specified, as applicable; or (3) as otherwise terminated under this Agreement.
- 3.2 Time for Completion. **ENGINEER** shall complete its obligations within a reasonable time. Specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided in Schedules A and/or B. If, through no fault of **ENGINEER**, such periods of time or dates are changed, or the orderly and continuous progress of **ENGINEER's** services is impaired, or **ENGINEER's** services are delayed or suspended, then the time for completion of **ENGINEER's** services, and the rates and amounts of **ENGINEER's** compensation, shall be adjusted equitably. If **OWNER** authorizes changes in the scope, extent, or character of the **PROJECT**, then the time for completion of **ENGINEER's** services, and the rates and amounts of **ENGINEER's** compensation, shall be adjusted equitably. **OWNER** shall make decisions and carry out its other responsibilities in a timely manner so as not to delay **ENGINEER's** performance of its services.

Art. 4. PAYMENT AND BILLING

- 4.1 Payment Amount(s). As compensation for the services to be performed by **ENGINEER**, **OWNER** shall pay **ENGINEER** the amount(s) set forth in Schedule B, attached hereto. The method of compensation shall be set forth in Schedule B. **OWNER** agrees only to be liable for payment to **ENGINEER** for **ENGINEER's** proper performance of services, as provided for in Schedule B.
- 4.2 Invoicing and Documentation. **ENGINEER** shall keep accurate back-up documentation of the time expended in executing its scope of work. Payment for services performed by **ENGINEER** shall be based upon **ENGINEER's** satisfactory completion of services as properly invoiced and documented by **ENGINEER**. **ENGINEER's** invoices and documentation shall be subject to verification by **OWNER** prior to payment. Engineer will receive payment on invoices directly from the **TRUSTEE**. All invoices shall be sent to **OWNER** and **TRUSTEE** at the following addresses: Invoices submitted by **ENGINEER**, at a minimum, shall:
- a) accurately describe the services rendered during the invoice period;
 - b) identify any other authorized expenses incurred hereunder; and
 - c) make reference to this Agreement, and otherwise identify the invoice in such manner as **OWNER** may reasonably require.

ENGINEER will receive payment on invoices directly from the **TRUSTEE**. All invoices and billing documentation shall be sent to **OWNER** and **TRUSTEE** at the following address:

Prichard Water Works and Sewer Board
Attention: John S. Young, Jr. LLC (Receiver)
125 East Clark Avenue
Prichard, AL 36610
j.young@comcast.net

To Trustee:
Attention: Dean D. Matthews
Managing Director, Corporate Trust
Synovus Bank
800 Shades Creek Parkway- STE 275
Birmingham, AL 35209
(205) 868-4873 (direct)
deanmatthews@synovus.com

- 4.3 Failure to Pay. If **OWNER** fails to make any payment due to **ENGINEER** for services and expenses within 30 days after receipt of **ENGINEER's** invoice, then:
- a) amounts due to **ENGINEER** will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from the thirtieth day; and
 - b) **ENGINEER** may, after giving seven days written notice to **OWNER**, suspend services under this Agreement until **OWNER** has paid in full all amounts due

for services, expenses, and other related charges. **OWNER** waives any and all claims against **ENGINEER** for any such suspension.

- 4.4 Disputed Invoices. If **OWNER** contests an invoice, **OWNER** shall promptly advise **ENGINEER** of the specific basis for doing so, may withhold only that portion so contested, and must pay the undisputed portion.
- 4.5 Legislative Actions. If after the Effective Date any governmental entity takes a legislative action that imposes taxes, fees, or charges on **ENGINEER's** services or compensation under this Agreement, then **ENGINEER** may invoice such new taxes, fees, or charges as a reimbursable expense. **OWNER** shall reimburse **ENGINEER** for the cost of such invoiced new taxes, fees, and charges; such reimbursement shall be in addition to the compensation to which **ENGINEER** is entitled under the terms of Schedule B.
- 4.6 Opinions of Probable Construction Cost. **ENGINEER's** opinions of probable construction cost are to be made on the basis of **ENGINEER's** experience and qualifications and represent **ENGINEER's** best judgment as an experienced and qualified professional generally familiar with the construction industry. However, because **ENGINEER** has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, **ENGINEER** cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction costs prepared by **ENGINEER**. If **OWNER** requires greater assurance as to probable construction cost, **OWNER** must employ an independent cost estimator.
- 4.7 Opinions of Total Project Costs. The services, if any, of **ENGINEER** with respect to total project costs shall be limited to assisting the **OWNER** in collating the various cost categories which comprise total project costs. **ENGINEER** assumes no responsibility for the accuracy of any opinions of total project costs.

Art. 5. DATA AND INFORMATION

- 5.1 All documents are instruments of services in respect to this **PROJECT** and **ENGINEER** shall retain an ownership and property interest therein (including the copyright and the right of reuse at the discretion of **ENGINEER**) whether or not the **PROJECT** is completed. **OWNER** shall not rely in any way on any document unless it is in printed form, signed or sealed by **ENGINEER** or one of its consultants.
- 5.2 **OWNER** may make and retain copies of documents for information and reference in connection with use on the **PROJECT** by **OWNER**. **ENGINEER** grants **OWNER** a limited license to use the documents on the **PROJECT**, extensions of the **PROJECT**, and for related uses of the **OWNER**, subject to receipt by **ENGINEER** of full payment for all services relating to preparation of the documents and subject to the following limitations: (1) **OWNER** acknowledges that such documents are not intended or represented to be suitable for use on the **PROJECT** unless completed by **ENGINEER**, or for use or reuse by **OWNER** or others on extensions of the **PROJECT**, on any other project, or for any other use or purpose, without

written verification or adaptation by **ENGINEER**; (2) any such use or reuse, or any modification of the documents, without written verification, completion, or adaptation by **ENGINEER**, as appropriate for the specific purpose intended, will be at **OWNER's** sole risk and without liability or legal exposure to **ENGINEER** or to its officers, directors, members, partners, agents, employees, and consultants; (3) **OWNER** shall indemnify and hold harmless **ENGINEER** and its officers, directors, members, partners, agents, employees, and consultants from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from any use, reuse, or modification of the documents without written verification, completion, or adaptation by **ENGINEER**; and (4) such limited license to **OWNER** shall not create any rights in third parties.

- 5.3 If **ENGINEER** at **OWNER's** request verifies the suitability of the documents, completes them, or adapts them for extensions of the **PROJECT** or for any other purpose, then **OWNER** shall compensate **ENGINEER** at rates or in an amount to be agreed upon by **OWNER** and **ENGINEER**.

Art. 6. SUBCONTRACTING

Performance of this Agreement shall not be subcontracted in whole or in part without the consent of **OWNER** which shall not be unreasonably withheld. In the event **OWNER** consents to such subcontract, **ENGINEER** shall remain bound by the terms of this Agreement until the satisfactory completion of all work hereunder or the termination or expiration hereof, whichever shall first occur. **ENGINEER** may employ consultants as **ENGINEER** deems necessary to assist in the performance or furnishing of the services, subject to reasonable, timely, and substantive objections by **OWNER**.

Art. 7. CONFLICTS OF INTEREST

- 7.1 Neither **ENGINEER** nor its employees shall have or hold any continuing or frequently recurring employment or contractual relationship that is substantially antagonistic or incompatible with **ENGINEER's** loyal and conscientious exercise of judgment related to its performance under this Agreement.
- 7.2 **ENGINEER** agrees that none of its officers or employees shall, during the duration of this Agreement, serve as an expert witness against **OWNER** in any legal or administrative proceeding in which he or she is not a party, unless compelled by court process, nor shall such persons give sworn testimony or issue a report or writing, as an expression of his or her expert opinion, which is adverse or prejudicial to the interests of **OWNER** for the work performed under this Agreement or in connection with any such pending or threatened legal or administrative proceeding. The limitations of this section shall not preclude such persons from representing themselves in any action or in any administrative or legal proceeding.
- 7.3 In the event **ENGINEER** is permitted to utilize subcontractors to perform any services required by this Agreement, **ENGINEER** agrees to prohibit such subcontractors, by written contract, from having any conflicts within the meaning of this Article 7.

Art. 8. SUSPENSION OF SERVICES

- 8.1 By OWNER. **OWNER** may suspend, delay, or interrupt the **PROJECT** for up to 60 days upon 7 days written notice to **ENGINEER**. The written notice must be in advance of the effective time and date of suspension and will fix the date on which performance of such services will be resumed. **ENGINEER** shall be entitled to an adjustment in compensation, an extension of time, or both, directly attributable to any such suspension, to the extent that such suspension was not due to any fault of **ENGINEER**.
- 8.2 By ENGINEER. **ENGINEER** may suspend, delay, or interrupt its services, or any portion thereof, for a period of 60 days upon 7 days written notice to **OWNER** for nonpayment.

Art. 9. TERMINATION

- 9.1 Termination for Cause by Either Party. Either party may terminate this Agreement at any time for cause by giving the other party **seven days** written notice if the other party fails to perform its obligations under this Agreement and fails to cure within such **seven-day** period.
- 9.2 Termination for Cause by ENGINEER. Upon seven days written notice if **OWNER** demands that **ENGINEER** furnish or perform services contrary to **ENGINEER**'s responsibilities as a licensed professional; or upon seven days written notice if **ENGINEER**'s services for the **PROJECT** are delayed or suspended for more than 60 days for reasons beyond **ENGINEER**'s control, **ENGINEER** may terminate this Agreement. **ENGINEER** shall have no liability to **OWNER** on account of such termination.
- 9.3 Termination for Convenience. **OWNER** may terminate this Agreement at any time with or without cause upon at least **fourteen days** written notice to **ENGINEER**. In the event of such a termination for convenience, **ENGINEER** will be paid for that portion of the work satisfactorily completed prior to termination.
- 9.4 Payments Upon Termination. In the event of any termination, **ENGINEER** will be entitled to invoice **OWNER** and to receive full payment for all services performed or furnished in accordance with this Agreement and all reimbursable expenses incurred through the effective date of termination. In the event of termination by **OWNER** for convenience or by **ENGINEER** for cause, **ENGINEER** shall be entitled, in addition to invoice **OWNER** and to payment of a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with **ENGINEER**'s subcontractors or consultants, and other related close-out costs.

Art. 10. CHANGES IN THE SERVICES

- 10.1 Written Change Order. **OWNER** may, by written order to **ENGINEER**, request additional services, issue revisions or direct the omission of services within the general scope of this Agreement. Any additional services shall be performed upon execution of an applicable change order regarding compensation and extensions

of time. No changes will be made absent specific written direction and agreement for payment.

- 10.2 Equitable Adjustment. If such changes cause an increase or decrease in **ENGINEER's** cost of, or time required for, performance of any services under this Agreement, an equitable adjustment may be made in price and/or time of performance, provided that any claim for an adjustment must be made in strict accordance with the terms of this Agreement. **ENGINEER** shall submit such claim in writing within **30 days** of receipt of said written order.

Art. 11. NOTICES

All notices or orders provided for in this Agreement shall be in writing, addressed to the appropriate party at the address which appears below (or as modified in writing by such party) and given personally, by United States mail (return receipt requested), or by a courier service. All notices shall be effective upon the date of receipt.

OWNER if mailed by certified or registered mail, postage prepaid to:

Prichard Water Works and Sewer Board
Attention: John S. Young, Jr. - Receiver
125 East Clark Avenue
Prichard, AL 36610;

or

ENGINEER if mailed by certified or registered mail, postage prepaid to:

Hazen and Sawyer
Attention: Stephen H. King
2 Chase Corporate Drive,
STE 170
Birmingham, AL 35244.

Art. 12. CLAIMS AND DISPUTES

- 12.1 Applicable Law. This Agreement shall be interpreted and construed in accordance with the laws of the state where the **PROJECT** is located.
- 12.2 Dispute Resolution Procedure. **OWNER** and **ENGINEER** each hereby waives any rights it may have to a trial by jury of any such litigation. Further, any such claims or disputes and any action involving the enforcement or interpretation of any rights hereunder shall be submitted to the jurisdiction of the courts of the state in which the **PROJECT** is located.
- 12.3 Neither **OWNER** nor **ENGINEER** shall be liable to the other for any special, incidental, indirect or consequential damages whatsoever arising out of or relating in any way to this Agreement.

Art. 13. INSURANCE

- 13.1 ENGINEER Coverage. **ENGINEER** shall procure and maintain insurance as set forth below. **ENGINEER** shall cause **OWNER** to be listed as an additional insured on any applicable general liability insurance policy carried by **ENGINEER**.
- 13.2. Minimum Coverage of ENGINEER. **ENGINEER** shall maintain at a minimum the following insurance policies and coverage with carriers authorized to cover risks and licensed to underwrite policies and have an A.M. Best's rating of A-VII or higher:
- (a) Worker's Compensation & Disability Insurance as required by all applicable state and federal laws.
 - (b) Employer's Liability with limits of **\$500,000** each accident, **\$500,000** Disease (each employee) and **\$500,000** Disease (policy limit).
 - (c) Comprehensive General Liability with minimum limits of **\$1,000,000** per occurrence and **\$1,000,000** in the aggregate.
 - (d) Professional Liability with limits of not less than **\$1,000,000**, per claim and **\$1,000,000** in the aggregate, insuring the professional liability of **ENGINEER**.
 - (e) Business Auto Insurance for all owned, hired, non-owned and Employers' non-ownership vehicles with minimum limits of **\$1,000,000** combined single limit.
 - (f) Other Insurance Coverage Requirements: None
- 13.3 Certificates of Insurance. **ENGINEER** shall deliver to **OWNER** certificates of insurance evidencing the coverages indicated in Sections 13.1 and 13.2 above. Such certificates shall be furnished prior to commencement of **ENGINEER's** services and at renewals thereafter during the life of the Agreement.
- 13.4 At any time, **OWNER** may request that **ENGINEER** or its consultants, at **OWNER's** sole expense, provide additional insurance coverage, increased limits, or revised deductibles.
- 13.5 Cancellation, Renewal or Modification. Should coverage afforded under any policy be canceled, non-renewed, materially changed (materially changed defined as a reduction in the policy limit by endorsement during the policy period), or allowed to expire, **ENGINEER** shall provide **OWNER** with at least 30 days prior written notice or, in the event of non-payment, ten days prior written notice.
- 13.6 Failure to Maintain Insurance. In the event **ENGINEER** fails to maintain any of the insurance required under this Agreement, it shall constitute a material breach of this Agreement.

Art. 14. INDEMNIFICATION

- 14.1 Indemnification by ENGINEER. To the fullest extent permitted by law, **ENGINEER** shall indemnify and hold harmless **OWNER**, and its officers and employees from and against claims, damages, losses and expenses of any nature or kind including, but not limited to, reasonable attorneys' fees, arising out of, resulting from or relating in any way to negligence, recklessness, intentionally wrongful conduct or breach of contract of **ENGINEER**, its subcontractors, anyone directly employed by them or anyone for whose acts they may be liable. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Article 14.
- 14.2 Indemnification by OWNER. To the extent permitted by Alabama law, **OWNER** shall indemnify and hold harmless **ENGINEER** and its shareholders, directors, officers, agents and employees from and against claims, damages, losses and expenses of any nature or kind including, but not limited to, attorneys' fees, arising out of, resulting from or relating in any way to negligence, recklessness, intentionally wrongful conduct or breach of contract of **OWNER**, its subcontractors, anyone directly employed by them or anyone for whose acts they may be liable. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Article 14.
- 14.3 Environmental Indemnification. To the fullest extent permitted by law, **OWNER** shall indemnify and hold harmless **ENGINEER**, and its shareholders, directors, officers, agents and employees from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of **ENGINEER**, architects, attorneys and other professionals, and all court, arbitration, or other dispute resolution costs) caused by, arising out of, relating to, or resulting from an environmental concern at, on, or under the site, provided that (1) any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to the injury or to destruction of tangible property (other than the work itself), including the loss of use resulting therefrom, and (2) nothing in this paragraph shall obligate **OWNER** to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence or willful misconduct.
- 14.4 Mutual Waiver. To the fullest extent permitted by law, **OWNER** and **ENGINEER** waive against each other, and the other's shareholders, directors, officers, agents and employees, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the **PROJECT**.
- 14.5 This Article 14, Indemnification, shall survive the termination of this Agreement.
- 14.6 Both parties acknowledge and agree that the foregoing obligations are specific considerations for this Agreement and without such duties and obligations neither party would enter this Agreement.

Art. 15. PERFORMANCE STANDARDS

- 15.1 Standard of Care. **ENGINEER** shall perform all professional services with the care and skill ordinarily exercised by members of the same profession currently practicing in the United States, on projects of similar size and complexity at the time the services are performed. **ENGINEER** makes no warranties, express or implied, under this Agreement or otherwise, in connection with **ENGINEER's** services.
- 15.2 Reliance on Others. Subject to the standard of care set forth in Article 15, **ENGINEER** and its consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.
- 15.3 **ENGINEER** shall not be required to sign any documents, no matter by whom requested, that would result in **ENGINEER** having to certify, guarantee, or warrant the existence of conditions whose existence **ENGINEER** cannot ascertain. **OWNER** agrees not to make resolution of any dispute with **ENGINEER** or payment of any amount due to **ENGINEER** in any way contingent upon **ENGINEER** signing any such documents.
- 15.4 During construction, **ENGINEER** neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform the work in accordance with the contract documents.
- 15.5 During construction, **ENGINEER** shall not provide or have any responsibility for surety bonding or insurance-related advice, recommendations, counseling, or research, or enforcement of construction insurance or surety bonding requirements.
- 15.6 During construction, **ENGINEER** shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or of any of their agents or employees or of any other person (except **ENGINEER**; own agents, employees, and consultants) at the site or otherwise furnishing or performing any work; or for any decision made regarding the contract documents, or any application, interpretation, or clarification of the contract documents, other than those made by **ENGINEER**.

Art. 16. RECORDS

- 16.1 If the services to be performed hereunder relate to a state or federal government contract, the Comptroller General of the United States and the department or agency of the government having cognizance over this Agreement, and any of their duly authorized representatives, shall have access to and the right to examine any directly pertinent books, documents, papers and records of **OWNER** or **ENGINEER** involving transactions related to this Agreement.
- 16.2 **ENGINEER** shall grant access to such records until the expiration of **three years** after final payment under this Agreement.

Art. 17. AUDIT RIGHT AND RETENTION OF RECORDS

- 17.1 **OWNER** shall have the right to audit the books and records of **ENGINEER**. **ENGINEER** shall keep such records and accounts as may be necessary in order to record complete and correct entries related to the **PROJECT**.
- 17.2 **ENGINEER** shall preserve and make available, at reasonable times for examination and audit by **OWNER** all financial records, supporting documents, statistical records, and any other documents pertinent to this Agreement until the expiration of **three years** after final payment under this Agreement.

Art. 18. LIMITATION OF LIABILITY

To the fullest extent permitted by law, and notwithstanding any other provision of this Agreement, the total liability, in the aggregate, of **ENGINEER** and **ENGINEER's** officers, directors, members, partners, agents, employees, and Consultants, to **OWNER** and anyone claiming by, through, or under **OWNER** for any and all claims, losses, costs, or damages whatsoever arising out of, resulting from, or in any way related to the **PROJECT** or the Agreement from any cause or causes, including but not limited to the negligence, professional errors or omissions, strict liability, breach of contract, indemnity obligations, or warranty express or implied of **ENGINEER** or **ENGINEER's** officers, directors, members, partners, agents, employees, or Consultants shall not exceed the total compensation received by **ENGINEER** under this Agreement.

Art. 19. SUCCESSORS AND ASSIGNEES

This Agreement is to be binding on the heirs, successors and assignees of **OWNER** and **ENGINEER**, but is not to be assigned by either **OWNER** or **ENGINEER**, without first obtaining the written consent of the other.

Art. 20. MUTUAL WAIVER OF BREACH AND MATERIALITY

Failure by **either party** to enforce any provision of this Agreement shall not be deemed a waiver of such provision or modification of this Agreement. A waiver of any breach of a provision of this Agreement shall not be deemed a waiver of any subsequent breach and shall not be construed to be a modification of the terms of this Agreement. **OWNER** and **ENGINEER** agree that each requirement, duty, and obligation set forth herein is substantial and important to the formation of this Agreement and, therefore, is a material term hereof.

Art. 21. PERMITS, LICENSES, NOTICES AND COMPLIANCE WITH LAWS

- 21.1 **ENGINEER** shall comply with federal, state and local tax laws, social security acts, unemployment compensation acts and worker's compensation acts insofar as applicable to the performance of services under this Agreement.
- 21.2 **ENGINEER** shall not unlawfully discriminate against any person in its operations and activities in its use or expenditure of the funds or any portion of the funds

provided by this Agreement and shall affirmatively comply with all applicable provisions of the Americans with Disabilities Act (ADA) in the course of providing any services funded in whole or in part by **OWNER**, including Titles I and II of the ADA (regarding nondiscrimination on the basis of disability), and all applicable regulations, guidelines, and standards.

- 21.3 **ENGINEER's** decisions regarding the delivery of services under this Agreement shall be made without regard to or consideration of race, age, religion, color, gender, sexual orientation, national origin, marital status, physical or mental disability, political affiliation, or any other factor which cannot be lawfully or appropriately used as a basis for service delivery.
- 21.4 **ENGINEER** shall comply with Title I of the Americans with Disabilities Act regarding nondiscrimination on the basis of disability in employment and further shall not discriminate against any employee or applicant for employment because of race, age, religion, color, gender, sexual orientation, national origin, marital status, political affiliation, or physical or mental disability. In addition, **ENGINEER** shall take affirmative steps to ensure nondiscrimination in employment against disabled persons. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff, termination, rates of pay, other forms of compensation, terms and conditions of employment, training (including apprenticeship), and accessibility.
- 21.5 **ENGINEER** shall take affirmative action to ensure that applicants are employed, and employees are treated without regard to race, age, religion, color, gender, sexual orientation, national origin, marital status, political affiliation, or physical or mental disability during employment. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff, termination, rates of pay, other forms of compensation, terms and conditions of employment, training (including apprenticeship), and accessibility.

Art. 22. SEVERANCE

In the event this Agreement or a portion of this Agreement is found by a court of competent jurisdiction to be invalid, the remaining provisions shall continue to be effective unless **OWNER** elects to terminate this Agreement. The election to terminate this Agreement based upon this provision shall be made within **seven days** after the finding by the court becomes final.

Art. 23. JOINT PREPARATION

Preparation of this Agreement has been a joint effort of **OWNER** and **ENGINEER**, and the resulting document shall not, solely as a matter of judicial construction, be construed more severely against one of the parties than any other.

Art. 24. PRIORITY OF PROVISIONS

If there is a conflict or inconsistency between any term, statement, requirement, or provision of any exhibit attached hereto, any document or events referred to herein, or any document incorporated into this Agreement by reference and a term, statement, requirement, or provision of this Agreement, the term, statement, requirement, or provision contained in the Articles of this Agreement shall prevail and be given effect.

Art. 25. PROJECT SPECIFIC TERMS

The following additional **PROJECT** specific terms and conditions are:

_None

Art. 26. COUNTERPARTS


This Agreement may be executed in **counterparts**, each of which shall be deemed to be an original.


Art. 27. APPROVAL

IN WITNESS THEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized officers and is made effective the day and year first above written.


PRICHARD WATER WORKS AND SEWER BOARD


HAZEN AND SAWYER

By: 
John S. Young Jr. LLC, Receiver
By John S. Young, Jr. LLC Sole Member of Receiver
Date: 1-22-2024

By: 
Stephen King, P.E., BCEE
Associate Vice President
Date: 1-11-2024

Witnessed By:


1/22/2024 Date
Attorney-Baker Donelson
Title


1/11/2024 Date
Assistant Engineer III
Title

SCHEDULE A
SCOPE OF SERVICES
Prichard Water Works and Sewer Board
Water Source/Treatment and Asset Evaluation

The scope of work to be provided by **ENGINEER** includes professional services for the elements listed below.

The purpose of this Water Source/Treatment and Asset Evaluation Scope of Services (Scope) is to determine the most cost effective and feasible water source and assess the existing condition of water and sewer infrastructure to develop a 20-year Capital Improvement Plan (20-year plan).

This evaluation will cover multiple water source and asset assessments including,

Water Source Assessments:

1. New surface water supply
2. New groundwater supply
3. Associated treatment and pumping facilities

Infrastructure Asset Evaluation:

1. Water storage system
2. Water distribution system
3. Wastewater gravity collection system and force mains
4. Wastewater pump stations
5. Carlos Morris Wastewater Treatment Plant
6. Stanley Brooks Wastewater Treatment Plant

The primary goal of the project is to ensure a sustainable, reliable, and cost-effective water supply and reliable water and sewer infrastructure for the communities served by PWW&SB.

Scope of Services

TASK 1 PROJECT MANAGEMENT

Hazen's project manager will be responsible for managing and administering the project, including:

- Preparing and administering Hazen's internal resources
- Coordinating activities and budgets of subconsultants
- Monitoring project activities, budgets, and schedule
- Communicating with PWW&SB's project manager
- Scheduling and attending progress and review meetings.
- Communicating with PWW&SB's departments and outside agencies, as needed.
- Ensuring that the Project Team follows Hazen's quality assurance and control (QA/QC) policies and procedures throughout the project.

Task 1 Deliverables:

- Submit a monthly project status memorandum with invoice.

TASK 2 WATER SUPPLY AND TREATMENT ALTERNATIVES ANALYSIS

Task 2.1 Water Supply and Treatment Technical Assessment

The technical assessment performed under this task will include the review and analysis of the following water supply related topics. This assessment will be conceptual in nature based on available data and information. All spreadsheets, graphics, and text appropriate for Task 2 will be prepared in a stand-alone Technical Memorandum.

Task 2.1.1 Surface Water Supply

Hazen will perform an assessment of up to two unidentified surface water supplies. At this time, Hazen is unaware of any preliminary review of available potable surface water supplies. As such, this assessment will begin with identifying all potential available surface water bodies (rivers, lakes, etc.) for consideration. Hazen will assess water quality and quantity, including seasonal variations, based on available existing data, information, or technical reports, to determine the suitability of the potential supplies including reliability and treatment requirements of the source. This scope of work does not include safe yield evaluations or sampling to determine water quality trends.

Hazen will include the following in the assessment:

- Location of the potential source water supplies
- Quantity believed to be available based on available flow
- Transmission requirements
- Quality of the potential source water supplies
- Proposed treatment schematic (e.g., coagulation, flocculation, settling, filtration, etc.)

Task 2.1.2 Groundwater Supply

Hazen will perform an assessment of up to two groundwater supplies. At this time, Hazen is aware of some preliminary review of available potable groundwater supplies (see below). As such, this assessment will begin with reviewing all available groundwater sources that have been identified for consideration. Hazen will assess water quality and quantity, including seasonal variations to determine the suitability of the potential supplies including reliability and treatment requirements of the source.

Hazen will include the following in the assessment:

- Location of the potential groundwater water supplies
- Quantity believed to be available based on potential safe yield
- Transmission requirements
- Quality of the potential source water supplies
- Preliminary determination of the characterization of the groundwater with respect to direct influences of surface water.
- Proposed treatment schematic (e.g., coagulation, flocculation, settling, filtration, etc.)

As part of the groundwater assessment, Hazen will perform a review previously collected hydrogeological information (e.g., local information from other utilities, studies, reports, etc.) to assist the Team in efficiently understanding the quality and quantity of groundwater available.

Note: In 2020 and working for Hazen, Cook Hydrogeology completed an initial high-level hydrogeologic feasibility assessment to begin the assessment of whether a groundwater source could be developed to meet PWW&SB's water demands. The existing report evaluated six potential tests well locations that had been identified by previous investigations. In 2021, Cook Hydrogeology also completed a pumping test analysis and water quality evaluation of the Chickasaw Housing Authority Well in Mobile County, Alabama. Results of the pump testing indicated that adequate water quantity and quality would be available to serve the PWW&SB's water demands from the local alluvial aquifer, assuming that multiple supply wells are installed. The sustained pumping rate was projected to be 651 gallons per minute (gpm) over a 20-year period. These reports and other existing literature regarding the local geology and hydrogeology will be reviewed as part of the proposed task.

Task 2.1 Deliverables:

- Tabulation of all materials collected.

Task 2.2 Preliminary Environmental Impact Assessment

Hazen will perform a preliminary environmental impact assessment of the viable, selected alternatives, including the following activities under this subtask:

Task 2.2.1 Surface Water Supply

Hazen will evaluate potential environmental impacts of extracting surface water, including a preliminary assessment of the impact of the proposed diversion on aquatic ecosystems and downstream users. Under this subtask, the Hazen Team will develop preliminary mitigation strategies to minimize potential adverse effects.

Task 2.2.2 Groundwater Supply

Hazen will evaluate the environmental impact of groundwater extraction and assess potential environmental impacts of groundwater extraction including on wetlands. Hazen will identify preliminary measures to protect groundwater quality.

Task 2.2 Deliverables:

- Tabulation of all materials collected.

Task 2.3 Water Supply and Treatment Alternatives Capital and Operational Cost Estimates

Hazen will perform capital and operational cost estimates for the water supply and treatment alternatives under this subtask. The cost estimates will include a Level 5 (AACEI) cost estimate for each viable, selected water source alternative. These estimates will include capital costs, operational expenses, and maintenance costs. The capital and operational cost estimates for each alternative will be compared to the continued costs of purchasing water from Mobile Area Water & Sewer System.

Task 2.3 Deliverables:

- Tabulation of all cost estimating materials collected.

Task 2.4 Regulatory Compliance

Hazen will perform a review of the regulatory compliance issues related to each viable selected alternative. This review will include identifying permits required for each alternative from a water quality and treatment perspective, as well as disinfection and corrosion at the point of entry and at the ends of the distribution system. All current and near-term federal state and local regulations will be considered.

Task 2.4 Deliverables:

- Tabulation of all permitting and regulatory compliance materials collected and analyzed.

TASK 3 INFRASTRUCTURE ASSET EVALUATION

Hazen understands that some water and sewer system due diligence and assessment has already been completed by PWW&SB's consultant, Waggoner, regarding the utility's water and sewer assets, as part of the PWW&SB Consent Order 22-121-CWP and the Water Utility Asset Management Plan submitted to the Alabama Department of Environmental Management (ADEM) in July 2023. All spreadsheets, tables, graphics, and text appropriate for Task 3 will be prepared in a stand-alone Technical Memorandum.

Task 3.1 Vertical Asset Evaluation

Our asset evaluation will seek to validate the existing information relative to the water and wastewater systems' condition as a framework to conduct focused field investigations of the major systems' vertical assets (water storage tanks and associated valves and monitoring systems, wastewater pump stations, the Carlos Morris Wastewater Treatment Plant, and the Stanley Brooks Wastewater Treatment Plant) and serve as a foundation for asset data/information management relative to the potential procurement of a future computerized maintenance management system (CMMS).

Hazen will review the existing facilities and above-ground assets with PWW&SB operations and maintenance personnel and, based on field reviews, will develop an assessment of major equipment and unit processes. This assessment will include the following information:

- Equipment name
- Equipment tag number
- Location
- Year installed
- Condition of the equipment based on appearance, operation and maintenance records, and anecdotal evidence of PWW&SB operations staff
- Estimate of the expected useful life (EUL) of equipment based upon values in published literature and manufacturer's recommendations
- Estimate of the remaining useful life (RUL) of major equipment and facilities on the basis of age, observed condition, and industry standards

Task 3.1 Deliverables:

- Inventory of assessed vertical assets
- Overall condition and RUL of major equipment and facilities, along with a 20-year projection of in-kind renewal and replacement needs for vertical assets

Task 3.2 Linear Asset Evaluation

For buried infrastructure such as water distribution mains, sanitary sewer collection systems, and force mains, Hazen will rely on published literature, manufacturer's recommendations, and relevant experience

to determine pipeline EULs. Existing infrastructure reference material may include recently completed studies, available field inspection and maintenance information including any leak detection and correction programs, main break reports, low pressure reports, and other representative data, as available, to determine RULs for pipeline renewal and replacement projection purposes. Hazen will rely on available asset record information, property records, staff interviews, and construction drawings to determine approximate installation dates.

Task 3.2 Deliverables:

- Inventory of assessed linear assets
- Overall condition and RUL estimations of linear assets, along with a 20-year projection of renewal and replacement needs

Task 3.3 Distribution System Hydraulic Evaluation

As a first step, Hazen will assume the connection to MAWSS will be the recommended solution (an amendment to the agreement will be made if additional effort is needed if a different solution is recommended). The supply connections to MAWSS in conjunction with the asset evaluation for vertical and linear assets, the hydraulic model will be used to inform capital improvement projects and operational improvements to the system. PWW&SB's hydraulic model was updated and calibrated in 2020. This model will be updated with any additional information gained to date and used to identify deficiencies and improvements as described below.

Task 3.3.1 Identify Existing Deficiencies

Hazen will use the calibrated model to map high and low pressures and identify areas where pressures are outside the design criteria agreed upon with PWW&SB staff. Recommendations for reducing excessive pressures will be developed to help reduce non-revenue water. Areas with deficient pressures for current operations will be identified and considered when developing the capital improvement plan.

The model will map available fire flows to identify general areas with low levels of fire protection. Available flows will be compared to needed flows to quantify deficiencies at key locations. Needed flows in these areas will be estimated by Hazen or from information provided by the Fire Department considering building sizes and occupancy. Hydraulic modeling will then test and identify improvements to increase fire flows, including new pipes, pumps, or tanks, as needed.

Hazen will use the model to map water age for existing operation of the system. The model will predict water age based on extended period simulations of existing average daily demand using current pump and valve controls and operating procedures. The map will highlight areas where water age is excessive. The hydraulic model will test operational changes to reduce water age in problem areas.

It is our understanding that customers in Alabama Village will be relocated. Hazen will review the costs associated with replacing the water system in this area, if needed.

Task 3.3.2 Estimate Future Water Demand and Water Supply Alternatives

Hazen will review available population projections within system limits and other planning information made available by PWW&SB. Population and water demands will be projected in each pressure zone for the year 2040. Demand projections will include an evaluation of peaking factors and estimates of average day, maximum day and peak hour in each pressure zone.

Based on the results of prior tasks to evaluate supply, scenarios for two supply alternatives will be created in the model for both existing and future demand.

Task 3.3.3 Identify Future Deficiencies

Modeling will simulate 2040 maximum day demand for two supply scenarios and identify deficiencies where predicted performance does not meet design criteria agreed upon with PWW&SB staff. Further modeling will test alternatives for improvements.

Task 3.3.4 Develop Capital Improvement Plan to Meet Hydraulic Design Criteria

This subtask will include developing recommendations for pipes, control valves, pumps and/or tanks to meet hydraulic design criteria and maintain water quality. Recommendations will take full advantage of the existing distribution system to minimize costs.

Hazen will meet with PWW&SB staff to review preliminary recommendations considering costs, constructability, and community impacts. Final recommendations will be developed based on input from PWW&SB.

Hazen will develop a capital improvement plan (CIP) meeting hydraulic design criteria by prioritizing recommended pipes, control valves, tanks, and booster stations and estimating costs for near-term improvements to address existing deficiencies and long-term improvements for the year 2040. The CIP will tabulate recommended improvements with references to a color-coded map of the distribution system. Planning level cost estimates will include construction, land acquisition, contingencies, engineering, legal and administrative costs. CIP project sheets will summarize drivers for each project, demand triggers, and related projects.

Task 3.3 Deliverables:

- Updated hydraulic model
- 2040 water demand forecast
- Identification of future system deficiencies due to hydraulic limitations (Water Storage analysis to be finalized prior to March 1, 2024).
- 20-year CIP needs based on system deficiencies

Task 3.4 Collection System Evaluation to Locate Infiltration and Inflow Sources and Estimation Capital Improvement Needs

Hazen proposes a rapid assessment approach to identify infiltration and inflow (I/I) sources with the goal of developing a plan for sanitary sewer overflow (SSO) reductions in the future by leveraging rapid assessment level sensor data. The study will focus on identifying and isolating locations of excessive I/I and direct stormwater sources so they can be cost-effectively eliminated in a future phase. It should be

noted that the success of the I-tracker sensors is dependent upon multiple rainfall events during the study period.

Initial Level Sensor Deployment

I-tracker

I-tracker level sensors are used to measure flow depth inside manholes and are effective at rapidly identifying areas with elevated I/I and areas that may have upstream, direct stormwater connections. The collection system will be divided into approximately 35 sewersheds, each with an upstream pipe length of approximately 20,000 LF. Thirty-five (35) I-trackers will be installed to analyze the I/I response from each of these areas, with the goal of capturing enough data to identify the sewersheds that could have excessive I/I and are candidates for a more detailed analysis in Phase 2.

Review of Current CIP and High-Level CIP Needs Analysis

Hazen will conduct a review of the ongoing and planned collection system CIP projects based on information provided and furnished by PWW&SB. Elements will include:

- Status and forecasted completion of ongoing projects. We understand that such thoroughly developed information will generally require a confirmatory review as part of this process. It is envisioned that the evaluation of the PWW&SB CIP will result in a confirmation of projects, schedules and costs.
- Hazen will develop high level 20-year estimates for capital spending needed to address capacity constraints in the current collection system to the extent feasible given the aggressive timeline and available data. Capital improvements may include removal of identified inflow sources, comprehensive rehabilitation (lining main line, laterals to the ROW, and MH rehabilitation), and pipe upsizing or relief sewers. Cost estimates will be considered AACE Level 5. The amount of inflow removed will be estimated based on the pervious and impervious area tributary to the inflow source. For areas assumed to be rehabilitated, the assumed I/I reduction will be based on previous experience and other available resources.

It is important to note that future phases and more refined CIP planning will include hydraulic model calibration, capacity assessments, and a Remedial Measures Plan (RMP) as well as post-rehabilitation monitoring to confirm reductions in peak flows from inflow removal and comprehensive rehabilitation.

Task 3.5 Comprehensive Asset Renewal and Replacement Capital Needs Identification

Using the raw data and information gathered in the field, our approach to the identification of capital renewal and replacement needs is to assess each of the major facilities and asset systems with respect to the following:

- Asset condition (Mechanical, Structural, and Electrical/I/C)
- Remaining Useful Life (RUL)
- Risk Assessment Score inclusive of Probability of Failure and Consequence of Failure

For each major facility or asset system, we will prepare a table summarizing the field findings, RUL and Risk Score. A table of the current projected capital improvement plan (CIP) and schedule to address system deficiencies will be compared to the field findings and summarized

as part of this task. Hazen will also conduct a review of the ongoing and planned projects based on information not included in the CIP and furnished by PWW&SB. Elements will include:

- Overview of the CIP. This will summarize planned major capital projects, purpose (includes functionality and regulatory compliance, expansion, renewal/replacement), budget and schedule of planned expenditure to the extent information is available.
- Status and forecasted completion of ongoing projects. We understand that such thoroughly developed information will generally require a confirmatory review as part of this process. It is envisioned that the evaluation of the PWW&SB CIP will result in a confirmation of projects, schedules and costs.
- Recommendations for CIP projects for water distribution pipes, control valves, pumps and/or tanks to meet level of service criteria (pressure, fire flow, and water age), coupled with the capital needs identified under Task 3.4. Recommendations will take full advantage of the existing distribution system to minimize costs.
- Comparison of existing projected CIP to recommended renewal and replacements. This will identify any recommended modifications to the existing CIPs resulting from the focused infrastructure condition assessments and hydraulic modeling conducted and will outline an overall recommended CIP to address existing deficiencies and long-term improvements over the next 20 years to bring the water and sewer systems back into a reliable state of operations. Hazen will meet with PWW&SB staff to review preliminary recommendations considering costs, constructability, and community impacts. Final recommendations will be developed based on input from PWW&SB.

Task 3.5 Deliverables:

- Comparison of existing projected CIP to recommended renewal and replacements
- Comprehensive 20-year CIP
- Meeting with PWW&SB staff for preliminary recommendations review

Task 4 Executed Summary Technical Memorandum

Hazen will prepare an Executive Summary Technical Memorandum (TM) that will include a synopsis of the research, analytical, and evaluation efforts performed in the previous tasks. The TM will present a Summary of Findings and Recommendations for future action, including a discussion of the strengths and weaknesses of alternatives considered with corresponding ranking/selection criteria. A Projected 20-year CIP will be provided based on any proposed new facilities and R&R needs of existing assets and system deficiencies.

The TM will provide recommendations for the most viable and sustainable options for PWW&SB, and will include a phased implementation plan and potential timelines for major activities.

Task 4 Deliverables:

- Draft Final Technical Memorandum
- Final Technical Memorandum

Assumptions

1. All water quality data will be available.
2. PWW&SB will provide documentation regarding the presence or absence of lead service lines, either public or private, in its service area. The testing approach does not include lead service lines. If lead service lines are identified, additional testing with harvested lead service lines, such as pipe loop testing, may be needed. If necessary, this can be provided in an amended or separate scope and fee.
3. Laboratory analysis of samples is not included in the budget.
4. Two meetings, one prior to work starting and one after work is completed, are anticipated to be conducted with ADEM.
5. Kickoff Meeting is to be determined if it is in person and/or over Microsoft Teams.
6. Assumed two (2) full 8-hour days for site visits, including travel and lodging that is not included with Kickoff Meeting.
7. No right of entry or public notification requirements or interactions are included. Hazen will not be required to provide support for public meetings or coordination for this project.
8. No topographic survey will be necessary.
9. No utility test pits, or geotechnical studies will be necessary.
10. Assumed 10 full 8-hr days for asset evaluation site visits covering all vertical assets/facilities
11. Hazen will use available data regarding install dates, diameter, and material for water and sewer pipe network segments and available in existing GIS or other documented (Waggoner Engineering) asset records.
12. Hazen will use available GIS data.
13. No water quality simulations will be performed for this Phase. Potential corrosion and disinfection approaches will be considered for each option by standard corrosion indices and typical disinfection information in industry standard literature.
14. Development of a wastewater collection system hydraulic model and/or evaluation of the system capacity and level of service is not included.
15. Evaluation of asset needs for upgrades or process improvements beyond R&R is not included.
16. Evaluation of potentially available parcels for test/supply wells will be limited to publicly available on-line GIS databases and/or existing reports. No surveying services or property/title search work is included in this proposal.
17. PWW&SB to attend monthly progress meetings for updates and general coordination on the program.
18. Hazen will assume the connection to MAWSS will remain for the Water Storage Analysis.

Supplemental Services (only as authorized)

Collection System Evaluation to Locate Infiltration and Inflow Sources and Estimation Capital Improvement Needs

Flow Monitoring

The flow monitoring will include the installation of 25 temporary flow meters, five (5) rain gauges, and five (5) depth only meters to collect data for a period extending from the wet season to the dry season for a period of about 6 months. The purpose of this effort is to support both I/I evaluation and future hydraulic model calibration. The future calibrated hydraulic model will allow for the analysis of various scenarios to develop a remedial measure plan to address SSOs.

I-tracker Deployment in Priority Areas Identified in Initial Phase

Based on the results of the initial I-tracker deployment in the initial phase, additional I-trackers will be deployed in sewersheds with suspected excessive I/I. The I-tracker network will be installed such that each sensor is 800 LF to 1,000 LF apart, or approximately one for every 3-4 segments of pipe. This dense level sensor network will enable Hazen to isolate the sources of I/I in great detail, which will support the highly efficient allocation of capital dollars for I/I removal, especially where direct stormwater sources are clearly present. For budgeting purposes, it has been assumed that 50% of the collection system will be evaluated with the I-tracker during this phase of the work.

Smoke Testing

Smoke testing will be performed to identify and confirm direct stormwater connections or other sources of inflow in segments where the I-tracker network indicates such inflow sources are likely to exist.

Deliverables

Flow monitoring data, results from the I-tracker study, and the smoke testing will all be provided.

Additional detail for the high-level 20-year CIP in brief Tech Memo for addressing SSOs including maps showing inflow sources and areas recommended for comprehensive rehabilitation. Future modeling and evaluation will be needed to refine the CIP.

TIME OF COMPLETION
Prichard Water Works and Sewer Board
Water Source/Treatment and Asset Evaluation

TIME OF COMPLETION

Schedule

TASK	TASK DESCRIPTION	TASK DURATION (weeks from NTP)
1	Project Management	15
2	Water Supply and Treatment Alternatives Analysis	
2.1	Water Supply and Treatment Technical Assessment	8
2.2	Preliminary Environmental Impact Assessment	9
2.3	Water Supply and Treatment Alternatives Capital and Operational Cost Estimates	12
2.4	Regulatory Compliance	12
3	Infrastructure Asset Evaluation	
3.1	Vertical Asset Evaluation	8
3.2	Linear Asset Evaluation	10
3.2	Distribution System Hydraulic Evaluation	12
3.4	Collection System Evaluation and Replacement Capital Needs Identification	14
3.5	Comprehensive Asset Renewal and Replacement Capital Needs Identification	14
4	Final Technical Memorandum	15

This schedule assumes a two-week comment period for deliverables, beginning the first business day after the submittal of each deliverable. One week after the comment period commences, a review workshop will be held with all applicable PWW&SB stakeholders. Hazen will conduct the workshop(s) and will schedule workshop(s) at the commencement of the task to hold a date for each workshop. Once comments are received and addressed, Hazen will compile a comment log for the deliverables. The log shall include a summary of the comment, the individual providing the comment, and Hazen's response to each comment.

Schedule - Supplemental Services (only as authorized)

Task	Task Duration (weeks from NTP)
Flow monitoring	28*
I-tracker Network	14
Smoke Testing	14
Deliverables	18

*Flow monitoring will need to cover both wet and dry season. The duration shown may change based on the NTP date.

**SCHEDULE B
COMPENSATION**

**Prichard Water Works and Sewer Board
Water Source/Treatment and Asset Evaluation**

OWNER shall pay **ENGINEER** as full compensation for the services identified under Schedule A the amounts listed below. Task amounts are not limits and may be exceeded provided that the total amount is not exceeded. Compensation shall be lump sum as described below: .

Compensation for the scope of services described herein will be **\$740,500 lump sum** generally assigned by task, as listed below:

Task 1 – Project Management	\$17,600
Task 2 – Water Supply and Treatment Alternatives Analysis	
Task 2.1 – Water Supply and Treatment Technical Assessment	\$40,100
Task 2.2 – Environmental Impact Assessment	\$4,000
Task 2.3 – Capital and Operational Cost Estimates	\$ 26,400
Task 2.4 - Regulatory Compliance	\$5,000
Task 3 – Asset Evaluation	
Task 3.1 – Vertical Asset Evaluation	\$153,100
Task 3.2 – Linear Asset Evaluation	\$96,000
Task 3.3 – Distribution System Hydraulic Evaluation	\$90,000
Task 3.4 – Collection System Evaluation and Capital Needs Identification	\$186,250
Task 3.5 – Comprehensive Asset R&R Capital Needs Identification	\$98,900
Task 4 - Final Technical Memorandum	<u>\$23,200</u>
Total	\$740,550

Compensation for **Supplemental Services** shall be on a lump sum/ cost plus basis as described below only as authorized:

Compensation – Supplemental Services

Flow monitoring- (25 locations for 6 months allowance - cost plus 5%)	\$300,000
Engineering Evaluation for flow monitoring data (lump sum)	\$35,000
I-Tracker Network (approx 390 locations allowance - cost plus 5%)	\$400,000
Smoke Testing (approx 20% of system allowance – cost plus 5%)	\$100,000
20-Year CIP additional effort (lump sum)	\$15,000
Subconsultant markup	<u>\$40,000</u>
Total Supplemental Services (only as authorized)	\$890,000