

STANDARD FORM OF AGREEMENT
BETWEEN
GCDC-WWS AND ENGINEER
FOR
PROFESSIONAL SERVICES

This Standard Form of Agreement for Professional Services ("Agreement") is made as of 19th April, 2012 ("Effective Date"), by and between Genesee County, County Agency, the Genesee County Drain Commissioner's Office – Division of Water and Waste Services, pursuant to Public Act 342 of the Michigan Public Acts of 1939, as amended ("GCDC-WWS") of G-4610 Beecher Road, Flint, Michigan 48532, and Rowe Professional Services Company, a Michigan Corporation ("Engineer") of 540 South Saginaw Street, Suite 200, Flint, Michigan 48502. GCDC-WWS and Engineer are sometimes collectively referred to herein as the "Parties".

RECITALS

- A. GCDC-WWS desires to engage a consulting engineering firm to provide general consulting and professional engineering services for the preliminary design, final design, bidding phase, construction phase, and operational phase of a project involving design of a public water supply intake (the "Project").
- B. Engineer is an engineering firm who represents and warrants that it is an experienced and qualified design professional, and it is qualified to plan and design the Project.
- C. The Project is to be located on real property now owned by GCDC-WWS, upon real property for which easement rights will be acquired by GCDC-WWS, or upon real property for which a right-of-way permit will be acquired by GCDC-WWS.
- D. The Parties, in consideration of their mutual covenants herein, agree to the performance or furnishing of professional engineering services by Engineer with respect to the Project and for the payment for those services by GCDC-WWS as set forth herein.
- E. This Agreement shall become effective on the Effective Date.

NOW, THEREFORE, the Parties agree as follows:

PARAGRAPH 1 – GENERAL

1.1 Standard of Care

Engineer shall perform for or furnish to GCDC-WWS professional engineering and related services in all phases of the Project as hereinafter provided. Engineer shall serve as GCDC-WWS's principal design professional and engineering representative for the Project providing professional engineering consultation and advice with respect thereto. Engineer may employ such Engineer's Consultants as Engineer deems necessary to assist in the performance or furnishing of professional engineering and related services hereunder. Engineer shall not be required to employ any Engineer's Consultant unacceptable to Engineer. The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement shall be the care and skill ordinarily used by members of Engineer's profession, practicing under similar conditions at the same time and in the same locality.

1.2 Coordination with Other Documents

It is the intention of the Parties that the Standard General Conditions of the Construction Contract (EJCDC C-700, © 2002) shall be used as the Standard General Conditions for the Project and that all amendments thereof and supplements thereto shall be consistent therewith. Except as otherwise defined herein, the terms which have an initial capital letter in this Agreement and are defined in the Standard General Conditions, shall be used in this Agreement as defined in the Standard General Conditions.

1.3 Definitions

Wherever used in this Agreement the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

1.3.1 Additional Services. "Additional Services" means the services to be performed for or furnished to GCDC-WWS by Engineer described in Paragraph 3 of this Agreement.

1.3.2 Agreement. "Agreement" means this Standard Form of Agreement between GCDC-WWS and Engineer for Professional Services including those Exhibits listed in Paragraph 9 of this Agreement.

1.3.3 Basic Services. "Basic Services" means the services to be performed for or furnished to GCDC-WWS by Engineer described in Paragraph 2 of this Agreement and any other design services which are normally or customarily furnished and reasonably necessary for the Project.

1.3.4 Construction Cost. "Construction Cost" means the total cost to GCDC-WWS of those portions of the Project designed or specified by Engineer. Construction Cost does not include Engineer's compensation and expenses, the cost of land, the cost of rights-of-way or easements, compensation for or damages to properties, GCDC-WWS's legal, accounting, insurance counseling, or auditing services, interest and financing charges incurred in connection with the Project or the cost of other services to be provided by others to GCDC-WWS pursuant to Paragraph 4 of this Agreement.

1.3.5 Contract Documents. "Contract Documents" means those items so designated in the Standard General Conditions. Only printed or hard copies of the items listed in the Standard General Conditions are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

1.3.6 Contractor. "Contractor" means the person or entity with whom GCDC-WWS enters into a written agreement covering the Work to be performed or furnished with respect to the Project.

1.3.7 Defective. "Defective" means when modifying the word "Work," Work that is unsatisfactory, faulty or deficient in that it does not conform to the Contract Documents, does not meet the requirements of any applicable inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to Engineer's recommendation of final payment, unless responsibility for the protection thereof has been assumed by GCDC-WWS at Substantial Completion in accordance with Paragraph 14.04 or Paragraph 14.05 of the Standard General Conditions.

1.3.8 Drawings. "Drawings" means that part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

1.3.9 Effective Date. "Effective Date" means the date set forth in the first paragraph of this Agreement.

1.3.10 Engineer's Consultant. "Engineer's Consultant" means a person or entity having a contract with Engineer to perform or furnish Basic Services or Additional Services as Engineer's independent professional associate or consultant engaged directly on the Project.

1.3.11 Reimbursable Expenses. "Reimbursable Expenses" means those expenses incurred directly in connection with the performance or furnishing of Basic Services and Additional Services for the Project for which GCDC-WWS is required to pay Engineer as indicated in Exhibit B, "Payments to Engineer for Services and Reimbursable Expenses" ("Exhibit B").

1.3.12 Resident Project Representative or RPR. "Resident Project Representative" or "RPR" means the authorized representative of GCDC-WWS or Engineer who will be assigned to observe the progress and the Work of the Contractor in conformance with performance as set forth in the Specifications at the Site during the Work. The term Resident Project Representative includes any assistants of Resident Project Representative agreed to by GCDC-WWS in writing. The duties and responsibilities of the Resident Project Representative are set forth in Exhibit C, "Duties, Responsibilities and Limitations of Authority of Resident Project Representative" ("Exhibit C").

1.3.13 Site. "Site" means lands or areas indicated in the Contract Documents as being furnished by GCDC-WWS upon which the Work is to be performed, including rights-of-way and easements for access thereto and such other lands furnished by GCDC-WWS which are designed for the use of Contractor.

1.3.14 Specifications. "Specifications" means that part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

1.3.15 Standard General Conditions. "Standard General Conditions" means EJCDC C-700 Standard General Conditions of the Construction Contract (Copyright © 2002) National Society of Professional Engineers for EJCDC as amended and supplemented by the Supplementary Conditions for the Work.

1.3.16 Work. "Work" means the entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing and providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

PARAGRAPH 2 - BASIC SERVICES OF ENGINEER

2.1 Study and Report Phase

Not applicable to this Project.

2.2 Preliminary Design Phase

Upon written authorization from GCDC-WWS, Engineer shall:

2.2.1 Prepare the preliminary basis of design incorporating the recommended solution selected by GCDC-WWS and the specific modifications or changes in the scope, extent, character, or design requirements of the Project as determined by GCDC-WWS, prepare preliminary design documents consisting of final design criteria, preliminary Drawings and Specifications, and a written description of the Project.

2.2.2 Advise GCDC-WWS if additional reports, data, or other information or services of the types described in Paragraph 2.7.2 are necessary.

2.2.3 Based on the information contained in the preliminary design documents, submit an opinion of probable Construction Cost and any adjustments to probable Construction Cost. Submit to GCDC-WWS a preliminary estimate of Construction Cost referred to in this Paragraph 2, and provide GCDC-WWS with any adjustments thereto in a level of detail satisfactory to GCDC-WWS, the cost of each category of Work involved in constructing the Project, and include an estimate of the period of time required from the commencement to the completion of the Project.

2.2.4 Furnish the preliminary design documents to and review them with GCDC-WWS.

2.2.5 Submit to GCDC-WWS the preliminary design documents and a revised opinion of probable Construction Cost within the stipulated period set forth in Exhibit A, "Further Description of Basic Engineering Services and Related Matters ("Exhibit A")."

2.2.6 Engineer's services for the preliminary design phase shall be considered complete when the preliminary design documents have been reviewed and accepted in writing by GCDC-WWS.

The duties and responsibilities of Engineer during the preliminary design phase as set forth in this Paragraph 2.2 are amended and supplemented as set forth in Exhibit A.

2.3 Final Design Phase

After acceptance by GCDC-WWS of the preliminary design phase documents and revised opinion of probable Construction Cost and indication of any specific modifications or changes in the scope, extent, character, or design requirements of the Project desired by GCDC-WWS and upon written authorization from GCDC-WWS, Engineer shall:

2.3.1 On the basis of the accepted preliminary design documents, the modifications or changes in the scope, extent, character or design requirements of the Project as determined by GCDC-WWS and the revised opinion of probable Construction Cost, prepare for incorporation into the Contract Documents final Drawings showing the scope, extent and character of the Work to be performed and furnished by Contractor as well as the Specifications which will be prepared, where appropriate, in general conformance

with the sixteen division format of the Construction Specifications Institute. Final Drawings and Specifications, other construction documents or Contract Documents submitted by Engineer to GCDC-WWS for approval or to any prospective Bidders for bidding or negotiation phase shall be complete and unambiguous and in compliance with all applicable codes, ordinances, statutes, Laws and Regulations, except to the extent expressly and specifically otherwise stated in detail in writing by Engineer at the time of such submission. By submitting the same for the purpose of Contract Documents, Engineer certifies, represents and warrants that Engineer has informed GCDC-WWS in writing of any tests, studies, analyses or reports which are necessary or advisable to be performed by or for GCDC-WWS at that point in time.

2.3.2 Prepare the applications for permits including technical criteria, written descriptions and design data for GCDC-WWS's use in filing and obtaining approvals of such governmental authorities as have jurisdiction to review or approve the final design of the Project.

2.3.3 Advise GCDC-WWS in writing of any adjustments to the opinion of probable Construction Cost and provide GCDC-WWS in writing with any adjustments to Construction Cost as a result of changes in scope, extent or character or design requirements of the Project.

2.3.4 Prepare for review and approval of the Agreement with Contractor, Contract Documents, Standard General Conditions and Supplementary Conditions, Bid Forms, Invitations to Bid and Instructions to Bidders and assist in the preparation of other related documents.

2.3.5 Furnish the documents listed in Paragraph 2.3.4 above, the Drawings and the Specifications and review them with GCDC-WWS.

2.3.6 Submit the documents listed in Paragraph 2.3.4 above, the Drawings and the Specifications and a revised opinion of probable Construction Cost within the stipulated period indicated in Exhibit A.

2.3.7 Coordinate all Drawings and design documents relating to Engineer's design for the Project, regardless of whether such Drawings and design documents are prepared or performed by Engineer or Engineer's Consultants. If preliminary design work has been performed by others who have been engaged by Engineer, Engineer is fully responsible for such work when Engineer performs subsequent phases of the Basic Services required by this Agreement as fully as if the preliminary design work had been performed by Engineer itself. Engineer shall coordinate and internally check all Drawings for the accuracy of all dimensional and layout information contained therein as fully as if each Drawing were prepared by Engineer. Engineer is fully responsible for the completeness and accuracy of all Drawings and Specifications submitted by and through Engineer for their compliance with all applicable codes, ordinances, statutes, Laws and Regulations.

2.3.8 Engineer's services under the final design phase shall be considered complete on the date when all submittals have been accepted in writing by GCDC-WWS.

The duties and responsibilities of Engineer during the final design phase as set forth in this Paragraph 2.3 are amended and supplemented as set forth in Exhibit A.

2.4 Bidding or Negotiating Phase

After acceptance by GCDC-WWS of the Drawings, Specifications, and other final design phase documentation (including the most recent opinion of probable Construction Cost), and upon written authorization of GCDC-WWS to proceed, Engineer shall:

2.4.1 Assist GCDC-WWS in advertising for and obtaining Bids for the Contract, Materials, equipment and services. Attend pre-Bid conferences, if any are scheduled. Assist GCDC-WWS in negotiating Bids for Materials and equipment.

2.4.2 Issue Addenda as appropriate to clarify, correct, or change the Bidding Documents.

2.4.3 Consult with GCDC-WWS as to the acceptability of Subcontractors, Suppliers, and other persons and entities proposed by Contractor for those portions of the Work as to which such acceptability is required by the Bidding Documents.

2.4.4 Attend the Bid opening, assist GCDC-WWS in evaluating Bids, investigate each Bidder's references, and issue a written recommendation of the award of the Bid to GCDC-WWS.

2.4.5 The bidding or negotiating phase shall terminate and the services to be performed or furnished thereunder shall be considered complete upon commencement of the construction phase, except as may otherwise be required to complete the services required by Paragraph 7.2.5 of Exhibit E.

The duties and responsibilities of during the bidding or negotiating phase as set forth in this Paragraph 2.4 are amended and supplemented as set forth in Exhibit A.

2.5 Construction Phase

During the construction phase:

2.5.1 General Administration of Contract. Engineer shall consult with and advise GCDC-WWS and act as GCDC-WWS's representative as provided in the Standard General Conditions. The duties, responsibilities, and limitations of authority of the Engineer may be restricted, modified, or extended by GCDC-WWS in its sole discretion, and notwithstanding anything herein to the contrary, in such event Engineer's compensation shall be equitably adjusted. GCDC-WWS may issue instructions to Contractor through Engineer who, in such event, shall have authority to act on behalf of GCDC-WWS in dealings with Contractor to the extent provided in this Agreement and Standard General Conditions. GCDC-WWS may communicate with or issue instructions to the Contractor directly.

2.5.2 Visits to Site and Observation of Work. In connection with observations of the Work while it is in progress, Engineer shall make visits to the Site at intervals appropriate to the various stages of the Work to review the Work in conformance with the standards defined in the Contract Documents and to determine if the Work is proceeding in accordance with the Contract Documents. Based on the information obtained during such visits and as a result of such observations, Engineer shall issue written reports of such visits and observations and shall otherwise keep GCDC-WWS informed in writing of the progress of the Work. If requested by GCDC-WWS, Engineer shall provide a Resident Project Representative at the Site to assist Engineer in connection with its duties set forth herein. The Resident Project Representative shall be responsible for continuous, frequent, and thorough inspections to assure the proper progress and the conformance of the Work with the standards defined in the Specifications.

2.5.3 Defective Work. Engineer shall have authority to disapprove of or reject the Work while it is in progress if Engineer believes that the Work will not produce a completed Project that conforms to the Contract Documents or that it will prejudice the integrity of the design concept of the completed Project as a functioning whole as set forth in the Contract Documents. If more than one prime contract is to be awarded for a portion of the Work designed or specified by Engineer, whether GCDC-WWS engages multiple prime contractors on the Project and/or GCDC-WWS enters into two (2) separate contracts for projects which are adjacent to each other and proceeding concurrently, if any part of the Work depends for proper execution or results upon the activities of any such other contractor its subcontractors, upon receipt of written notice from a contractor regarding any delay, defect, or deficiency in such work that renders it unavailable or unsuitable for such proper execution and results, Engineer shall review such notice, and if deemed necessary, shall direct the offending contractor or subcontractor to correct the Work, make changes in design, and/or suggest changes in construction procedure before the Work shall continue.

2.5.4 Clarifications and Interpretations; Field Orders. Engineer may only issue necessary clarifications and interpretations of the Contract Documents as appropriate for the orderly completion of the Work with the written consent of GCDC-WWS. Such clarifications and interpretations shall be consistent with the intent of and reasonably inferable from the Contract Documents. Engineer may only issue Field Orders authorizing variations from the requirements of the Contract Documents with the written consent of GCDC-WWS.

2.5.5 Change Orders and Work Change Directives. Engineer shall recommend Change Orders and Work Change Directives to GCDC-WWS in writing as appropriate and shall prepare Change Orders and Work Change Directives as required. Such Change Orders and Work Change Directives shall be reviewed by Engineer and approved by GCDC-WWS in writing prior to issuance to Contractor.

2.5.6 Shop Drawings. Engineer shall review and approve Contractor submittals, such as Shop Drawings, product data, Samples, and other data, as required by Engineer, for the purpose of: (A) assuring compliance with applicable statutes, ordinances, codes, orders, rules, Laws and Regulations; and (B) assuring that the Work affected by and represented by such Contractor submittals is in compliance with the requirements of the Contract Documents. This review shall not include review of means or methods, coordination of the Work with other trades or construction safety precautions. Engineer shall be responsible for determining what aspects of the Work shall be the subject of Shop Drawings and submittals. Engineer shall not permit such aspects of the Work to proceed in the absence of approved Shop Drawings and submittals. Engineer's review as described in this Paragraph 2.5.6 shall be conducted promptly allowing sufficient time to permit a thorough review by GCDC-WWS which will in turn submit its comments to Engineer to be incorporated into Engineer's review as set forth in this Paragraph 2.5.6.

2.5.7 Substitutes. Engineer shall evaluate and determine the acceptability of Substitute Materials and equipment proposed by Contractor, subject to the provisions of Paragraph 3.2.2 and make a written recommendation to GCDC-WWS who shall make the final determination of use of such Substitute Materials or equipment.

2.5.8 Inspections and Tests. Engineer may require special inspections or tests of the Work and shall receive and review all certificates of inspections, tests and approvals required by rules, Laws and Regulations, ordinances, codes, orders, or the Contract Documents. Engineer's review of such certificates shall be for the purpose of determining that the results certified indicate compliance with the Contract Documents and constitute an evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Contract Documents.

2.5.9 Applications for Payment. Based upon Engineer's on-Site observations and upon review of Contractor's Applications for Payment and the accompanying data and schedules, Engineer shall recommend to GCDC-WWS in writing the amounts that Contractor should be paid. Such recommendation shall constitute Engineer's representation and warranty to GCDC-WWS, based on its observations and review, that the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests required by the Contract Documents and to any other qualifications stated in the recommendation and the conditions precedent to Contractor's being entitled to such payment have been fulfilled. In the case of Unit Price Work, Engineer's recommendation of payment shall include final determinations of quantities and classifications of the Work, subject to any subsequent adjustments allowed by the Contract Documents.

2.5.10 Contractor's Completion Documents. Engineer shall receive, review, and transmit to GCDC-WWS written comments regarding maintenance and operating instructions, schedules, guarantees, bonds, certificates, or other evidence of insurance required by the Contract Documents, certificates of inspection, tests and approvals, and marked-up record documents (including Shop Drawings, Samples and other data approved as provided under Paragraph 2.5.6) which are to be assembled by Contractor in accordance with the Contract Documents to obtain final payment.

2.5.11 Substantial Completion. Following notice from Contractor that Contractor considers the Work ready for its intended use, the Parties, accompanied by Contractor, shall conduct an inspection of the Work to determine if it is Substantially Complete. If GCDC-WWS considers the work Substantially Complete, Engineer shall deliver a certificate of Substantial Completion to GCDC-WWS and Contractor.

2.5.12 Final Notice of Acceptability of the Work. Engineer shall conduct a final inspection to determine if the completed Work is acceptable so that Engineer may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, Engineer shall also provide to GCDC-WWS a notice in the form attached hereto as Exhibit D (the "Notice of Acceptability of Work") that the Work is acceptable.

2.5.13 Duration of Construction Phase. The construction phase shall commence with the execution of the Agreement and Contract Documents for the Project or any part thereof and shall terminate upon written recommendation by Engineer of final payment.

The duties and responsibilities of Engineer during the construction phase as set forth in this Paragraph 2.5 are amended and supplemented as set forth in Exhibit A.

2.6 Operational Phase

During the operational phase, Engineer shall, when requested by GCDC-WWS:

2.6.1 Provide assistance in connection with the refining and adjusting of any equipment or system.

2.6.2 Assist GCDC-WWS in training GCDC-WWS's staff to operate and maintain the Project.

2.6.3 Prepare a set of reproducible record Drawings in electronic format of GCDC-WWS's current version of AutoCAD and reproducible Mylar showing record information which Engineer considers significant based on the Drawings, Shop Drawings, and other record documents furnished by Contractor to Engineer which were annotated by Contractor to show all changes made during the Work.

2.6.4 In the company of GCDC-WWS, visit the Project to observe any apparent Defective Work in the then completed Work, assist GCDC-WWS in consultations and discussions with Contractor concerning the correction of such Defective Work, and make written recommendations as to the replacement or correction of Defective Work.

2.6.5 Provide miscellaneous services as requested by GCDC-WWS in connection with the Project closeout.

2.6.6 The operational phase shall commence upon final completion of the construction phase and shall terminate one (1) year after the date of Substantial Completion.

The duties and responsibilities of Engineer during the operational phase as set forth in this Paragraph 2.6 are amended and supplemented as set forth in Exhibit A.

2.7 Responsibility in Basic Services

2.7.1 Engineer shall be responsible for the professional quality, technical accuracy and the coordination of all designs, Drawings, Specifications, and other services furnished by the Engineer under this Agreement. GCDC-WWS shall have the right to disapprove any portion of the Engineer's services in connection with the Project, including, but not limited to, the preliminary and final design phases, construction documents phase, bidding or negotiation phase, or construction phase, and any other design work or documents on any reasonable basis, including, but not limited to, aesthetics or because in the GCDC-WWS's opinion, the Construction Cost of such design is likely to render the Work or the Project infeasible. In the event that any phase of the Engineer's work or services is not approved by the GCDC-WWS, Engineer shall proceed, when requested by GCDC-WWS, with revisions to the design work or documents prepared for that phase to satisfy GCDC-WWS's objections. These revisions shall be made without adjustments to the compensation provided for hereunder, unless revisions are made to Drawings previously provided under previous phases, in which case such revisions services shall be paid as Additional Services. Should there be substantial revisions to the original design after the approval of the preliminary and final design Drawings, which changes substantially increase the scope of design services to be furnished hereunder, Engineer shall notify GCDC-WWS in writing and receive approval from GCDC-WWS before proceeding with any revisions necessitated by such changes. No payment of any nature whatsoever shall be made to Engineer for additional work or Additional Services without the written approval by GCDC-WWS.

2.7.2 GCDC-WWS shall furnish to Engineer, as and when requested by Engineer in writing for performance of Basic Services or as required by the Contract Documents, the following:

2.7.2.1 Data prepared by or services of third parties, including, without limitation, explorations and tests of subsurface conditions at or contiguous to the Site, drawings of physical conditions, in or relating to existing surface or subsurface structures at or contiguous to the Site or hydrographic surveys;

2.7.2.2 The services of an independent testing laboratory to perform all inspections, tests and approvals of Samples, Materials, and equipment prior to and after installation, or to evaluate the performance of Materials, equipment, and facilities of GCDC-WWS prior to specification and during the Work;

2.7.2.3 Appropriate professional interpretations of all of the foregoing;

2.7.2.4 Environmental assessments, floodplain, or wetland determinations with mitigative measures, audits, investigations, and impact statements, and other relevant environmental or cultural studies as to the Project, the Site and adjacent areas;

2.7.2.5 Field surveys for design purposes and property, boundary, easement, right-of-way, topographic and utility surveys or data, including relevant reference points;

2.7.2.6 Property descriptions;

2.7.2.7 Zoning, deed, and other land use restrictions; and

2.7.2.8 Other special data or consultations not covered in Paragraph 2.

Engineer shall review and confirm the sufficiency of any tests and information furnished to Engineer by or on behalf of GCDC-WWS pursuant to this Paragraph 2. Engineer may use such reports, data and information in performing or furnishing services under this Agreement.

PARAGRAPH 3 - ADDITIONAL SERVICES OF ENGINEER

3.1 Additional Services of Engineer

If authorized in writing by GCDC-WWS, Engineer shall furnish or obtain from third parties Additional Services of the types listed in Paragraph 3.1.1 through Paragraph 3.1.19, inclusive, as amended and supplemented as set forth in Exhibit A. These Additional Services are not included as part of Basic Services, except to the extent otherwise provided in Exhibit A. These Additional Services shall be paid for by GCDC-WWS as indicated in Paragraph 6 and are as follows:

3.1.1 Preparation of applications and supporting documents (in addition to those furnished under Basic Services) for private or governmental grants, loans or advances in connection with the Project. Preparation or review of environmental assessments and impact statements and the review and evaluation of the effect on the design requirements of the Project of any such statements and documents prepared by others and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.

3.1.2 Services to make measured Drawings of or to investigate existing conditions or facilities or to verify the accuracy of Drawings or other information furnished by GCDC-WWS, except where such Drawings are necessary to permit the Engineer to properly perform other Basic Services.

3.1.3 Services resulting from evaluation by Engineer during the study and report phase at GCDC-WWS's request of alternative solutions in addition to those specified in Exhibit A.

3.1.4 Services resulting from significant changes in the scope, extent or character of the portions of the Project designed or specified by Engineer or its design requirements when such changes are issued solely as a result of some action or inaction on the part of GCDC-WWS, including, but not limited to, changes in size, complexity, GCDC-WWS's schedule, character of construction or method of financing. Revising previously accepted studies, reports, Drawings, Specifications, or Contract Documents, when such revisions are required by changes in rules, Laws and Regulations, ordinances, codes, or orders enacted subsequent to the preparation of such studies, reports, Drawings, Specifications, or Contract Documents, or are due to other causes beyond Engineer's control. Notwithstanding the foregoing, as part of its Basic Services, Engineer shall devote the hours at a mutually accepted cost as needed to revise the Drawings in light of any and all revisions to or enactment of codes, ordinances, Laws and Regulations, or other legislation requiring such revisions subsequent to approval of the preliminary design report.

3.1.5 Services resulting from facts revealed about conditions: (A) which are different from information about such conditions that GCDC-WWS previously provided to Engineer under Paragraph 2.7.2 and upon which Engineer was entitled to rely; or (B) as to which GCDC-WWS had responsibility to provide information under Paragraph 2.7.2 if such information was not previously provided.

- 3.1.6 Providing renderings or models for GCDC-WWS's use in addition to those specified in Exhibit A.
- 3.1.7 Preparing documents for alternate Bids requested by GCDC-WWS for the Work which is not executed or documents for out-of-sequence work.
- 3.1.8 Undertaking investigations and studies including, but not limited to, detailed consideration of operations, maintenance and overhead expenses, the preparation of feasibility studies, cash flow and economic evaluations, rate schedules and appraisals, assistance in obtaining financing for the Project, evaluating processes available for licensing and assisting GCDC-WWS in obtaining process licensing, detailed quantity surveys of Materials, equipment and labor and audits or inventories required in connection with construction performed by or for GCDC-WWS.
- 3.1.9 Furnishing the services of Engineer's Consultants for other than Basic Services and furnishing data or services of the types described in Paragraph 2.7.2 when GCDC-WWS employs Engineer to provide such data or services in lieu of furnishing the same under Paragraph 2.7.2.
- 3.1.10 Services attributable to a variation in the number of contracts from the number specified in Exhibit A for work designed or specified by Engineer.
- 3.1.11 Services during out-of-town travel required of Engineer other than visits to the Site or GCDC-WWS's office as required by Paragraph 2.
- 3.1.12 Preparing for, coordinating with, participating in and responding to structured independent review processes, including, but not limited to, construction management, cost estimating, project peer review and value engineering as requested by GCDC-WWS. Performing or furnishing services required to revise studies, reports, Drawings, Specifications, or Contract Documents as a result of such review processes.
- 3.1.13 Determining the acceptability of Substitute Materials and equipment proposed during the bidding or negotiating phase when using Substitute Materials and equipment prior to the award of the Contract is allowed by the Bidding Documents.
- 3.1.14 Assistance in connection with Bid protests, rebidding, or renegotiating contracts for construction, Materials, equipment, or services, provided that such assistance is necessitated solely as a result of some action or inaction on the part of GCDC-WWS, except when such assistance is required to complete services required by Exhibit E.
- 3.1.15 Providing field surveys for design purposes, engineering surveys, and staking to enable Contractor to proceed with the Work and any type of property surveys or related engineering services needed for the transfer of interests in real property and providing other special field surveys.
- 3.1.16 Preparation of operating, maintenance, and staffing manuals to supplement Basic Services under Paragraph 2.6.3.
- 3.1.17 Preparing to serve or serving as a consultant or witness for GCDC-WWS in any litigation, arbitration, or other legal or administrative proceedings involving the Project, except for assistance in consultations which is included as part of Basic Services under Paragraph 2.1.3 and Paragraph 2.3.2.
- 3.1.18 Providing more extensive services required to enable Engineer to issue notices or certifications requested by GCDC-WWS hereunder.
- 3.1.19 Other Additional Services performed or furnished by Engineer in connection with the Project, including services which are to be furnished by GCDC-WWS under Paragraph 4 and services not otherwise provided for in this Agreement.

3.2 Required Additional Services

Any service that Engineer is required to provide to GCDC-WWS shall be Basic Services unless designated as a Contractor payment item or otherwise designated as an Additional Service in Paragraph 3.1 or Exhibit A. When required by the Contract Documents in connection with the performance or furnishing of Engineer's services during the construction phase, Engineer shall perform or furnish Additional Services of the types listed in Paragraph 3.2.1 through Paragraph 3.2.6, inclusive. These Additional Services listed in Paragraph 3.2.1 through Paragraph 3.2.6, inclusive, are not included as part of Basic Services except to the extent provided in Exhibit A. Required

Additional Services shall be paid for by GCDC-WWS as provided in Paragraph 6. Engineer shall promptly advise GCDC-WWS in writing and obtain specific authorization from GCDC-WWS in writing before starting the Additional Services listed in Paragraph 3.2.1 through Paragraph 3.2.6, inclusive, below.

3.2.1 Services in connection with Work Change Directives and Change Orders to reflect changes requested by GCDC-WWS if, because of the method of compensation agreed upon by the Parties, the resulting change in compensation for Basic Services is not commensurate with the extent of the Additional Services rendered.

3.2.2 Services in making revisions to Drawings and Specifications occasioned by the acceptance of Substitute Materials, equipment, or services after the award of the Contract in evaluating and determining the acceptability of a Substitute which is inappropriate for the Project or an excessive number of Substitutes.

3.2.3 Services resulting from significant delays, changes, or price increases occurring as a direct or indirect result of Materials, equipment, or energy shortages.

3.2.4 Additional Services or extended services during the Work made necessary by Work damaged by fire or other cause to the extent such damages are not covered by insurance.

3.2.5 Services (other than Basic Services during the operational phase) in connection with any partial utilization of any part of the Project by GCDC-WWS prior to its Substantial Completion.

3.2.6 Evaluating an unreasonable Claim or an excessive number of Claims submitted by Contractor in connection with the Work, provided, however, if Claims are found, in part, due to Engineer's errors or omissions, there shall be no additional compensation due to the Engineer.

PARAGRAPH 4 - GCDC-WWS's RESPONSIBILITIES

Except as otherwise provided in Exhibit A, GCDC-WWS shall do the following:

4.1 Designate in writing a person to act as GCDC-WWS's representative with respect to the services to be performed or furnished by Engineer under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define GCDC-WWS's policies and decisions with respect to Engineer's services for the Project.

4.2 With the assistance of Engineer, provide all criteria and full information as to GCDC-WWS's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability and any budgetary limitations. Furnish copies of all design and construction standards which GCDC-WWS shall require to be included in the Drawings and Specifications.

4.3 Assist Engineer by placing at Engineer's disposal all available information pertinent to the Project including previous reports and any other data relative to design or construction of the Project.

4.4 Arrange for access to and make all provisions for Engineer to enter upon public and private property as required for Engineer to perform services under this Agreement.

4.5 Examine all written recommendations regarding all alternate solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by Engineer and render in writing decisions pertaining thereto.

4.6 Advise Engineer of the identity and scope of services of any independent consultants employed by GCDC-WWS to perform or furnish services in regard to the Project, including, but not limited to, construction management, cost estimating, project peer review, value engineering, and constructability review.

4.7 Attend the pre-Bid meeting, Bid meeting, pre-construction meetings, construction progress, and other job-related meetings and Substantial Completion and final payment inspections.

4.8 Engineer shall give prompt written notice to the GCDC-WWS if the Engineer becomes aware of any default or defect in the Project, nonconformance with the Contract Documents or the Work.

4.9 Furnish or direct Engineer to provide Additional Services as required by Paragraph 3.1 of this Agreement or other services as required.

PARAGRAPH 5 - TIMES FOR RENDERING SERVICES

5.1 Engineer's services and compensation under this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project through completion of the construction phase. Unless specific periods of time or specific dates for providing services are specified in this Agreement, Engineer's obligation to render services hereunder shall extend for a period which may reasonably be required for the design, award of construction contracts, construction, and initial operation of the Project including extra work and required extensions thereto.

5.2 If in this Agreement specific periods of time for rendering services are set forth or specific dates by which services are to be completed are provided and if such periods of time or dates are changed through no fault of Engineer, the rates and amounts of compensation provided for herein may, at GCDC-WWS's discretion, be subject to equitable adjustment. If GCDC-WWS has requested changes in the scope, extent, or character of the Project, the time of performance of Engineer's services may, at GCDC-WWS's discretion, be adjusted equitably.

5.3 If Engineer's services for design or during the Project are delayed in whole or in part by an act of GCDC-WWS:

5.3.1 For more than thirty (30) days through no fault of Engineer, Engineer may, at GCDC-WWS's discretion, be entitled to equitable adjustment of rates and amounts of compensation provided for elsewhere in this Agreement to reflect, among other things, reasonable costs incurred by Engineer in connection with such delay or suspension and reactivation and the fact that the time for performance under this Agreement has been revised; or

5.3.2 For more than one (1) year through no fault of Engineer, or if Engineer for any reason is required to render construction phase services more than one (1) year after Substantial Completion is achieved, the rates and amounts of compensation provided for elsewhere in this Agreement may, at GCDC-WWS's discretion, be subject to equitable adjustment to reflect, among other things, changes in the various elements that comprise such rates of compensation.

5.3.3 No adjustment shall be made whatsoever under this Paragraph 5 for any suspension or delay by any other cause, including the fault or negligence of the Engineer.

5.4 In the event that the work designed or specified by Engineer is to be performed or furnished under more than one contract, or if Engineer's services are to be separately sequenced with the work of one or more contractors (such as in the case of fast-tracking), GCDC-WWS and Engineer shall, prior to commencement of the final design phase, develop a schedule for performance of Engineer's services during the final design, bidding, or negotiating and construction phases in order to sequence and coordinate properly such services as are applicable to the work under such separate contracts. This schedule shall be prepared and included in Exhibit A whether or not the work under such contracts is to proceed concurrently.

PARAGRAPH 6 - PAYMENTS TO ENGINEER FOR SERVICES AND REIMBURSABLE EXPENSES

6.1 Methods of Payment for Services and Reimbursable Expenses of Engineer

6.1.1 For Basic Services. GCDC-WWS shall pay Engineer for Basic Services performed or furnished under Paragraph 2 on the basis set forth in Exhibit B.

6.1.2 For Additional Services. GCDC-WWS shall pay Engineer for Additional Services performed or furnished under Paragraph 3 on the basis set forth in Exhibit B.

6.1.3 For Reimbursable Expenses. In addition to payments provided for in Paragraph 6.1.1 and Paragraph 6.1.2, GCDC-WWS shall pay Engineer for Reimbursable Expenses incurred by Engineer and Engineer's Consultants on the basis set forth in Exhibit B.

6.2 Other Provisions Concerning Payments

6.2.1 Preparation and Payment of Invoices.

6.2.1.1 Engineer shall submit monthly invoices to GCDC-WWS for the cost of services actually and properly performed and authorized Reimbursable Expenses actually and properly incurred pursuant to this Agreement for the prior month. These invoices shall be in a form acceptable to GCDC-WWS and shall be accompanied by supporting data as may be reasonably required by GCDC-WWS. Engineer expressly waives any right to payment for Additional Services unless authorized in writing by GCDC-WWS.

6.2.1.2 Upon approval of each invoice, or portion thereof, GCDC-WWS shall pay the approved amount, provided, however, in no event shall GCDC-WWS make any payment which shall cause the total payments under this Agreement to exceed the authorized compensation for Basic Services as described in Exhibit B, unless GCDC-WWS has agreed in writing to payment of compensation exceeding the approved amount.

6.2.2 Payments Upon Termination.

6.2.2.1 Termination by GCDC-WWS for Cause. In the event of termination by GCDC-WWS for cause under Paragraph 8.1.1:

6.2.2.1.1 Upon the completion of any phase of Basic Services occurring prior to the effective date of the termination, progress payments due Engineer in accordance with this Agreement for all Basic Services performed or furnished by Engineer and Engineer's Consultants through the completion of such phase shall constitute total payment for Basic Services. Engineer also shall be paid for all completed and unpaid Additional Services and incurred and unpaid Reimbursable Expenses through the effective date of the termination.

6.2.2.1.2 During any phase of the Basic Services which is underway but not completed at the time of termination, Engineer shall be paid for such Basic Services performed or furnished in accordance with this Agreement by Engineer during that phase through the date of termination as reasonably determined by GCDC-WWS. Engineer also shall be paid for the charges of Engineer's Consultants employed to perform or furnish Basic Services to the extent such Basic Services have been performed or furnished in accordance with this Agreement through the effective date of the termination as reasonably determined by GCDC-WWS. Engineer also shall be paid for all completed and unpaid Additional Services and incurred and unpaid Reimbursable Expenses through the effective date of the termination.

6.2.2.2 Termination by Engineer for Cause. In the event of termination by Engineer for cause under Paragraph 8.1.1, Engineer shall be entitled to receive compensation calculated as set forth in Paragraph 6.2.2.1 and Paragraph 6.2.2.1.2, as applicable.

6.2.3 Records of Engineer's Costs. Records of Engineer's costs pertinent to Engineer's compensation under this Agreement shall be kept in accordance with generally accepted accounting practices. Copies shall be made available to GCDC-WWS at no cost upon request prior to final payment for Engineer's services. GCDC-WWS shall have the right to audit Engineer's books and records prepared or kept in connection with this Project at all reasonable times and places. These books and records shall be preserved by the Engineer for a period of three (3) years after final payment.

6.2.4 Waiver. GCDC-WWS's review, approval, acceptance of, or payment for any of the services required under this Agreement shall not be construed to operate as a waiver of the rights under this Agreement or of any cause of action arising out of the performance of this Agreement. Engineer shall be and remain liable to GCDC-WWS in accordance with applicable law for all damages to GCDC-WWS caused by the Engineer's negligent performance or non-performance of any of the services required to be furnished under this Agreement.

6.2.5 Cooperation. At no cost to GCDC-WWS, the Engineer shall assist GCDC-WWS in the investigation and defense of any claims which arise from the designs prepared by Engineer.

6.2.6 Right to Withhold or Nullify Payment. GCDC-WWS may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any invoice for services and expenses to such extent as may be necessary to protect GCDC-WWS from loss on account of: (A) Defective Work not remedied by the Engineer; (B) claims filed or reasonable evidence indicating probable filing of claims as a result of Engineer's errors, omissions, or negligence; and (C) damage to any contractor or third party as a result of Engineer's errors, omissions, or negligence. When the foregoing grounds are removed, if ever, payment shall be made for amounts withheld because of them, less any costs or expenses incurred, or damages suffered by GCDC-WWS as a result thereof.

PARAGRAPH 7 - OPINIONS OF COST

7.1 Opinions of Probable Construction Cost

Engineer's opinions of probable Construction Cost provided for herein shall be made on the basis of Engineer's experience and qualifications and represent Engineer's best judgment as an experienced and qualified professional engineer familiar with the construction industry.

7.2 Designing to Construction Cost Limit

If a Construction Cost limit is established between GCDC-WWS and Engineer, such Construction Cost limit and a statement of Engineer's rights and responsibilities with respect thereto shall be specifically set forth in Exhibit E, "Construction Cost Limit."

PARAGRAPH 8 GENERAL CONSIDERATIONS

8.1 Termination

The obligation to provide further services under this Agreement may be terminated:

8.1.1 For cause, by either party upon thirty (30) days' written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. Notwithstanding the foregoing, this Agreement shall not terminate as a result of such substantial failure if the party receiving such notice begins, within seven (7) days of receipt of such notice, to correct its failure to perform and proceeds diligently to cure such failure within no more than thirty (30) days of receipt of written notice thereof, provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such thirty (30) day period and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided from herein shall extend up to, but in no case more than, sixty (60) days after the date of receipt of the written notice.

8.1.2 This Agreement may also be terminated upon seven (7) days' written notice without regard to any fault or failure to perform by any party solely at GCDC-WWS's discretion. Upon receipt of such written notice, Engineer shall immediately discontinue all services affected (unless the notice directs otherwise), deliver to GCDC-WWS copies of all data, Drawings, Specifications, reports, estimates, summaries, and such other information, documents, and Materials as may have been accumulated by the Engineer in performing this Agreement whether completed or in process and assign to GCDC-WWS any subcontracts, purchase orders, or other agreements which GCDC-WWS requests.

8.1.3 If the termination is at the reasonable discretion of GCDC-WWS, an equitable adjustment in the compensation of Engineer shall be made, but no amount shall be allowed for anticipated profit or unperformed services. In the event of termination during any phase of the Basic Services, Engineer shall be paid for services performed or furnished in accordance with this Agreement during that phase to date of termination on the basis of actual direct payroll wages plus non-payroll expenses at invoice cost.

8.1.4 If the termination is due to the failure of the Engineer to fulfill its contractual obligations, GCDC-WWS may take over and complete the services by contract or otherwise, and GCDC-WWS shall be compensated by Engineer for any losses or costs it incurs by virtue of this termination for failure to perform.

8.2 Reuse of Documents

Original Drawings and Specifications are the property of GCDC-WWS, and Engineer may not use the Drawings and Specifications for any purpose not relating to the Project without GCDC-WWS's written consent. Engineer shall furnish GCDC-WWS with such reproductions of Drawings and Specifications as GCDC-WWS may reasonably require. Upon completion of the Work or any earlier termination of this Agreement under this Paragraph 8, Engineer shall revise the Drawings to reflect changes made during the Work, and Engineer shall promptly furnish GCDC-WWS with one (1) complete set of reproducible record prints in electronic format of GCDC-WWS's current version of AutoCAD and reproducible Mylar. Prints shall be furnished, as an Additional Service, at any other time requested by GCDC-WWS. All such reproductions shall be the property of GCDC-WWS who may use them without Engineer's permission for any proper purpose relating to the Project, including, but not limited to, additions to or completion of the Project.

8.3 Insurance

Engineer shall maintain throughout the period of the Project and for a period of three (3) years thereafter, a standard form of errors and omissions insurance policy upon terms and conditions satisfactory to GCDC-WWS with an insurance company licensed in Michigan and satisfactory to GCDC-WWS. Engineer shall also maintain insurance coverage for worker's compensation, comprehensive general liability, comprehensive automobile liability and owners and contractors protective liability insurance, upon terms and conditions and in amounts satisfactory to GCDC-WWS as set forth in Exhibit F. Engineer shall list GCDC-WWS as an additional insured on all such insurance policies. Engineer shall ensure that any and all consultants engaged or employed by Engineer carry and maintain similar insurance with reasonably prudent limits and coverage in light of the services to be performed by such consultants. Engineer shall submit to GCDC-WWS proof of such insurance to GCDC-WWS. The maintenance of such insurance in such amounts and upon such terms with conditions as GCDC-WWS shall have accepted shall be a condition precedent to the Engineer's exercise or enforcement of any rights under this Agreement. All insurance policies shall include a provision requiring written notice to GCDC-WWS at least thirty (30) days prior to any cancellation, non-renewal, or material modification thereof. Engineer shall promptly forward to GCDC-WWS certificates showing the insurance coverages as required by Paragraph 8.3.

8.4 Controlling Law

This Agreement shall be governed by the laws of the State of Michigan.

8.5 Successors and Assigns

The successors and permitted assigns of the Parties are hereby bound to the other party to this Agreement and to the successors and permitted assigns of such other party in respect of all covenants, agreements, and obligations of this Agreement. Engineer shall not assign this Agreement without the written consent of GCDC-WWS. GCDC-WWS may assign this Agreement without the consent of Engineer.

8.6 Dispute Resolution

The Parties agree on a method and procedure for resolving disputes between them arising out of or relating to this Agreement as follows:

8.6.1 *STEP 1.* GCDC-WWS and Engineer shall promptly submit to the other party hereto any and all unsettled claims, counterclaims, disputes, and other matters in question between them arising out of or relating to this Agreement or the breach thereof ("Dispute"). Such submittals shall occur no later than thirty (30) days after the occurrence of the event giving rise to the Dispute or within thirty (30) days following the date that the Dispute became evident to GCDC-WWS or Engineer. Such submittals shall state the general nature of the Dispute, shall identify the requested adjustment or remedy, and shall include all pertinent back-up and supporting documentation. Upon delivery of a submittal of a Dispute, GCDC-WWS and Engineer shall promptly meet to attempt to resolve the Dispute.

8.6.2 *STEP 2.* In the event that any Dispute is not resolved in *STEP 1* above, the Dispute shall be submitted to non-binding mediation by a mediator mutually acceptable to GCDC-WWS and Engineer.

8.6.3 *STEP 3*. Failing to agree on or reach a settlement with respect to the Dispute through *STEP 1* and *STEP 2* above within sixty (60) days of the submittal of a Dispute, the Dispute may be litigated to conclusion in a court having jurisdiction over the Dispute.

8.7 Allocation of Risks - Indemnification

Engineer shall indemnify, hold harmless, and defend GCDC-WWS, GCDC-WWS's agents, employees, representatives and any affiliated or related entities from and against any and all claims, losses, liabilities, damages, costs and expenses, including, but not limited to, all fees and charges of engineers, architects, attorneys, and other professionals and all court or other dispute resolution costs, that have occurred in whole or in part as a result of or due to the breach of this Agreement by Engineer or due to the negligence or fault of Engineer, its agents, consultants, employees or representatives, regardless of whether or not such claim, loss, liability, damage, cost, or expense is caused in part by a party indemnified hereunder.

8.8 Notices

Any notice required under this Agreement shall be in writing, addressed to the appropriate party at the address which appears on the signature page to this Agreement (as modified in writing from time to time by such party), and given personally, by registered or certified mail, return receipt requested, by facsimile, or by a nationally recognized overnight courier service. All notices shall be effective upon the date of receipt.

8.9 Survival

All representations, warranties, covenants, and agreements made in or given by a party in this Agreement shall survive the completion of all services of Engineer under this Agreement or the termination of this Agreement for any reason.

8.10 Severability

Any provision or part of the Agreement held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Parties who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

8.11 Engineer Cooperation

In the event of the termination of this Agreement, Engineer consents to GCDC-WWS's selection of another engineer of GCDC-WWS's choice to assist the GCDC-WWS in any way in completing the Project. Engineer further agrees to cooperate and provide any information requested by GCDC-WWS in connection with the completion of the Project and consents to and authorizes the making of any reasonable changes to the design of the Project by GCDC-WWS and such other engineer as GCDC-WWS may desire. Any services provided by Engineer, which are requested by GCDC-WWS after termination, shall be fairly compensated by GCDC-WWS.

8.12 Incidental or Consequential Damages

Notwithstanding anything to the contrary contained here in, neither party shall be liable for incidental or consequential damages whether arising in contract, tort (including negligence), statute, or strict liability.

8.13 Incorporation by Reference

The Contract Documents (including, but not limited to the definitions set forth therein) are incorporated by reference as though fully set forth herein, and Engineer specifically agrees and acknowledges that it has reviewed the Contract Documents and agrees to be bound by and comply with the Contract Documents. The Recitals set forth are incorporated by reference as though fully set forth herein and are a contractual part of this Agreement.

PARAGRAPH 9 - EXHIBITS AND SPECIAL PROVISIONS

9.1 This Agreement is subject to the provisions of the following Exhibits which are attached to and incorporated into the Agreement:

- 9.1.1 Exhibit A, "Further Description of Basic Engineering Services and Related Matters," consisting of three (3) pages.
 - 9.1.1.1 Attachment to Exhibit A, "Scope of Services" consisting of three (3) pages.
- 9.1.2 Exhibit B, "Payments to Engineer for Services and Reimbursable Expenses," consisting of one (1) page.
- 9.1.3 Exhibit C, "Duties, Responsibilities and Limitations of Authority of Resident Project Representative," consisting of three (3) pages. **Not Used**
- 9.1.4 Exhibit D, "Notice of Acceptability of Work," consisting of 1 page. **Not Used**
- 9.1.5 Exhibit E, "Construction Cost Limit," consisting of 1 page. **Not Used**
- 9.1.6 Exhibit F, "Insurance," consisting of 1 page.

9.2 This Agreement (consisting of pages 1 to 16, inclusive and the Exhibits identified above) constitutes the entire agreement between GCDC-WWS and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

IN WITNESS WHEREOF, the Parties have executed this Agreement to be effective as of the Effective Date.

GCDC-WWS
Genesee County Drain Commissioner

By: _____

Attest: _____

Address for giving Notices:
G-4610 Beecher Road
Flint, Michigan 48532

ENGINEER:
Rowe Professional Services Company

By: _____
James E. Redding, P.E., Vice President

Attest: _____

Address for giving Notices:
P.O. Box 3748
Flint, Michigan 48502

License No.: _____
(where applicable)

Agent for Service of Process

(If Engineer is an entity, attach evidence of authority to sign)

Designated Representative:

Name: John F. O'Brien, P.E.

Title: Director

Address: G-4610 Beecher Road
Flint, Michigan 48532
(810) 732-7870
Fax (810) 732-9773

Designated Representative:

Name: James E. Redding, P.E.

Title: Vice President

Address: P.O. Box 3748
Flint, Michigan 48502
(810) 341-7500
Fax (810) 341-7573

This is **EXHIBIT A**, consisting of 3 pages, referred to
in the **Agreement between GCDC-WWS and ENGINEER**
for Professional Services, dated April 19, 2012

Initials:
GCDC-WWS JK
ENGINEER DER

FURTHER DESCRIPTION OF BASIC ENGINEERING SERVICES AND RELATED MATTERS

Paragraphs 2, 3, 4, and 5 of the Agreement are amended and supplemented, and the time periods for the performance of the Basic Services as set forth in Paragraph 5 of the Agreement are established, all as set forth below.

PRIME CONTRACT 1

Time Frame

A.	Study and Report Phase	Not included	months	
B.	Preliminary Design Phase	Not included	months	
C.	Final Design Stage	5	months	<u>April to Aug. 2012</u>
D.	Bidding Phase	4	months	<u>July to Nov. 2012</u>
E.	Construction Phase	Not included	months	
F.	Operational Phase	Not included	months	

PARAGRAPH A2 - BASIC SERVICES OF ENGINEER

2.2 Preliminary Design Phase NOT INCLUDED

The preliminary design phase establishes the general size and scope of the Project and its basic location on the Site. The preliminary design phase services of Engineer are supplemented as follows.

1. Preparation of preliminary design documents consisting of final design criteria, preliminary Drawings, Specifications, and a written description of the Project. These documents shall be submitted for review and approval by GCDC-WWS for the submission to the Michigan Department of Environmental Quality ("MDEQ").
2. Conduct a conference with GCDC-WWS to review design requirements, and conduct a Site inspection to determine design parameters.
3. Advise GCDC-WWS if additional reports, data, or other information or services are necessary for final design, and provide to GCDC-WWS the costs for the Engineer to acquire needed data. These reports shall include, but not be limited to the following: (A) exploration and tests of subsurface conditions (soil borings), including appropriate professional interpretations of tests and soil boring logs; (B) wetlands survey/determination; and (C) preparation of environmental assessments and impact statements.
4. Obtain any additional field surveys necessary for design purposes.
5. Preparation of preliminary opinions of probable Construction Cost for the Project.
6. Five (5) sets of Engineer's preliminary design documents shall be submitted to GCDC-WWS.
7. The preliminary design documents shall be submitted to GCDC-WWS within sixty (60) days following written authorization from GCDC-WWS to Engineer to proceed with the preliminary design phase services.

2.3 Final Design Phase

The final design phase establishes the services required to complete the design of improvements to the Project. The final design services of Engineer are supplemented as follows.

1. Detailed conferences with GCDC-WWS. Engineer shall meet periodically to review progress and to receive input from GCDC-WWS and the regulatory agencies.
2. Review existing Shop Drawings, and conduct a Site survey to determine existing conditions.
3. Prepare a preliminary schematic and layout Drawings for the Project.
4. Review and revise the "basis of design" to accommodate anticipated daily flow and peak flow projections. The basis of design is to be developed to meet anticipated P. A. 451 permit requirements and soil erosion permit requirements.
5. Review acceptability of Major Equipment components with GCDC-WWS.

6. Prepare final design documents including Contract Documents, final Specifications, and final Drawings. Engineer shall supply a complete set of 2' x 3' Mylar Drawings and final Specifications in Biddable condition. Engineer shall also provide Drawings and Specifications on electronic format (AUTACAD and Word, respectively). Final design shall include all general/civil, architectural, structural, mechanical, electrical, and instrumentation and control for a complete Project.
7. Furnish engineering data and an application for an MDEQ P.A. 451 construction permit.
8. Preparation of a final opinion of probable Construction Cost.
9. Furnish GCDC-WWS with five (5) copies of the Construction Drawings and Specifications for final review by GCDC-WWS and MDEQ.
10. Meet with GCDC-WWS's staff to review the final draft of Contract Documents. Revise the Bidding Documents to include GCDC-WWS's comments.
11. Prepare applications for permits required to initiate and complete the Project. GCDC-WWS shall pay for all application and permit issuance fees.
12. Submit five (5) sets of Contract Documents to GCDC-WWS for review.
13. The number of Contracts for Work designed or specified by Engineer, upon which Engineer's compensation has been established under the Agreement, is two (2).

2.4 Bidding or Negotiating Phase

The bidding or negotiating phase services of Engineer are supplemented as follows.

1. Prepare the Bid advertisement, and assist GCDC-WWS in the preparation of a list of prospective Bidders. The cost of publication shall be paid for by GCDC-WWS.
2. Arrange a pre-Bid conference with the GCDC-WWS, MDEQ, and plan holders. This conference shall be held at least ten (10) days prior to the Bid date. Engineer shall answer questions from plan holders, and issue any Addenda required to clarify discrepancies in the Bidding Documents.
3. Attend the Bid opening, and prepare a tabulation of the Bids
4. Review the qualifications and acceptability of low Bidder, named Subcontractors, and equipment Suppliers.
5. Provide a recommendation for the award of the Bid for GCDC-WWS's use.
6. Prepare conformed Contract Documents for signature by GCDC-WWS and the successful Bidder.

2.5 Construction Phase – NOT INCLUDED

Engineer shall provide a Resident Project Representative for the Project. The construction phase services of Engineer are supplemented as follows:

1. Consultation and advice during the Work.
2. Conduct progress meetings at the Site on a weekly, bi-weekly, or monthly basis, as deemed necessary by GCDC-WWS and Engineer. Prepare meeting agenda, and prepare and distribute meeting minutes.
3. Preparation of elementary sketches required to resolve actual field conditions encountered.
4. Review material data sheets, equipment Shop Drawings, and detailed installation drawings for compliance with the Specifications and design concepts.
5. Review laboratory and shop test reports of Materials and equipment.
6. Issue bulletins and Change Orders which are required. Assist GCDC-WWS in negotiating Change Order prices. Provide independent opinions of cost for Change Order work.
7. Prepare record Drawings for the Project. Provide GCDC-WWS with a Mylar copy of the record Drawings.
8. The construction phase services shall commence within ninety (90) to one hundred thirty (130) days following completion of the final design phase.

PARAGRAPH 2 – BASIC SERVICES OF ENGINEER

- 1. The following services listed in Paragraph 2 of the Agreement are hereby specifically removed from Paragraph 2 and shall be performed or furnished by Engineer as part of Additional Services under Paragraph 3.1 or Paragraph 3.2: _____.
- 2. The following services listed in Paragraph 2 of the Agreement are hereby specifically deleted from Paragraph 2 and shall be performed or furnished by GCDC-WWS as part of GCDC-WWS's responsibilities under Paragraph 4: _____.

PARAGRAPH 3 – ADDITIONAL SERVICES OF ENGINEER

- 1. The Additional Services of Engineer listed in Paragraph 3.1.1, Paragraph 3.1.2, Paragraph 3.1.14 and Paragraph 3.1.15 of the Agreement are hereby specifically removed as Additional Services, and such Additional Services, set forth in the aforementioned Paragraphs, shall be performed or furnished by Engineer as part of Basic Services under Paragraph 2 of the Agreement.
- 2. Paragraph 3 of the Agreement is hereby amended to provide that the following services shall be performed or furnished by Engineer as part of Additional Services under Paragraph 3.1 or Paragraph 3.2: _____.
- 3. The following services listed in Paragraph 3, "Additional Services," are hereby specifically deleted from Paragraph 3 and shall be performed or furnished by GCDC-WWS as part of GCDC-WWS's responsibilities under Paragraph 4: _____.
- 4. Engineer intends to employ each of the independent consultants listed below to perform or furnish services in regard to the Project for the respective scope of services listed below for each. Payments to Engineer for services in Paragraph 6 hereof are based on the participation in the Project of GCDC-WWS's independent consultants as described herein.

<u>Consultant</u>	<u>Scope of Service</u>
PSI	Geotechnical/Engineering
Global Environmental	Wetlands Surveys

PARAGRAPH 4 – GCDC-WWS's RESPONSIBILITIES

- 1. GCDC-WWS's responsibilities listed in Paragraph 4.4.1, Paragraph 4.4.4 and Paragraph 4.4.5 of the Agreement are hereby specifically removed as GCDC-WWS's responsibilities and such responsibilities set forth in the aforementioned Paragraphs shall be performed or furnished by Engineer as a part of Basic Services under the Agreement.
- 2. The following services listed in Paragraph 4 of the Agreement are hereby specifically removed from Paragraph 4 and shall be performed or furnished by Engineer as part of Additional Services under Paragraph 3.1 or Paragraph 3.2: _____.

**Attachment to Exhibit A – Scope of Work
Design of Lake Huron Intake**

Proposed Design for Construction of the Following:

- Valve Chamber (STA 6+00)
 - Designed to accommodate tunneling operation and to serve as valve chamber ahead of pumping station
 - Located west of M-25 highway
 - 30 feet internal clear diameter, secant wall design
 - Internal piping and valves to facilitate dividing intake flow to either of two planned clear wells and to accommodate back flushing of intake with future pumps. Clear well and back flush piping will be extended approximately 50 feet from valve chamber wall.
 - Concrete slab at top of structure (building by others)
 - Access ladder(s) and safety landing(s) (installed by others)
 - Controls/instrumentation (by others)
- 78" Intake pipe from valve chamber to lake's edge, installed by tunneling (STA 6+00 to 14+50+/-)
- 78" Intake pipe in lake bottom (STA 14+50+/- to 71+00)
 - Open cut marine construction (portion may be tunneled)
 - Designed for maximum capacity of 85 mgd
 - Intake pipeline not designed for extension or expansion; future plans include construction of second intake pipeline to increased depth (distance from shore) and additional capacity
- Two intake cribs (identical design for each, 60 mgd capacity for each)
- External zebra mussel control piping system (Two separate pipes)

Proposed Scope of Design Services:

1. Project Management
 - a. A schedule for completing the design work will be developed
 - b. Procedures and standards to be used for design will be established to provide consistency and coordination between team members
 - c. A plan for QA/QC for the project will be developed
 - d. Regular progress meetings will be scheduled for team members
 - e. Regular progress meetings will be scheduled with Owner/Contracting Agency, not less than biweekly
2. Investigations and Fieldwork
 - a. Supplemental lake bottom survey at the locations of the planned intakes – Soundings will be completed at the location of the planned intake cribs to verify depth and contours of the lake bottom at the location.
 - b. Supplemental lake bottom survey at the proposed intake pipeline construction transition area from tunnel to open cut – A survey of the lake bottom will be completed to specifically identify the location for the transition from tunnel to open cut construction, to verify actual conditions.
 - c. Monument control points at project site – Permanent concrete monuments with vertical and horizontal control will be set on the lake side property and pumping station property.
 - d. Additional soil borings and analysis at the location of the valve chamber and adjacent to the planned tunnel route on land
 - e. Environmental review – to identify flood plains, wetlands, endangered / threatened species, historically significant sites, and potential environmental contamination which could be impacted by the planned construction and to determine the need for additional study or investigation. (Additional study, if needed, will be at additional cost.) Wetland limits, flood plains, and other critical locations will be mapped by survey crews.

3. Permitting Requirements – Early in the design process, meet with MDEQ and USACE permit staff to review the conceptual design to identify specific issues and concerns that will need to be addressed during the design and permitting process. Additionally, meet with or contact Worth Township, Sanilac County, MDOT, and USCG representatives to identify their requirements for project approval and permitting early.
 - a. A summary of permitting requirements will be developed along with a schedule for the planned dates for submitting and obtaining needed approvals.
 - b. Applications and supporting documentation assembled for submission to permitting agencies (submission and permit fees to be paid by Contracting Agency)
 - c. Monitoring of permit review / approval; providing supplemental information where necessary to procure permits
4. Finalize Preliminary Design with MDEQ-Water Bureau
5. Design – One design will be developed and detailed on drawings and with specifications.
 - a. Site plan – showing locations of proposed facilities, SE/SC provisions
 - b. Valve chamber – secant wall design, internal piping and valves to provide for splitting intake flow to one of two planned pump station clear wells and to provide for back flushing of intake pipeline
 - i. An alternative design instead of secant wall may be selected by the Owner prior to commencing design
 - c. Valve chamber ancillary provisions – access ladder and platform(s) designed, but installed by a different construction contract
 - d. Intake pipeline – 78” reinforced concrete pipe installed by tunneling without liner plate
 - i. 30% design of TBM retrieval pit
 - ii. An alternative pipe material instead of reinforced concrete pipe may be selected by the Owner prior to commencing design
 - e. Intake pipeline – 78” prestressed concrete cylinder pipe (PCCP) installed by marine construction
 - i. Develop corrosion control strategy
 - ii. An alternative pipe material instead of PCCP may be selected by the Owner prior to commencing design.
 - f. Two timber intake cribs, each designed for 60 mgd
 - g. External piping system for zebra mussel control
 - h. Specifications will be provided for alternative pipe materials and valve chamber construction to establish criteria for alternative bids; details for alternatives will not be provided
6. Specifications / Bidding Documents (Up to three construction divisions/contracts planned)
 - a. Use GCDC-WWS “front-end” standards
 - b. Use applicable GCDC-WWS standard details (SE/SC, small pipe, etc.)
 - c. Specifications – CSI sixteen division format
 - i. Use applicable GCDC-WWS standard specifications
 - d. Develop list of Pay Items
 - e. Develop Contractor’s responsibilities for QA/QC
7. Prepare Construction Cost Estimate (at 30%, 60%, 90% and 100% design)
8. Prepare Construction Schedule
9. 90% Design Review Meeting
10. Prepare Basis of Design Summary Report
11. Bidding
 - a. Provide electronic files with drawings and specifications to Owner for printing and distribution to prospective bidders (format AutoCAD, pdf, and MSWord)
 - b. Conduct pre-bid meeting
 - c. Address questions during bid period
 - d. Review bids and make recommendation of award to contractor
 - i. If bid review requires review/ analysis of alternative designs submitted by contractors, review of alternatives will be completed on a time and material basis in addition to the design fee limit

Project Schedule

Begin design immediately with the goal of bidding for construction in July 2012 (although all permits may not be obtained at the time of bidding)

Initials:
GCDC-WWS
ENGINEER

AS
GER

Paragraph 6 of the Agreement is amended and supplemented to include the following agreement of the Parties:

PARAGRAPH 6 – PAYMENTS TO ENGINEER FOR SERVICES AND REIMBURSABLE EXPENSES

Billing Rate Method of Payment

6. Methods of Payment for Services and Reimbursable Expenses of Engineer

6.1 *For Basic Services.* GCDC-WWS shall pay to Engineer as Basic Services an amount equal to Engineer's Standard Billing Rates for time spent by the Engineer working on the project, plus reimbursable expenses. The authorized monetary limit for compensation payable for Basic Services pursuant to this Paragraph B6.1.1 is \$800,000.

6.1.1 Included in the authorized monetary limit set forth in Paragraph B6.1. above, for service of the Engineer's Consultants, are the following allowances:

Soil Borings	\$40,000
Wetlands Surveys	\$15,000

6.1.2 Standard Billing Rates

	Billing Rate (\$ per hour)
ROWE Professional Services Company	
Principal / Sr. Project Manager	\$150
Project Manager	\$125
Civil Engineer	\$100
Engineering Technician	\$90
Survey Manager	\$105
Survey Crew	\$150
Administrative	\$60
Lockwood, Andrews, & Newnam	
Project Director	\$235
Sr. Project Manager	\$185
Project Manager	\$170
Chief Pipe Engineer	\$215
Civil Engineer	\$130
Sr. Structural Engineer	\$200
Structural Engineer	\$165
Design Engineer	\$115
CAD Technician	\$90
Administrative	\$105

Other classifications may be submitted for Owner approval. Standard billing rates do not include direct project expenses, which will be invoiced separately for reimbursement.

6.2 Other Provisions Concerning Payments

Payments upon Termination. In the event of termination of the Agreement during any phase of Basic Services or Additional Services, Engineer shall be paid for the Basic Services or Additional Services (as applicable) performed or furnished in accordance with this Agreement during that phase on the basis of Engineer's Standard Billing Rates for services performed or furnished during the applicable phase to the date of termination of the Agreement.

This is **EXHIBIT F**, consisting of 1 page, referred to
in the **Agreement between GCDC-WWS and Engineer**
for Professional Services, dated April 19, 2012

Initials:
GCDC-WWS WWS
ENGINEER ASR

Paragraph 8.3 of the Agreement is amended and supplemented to include the following agreement of the Parties.

8.3 Insurance

The insurance policies and the limits of liability for such insurance policies required to be obtained and maintained by Engineer in accordance with Paragraph 8.3 of the Agreement are as follows:

- | | |
|---|---|
| 1. Workers' Compensation: | Statutory |
| 2. Employer's Liability: | <u>\$1,000,000</u> |
| 3. General Liability: | |
| General Aggregate: | <u>\$2,000,000</u> |
| Each Occurrence (Bodily Injury and Property Damage): | <u>\$1,000,000</u> |
| 4. Excess Umbrella Liability: | |
| Each Occurrence: | <u>\$5,000,000</u> |
| General Aggregate: | <u>\$5,000,000</u> |
| 5. Automobile Liability: | |
| a. Bodily Injury: | |
| Each Person | <u>\$</u> |
| Each Accident | <u>\$</u> |
| Property Damage: | |
| Each Accident | <u>\$</u> |
| or | |
| b. Combined Single Limit (Bodily Injury and Property Damage): | |
| Each Accident | <u>\$1,000,000</u> |
| 6. Other (specify): | |
| Professional Liability | <u>\$2,000,000 / occurrence</u>
<u>\$4,000,000 / Aggregate</u> |

The GCDC-WWS shall be named as an additional insured on Engineer's policies of insurance as described above and as set forth in Paragraph 8.3 of the Agreement. Engineer shall promptly deliver to GCDC-WWS Certificates of Insurance evidencing the coverage required herein.

GCDC-WWS will not carry insurance covering the Project until the Project is completed.