AGREEMENT

Between

CITY OF FORT LAUDERDALE

and

CAROLLO ENGINEERS, INC.

for

Granular Activated Carbon Pilot and Plant Evaluation at the Fiveash Water Plant

RFQ No. 12191-996

AGREEMENT

THIS IS AN AGREEMENT, made and entered into this 5th day of February 2019, by and between:

CITY OF FORT LAUDERDALE, a municipal Corporation of the State of Florida, (hereinafter referred to as "CITY")

and

CAROLLO ENGINEERS, INC., a Delaware corporation authorized to transact business in the State of Florida, (hereinafter referred to as "CONSULTANT").

WHEREAS, the City Commission of the City of Fort Lauderdale, Florida at its meeting of **February 5, 2019** authorized the proper officials by motion to execute an Agreement between CONSULTANT and CITY authorizing the performance of services in connection with a **GRANULAR ACTIVATED CARBON PILOT AND PLANT EVALUATION AT THE FIVEASH WATER PLANT**; and

WHEREAS, the CONSULTANT responded to the City's solicitation #12191-996 and is willing and able to render Services for such project for the compensation and on the terms hereinafter set forth; and

NOW, THEREFORE, in consideration of the mutual covenants, agreements, terms, and conditions contained herein, the parties hereto, do agree as follows:

ARTICLE 1
DEFINITIONS AND IDENTIFICATIONS

For the purposes of this Agreement and the various covenants, conditions, terms and provisions which follow, the DEFINITIONS and IDENTIFICATIONS set forth below are assumed to be true and correct and are therefore agreed upon by the parties.

1.1 **ADDITIONAL SERVICES**: Services performed by the CONSULTANT authorized by Task Order and supplemental to the basic services described in this Agreement and listed in Exhibit "A", Scope of Services.

1.2 **AGREEMENT:** Means this document between the CITY and CONSULTANT dated **February 5, 2019** and any duly authorized and executed Amendments to Agreement.

1.3 **BASIC SERVICES:** Services performed by the CONSULTANT for authorized scope of work for the Project phase described in this Agreement and listed in Exhibit "A", Scope of Services.

1.4 **CERTIFICATE FOR PAYMENT:** A statement by CONSULTANT, based on observations at the site and on review of documentation submitted by the Contractor that, by its issuance, recommends that CITY pay identified amounts to the Contractor for services performed by the Contractor at the Project.

1.5 **CHANGE ORDER:** A written order to the Contractor, addressing modifications to the contract documents, and establishing the basis of payment and contract time adjustment, if any, for the work affected by such modifications. The CONSULTANT shall review and make recommendations to the CITY on any proposed Change Orders, for approval or other appropriate action by the CITY.

1.6 **CITY:** The City of Fort Lauderdale, a municipal corporation of the State of Florida.

1.7 **CITY MANAGER:** The City Manager of the City of Fort Lauderdale, Florida.

1.8 **COMMISSION:** The City Commission of the City of Fort Lauderdale, Florida, which is the governing body of the CITY government.

1.9 **CONSTRUCTION COST**: The total construction cost to CITY of all elements of the Project designed or specified by the CONSULTANT.

1.10 **CONSTRUCTION COST LIMIT:** A maximum construction cost limit established by the CITY defining the maximum budget amount to which the final construction documents should be designed so as not to exceed.

1.11 **CONSTRUCTION DOCUMENTS**: Those working drawings and specifications and other writings setting forth in detail and prescribing the work to be done, the materials, workmanship and other requirements for construction of the entire Project, including any bidding information.

1.12 **CONSULTANT**: **CAROLLO ENGINEERS, INC.**, the CONSULTANT selected to perform Granular Activated Carbon Pilot and Plant Evaluation at the Flveash Water Plant pursuant to this Agreement.

1.13 **CONTRACT ADMINISTRATOR:** The City Engineer of the City of Fort Lauderdale, or his or her designee. In the administration of this agreement, as contrasted with matters of policy, all parties may rely upon instructions or determinations made by the Contract Administrator.

1.14 **CONTRACTOR:** One or more individuals, firms, corporations or other entities identified as such by a written agreement with CITY ("Contract for Construction") to perform the construction services required to complete the Project.

1.15 **DEPARTMENT DIRECTOR:** The director of Public Works Department for the City of Fort Lauderdale.

1.16 **ERROR**: A mistake in design, plans and/or specifications that incorporates into those documents an element that is incorrect and is deficient from the standard of care that a professional engineer in similar circumstances, working on a similar project and location would have exercised. Also includes mistakes in design, plans, specifications and/or shop drawings review that lead to materials and/or equipment being ordered and/or delivered where additional costs are incurred.

1.17 **FINAL STATEMENT OF PROBABLE CONSTRUCTION COSTS:** A final cost estimate prepared by CONSULTANT during the Final Design Phase of the Project, based upon the final detailed Construction Documents of the Project.

1.18 **NOTICE TO PROCEED:** A written Notice to Proceed with the Project issued by the Contract Administrator.

1.19 **OMISSION**: A scope of work missed by the CONSULTANT that is necessary for the Project, including a quantity miscalculation, which was later discovered and added by Change Order and which is deficient from the standard of care that a professional engineer in similar circumstances, working on a similar project and location would have exercised. Also includes design that was wrong, but was corrected after award to the Contractor, but before the construction process was materially affected.

1.20 **ORIGINAL CONTRACT PRICE**: The original bid and/or contract price as awarded to a Contractor based upon the CONSULTANT'S final detailed Construction Documents of the Project.

1.21 **PLANS AND SPECIFICATIONS**: The documents setting forth the final design plans and specifications of the Project, including architectural, civil, structural, mechanical, electrical, communications and security systems, materials, lighting equipment, site and landscape design, and other essentials as may be appropriate, all as approved by CITY as provided in this Agreement.

1.22 **PRELIMINARY PLANS**: The documents prepared by the CONSULTANT consisting of preliminary design drawings, renderings and other documents to fix and describe the size and character of the entire Project, and the relationship of Project components to one another and existing features.

1.23 **PROJECT**: An agreed scope of work for accomplishing a specific plan or development. This may include, but is not limited to, planning, architectural, engineering, and construction support services. The services to be provided by the CONSULTANT shall be as defined in this Agreement and further detailed in Task Orders for individual projects or combinations of projects.

The Project planning, design and construction may occur in separate phases and Task Orders at the CITY's discretion.

1.24 **RESIDENT PROJECT REPRESENTATIVE:** Individuals or entities selected, employed, compensated by and directed to perform services on behalf of CITY, in monitoring the Construction Phase of the Project to completion.

1.25 **SPECIFICATIONS:** The specifications referred to in this agreement are the CONSTRUCTION STANDARDS AND SPECIFICATIONS, Office of the City Engineer, City of Fort Lauderdale, January 1982, including any revisions.

1.26 **STATEMENT OF PROBABLE PROJECT COSTS:** A document to be prepared by the CONSULTANT that shall reflect a detailed statement of the total probable costs.

1.27 **STANDARD OF CARE:** The CONSULTANT shall perform the services required hereunder in accordance with the prevailing engineering standard of care by exercising the skill and ability ordinarily required of an engineer performing the same or similar services, under the same or similar circumstances, in the State of Florida.

1.28 **SUBSTANTIAL COMPLETION:** The City will consider the work substantially complete when the Contractor submits 100% complete deliverables (i.e. Drawings, Specifications, Reports, Renderings) as described in this Agreement to the satisfaction of the City.

1.29 **TASK ORDER:** A document setting forth a detailed scope of services to be performed by CONSULTANT upon authorization of the CITY.

1.30 **TIME OF COMPLETION:** Time in which the entire work shall be completed.

ARTICLE 2
PREAMBLE

In order to establish the background, context and frame of reference for this Agreement and to generally express the objectives and intentions of the respective parties hereto, the following statements, representations and explanations shall be accepted as predicates for the undertakings and commitments included within the provisions of this Agreement which follow and may be relied upon by the parties as essential elements of the mutual considerations upon which this Agreement is based.

2.1 City has budgeted funds for the Project.

ARTICLE 3
SCOPE OF SERVICES FOR BASIC SERVICES

3.1 CONSULTANT shall provide all services set forth in Exhibit "A", Scope of Services, attached hereto and incorporated herein, including all necessary, incidental and related activities and services required by the Scope of Services and contemplated in CONSULTANT's level of effort.

3.2 CITY and CONSULTANT acknowledge that the Scope of Services does not delineate every detail and minor work tasks required to be performed by CONSULTANT to complete the Project. If, during the course of the performance of the services included in this Agreement, CONSULTANT determines that work should be performed to complete the Project which is in the CONSULTANT's opinion, outside the level of effort originally anticipated, whether or not the Scope of Services identifies the work items, CONSULTANT shall notify Contract Administrator and obtain written approval by the Contract Administrator in a timely manner before proceeding with the work. Notice to Contract Administrator does not constitute authorization or approval by CITY to perform the work. The CITY shall not pay for any work that is not approved by the Contract Administrator in writing prior to its commencement.

3.3 CITY and CONSULTANT acknowledge that basic services described in Exhibit "A are included in the fee agreed upon. The CITY and CONSULTANT may negotiate additional scopes of services, compensation, time of performance and other related matters for any necessary additional task or future phases of Project. If CITY and CONSULTANT cannot contractually agree, CITY shall have the right to immediately terminate negotiations at no cost to CITY and procure services for additional task or future Project phases from another source.

ARTICLE 4
GENERAL PROVISIONS

4.1 CONSULTANT shall include CITY's project number as part of the heading on all correspondence, invoices, etc. All correspondence shall be directed specifically to the Contract Administrator.

4.2 Negotiations pertaining to the professional design, engineering, architectural and project management services to be performed by the CONSULTANT have been undertaken between CONSULTANT and CITY representatives pursuant to Section 287.055, Florida Statutes, and this Agreement incorporates the results of such negotiation.

ARTICLE 5
TASK ORDERS FOR ADDITIONAL SERVICES

5.1 Task Orders for additional services shall be jointly prepared by the CITY and CONSULTANT defining the detailed scope of services to be provided for the Project. Each Task Order shall be separately numbered and approved in accordance with this Agreement (and applicable CITY purchasing code requirements). These Task Orders shall be considered supplemental to the general description of basic services as described in Exhibit "A."

5.2 Under all Task Orders and Projects, CITY may require the CONSULTANT, by specific written authorization, and for mutually agreed upon additional compensation, to provide or assist in obtaining one or more of the following special services. These services may include, at the discretion of the CITY, the following items:

5.2.1 Providing additional copies of reports and documents; and

5.2.2 Assisting the City with litigation support services arising from the planning, development, or construction.

5.3 Prior to initiating the performance of any services under this Agreement, CONSULTANT must receive a written Notice to Proceed from the CITY. The CONSULTANT must receive the approval of the Contract Administrator or his designee in writing prior to beginning the performance of services in any subsequent Task Order under this Agreement.

5.4 If, in the opinion of the CITY, the CONSULTANT is improperly performing the services under a specific task, or if at any time the CITY shall be of the opinion that said task is being unnecessarily delayed and will not be completed within the agreed upon time, the CITY shall notify the CONSULTANT in writing. The CONSULTANT has within ten (10) business days thereafter to take such measures as will, in the judgment of the CITY, ensure satisfactory performance and completion of the work. If the CONSULTANT fails to cure within the ten (10) business days, the CITY may notify the CONSULTANT to discontinue all work under the specified task. The CONSULTANT shall immediately respect said notice and stop said work and cease to have any rights in the possession of the work and shall forfeit the task order and any remaining monies. The CITY may then decide, after City Commission approval, to issue a new task order for the uncompleted work to another CONSULTANT using the remaining funds. Any excess costs arising therefrom over and above the original task order price shall be charged against you, as the original CONSULTANT.

5.5 In the event CONSULTANT is unable to complete the services on the date or dates as provided in this agreement or subsequent Task Orders, because of delays resulting from the untimely review and approval by CITY and other governmental authorities having jurisdiction over the Project, CITY may grant an appropriate

extension of time for completion of the work, It shall be the responsibility of the CONSULTANT to notify the CITY promptly in writing whenever a delay in approval by a governmental agency is anticipated or experienced, and to inform the CITY of all facts and details related to the delay.

ARTICLE 6
TIME FOR PERFORMANCE; CONSULTANT DAMAGES

6.1 CONSULTANT shall perform the basic services described in Exhibit "A" within the time periods specified in a mutually agreed upon project schedule, developed before commencement of work and made a part of this agreement. The Project Schedule, once complete, shall be automatically incorporated into this Agreement; said time periods shall commence from the date of the Notice to Proceed for such services.

6.2 Prior to beginning the performance of any services under this Agreement, CONSULTANT must receive a Notice to Proceed. CONSULTANT must receive written approval from the Contract Administrator prior to beginning the performance of services in any subsequent phases of the Agreement. Prior to granting approval for CONSULTANT to proceed to a subsequent phase, the Contract Administrator may, at his or her sole option, require CONSULTANT to submit itemized deliverables for the Contract Administrator's review.

6.3 In the event CONSULTANT is unable to complete the above services because of delays resulting from untimely review by CITY or other governmental authorities having jurisdiction over the Project, and such delays are not the fault of CONSULTANT, or because of delays which were caused by factors outside the control of CONSULTANT, CITY shall grant a reasonable extension of time for completion of the services and shall provide reasonable compensation, if appropriate. It shall be the responsibility of the CONSULTANT to notify CITY promptly in writing whenever a delay in approval by a governmental agency is anticipated or experienced, and to inform CITY of all facts and details related to the delay.

6.4 In the event Contractor fails to substantially complete the Project on or before the substantial completion date specified in the project schedule with CITY or if Contractor is granted an extension of time beyond said substantial completion date, and CONSULTANT's services are extended beyond the substantial completion date, through no fault of CONSULTANT, CONSULTANT shall be compensated in accordance with Article 7 for all services rendered by CONSULTANT beyond the substantial completion date.

6.5 The time for the performance of services described in Exhibit "A," Scope of Services and supplemental Task Orders shall be negotiated by the CITY and the CONSULTANT as the services are requested and authorized by the CITY.

6.5.1 Any work pursuant to a Task Order that commences prior to and will extend beyond the expiration date of the term of this Agreement shall continue until completion at the same prices, terms and conditions of this Agreement. All licenses and required insurance shall remain active and in place through completion of work under the Task Order.

6.6 The term of this Agreement shall be limited to the time duration required to complete the basic services of the aforementioned project and any additional project related Task Orders for additional services.

ARTICLE 7
COMPENSATION AND METHOD OF PAYMENT

7.1 AMOUNT AND METHOD OF COMPENSATION

Not To Exceed Compensation

CITY agrees to pay CONSULTANT as compensation for performance of all services as related to Exhibit "A" required under the terms of this Agreement an amount not to exceed **Six Hundred Fifty Thousand Dollars** ($650,000.00), for all related task orders. . It is agreed that the method of compensation is that of "Not to Exceed Amount" which means that CONSULTANT shall perform all services set forth in all Task Orders combined for total compensation in the amount of or less than that stated total. The hourly rate-billing schedule to be used in negotiating each Task Order is attached as Exhibit "B" to this Agreement.

A not to exceed proposal shall be accompanied by the CONSULTANT's estimate. The estimate shall detail the direct labor costs by categories of employees, work hours, and hourly rate; overhead; direct non-salary expenses including Reimbursables; and profit, or as required by individual Task Order.

7.2 REIMBURSABLES

7.2.1 It is acknowledged and agreed to by CONSULTANT that the dollar limitation set forth in each task order is a limitation upon, and describes the maximum extent of CITY's obligation to reimburse CONSULTANT for direct, nonsalary expenses, but does not constitute a limitation, of any sort, upon CONSULTANT obligation to incur such expenses in the performance of services hereunder. CONSULTANT shall be compensated for Reimbursable expenses associated with a particular Task Order up to the amount allocated for such Task Order. The CITY shall not remit payment for any of CONSULTANT's expenses that exceed the amount allocated for each Task Order, unless agreed to in writing by the Contract Administrator. If CITY or Contract Administrator requests CONSULTANT to incur expenses not contemplated in the amount for Reimbursables for each task order, CONSULTANT shall notify

Contract Administrator in writing before incurring such expenses. Any such expenses shall be reviewed and approved by the Contract Administrator prior to incurring such expenses.

7.2.2 Except as required and provided for by the Florida Local Government Prompt Payment Act, City shall not be liable for interest for any reason, whether as prejudgment interest or for any other purpose, and in furtherance thereof Contractor waives, rejects, disclaims and surrenders any and all entitlement it has or may have to receive interest in connection with a dispute or claim based on or related to this Agreement.

7.3 METHOD OF BILLING

Not To Exceed Amount Compensation

CONSULTANT shall submit billings, which are identified by the specific project number on a monthly basis in a timely manner for all salary costs and Reimbursables attributable to the Project. These billings shall identify the nature of the work performed for each phase, subtask, deliverable and item identified in the Exhibit "A" Scope of Services or Task Order, the total hours of work performed and the employee category of the individuals performing same. The statement shall show a summary of salary costs with accrual of the total and credits for portions paid previously. Subconsultant fees must be documented by copies of invoices or receipts, which describe the nature of the expenses and contain a project number or other identifier, which clearly indicates the expense, as identifiable to the Project. Except for meals and travel expenses, it shall be deemed unacceptable for the CONSULTANT to modify the invoice or receipt by adding a project number or other identifier. Internal expenses must be documented by appropriate CONSULTANT's cost accounting forms with a summary of charges by category. When requested, CONSULTANT shall provide backup for past and current invoices that records hours and salary costs by employee category and subconsultant fees on a task basis, so that total hours and costs by task may be determined.

7.4 METHOD OF PAYMENT

7.4.1 CITY shall pay CONSULTANT in accordance with the Florida Prompt Payment Act. To be deemed proper, all invoices must comply with the requirements set forth in this Agreement and must be submitted on the form and pursuant to instructions prescribed by Contract Administrator.

7.4.2 CITY will review CONSULTANT's invoices and, if inaccuracies or errors are discovered in said invoice, CITY will inform CONSULTANT within ten (10) working days by fax and/or by email of such inaccuracies or

errors and request that revised copies of all such documents be re-submitted by CONSULTANT to CITY.

7.4.3 Payments are scheduled to be made by CITY to CONSULTANT using a credit card /CITY Procurement Card (P-Card).

7.4.4 Payment will be made to CONSULTANT at:

Carollo Engineers, Inc.
P.O. Box 30835
Salt Lake City, UT 84130-0835

ARTICLE 8
ADDITIONAL SERVICES, AMENDMENTS AND CHANGES IN SCOPE OF SERVICES

8.1 CITY or CONSULTANT may request changes that would increase, decrease, or otherwise modify the Scope of Services to be provided under this Agreement. Such changes must be contained in a written amendment, executed by the parties hereto, with the same formality and of equal dignity herewith, prior to any deviation from the terms of this Agreement including the initiation of any Additional Services. CITY shall compensate CONSULTANT for such Additional Services as provided in Article 7.

8.2 In the event a dispute between the Contract Administrator and CONSULTANT arises over whether requested services constitute Additional Services and such dispute cannot be resolved by the Contract Administrator and CONSULTANT, such dispute shall be promptly presented to the City Manager for resolution. The City Manager's decision shall be final and binding on the parties for amounts in the aggregate under $100,000.00 per project. In the event of a dispute in an amount over $100,000.00, the parties agree to use their best efforts to settle such dispute. To this effect, they shall consult and negotiate with each other, in good faith and, recognizing their mutual interests, attempt to reach a just and equitable solution satisfactory to both parties. If they do not reach such solution within a period of sixty (60) days, then upon notice to the other, either party may commence litigation to resolve the dispute in Broward County, Florida. Any resolution in favor of CONSULTANT shall be set forth in a written document signed or authorized by a judge. During the pendency of any dispute, CONSULTANT shall promptly perform the disputed services.

ARTICLE 9
CONSULTANT'S RESPONSIBILITIES

9.1 The CONSULTANT, following the CITY's approval of the Construction Documents and of the Final Statement of Probable Construction Costs, shall, when so

directed and authorized by the CITY, assist the CITY in estimating construction costs, reviewing proposals, and assist in awarding contracts for construction. If requested, the CONSULTANT shall review and analyze the proposals received by the CITY, and shall make a recommendation for any award based on CITY's Purchasing Ordinance.

9.2 Should the lowest responsible, responsive proposal exceed the Final Statement of Probable Construction Costs by less than 10%, CONSULTANT, at no additional cost to the CITY, shall meet with the CITY's representatives and work to reduce costs to bring the Original Contract Price within the Final Statement of Probable Construction Costs. Should the lowest responsible, responsive proposal exceed the Final Statement of Probable Construction Costs by 10% or more, CONSULTANT shall, at the CITY's direction, redesign each Project and/or work with the CITY to reduce the costs to within the Final Statement of Probable Construction Costs at no additional expense to the CITY. If negotiations between the CITY and the CONSULTANT have not commenced within three months after completion of the final design phase, or if industry-wide prices are changed because of unusual or unanticipated events affecting the general level of prices or times of delivery in the construction industry, the established Construction Cost Limit may be adjusted in accordance with the applicable change in the Construction Cost Index for Twenty Cities from the date of completion of the final design phase and the date on which proposals are sought, as published monthly in "Engineering News Record". If each Project scope and design is expanded by the CITY after the CONSULTANT renders the estimated Construction Cost of the Plans and Specifications, the CONSULTANT shall not be responsible for any redesign without compensation.

9.3 In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for potential projects, the CONSULTANT has no control over cost or price of labor and material; unknown or latent conditions of existing equipment or structures that may affect operation and maintenance costs; competitive bidding procedures and market conditions; time or quality of performance of third parties; quality, type, management, or direction of operating personnel; and other economic and operational factors that may materially affect the ultimate project cost or schedule. Therefore, the CONSULTANT makes no warranty that the CITY's actual project costs, financial aspects, economic feasibility, or schedules will not vary from the CONSULTANT's opinions, analyses, projections, or estimates. The CITY's sole remedy for inaccurate cost estimates, unless due to the CONSULTANT's failure to meet the standard of care delineated in Section 1.26, shall be as described in Section 9.2.

9.4 The CONSULTANT shall provide the CITY with a list of recommended, prospective proposers.

9.5 The CONSULTANT shall attend all pre-proposal conferences.

9.6 The CONSULTANT shall recommend any addenda, through the Contract Administrator, as appropriate to clarify, correct, or change proposal documents.

9.7 If pre-qualification of proposers is required as set forth in the request for proposal, CONSULTANT shall assist the CITY, if requested, in developing qualification criteria, review qualifications and recommend acceptance or rejection of the proposers. If requested, CONSULTANT shall evaluate proposals and proposers, and make recommendations regarding any award by the CITY.

9.8 The CITY shall make decisions on claims regarding interpretation of the Construction Documents, and on other matters relating to the execution and progress of the work after receiving a recommendation from the CONSULTANT. The CONSULTANT may also assist in approving progress payments to the Contractor based on each Project Schedule of Values and the percentage of work completed.

9.9 The CITY shall maintain a record of all Change Orders which shall be categorized according to the various types, causes, etc. that it may be determined are useful or necessary for its purpose. Among those shall be Change Orders identified as architectural/engineering Errors or Omissions.

9.9.1 Unless otherwise agreed by both parties in writing, it is specifically agreed that any change to the work identified as an Error on the part of the CONSULTANT shall be considered for purposes of this Agreement to be an additional cost to the CITY which would not be incurred without the Error.

9.9.2 Unless otherwise agreed by both parties in writing, it is further specifically agreed for purposes of this Agreement that fifteen percent (15%) of the cost of Change Orders for any item categorized as an Omission shall be considered an additional cost to the CITY which would not be incurred without the Omission. So long as the total of those two numbers (Change Order costs of Errors plus fifteen percent (15%) of Omissions) remains less than two percent (2%) of the total Construction Cost of the Project, the CITY shall not look to the CONSULTANT for reimbursement for Errors and Omissions.

9.9.3 Should the sum of the two as defined above (cost of Errors plus fifteen percent (15%) of the cost of Omissions) exceed two percent (2%) of the Construction Cost, the CITY shall recover the full and total additional cost to the CITY as a result of CONSULTANT's Errors and Omissions from

the CONSULTANT, that being defined as the cost of Errors plus fifteen percent (15%) of the cost of Omissions above two percent (2%) of the Construction Cost.

9.9.4 To obtain such recovery, the CITY shall deduct from the CONSULTANT's fee a sufficient amount to recover all such additional cost to the CITY.

9.9.5 In executing this Agreement, the CONSULTANT acknowledges acceptance of these calculations and to the CITY's right to recover same as stated above. The recovery of additional costs to the CITY under this paragraph shall not limit or preclude recovery for other separate and/or additional damages which the CITY may otherwise incur.

9.9.6 The Contract Administrator's decision as to whether a Change Order is caused by an Error or caused by an Omission, taking into consideration industry standards, shall be final and binding on both parties for amounts in the aggregate under $100,000 per project, subject to Section 8.2. In the event of a dispute in an amount over $100,000, the parties agree to use their best efforts to settle such dispute. To this effect, they shall consult and negotiate with each other, in good faith and, recognizing their mutual interests, attempt to reach a just and equitable solution satisfactory to both parties. If they do not reach such solution within a period of sixty (60) days, then upon notice to the other, either party may commence litigation to resolve the dispute in Broward County, Florida.

ARTICLE 10
CITY'S RESPONSIBILITIES

10.1 CITY shall assist CONSULTANT by placing at CONSULTANT's disposal all information CITY has available pertinent to the Project including previous reports and any other data relative to design or construction of the Project.

10.2 CITY shall arrange for access to, and make all provisions for, CONSULTANT to enter upon public and private property as required for CONSULTANT to perform its services.

10.3 CITY shall review the itemized deliverables/documents identified in Scope of Services.

10.4 CITY shall give prompt written notice to CONSULTANT whenever CITY observes or otherwise becomes aware of any development that affects the scope or timing of CONSULTANT's services or any defect in the work of the Contractor.

ARTICLE 11
MISCELLANEOUS

11.1 OWNERSHIP OF DOCUMENTS

All documents prepared or furnished by CONSULTANT, its dependent professional associates and employees, pursuant to this Agreement shall be owned by the CITY upon full payment of all fees due the CONSULTANT.

Drawings, specifications, designs, models, photographs, reports, surveys and other data prepared in connection with this Agreement are and shall remain the property of the CITY whether the Project for which they are made is executed or not, and are subject to reuse by the CITY in accordance with Section 287.055(10) of the Florida Statutes. They are not intended or represented to be suitable for reuse by the CITY or others on extensions of this Project or on any other project without appropriate verification or adaptation. This shall not limit the City's reuse of preliminary or developmental plans or ideas incorporated therein, should the Project be suspended or terminated prior to completion.

11.2 TERMINATION

11.2.1Termination for Cause. It is expressly understood and agreed that the CITY may terminate this Agreement at any time for cause in the event that the CONSULTANT (1) violates any provisions of this Agreement or performs same in bad faith or (2) unreasonably delays the performance of the services or does not perform the services in a timely and satisfactory manner upon written notice to the CONSULTANT. Notice of termination shall be provided in accordance with Section 11.26. In the case of termination by the CITY for cause, the CONSULTANT shall be first granted a 10 working day cure period after receipt of written notice from the CITY. In the event that the Agreement is terminated, the CONSULTANT shall be entitled to be compensated for the services approved by the CITY and rendered from the date of execution of the Agreement up to the time of termination, subject to other provisions of this Agreement. Such compensation shall be based on the fee as set forth above, wherever possible. For those portions of services rendered to which the applicable fee cannot be applied, payment shall be based upon the appropriate rates for the actual time spent on the project. In the event that the CONSULTANT abandons this Agreement or through violation of any of the terms and conditions of this Agreement, causes it to be terminated, CONSULTANT shall indemnify the CITY against any loss pertaining to this termination.

All finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs and reports prepared by CONSULTANT shall become the property of CITY and shall be delivered by CONSULTANT to the CITY within five (5) days of CITY's request. Upon payment of such sum by CITY to CONSULTANT, CITY shall have no further duties or obligations pursuant to or arising from this Agreement.

11.2.2 This Agreement may also be terminated by CITY upon such notice as CITY deems appropriate in the event CITY or Contract Administrator determines that termination is necessary to protect the public health, safety, or welfare.

11.2.3 Notice of termination shall be provided in accordance with Section 11.26, NOTICES, except that Contract Administrator may provide a prior verbal stop work order if the Contract Administrator deems a stop work order of this Agreement in whole or in part is necessary to protect the public's health, safety, or welfare. A verbal stop work order shall be promptly confirmed in writing as set forth in Section 11.26, NOTICES.

11.2.4 Termination for Convenience. In the event this Agreement is terminated for convenience, CONSULTANT shall be paid for any services performed to the date the Agreement is terminated. Compensation shall be withheld until all documents specified in Section 11.2 of this Agreement are provided to the CITY. Upon being notified of CITY's election to terminate, CONSULTANT shall refrain from performing further services or incurring additional expenses under the terms of this Agreement. Under no circumstances shall CITY make payment for services which have not been performed.

11.2.5 Termination by CONSULTANT. CONSULTANT shall have the right to terminate this Agreement upon substantial breach by the CITY of its obligation under this Agreement as to unreasonable delay in payment or non-payment of undisputed amounts. CONSULTANT shall have no right to terminate this Agreement for convenience of the CONSULTANT.

11.3 AUDIT RIGHT AND RETENTION OF RECORDS

CITY shall have the right to audit the books, records, and accounts of CONSULTANT that are related to this Project. CONSULTANT shall keep such books, records, and accounts as may be necessary in order to record complete and correct entries related to the Project.

CONSULTANT shall preserve and make available, at reasonable times for examination and audit by CITY all financial records, supporting documents, statistical records, and any other documents pertinent to this Agreement for the required retention period of the Florida Public Records Act (Chapter 119, Florida Statutes), if applicable, or, if the Florida Public Records Act is not applicable, for a minimum of three (3) years after termination of this Agreement. If any audit has

been initiated and audit findings have not been resolved at the end of the retention period or three (3) years, whichever is longer, the books, records, and accounts shall be retained until resolution of the audit findings. If the Florida Public Records Act is determined by CITY to be applicable to CONSULTANT's records, CONSULTANT shall comply with all requirements thereof; however, no confidentiality or non-disclosure requirement of either federal or state law shall be violated by CONSULTANT. Any incomplete or incorrect entry in such books, records, and accounts shall be a basis for CITY's disallowance and recovery of any payment upon such entry.

11.4 NON DISCRIMINATION, EQUAL EMPLOYMENT OPPORTUNITY, AND AMERICANS WITH DISABILITIES ACT

CONSULTANT 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 CITY, including Titles I and II of the ADA (regarding nondiscrimination or the basis of disability), and all applicable regulations, guidelines, and standards.

CONSULTANT'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.

CONSULTANT shall comply with Title I of the ADA 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, CONSULTANT 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.

CONSULTANT 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.

11.5 MINORITY AND DISADVANTAGED PARTICIPATION

Historically, the CITY has been able to achieve participation levels of approximately twelve percent (12%) by minority and women business firms in CITY projects, and in the purchase of goods and services. The CONSULTANT shall make a good faith effort to help the CITY maintain and encourage Minority Business Enterprise (MBE) and/or Women Business Enterprise (WBE) participation levels consistent with such historical levels and market conditions. The CONSULTANT will be required to document all such efforts and supply the CITY with this documentation at the end of the Project, or in cases where projects are longer than one year, each CITY fiscal year.

CONSULTANT shall carry out the applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts, and certifies that no person shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination or retaliation for the Services required herein under any City of Fort Lauderdale program or activity.

CITY is the subrecipient and the Broward Metropolitan Planning Organization (BMPO) is the recipient of federal funds. The BMPO developed a Disadvantaged Business Enterprise ("DBE") Program with an overall **goal of 7% DBE participation**, and submitted the DBE Program to the Federal Transit Administration ("FTA") for approval. To meet the DBE participation goal, an equivalent percentage of the contracted labor must be performed by DBE's as prime Consultants or through subcontract and/or joint venture projects. For more information on the BMPO DBE Program and how the BMPO calculates its DBE Program goal, please refer to the BMPO Disadvantaged Business Enterprise Program document located on the BMPO web site at: http://www.browardmpo.org.

A.The City of Fort Lauderdale and BMPO are required to track and report DBE contracting activities and payments to the FTA. CONSULTANT shall agree to assist the BMPO in the completion of any documents required to be submitted to the FTA for compliance with the DBE program. CONSULTANT shall complete and submit the Anticipated DBE Participation Statement and a Bid Opportunity List.

B.The City of Fort Lauderdale and BMPO shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The City of Fort Lauderdale and BMPO shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this DOT assisted contract. Failure by the CONSULTANT to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as City of Fort Lauderdale deems appropriate. Each subcontract the CONSULTANT signs with a subconsultant must include the assurance in this paragraph (see 49 CFR 26.13(b)).

C.CONSULTANT is required to document sufficient DBE participation to meet these goals or, alternatively, document adequate good faith efforts to do so, as provided for in 49 CFR 26.53. Award of this contract is conditioned on submission of the following prior to award:

1) The names and addresses of DBE firms that will participate in this contract;
2) A description of the work each DBE will perform;
3) The percentage of participation for each DBE firm participating;
4)Written documentation of the bidder/offeror's commitment to use a DBE subconsultant whose participation it submits to meet the contract goal;
5) Written confirmation from the DBE that it is participating in the contract as provided in the prime Consultant's commitment; and
6) If the contract goal is not met, evidence of good faith efforts to do so.

CONSULTANT must present the information required above prior to contract award (see 49 CFR 26.53(3)).

A. CONSULTANT is required to pay its subconsultants performing work related to this contract for satisfactory performance of that work no later than 30 days after the Consultant's receipt of payment for that work from CITY. In addition, the consultant may not hold retainage from its subconsultants. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of CITY. This clause applies to both DBE and non-DBE subcontracts.

B. CONSULTANT must promptly notify CITY, whenever a DBE subconsultant performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subconsultant to perform at least the same amount of work. The consultant may not terminate any DBE subconsultant and perform that work through its own forces or those of an affiliate without prior written consent of CITY.

11.6 PUBLIC ENTITY CRIMES ACT

CONSULTANT represents that the execution of this Agreement will not violate the Public Entity Crimes Act (Section 287.133, Florida Statutes), which essentially provides that a person or affiliate who is a contractor, CONSULTANT or other provider and who has been placed on the convicted vendor list following a conviction for a "public entity crime", as defined by Section 287.133, Florida Statutes, may not submit a bid on a contract to provide any goods or services to CITY, may not submit a bid on a contract with CITY for the construction or repair of a public building or public work, may not submit bids on leases of real property to CITY, may not be awarded or perform work as a contractor, supplier, subconsultant,

or CONSULTANT under a contract with CITY, and may not transact any business with CITY in excess of the threshold amount provided in Section 287.017, Florida Statutes, for category two purchases for a period of 36 months from the date of being placed on the convicted vendor list. Violation of this section shall result in termination of this Agreement and recovery of all monies paid hereto, and may result in debarment from CITY's competitive procurement activities.

In addition to the foregoing, CONSULTANT further represents that there has been no determination, based on an audit, that it committed an act defined by Section 287.133, Florida Statutes, as a "public entity crime" and that it has not been formally charged with committing an act defined as a "public entity crime" regardless of the amount of money involved or whether CONSULTANT has been placed on the convicted vendor list.

11.7 ASSIGNMENT AND PERFORMANCE

Neither this Agreement nor any interest herein shall be assigned, transferred, or encumbered without the written consent of the other party, and CONSULTANT shall not subcontract any portion of the work required by this Agreement.

CONSULTANT represents that all persons delivering the services required by this Agreement have the knowledge and skills, either by training, experience, education, or a combination thereof, to adequately and competently perform the duties, obligations, and services set forth in the Scope of Services and to provide and perform such services to CITY's satisfaction for the agreed compensation.

CONSULTANT shall perform its duties, obligations, and services under this Agreement in a skillful and respectable manner. The quality of CONSULTANT's performance and all interim and final product(s) provided to or on behalf of CITY shall be comparable to local and national professional standards as delineated in Section 1.26.

11.8 INDEMNIFICATION OF CITY

11.8.1 CONSULTANT shall indemnify and hold harmless CITY, its officers, elected officials, and employees from any and all liabilities, damages, losses, penalties, fines, judgments, and costs, including, but not limited to, attorneys' fees, to the extent caused by the negligence, recklessness or intentionally wrongful conduct of CONSULTANT, and other persons employed or utilized by CONSULTANT in the performance of this Agreement. The provisions of this selection shall survive the expiration or earlier termination of this Agreement. To the extent considered necessary by Contract Administrator and City Attorney, any sums due CONSULTANT under this Agreement may be retained by CITY until all of CITY's claims for indemnification pursuant to this Agreement have been settled or otherwise resolved, and any amount withheld shall not be subject to payment of interest by CITY.

11.8.2 It is specifically understood and agreed that the consideration inuring to the CONSULTANT for the execution of this Agreement are the promises, payments, covenants, rights and responsibilities contained herein and the award of this Agreement to the CONSULTANT.

11.8.3 The execution of this Agreement by the CONSULTANT shall obligate the CONSULTANT to comply with the foregoing indemnification provision.

11.8.4 PURSUANT TO SECTION 558.0035, FLORIDA STATUTES, AN INDIVIDUAL EMPLOYEE OR AGENT OF THE CONSULTANT MAY NOT BE HELD INDIVIDUALLY LIABLE FOR ECONOMIC DAMAGES RESULTING FROM NEGLIGENCE UNDER THIS AGREEMENT IF THE CONDITIONS OF SECTION 558.0035 ARE SATISFIED.

11.9 INSURANCE

As a condition precedent to the effectiveness of this Agreement, during the term of this Agreement and during any renewal or extension term of this Agreement, the CONSULTANT, at the CONSULTANT's sole expense, shall provide insurance of such types and with such terms and limits as noted below. Providing proof of and maintaining adequate insurance coverage are material obligations of the CONSULTANT. The CONSULTANT shall provide the CITY a certificate of insurance evidencing such coverage. The CONSULTANT's insurance coverage shall be primary insurance for all applicable policies. The limits of coverage under each policy maintained by the CONSULTANT shall not be interpreted as limiting the CONSULTANT's liability and obligations under this Agreement. All insurance policies shall be from insurers authorized to write insurance policies in the State of Florida and that possess an A.M. Best rating of A-, VII or better. All insurance policies are subject to approval by the CITY's Risk Manager.

The coverages, limits, and endorsements required herein protect the interests of the CITY, and these coverages, limits, and endorsements may not be relied upon by the CONSULTANT for assessing the extent or determining appropriate types and limits of coverage to protect the CONSULTANT against any loss exposure, whether as a result of this Agreement or otherwise. The requirements contained herein, as well as the CITY's review or acknowledgement, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the CONSULTANT under this Agreement.

The following insurance policies and coverages are required:

Commercial General Liability
Coverage must be afforded under a Commercial General Liability policy with limits

not less than:

- $1,000,000 each occurrence and $2,000,000 aggregate for Bodily Injury, Property Damage, and Personal and Advertising Injury
- $1,000,000 each occurrence and $2,000,000 aggregate for Products and Completed Operations

Policy must include coverage for Contractual Liability and Independent Contractors.

The City and the City's officers, employees, and volunteers are to be covered as additional insureds with a CG 20 26 04 13 Additional Insured – Designated Person or Organization Endorsement or similar endorsement providing equal or broader Additional Insured Coverage with respect to liability arising out of activities performed by or on behalf of the CONSULTANT. The coverage shall contain no special limitation on the scope of protection afforded to the CITY or the CITY's officers, employees, and volunteers.

Business Automobile Liability
Coverage must be afforded for all Owned, Hired, Scheduled, and Non-Owned vehicles for Bodily Injury and Property Damage in an amount not less than $1,000,000 combined single limit each accident.

If the CONSULTANT does not own vehicles, the CONSULTANT shall maintain coverage for Hired and Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Professional Liability and/or Errors and Omissions
Coverage must be afforded for Wrongful Acts in an amount not less than $2,000,000 each claim and $2,000,000 aggregate.

CONSULTANT must keep insurance in force until the third anniversary of expiration of this Agreement or the third anniversary of acceptance of work by the CITY.

Workers' Compensation and Employer's Liability
Coverage must be afforded per Chapter 440, Florida Statutes. Any person or entity performing work for or on behalf of the CITY must provide Workers' Compensation insurance. Exceptions and exemptions will be allowed by the CITY's Risk Manager, if they are in accordance with Florida Statute.

The CONSULTANT waives, and the CONSULTANT shall ensure that the CONSULTANT's insurance carrier waives, all subrogation rights against the CITY and the CITY's officers, employees, and volunteers for all losses or damages. The CITY requires the policy to be endorsed with WC 00 03 13 Waiver of our Right to Recover from Others or equivalent.

The CONSULTANT must be in compliance with all applicable State and federal

workers' compensation laws, including the U.S. Longshore Harbor Workers' Act and the Jones Act, if applicable.

Insurance Certificate Requirements

a. The CONSULTANT shall provide the CITY with valid Certificates of Insurance (binders are unacceptable) no later than thirty (30) days prior to the start of work contemplated in this Agreement.
b. The CONSULTANT shall provide to the CITY a Certificate of Insurance having a thirty (30) day notice of cancellation; ten (10) days' notice if cancellation is for nonpayment of premium.
c. In the event that the insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of the CONSULTANT to provide the proper notice. Such notification will be in writing by registered mail, return receipt requested, and addressed to the certificate holder.
d. In the event the Agreement term goes beyond the expiration date of the insurance policy, the CONSULTANT shall provide the CITY with an updated Certificate of Insurance no later than ten (10) days prior to the expiration of the insurance currently in effect. The CITY reserves the right to suspend the Agreement until this requirement is met.
e. The Certificate of Insurance shall indicate whether coverage is provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.
f. The CITY shall be named as an Additional Insured on the General Liability Policy
g. The CITY shall be granted a Waiver of Subrogation on the CONSULTANT's Workers' Compensation insurance policy.
h. The title of the Agreement, Bid/Contract number, event dates, or other identifying reference must be listed on the Certificate of Insurance.

The Certificate Holder should read as follows:
City of Fort Lauderdale
100 N. Andrews Avenue
Fort Lauderdale, FL 33301

The CONSULTANT has the sole responsibility for the payment of all insurance premiums and shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, co-insurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation. Any costs for adding the CITY as an Additional Insured shall be at the CONSULTANT's expense.

If the CONSULTANT's primary insurance policy/policies do not meet the minimum requirements, as set forth in this Agreement, the CONSULTANT may provide

evidence of an Umbrella/Excess insurance policy to comply with this requirement.

The CONSULTANT's insurance coverage shall be primary insurance as applied to the CITY and the CITY's officers, employees, and volunteers. Any insurance or self-insurance maintained by the CITY covering the CITY, the CITY's officers, employees, or volunteers shall be non-contributory.

Any exclusion or provision in the insurance maintained by the CONSULTANT that excludes coverage for work contemplated in this Agreement shall be unacceptable and shall be considered breach of contract.

All required insurance policies must be maintained until the contract work has been accepted by the CITY, or until this Agreement is terminated, whichever is later. Any lapse in coverage shall be considered breach of contract. In addition, CONSULTANT must provide to the CITY confirmation of coverage renewal via an updated certificate should any policies expire prior to the expiration of this Agreement. The CITY reserves the right to review, at any time, coverage forms and limits of CONSULTANT's insurance policies.

The CONSULTANT shall provide notice of any and all claims, accidents, and any other occurrences associated with this Agreement to the CONSULTANT's insurance company or companies and the CITY's Risk Management office, as soon as practical.

It is the CONSULTANT's responsibility to ensure that any and all of the CONSULTANT's independent contractors and subcontractors comply with these insurance requirements. All coverages for independent contractors and subcontractors shall be subject to all of the applicable requirements stated herein. Any and all deficiencies are the responsibility of the CONSULTANT.

11.10 LIMITATION OF CITY'S LIABILITY

The CITY desires to enter into this Agreement only if in so doing the CITY can place a limit on the CITY'S liability for any cause of action arising out of this Agreement, so that the CITY'S liability for any breach never exceeds the sum of $100.00. For other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the CONSULTANT expresses its willingness to enter into this Agreement with the knowledge that the CONSULTANT'S recovery from the CITY to any action or claim arising from the Agreement is limited to a maximum amount of $100.00 less the amount of all funds actually paid by the CITY to the CONSULTANT pursuant to this Agreement. Accordingly, and notwithstanding any other term or condition of this Agreement that may suggest otherwise, the CONSULTANT agrees that the CITY shall not be liable to the CONSULTANT for damages in an amount in excess of $100.00, which amount shall be reduced by the amount actually paid by the CITY to the CONSULTANT pursuant to this Agreement, for any action or claim arising out of this Agreement. Nothing contained in this paragraph or elsewhere in this Agreement is in any manner intended either to be a

waiver of the limitation placed upon the CITY'S liability as set forth in Section 768.28, Florida Statutes, or to extend the CITY'S liability beyond the limits established in said Section 768.28; and no claim or award against the CITY shall include attorney's fees, investigative costs, extended damages, expert fees, suit costs or pre-judgment interest. Notwithstanding the foregoing, the parties agree and understand that the provisions of this Article 11.10 do not apply to monies owed, if any, for services rendered to CONSULTANT by the CITY under the provisions of this Agreement.

11.11 REPRESENTATIVE OF CITY AND CONSULTANT

11.11.1 Contract Administrator or his or her designee is the CITY's representative regarding this Agreement. The parties, however, recognize that questions in the day-to-day conduct of the Project will arise. The Contract Administrator, upon CONSULTANT's request, shall advise CONSULTANT in writing of one (1) or more CITY employees to whom all communications pertaining to the day-to-day conduct of the Project shall be addressed.

11.10.2 CONSULTANT shall inform the Contract Administrator in writing of CONSULTANT's representative to whom matters involving the conduct of the Project shall be addressed.

11.12 ALL PRIOR AGREEMENTS SUPERSEDED

This document incorporates and includes all prior negotiations, correspondence, conversations, agreements or understandings applicable to the matters contained herein; and the parties agree that there are no commitments, agreements or understandings concerning the subject matter of this Agreement that are not contained in this document. Accordingly, the parties agree that no deviation from the terms hereof shall be predicated upon any prior representations or agreements whether oral or written.

It is further agreed that no modification, amendment or alteration in the terms or conditions contained herein shall be effective unless contained in a written document executed with the same formality and of equal dignity herewith.

11.13 CONSULTANT'S STAFF

CONSULTANT will provide the key staff identified in their proposal for the Project as long as said key staff are in CONSULTANT's employment.

CONSULTANT will obtain prior written approval of Contract Administrator to change key staff. CONSULTANT shall provide Contract Administrator with such information as necessary to determine the suitability of proposed new key staff. Contractor Administrator will be reasonable in evaluating key staff qualifications.

If Contract Administrator desires to request removal of any of CONSULTANT's staff,

Contract Administrator shall first meet with CONSULTANT and provide reasonable justification for said removal.

11.14 SUBCONSULTANTS

11.14.1 CONSULTANT may subcontract certain items of work to subconsultant. The parties expressly agree that the CONSULTANT shall submit pertinent information regarding the proposed subconsultant, including subconsultant's scope of work and fees, for review and approval by the CITY prior to sub-consultants proceeding with any work.

11.14.2 CONSULTANT shall utilize the subconsultants identified in the proposal that were a material part of the selection of CONSULTANT to provide the services for this Project. CONSULTANT shall obtain written approval of Contract Administrator prior to changing or modifying the list of subconsultants submitted by CONSULTANT.

The list of subconsultants submitted is as follows:
Stantec Consulting Services Inc.
Chen-Moore and Associates, Inc.
Cartaya & Associates Architects, P.A.
Stoner & Assocaites, Inc.
Pan Geo Consultants LLC

11.15 INDEPENDENT CONTRACTOR

CONSULTANT is an independent contractor under this Agreement. Services provided by CONSULTANT shall be subject to the supervision of CONSULTANT. In providing the services, CONSULTANT or its agents shall not be acting and shall not be deemed as acting as officers, employees, or agents of the CITY. Personnel policies, tax responsibilities, social security and health insurance, employee benefits, purchasing policies and other similar administrative procedures applicable to services rendered under this Agreement shall be those of CONSULTANT. The parties expressly acknowledge that it is not their intent to create any rights or obligations in any third person or entity under this Agreement.

11.16 THIRD PARTY BENEFICIARIES

Neither CONSULTANT nor CITY intends to directly or substantially benefit a third party by this Agreement. Therefore, the parties agree that there are no third party beneficiaries to this Agreement and that no third party shall be entitled to assert a claim against either of them based upon this Agreement, without prior written approval by both parties to this Agreement.

11.17 CONFLICTS

Neither CONSULTANT nor its employees shall have or currently hold any continuing or frequently recurring employment or contractual relationship that is substantially antagonistic or incompatible with CONSULTANT's loyal and conscientious exercise of judgment related to its performance under this Agreement.

CONSULTANT agrees that none of its officers or employees shall, during the term of this Agreement, serve as expert witness against CITY 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 CITY 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.

In the event CONSULTANT is permitted to utilize subconsultants to perform any services required by this Agreement, CONSULTANT agrees to prohibit such subconsultant, by written contract, from having any conflicts as within the meaning of this section.

11.18 CONTINGENCY FEE

CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for CONSULTANT, to solicit or secure this Agreement and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for CONSULTANT, any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement. For a breach or violation of this provision, the City Commission shall have the right to terminate this Agreement without liability at its discretion, or to deduct from the Agreement price or otherwise recover the full amount of such fee, commission, percentage, gift or consideration.

11.19 WAIVER OF BREACH AND MATERIALITY

Failure by CITY to enforce any provision of this Agreement shall not be deemed a waiver of such provision or modification of this Agreement.

CITY and CONSULTANT 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.

11.20 COMPLIANCE WITH LAWS

CONSULTANT shall comply with all federal, state, and local laws, codes, ordinances, rules, and regulations in performing its duties, responsibilities, and

obligations related to this Agreement.

11.21 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 CITY or CONSULTANT elects to terminate this Agreement. The election to terminate this Agreement based upon this provision shall be made within seven (7) days after the findings by the court become final.

11.22 JOINT PREPARATION

Preparation of this Agreement has been a joint effort of CITY and CONSULTANT 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.

11.23 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 Articles 1-11 of this Agreement shall prevail and be given effect.

11.24 APPLICABLE LAW AND VENUE

This Agreement shall be interpreted and construed in accordance with and governed by the laws of the State of Florida. Venue for any lawsuit by either party against the other party or otherwise arising out of this Agreement, and for any other legal proceeding, shall be in the Seventeenth Judicial Circuit in and for Broward County, Florida, or in the event of federal jurisdiction, in the Southern District of Florida, Fort Lauderdale Division.

In the event Contractor is a corporation organized under the laws of any province of Canada or is a Canadian federal corporation, the City may enforce in the United States of America or in Canada or in both countries a judgment entered against the Contractor. The Contractor waives any and all defenses to the City's enforcement in Canada of a judgment entered by a court in the United States of America.

11.25 EXHIBITS

Each Exhibit referred to in this Agreement forms an essential part of this Agreement. The Exhibits, if not physically attached, should be treated as part of this Agreement, and are incorporated herein by reference.

11.26 THREE ORIGINAL AGREEMENTS

This Agreement shall be executed in three (3), signed Agreements, and with each one treated as an original.

11.27 NOTICES

Whenever either party desires to give notice unto the other, it must be given by written notice, sent by certified United States mail, with return receipt requested, addressed to the party for whom it is intended, at the place last specified, and the place for giving of notice in compliance with the provisions of this paragraph. For the present, the parties designate the following as the respective places for giving of notice, to-wit:

CITY:
City Engineer
City of Fort Lauderdale
100 North Andrews Avenue
Fort Lauderdale, Florida 33301
Telephone: (954) 828-5772

With Copy to:
City Manager
City of Fort Lauderdale
100 North Andrews Avenue
Fort Lauderdale, Florida 33301
Telephone: (954) 828-5013

Alain Boileau, City Attorney
City of Fort Lauderdale
100 North Andrews Avenue
Fort Lauderdale, Florida 33301
Telephone: (954) 828-5940

CONSULTANT:
Charles Sinclair, Senior Vice President
Carollo Engineers, Inc.
2728 North University Drive
Building 2700
Coral Springs, Florida 33071
Telephone: (954) 837-0030

11.28 ATTORNEY FEES

If CITY or CONSULTANT incurs any expense in enforcing the terms of this Agreement through litigation, the prevailing party in that litigation shall be reimbursed for all such costs and expenses, including, but not limited to, court costs and reasonable attorney fees incurred during litigation.

11.29 PERMITS, LICENSES AND TAXES

CONSULTANT shall, at its own expense, obtain all necessary permits and licenses, pay all applicable fees, and pay all applicable sales, consumer, use and other taxes required to comply with local ordinances, state and federal law. CONSULTANT is responsible for reviewing the pertinent state statutes regarding state taxes and for complying with all requirements therein. Any change in tax laws after the execution of this Agreement will be subject to further negotiation and CONSULTANT shall be responsible for complying with all state tax requirements.

11.30 TRUTH-IN-NEGOTIATION CERTIFICATE

Signature of this Agreement by CONSULTANT shall act as the execution of a Truth-in-Negotiation Certificate stating that wage rates and other factual unit costs supporting the compensation of this Agreement are accurate, complete, and current at the time of contracting. The original contract price and any additions thereto shall be adjusted to exclude any significant sums, by which the CITY determines that contract price was increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs.

11.31 EVALUATION

The CITY maintains the right to periodically review the performance of the CONSULTANT, the Scope of Services, Phases, Task Orders, the quality of the work performed, the cost to the CITY and the good faith efforts made by the CONSULTANT to maintain MBE/WBE participation in CITY projects. Any deficiencies in performance will be described in writing and an opportunity afforded, where practicable, for the CONSULTANT to address and/or remedy such deficiencies.

11.32 STATUTORY COMPLIANCE

CONSULTANT shall prepare all documents and other materials for the Project in accordance with all applicable rules, laws, ordinances and governmental regulations of the State of Florida, Broward County, the City of Fort Lauderdale, Florida and all governmental agencies having jurisdiction over the services to be provided by CONSULTANT under this Agreement or over any aspect or phase of the Project.

11.33 SCRUTINIZED COMPANIES

Subject to *Odebrecht Construction, Inc., v. Prasad*, 876 F.Supp.2d 1305 (S.D. Fla. 2012), *affirmed*, *Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation*, 715 F.3d 1268 (11th Cir. 2013), with regard to the "Cuba Amendment," the CONSULTANT certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018), as may be amended or revised, and that it is not engaged in a boycott of Israel, and that it does not have business operations in Cuba or Syria, as provided in section 287.135, Florida

Statutes (2018), as may be amended or revised. The City may terminate this Agreement at the City's option if the CONSULTANT is found to have submitted a false certification as provided under subsection (5) of section 287.135, Florida Statutes (2018), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2018),as may be amended or revised, or is engaged in a boycott of Israel or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2018), as may be amended or revised.

11.34 PUBLIC RECORDS

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT CITY CLERK'S OFFICE, 100 N. ANDREWS AVENUE, FORT LAUDERDALE, FLORIDA, 33301, PHONE: 954-828-5002, EMAIL: PRRCONTRACT@FORTLAUDERDALE.GOV.

CONSULTANT shall:

1. Keep and maintain public records required by the City in order to perform the service.

2. Upon request from the City's custodian of public records, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes (2018), as may be amended or revised, or as otherwise provided by law.

3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of this contract if the CONSULTANT does not transfer the records to the City.

4. Upon completion of the Contract, transfer, at no cost, to the City all public records in possession of the CONSULTANT or keep and maintain public records required by the City to perform the service. If the CONSULTANT transfers all public records to the City upon completion of this Contract, the CONSULTANT shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the CONSULTANT keeps and maintains public records upon completion of this Contract, the

CONSULTANT shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

11.35 INTELLECTUAL PROPERTY

CONSULTANT shall protect and defend at CONSULTANT's expense, counsel being subject to the City's approval, and indemnify and hold harmless the City from and against any and all losses, penalties, fines, damages, settlements, judgments, claims, costs, charges, royalties, expenses, or liabilities, including any award of attorney fees and any award of costs, in connection with or arising directly or indirectly out of any infringement or allegation of infringement of any patent, copyright, or other intellectual property right in connection with the CONSULTANT's or the City's use of any copyrighted, patented or un-patented invention, process, article, material, or device that is manufactured, provided, or used pursuant to this Agreement. If the CONSULTANT uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the bid prices shall include all royalties or costs arising from the use of such design, device, or materials in any way involved in the work.

11.36 RIGHTS IN DOCUMENTS AND WORK

Any and all reports, photographs, surveys, and other data and documents provided or created in connection with this Agreement are and shall remain the property of City; and CONSULTANT disclaims any copyright in such materials. In the event of and upon termination of this Agreement, any reports, photographs, surveys, and other data and documents prepared by CONSULTANT, whether finished or unfinished, shall become the property of City and shall be delivered by CONSULTANT to the City's Contract Administrator within seven (7) days of termination of this Agreement by either party. Any compensation due to CONSULTANT shall be withheld until CONSULTANT delivers all documents to the City as provided herein.

11.37 REPRESENTATION OF AUTHORITY

Each individual executing this Agreement on behalf of a party hereto hereby represents and warrants that he or she is, on the date he or she signs this Agreement, duly authorized by all necessary and appropriate action to execute this Agreement on behalf of such party and does so with full legal authority.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

[SIGNATURE PAGES FOLLOW]

IN WITNESS OF THE FOREGOING, the parties have set their hands and seals the day and year first written above.

CITY

CITY OF FORT LAUDERDALE

By _____
Christopher J. Lagerbloom, ICMA-CM
City Manager

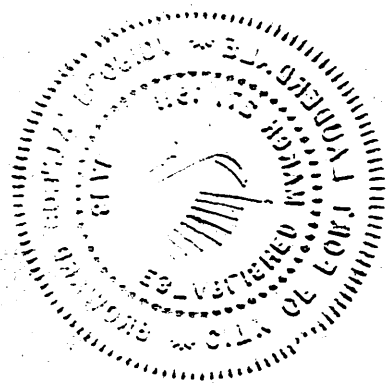
(CORPORATE SEAL)

ATTEST:

_____
Jeffery A. Modarelli, City Clerk

Approved as to form:

_____
Rhonda Montoya Hasan
Assistant City Attorney



CONSULTANT

WITNESSES:

René Kubicka
Print Name
René Kubicka
Signature

Tracy Deluna
Print Name
Signature

(CORPORATE SEAL)

CAROLLO ENGINEERS, INC.

By _____
Charles Sinclair, Senior Vice President

ATTEST:

By _____
Michael W. Barnes. Secretary

STATE OF Florida :
COUNTY OF Broward :

The foregoing instrument was acknowledged before me this 4th day of March, 2019, by Charles Sinclair as Senior Vice President of Carollo Engineers, Inc., a Delaware corporation authorized to transact business in the State of Florida.

He/She is __ personally known to me or
✓ has produced FL. D1552-458-69-124-0 as identification.

_____
Notary Public, State of Florida
(Signature of Notary taking Acknowledgment)

Adorah Wheat
Name of Notary Typed, Printed or Stamped

My Commission Expires:
09/28/2020
Commission Number

Adorah Wheat
State of Florida
My Commission Expires 09/28/2020
Commission No. GG 124052

CONSULTANT

WITNESSES:

CAROLLO ENGINEERS, INC.

Print Name

By _____
Charles Snobeln, Senior Vice President

Signature

Print Name

ATTEST:

Signature

(CORPORATE SEAL)

By _____
Michael V. Bonnet, Secretary

STATE OF _____ :
COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____, 2019, by Charles Snobeln as Senior Vice President of Carollo Engineers, Inc., a Delaware corporation authorized to transact business in the State of Florida.

He/She is ___ personally known to me or
___ has produced _____ as identification.

Notary Public, State of Florida
(Signature of Notary Taking Acknowledgment)

Name of Notary Typed, Printed or Stamped

My Commission Expires:

Commission Number

Adora Wiser
State of Florida
My Commission Expires 09/25/2020
Commission No. GG 124052

EXHIBIT A
SCOPE OF SERVICES

Purpose

CONSULTANT shall provide Professional Services related to Charles W Fiveash Water Treatment plant (WTP) located at 949 NW 38th Street, Fort Lauderdale, 33309. The specific professional engineering services provided under this contract shall include:

1. Charles W. Fiveash Water Treatment Plant - Evaluation and Options
2. Charles W. Fiveash Water Treatment Plant - Granular Activated Carbon Pilot Study

Background

In April of 2017, Reiss Engineering, Inc. completed the Comprehensive Utility Strategic Master Plan (CUSMP). This master plan identified about $1.4 billion of Utilities' projects and programs in the next 20 years (2035). Specifically, ***Sections WA.5.A, and WA.5.B*** of the master plan covers the Fiveash Water Treatment Plant (WTP) and lists recommendations for projects and renewal and replacement (R&R) programs for the City's water treatment plants. The City operates two Regional WTP plants: the Walter E. Peele-Dixie WTP and the Charles W. Fiveash WTP.

3.1.1 Fiveash Water Treatment Plant

The Fiveash Water Treatment Plant (WTP) provides the bulk of the City's potable water supply to city residents and the neighboring communities in the Water System Services areas. Fort Lauderdale's Fiveash WTP provides water service to over 75 percent of the City's potable water service area. The Plant's total design capacity is 70 mgd.

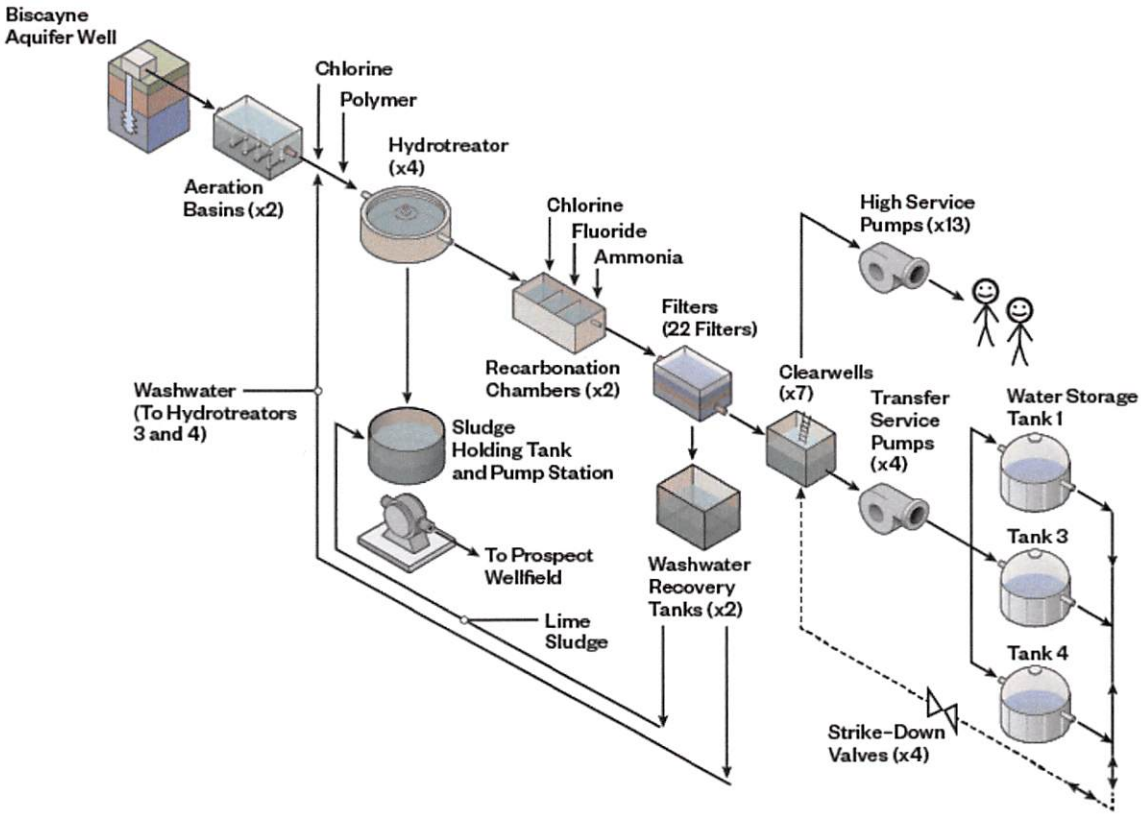
The Fiveash WTP currently and historically utilizes roughly half of its capacity with an average annual demand (AAD) of 32 MGD (2016) and a maximum day demand (MDD) of 43 MGD (2016) mgd.

The treatment process of raw well water consists of: aeration, followed by lime and polymer addition in a hydrotreater. The Fiveash WTP has two 12.5-mgd hydrotreaters and two 22.5-mgd hydrotreaters that provide coagulation, flocculation, and clarification in one unit. After softening, the water is chlorinated, fluoridated and filtered. Lime sludge is pumped directly to the Prospect Wellfield sludge pit for disposal. The Fiveash WTP consists of 29 active production groundwater wells, aeration, lime softening and media filtration followed by storage and high service pumping. Disinfection is provided with chloramination addition to the softened and filtered flow.

Historically, the City has decided to continue lime-softening treatment at the Fiveash WTP and has identified improvements to extend the life of the facility including replacement of the major rotating assemblies in the two largest water treatment units, Hydrotreaters 3 and 4. A $33.5-million disinfection and reliability improvement project is scheduled for bid in late 2019. The Fiveash WTP produces reliable potable water, but there are finished water quality issues. Plant process control issues affect the finished water quality and stability. The disinfection residual control is difficult to maintain because the plant process flow does not follow a single, uniform path.

The finished water color is at times greater than 15 Pt-Co color units, which leads to water quality complaints. Process improvements will need to be implemented to provide an aesthetically pleasing finished water to residents and visitors. The City continues to actively study treatment options to improve water aesthetics. Water color is a secondary compliance issue and is not a regulatory concern.

Figure 1



3.2 Scope of Services

CONSULTANT shall be responsible for performing the specified works and managing the overall delivery of the following study tasks related to Charles W Fiveash Water Treatment plant (WTP) located at 949 NW 38th Street, Fort Lauderdale, 33309:

1. Charles W. Fiveash Water Treatment Plant - Evaluation and Options
2. Charles W. Fiveash Water Treatment Plant - Granular Activated Carbon Pilot Study

All of the work shall be in accordance with local, State, and Federal Regulations. All proposed solutions, studies, recommendations, technologies, treatment processes, layouts, and recommendations shall be made to ensure compliance with the Federal Safe Drinking Water Act (SDWA), Clean Water Act (CWA), per code of Federal Regulations (40-CFR), State of Florida Regulation F.A.C. 62-555, F.A.C. 62-550 (and related requirements and rules), Florida Department of Environmental Protection (FDEP), and Florida Department of Health - Broward County (FDOH-BC) permitting and regulations.

The following is a list of services that may be required and as requested by the City. This list shall not be construed as an exclusive list of activities that successful firm(s) may be engaged in. City shall have the right, in its sole and absolute discretion, to require additional services that are consistent with the scope of services and those activities typically performed by General Engineers, and for which the firm(s) are experienced, qualified, able to perform. The work on these two tasks shall be carried concurrently. Each task shall have its own deliverable. The work will be authorized

under one contract.

3.3 Tasks

3.3.1 Granular Activated Carbon (GAC) – Pilot and Study for Color Enhancement

The Comprehensive Utility Strategic Master Plan (CUSMP) identified three water treatment processes /options to improve the color of finished water at the Fiveash WTP. Based on Master Plan consultant's recommendation, the City selected the option to evaluate the granular activated carbon methodology, also known as (GAC). In order to implement GAC color enhancement, it is recommended to conduct a GAC pilot study to gather the effectiveness/efficiency of this method, as well as to develop some basic design parameters for full implementation of a capital investment project, as well as to determine the initial cost of implementation and annual operating costs thereafter.

According to the CUSMP, the GAC treatment strategy is expected to provide the desired benefit at the lowest potential cost, and could potentially be incorporated into the existing treatment process. According to Reiss's Master plan, GAC treatment alternative will allow the Fiveash WTP to produce finished water with a color quality parameter 10 Pt-Co or less. Under current regulations, the color units (CU) are monitored after the final treatment step as the finished water. The secondary regulation for color is 15 CU and the City's Fiveash WTP has historically averaged a finished water color level around 15 CU.

GAC is commonly used to adsorb natural organics, taste, color, odor compounds, and synthetic organic chemicals in drinking water treatment. GAC also reduces the constituents that form trihalomethanes (THMs), haloacetic acids (HAAs), and other byproducts of concern. Activated carbon is an effective adsorbent because it is a highly porous material and provides a large surface area to which contaminants may adsorb. GAC is made from organic materials with high carbon contents such as wood, lignite, coconut husks, and coal. GAC can be used to partially treat the flow and blend the treated water with the non- treated water to optimize treatment and minimize costs.

Following the lime softening process, the addition of GAC treatment would allow for the successful elimination of color-inducing organics. In addition to dissolved organics removal, the GAC filters provide turbidity reduction, solids removal, and biological stabilization. Placing the GAC filters following the lime softening process reduces the total organic carbon load on the carbon filter media. There are no on-site generation requirements for GAC treatment, so there will not be a difficult by-product disposal issue. However, periodic GAC replacement will require delivery and removal by semi-tractor trailers, resulting in onsite truck traffic. A major benefit of GAC is that it reduces the need and utilization of additional chemical treatment to the drinking water. Therefore, chemical storage, handling, and operations/control complexities are also avoided. GAC units are also operator-friendly due to the simplicity of the system. However, space requirements may be of concern, as Fiveash WTP will need several 12 ft. (minimum) diameter units for sufficient treatment. Fiveash WTP may be able to mitigate this space issue by retrofitting some or all of the existing anthracite/sand filters with GAC material.

Eventually, the ability of GAC to bind and remove chemicals is severely diminished and the GAC needs to be replaced. The useful life of GAC filters is based on raw water contaminant levels and treated water flow. Multiple GAC filters will be required to ensure sufficient organics removal, as well as redundancy. Excessive organics concentrations translate to high GAC "consumption" rates and could render GAC cost prohibitive; pilot testing is recommended to confirm viability. GAC filters are also subject to hydrogen sulfide fouling, and a process for the removal of hydrogen sulfide prior to the GAC filters will need to be implemented using either the existing aeration basins, or an advanced process such as ozone or forced draft aeration. GAC, in combination with lime softening or ozone, can inevitably reduce the color well below 10 Pt-Co. The "spent" GAC is returned to the manufacturer's facility where it is recharged and then re-used

as GAC, minimizing waste and promoting a "green" process.

The sub-tasks scope of work includes, but is limited to, the following:

3.3.1.1 - Pilot Study:

Engineering evaluation will allow for conceptual process verification, capital and operational costing of each blend of treatment alternatives. the CONSULTANT will directly contract and pay for State of Florida laboratory testing required for the water quality evaluation.

3.3.1.2 - Pilot Plant Testing:

The subtask includes the mobilization, erection, setting up, connecting of the pilot equipment trailer to the physical plant site and location agreed to with the operations staff. The CONSULTANT shall provide connection of the water supply lines from the treatment process connection that is identified and completed by the City. The mobilization includes connection to the identified power sources, water supply and disposal sources. The electrical service and power will be provided by the City at each testing location.

The CONSULTANT shall provide an activated carbon pilot system consisting of four (4) 4 inch pilot columns designed for water treatment GAC pilot evaluations. Other configurations may be accepted following approval. The unit will be used for the duration of the testing at each process location to be tested. The GAC pilot evaluation unit is shown in the following picture. The CONSULTANT / Contractor shall provide startup, troubleshooting and vessel loading of GAC media for each testing phase of the pilot evaluation.

The testing will ascertain that the process does not adversely impact the finished water quality regarding its corrosivity. This is vital to avoid impacting the periodic lead and copper sampling and the City's compliance with these regulatory parameters. Coupon testing may be of assistance in evaluating this matter.

3.3.1.3 - Pilot Plant Testing Results:

The CONSULTANT / GAC Contactor Testing Pilot Results: The results of the pilot testing evaluation will be compiled and presented in tabular and graphic presentation where appropriate. Testing data to be included are as follows: flow rates, pressure reading for column head loss, on-site color, on-site UV 254, total sulfide testing results, and analytical results from testing laboratory(s).

3.3.1.4 - Deliverables:

The final deliverable report will include but is not limited to:

The CONSULTANT / Contractor will prepare a detailed report identifying the pilot evaluation protocol, data collected in both tabular and graphical format, results, data analysis and engineering evaluation results. The report will summarize the evaluation testing results relative to the GAC regeneration frequency, as well as percentage of full scale plant flow treated for both full-flow and partial-flow GAC treatment system. Included within the report, will be conceptual process criteria for GAC unit surface loading rates, carbon storage volume, empty bed contact time, and carbon consumption rate and unit regeneration frequency. If backwashing of the filters is impacted, a plan needs to be provided. This plan needs to include the amount (gallons and percentage) of water loss.

The report will also include the anticipated: Intimal capital investment costs for full implementation of GAC, recurring annual operating costs for GAC replacement, cost of removal and furnishing of GAC material, GAC maintenance costs of the physical assets, life cycle costs analyses of GAC implementation for different planning periods (for example 10, 20, 30, 40, 50 years). A plan on how to remove and replace the spent GAC needs to be provided. Due to a

process change, an evaluation and recommendation on permitting the GAC implementation needs to be provided.

3.3.2 Charles W. Fiveash Water Treatment Plant - Evaluation and Options

The Comprehensive Utility Strategic (CUS) Master Plan by Reiss Engineering identified, at a planning level, three (3) options to improve the Fiveash Water Treatment Plant (WTP). The options vary based on treatment processes provided and costs to implement.

Much of the equipment and mechanical items for the lime softening system are at the end of their useful life. Spare lime softening treatment unit capacity is not available, thus limiting preventive maintenance to short-term corrective measures. A $33.53 million Fiveash WTP "Reliability Upgrades" is on-going to replace several key mechanical items and automate the controls of key plant processes. The design of this project will be completed in first quarter of 2019, and with completion of the construction project for 2023.

Although the Reliability Upgrade project addresses some mechanical and electrical and controls issues to keep the pant running, it does not addresses two key concerns namely: (a) Water Color, and (b) the desire to achieve 4-log virus inactivation in the treatment system.

The master plan recommended that the City implement water treatment to obtain 4-log virus inactivation and obtain certification from Florida Department of Environmental Protection (FDEP). When bacteriological samples from the wells show the presence of total coliform or E. Coli bacteria, 4-log disinfection is required, along with additional well monitoring events and public notification. However, if 4-log virus inactivation is achieved through water treatment, then no other action is required from the utility.

3.3.2.1 Option 1: Repair / Replace the Current Fiveash WTP

Option 1 for the Fiveash WTP entails continuing to rehab and repair/replace the current lime softening system. Much of the equipment for the lime softening system is at the end of its useful life. Spare lime softening treatment unit capacity is not available, thus limiting preventive maintenance to short-term corrective measures. Reiss Master plan in Section WA8, identified over $100 million of Repair & Replacement (R&R) costs for the Fiveash WTP over the next five years. Furthermore, it identified an additional $30 million every 5-years through 2035. This option will not improve the water color quality of the Fiveash WTP. The Fiveash WTP produces an average finished water color in excess of 15 Pt-Co, exceeding the water quality goal of 5-10 Pt-Co and causing aesthetic issues and complaints. Continuing to produce water with the existing method and current infrastructure will continue status-quo water quality results.

3.3.2.2 Option 2: Implement Color Removal Process to Existing Fiveash WTP

Option 2 for the Fiveash WTP involves upgrading the existing plant to include an efficient color removal process. The CUSMP has identified and examined several current, well-known, and effective color removal options for the Fiveash WTP including:

- Enhanced lime softening at a higher pH
- Enhanced lime softening and coagulation with additional chemicals
- Ozone and enhanced lime softening at a higher pH
- Granular activated carbon (GAC) following lime softening
- Ozone and granular activated carbon (GAC) following lime softening
- Nanofiltration

- Nanofiltration in parallel with lime softening
- Ion Exchange and lime softening
- Oxidation (ozone or hydrogen peroxide), UV, and lime softening

The master plan recommends that the City explore granular activated carbon (GAC) methodology. Task 3.3.1 addresses Scope of Work for this option, including conducting a pilot plant study with recommendations and financial cost, and lifecycle cost analyses.

3.3.2.3 Option 3: Implement New WTP at Fiveash

With the current Fiveash WTP being over 60 years old, and costs consideration for option 1 and 2, building a new, innovative water treatment plant may be the best option for the City. This option will examine various treatment options, water supply sources water resources allocation, treatment technologies, innovations in treatment and disposal, and meeting all regulations.

The advantages of building a new water treatment plant are significant versus renovating the old Fiveash WTP. A new, innovative and robust water treatment plant will produce improved water quality, greater reliability, easier operation, and lower maintenance costs. This involves identification once an ideal treatment method is determined based on the recommended pilot testing, costs for a new WTP can be refined and compared to the various technology and process driven options. A new plant will assist in reducing the electrical costs, water loss, and assist in meeting potential future regulatory requirements on contaminants of emerging concern. This study shall also examine all of these available treatment processes and technology, in conjunction with available raw water supplies (such as Biscayne Aquifer, Florida Aquifer, ocean water, etc.).

Evaluations of treatment options and technologies shall also include evaluation of current water supply sources, the regulatory framework and permitting requirements for alternative water supplies, permitting and construction of new supply wells, water allocation per consumptive use permit (CUP) and Lower East Coast Water Supply Plan. Evaluation of new treatment options and technologies shall also include evolution of disposal of reject water, the regulatory framework and permitting requirement for new deep injections wells, and treatment requirement before disposal, cohabitation with power plants, etc.

The CONSULTANT will analyze all options for a new plant treatment processes and technologies, including but not limited to:

- Nanofiltration, Reserve Osmosis
- Microfiltration, Reverse Osmosis
- Desalination
- Multi-Stage Flash Distillation
- Advance Lime softening
- Activated carbon with Lime Softening
- Ion exchange with lime Softening
- Etc.

The CONSULTANT will analyze all options for a new plant construction, including but not limited to:

- Location of the proposed plant
- Raw water supply wellfield (locations, numbers, depth, and associated piping)

- Disposal wells (locations, numbers, associated piping)
- Any new raw water supply pipeline
- Any reject water pipeline
- Connection(s) to existing Distribution network
- Required finished water Storage tanks.

The CONSULTANT will analyze all options for a new plant construction, including but not limited to:

- Required finished water Storage tanks.
- CAPEX costs
- Construction costs
- Design engineering costs
- Pilot study costs
- Permitting costs
- Land acquisition costs (if required)
- Capital financing costs, example bonds as required.
- Operations and Maintenance (O&M) costs
- Annual recurring costs including chemicals and utilities
- Lifecycle costs
- Production costs per 1,000 gallons
- Project renewal and replacement costs over a 20 year cycle

A new design will need to assess the impact the finished water will have on the distribution's compliance with lead and copper as well as minimizing the formation of THM/HAA5.

3.4 CONSULTANT Capabilities

The CONSULTANT (Engineering firm) must have technical Engineering capabilities, specialties, and resources capacity to perform the Specific Scope of work identified in this solicitation. These include:

3.4.1 Water Treatment Plant- Professional Engineering/Geology

1. Mechanical Engineering
2. Structural Engineering
3. Industrial Electrical Power Engineering (medium and high voltage)
4. Piping Engineering
5. Environmental Engineering
6. Process Engineering
7. Heating Ventilation and Air Conditioning (HVAC)
8. Instrumentation and Controls
9. Utilities Engineering (Subsurface Engineering)

10. Land Surveying
11. Electrical Engineering
12. Architecture
13. Grant Coordination, including Preparation of Grant Applications and Deliverables
14. Geotechnical Engineering and Testing
15. Environmental Engineering
16. Landscape Architecture
17. Value Engineering
18. Quality Control
19. Cost estimating
20. Cost controls
21. Lifecycle costing
22. Quality Assurance

3.4.2 Water Treatment Plants- Treatment and Process

a. Facilities planning, design, an operations
b. Water Treatment Processes
c. Water Treatment Technologies including but not limited to:
    1. Nanofiltration, (Reverse Osmosis)
    2. Microfiltration, (Reverse Osmosis)
    3. Reverse Osmosis
    4. Desalination
    5. Multistage flash distillation
    6. Lime Softening, etc.
d. Water Treatment process improvement – water Quality Color removals including but not limited to:
    1. Granular Activated Carbon (GAC)
    2. Magnetic Ion Exchange
e. 4-Log Bacterial Removal

3.4.3 Water Treatment Plant – Water Supply

1. Biscayne wells
2. Floridan wells
3. Well permitting and design
4. Well's Geology and Hydrology

5. Well planning, design and permitting
6. Water Supply Wells Regulatory
7. Aquifer Storage and Recovery (ASR) Wells

3.4.4 Water Treatment Plant – Reject Water Disposal

1. Industrial wastewater (concentrate, brine, lime, etc.)
2. Deep wells disposal
3. Deep wells geology and hydrology
4. Deep wells planning, design and permitting
5. Disposal wells Regulatory

3.4.5 Water Treatment Plant – Financial

1. Cost estimating
2. Capital cost estimating five levels)
3. Benefit to cost Business Case Analysis
4. Life cycle costs (LCC) analyses
5. Operational and Maintenance costs (O&M) analyses
6. Renewal and Replacement (R&R) analyses
7. Comparative Financial Analyses (replace vs. repairs)
8. Financial forecasting
9. Costs sensitivity analyses
10. Risk analyses and contingency determination
11. Capital budgeting
12. Management analyses

- END OF SECTION -

EXHIBIT "B"

HOURLY BILLING RATES FOR TASK ORDERS

Carollo Engineers, Inc.
Billing Rates

Category	Hourly Billing Rate
Principal Project Manager	$ 261.00
Principal Scientist/Technologist	$ 250.00
Principal Engineer	$ 152.00
Project Manager	$ 196.00
Senior Engineer	$ 170.00
Senior Scientist/Technologist	$ 175.00
Engineer	$ 132.00
Staff Engineer	$ 153.00
Associate Engineer	$ 130.00
Assistant Engineer	$ 113.00
Principal Designer	$ 169.00
Senior Designer	$ 136.00
Designer	$ 117.00
Senior Technician	$ 99.00
Technician	$ 79.00
Administrative Assistant	$ 63.00
Senior Clerical	$ 60.00
Clerical	$ 45.00
Senior Construction Manager	$ 195.00
Construction Manager	$ 153.00
Field Engineering Representative II	$ 136.00
Field Engineering Representative I	$ 90.00
Inspector	$ 120.00
Intern	$ 65.00

LABOR CATEGORY	HOURLY RATE
Principal Project Manager	$ 261.00 /hr.
Principal Scientist/Technologist	$ 250.00 /hr.
Principal Engineer	$ 152.00 /hr.
Project Manager	$ 196.00 /hr.
Senior Engineer	$ 170.00 /hr.
Senior Scientist/Technologist	$ 175.00 /hr.
Engineer	$ 132.00 /hr.
Staff Engineer	$ 153.00 /hr.
Associate Engineer	$ 130.00 /hr.
Assistant Engineer	$ 113.00 /hr.
Senior Hydrogeologist (P.G.)	$ 155.00 /hr.
Hydrogeologist	$ 130.00 /hr.
Principal Designer	$ 169.00 /hr.
Senior Designer	$ 136.00 /hr.
Designer	$ 117.00 /hr.
Senior Technician	$ 99.00 /hr.
Technician	$ 79.00 /hr.
Senior Construction Manager	$ 195.00 /hr.
Construction Manager	$ 153.00 /hr.
Field Engineer Representative II	$ 136.00 /hr.
Field Engineer Representative I	$ 90.00 /hr.
Inspector	$ 120.00 /hr.
Intern	$ 65.00 /hr.
Administrative Support	$ 63.00 /hr.
Senior Clerical	$ 60.00 /hr.
Clerical	$ 45.00 /hr.

CHEN·MOORE
&ASSOCIATES

2019 Labor Rate Schedule

Title	Hourly Rate
Principal	$220.00
Project Director	$200.00
Senior Project Manager	$175.00
Project Manager	$160.00
Senior Engineer	$155.00
Project Engineer	$130.00
Associate Engineer	$115.00
Engineer	$90.00
Senior Landscape Architect	$165.00
Project Landscape Architect	$130.00
Associate Landscape Architect	$90.00
Senior Designer	$125.00
Designer	$100.00
Senior Technician	$90.00
Technician	$70.00
Senior Construction Specialist	$125.00
Construction Specialist	$85.00
Clerical	$65.00
Engineering Intern	$50.00

Cartaya Billing Rates

Category	Billing
Principal	$ 200
Sr. Project Manager	$ 150
Project Manager	$ 120
BIM/Revit Manager	$ 100
Sr. Drafter	$ 80
Drafter	$ 65
Admin Assistant	$ 55

PANGEO CONSULTANTS

GEOTECHNICAL ENGINEERING, TESTING AND INSPECTIONS

A. FIELD SERVICES

Truck Mounted Test Borings..... .$14.00/linear ft.

Setting Casing..... $4.00/linear

ft. Crew and Equipment Mobilization..... $250.00/mob.

SFWMD Exfiltration Tests (to 15 ft) $450.00/test

Field Technician for Layout/Utility Clearance..... $65.00/hr.

Field Density Tests (Nuclear, minimum of 4 tests)..... $25.00/test

Sample Pickup (minimum of 2 Hours)..... $40.00/hour

B. LABORATORY TESTING

Modified Proctor (ASTM D 1557) $105.00/test

Standard Proctor (ASTM D 698) $100.00/each

Atterberg Limits Determination (LL, PL) $60.00/test

Sieve Analysis (Washed over #200 sieve) $77.00/test

Organic Content (by heating) $48.00/test

Moisture Content Determination $20.00/test

Visual Engineering Classification $55.00/hour

Compressive Strength of 4" x 8" Cylinder (ASTM C39)..... $15.00/each

Special capping for irregular surface (If required).....$18.00/each

Trimming for capping (if required).....$20.00/each

Concrete core, measurement and strength.....$50.00/each

Compressive Strength of 3x6 inch Grout Prism.....$30.00/each

Compressive Strength of 2 inch Mortar Cube or 3 inch cylinder..... $15.00/each

C. PERSONNEL

Principal Engineer..... $150.00/hour

Senior Engineer..... $125.00/hour

Project Engineer..... $105.00/hour

*Technician (Soil/Concrete)..... $40.00/hour

Drafts Person/Cad Operator..... $55.00/hour

Clerical/Administrative Staff..... $45.00/hour

*An overtime premium of 1.5 times the hourly rate will apply for City of Fort Lauderdale approved services provided Monday through Friday that are in excess of 8 hours per day and for services provided before 7:00 AM and after 6:00 PM, as well as for services provided on Saturday, Sunday and PGC recognized Holidays.

PANGEO CONSULTANTS
2109 S.W. 10th Ave Fort Lauderdale FL 33315
Phone: 954 200 4019
Email: info@pangeoconsult.com

STONER & ASSOCIATES, Inc.
SURVEYORS - MAPPERS
4341 S.W. 62nd Avenue, Davie, FL 33314
T: (954) 585-0997 • F: (954) 585-3927

Stoner & Associates, Inc.
Hourly Rates

Classification	Hourly Rate
Principal	$150.00
Senior Professional Land Surveyor	$125.00
Professional Land Surveyor	$110.00
Field Crew Supervisor	$75.00
Survey/CAD Technician	$75.00
Survey Crew	$140.00
Administrative	$70.00

DOCUMENT ROUTING FORM

ICG 3/8/19

Today's Date: 3/6/19

DOCUMENT TITLE: COFL and Carollo Engineers - Granular Activated Carbon Pilot and Plant Evaluation at Fiveash Water Plant

COMM. MTG. DATE: 2/5/19 **CAM #:** 19-0080 **ITEM #:** CP-2 **CAM attached:** ☒YES ☐NO

Routing Origin: _____ **Router Name/Ext:** Glynis **Action Summary attached:** ☐YES ☒NO

CIP FUNDED: ☐ YES ☒ NO

Capital Investment / Community Improvement Projects defined as having a life of at least 10 years and a cost of at least $50,000 and shall mean improvements to real property (land, buildings, or fixtures) that add value and/or extend useful life, including major repairs such as roof replacement, etc. Term "Real Property" include: land, real estate, realty, or real.

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2) City Attorney's Office: Documents to be signed/routed? ☒YES ☐NO # of originals attached: 1

Is attached Granicus document Final? ☐YES ☐NO Approved as to Form: ☒YES ☐NO

Date to CCO: 3/6/19 RMH RMH

Attorney's Name Initials

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3) City Clerk's Office: # of originals: 1 **Routed to:** Donna V. Ext 5013 **Date:** 3/7/19

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4) City Manager's Office: CMO LOG #: Mar 34 Document received from: _____

Assigned to: CHRIS LAGERBLOOM ☒ LINDA LOGAN-SHORT ☐ RHODA MAE KERR ☐
CHRIS LAGERBLOOM as CRA Executive Director ☐

☐ APPROVED FOR C. LAGERBLOOM'S SIGNATURE ☐ N/A C. LAGERBLOOM TO SIGN

PER ACM: **L. L-SHORT** _____ (Initial/Date) **R. KERR** _____ (Initial/Date)
☐ **PENDING APPROVAL** *(See comments below)*
Comments/Questions: _____

Forward ___ originals to ☐ Mayor ☐ CCO **Date:** _____

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5) Mayor/CRA Chairman: Please sign as indicated. Forward ___ originals to CCO for attestation/City seal (as applicable) **Date:** _____

INSTRUCTIONS TO CITY CLERK'S OFFICE

City Clerk: Retains 0 original and forwards 1 originals to: Linda Blanco X5141 *(Name/Dept/Ext)*

Attach \ certified Reso # \ ☐YES ☐NO **Original Route form to CAO** - Glynis

#19-0099