

REQUEST FOR QUALIFICATIONS

FOR

**OWNER'S ADVISOR FOR THE
MCALPINE CREEK WASTEWATER MANAGEMENT FACILITY
NUTRIENT HARVESTING PROJECT**

RFQ #20160915



CITY OF CHARLOTTE, NORTH CAROLINA

SEPTEMBER 2016

**REQUEST FOR QUALIFICATIONS
FOR
OWNER'S ADVISOR FOR THE MCALPINE CREEK WWMF
NUTRIENT HARVESTING PROJECT**

September 15, 2016

Charlotte Water is requesting submittals from qualified firms interested in providing Professional Services as an Owner's Advisor for procurement through construction for the McAlpine Creek Wastewater Management Facility Nutrient Harvesting Project. The requirements for submitting a Statement of Qualifications are stated in the attached Request for Qualifications (RFQ). Please review them carefully.

Submittals are due no later than **2:00 P.M. local time on October 13, 2016**. One originally signed and four copies, all bound, in addition to one electronic copy in pdf format (provided on CD or flash drive), are to be submitted per the instructions outlined on page 4 of the RFQ. Attached, as Exhibit 4, is the City of Charlotte's standard professional services agreement. Please review prior to submitting your SOQ.

The full RFQ document, addenda, clarifications, and all other related information will be posted on Charlotte Water's Vendor and Contractor Opportunities website at cmucontracts.charmeck.org. Each Firm is responsible for checking the Charlotte Water website to obtain the latest information.

The City of Charlotte appreciates your interest in providing professional services for this project.

Sincerely,

Abby Dolan
Procurement Manager
adolan@charlottenc.gov

Attachments:

- Exhibit 1: Commercial Non-Discrimination Certification
- Exhibit 2: E-Verify Certification
- Exhibit 3: Pilot Results
- Exhibit 4: Sample Agreement

**REQUEST FOR QUALIFICATIONS
FOR
OWNER'S ADVISOR FOR THE MCALPINE CREEK WWMF
NUTRIENT HARVESTING PROJECT**

DESCRIPTION OF PROJECT

Charlotte Water is soliciting Statements of Qualifications (SOQ) from qualified firms (Firm) for Professional Services as an Owner's Advisor for procurement through construction for the McAlpine Creek Wastewater Management Facility Nutrient Harvesting Project (Project). This project will utilize a Public Private Partnership (P3) delivery method. More project details can be found in Exhibit 3.

SCOPE

The following is a general description of the tasks required. This is not intended to be all-inclusive, nor is it guaranteed that all of the below tasks will be utilized. A more defined Scope of Work will be developed during negotiation with the selected firm. CLTWater reserves the right, at its sole discretion, to expand or limit the work based on funding availability or shifting priorities of the City.

General Scope of Project

The selected Firm is expected to serve as the Owner's Advisor, assisting with the services including, but not limited to the following:

- Develop the RFQ for solicitation of P3 teams;
- Evaluate SOQ submittals from P3 teams and assist the Owner in developing short-list of qualified P3 teams;
- Assist with development of an appropriate design contract package to be issued to the short-listed P3 teams;
- Assist in the selection of the P3 team;
- Assist with the development of a comprehensive agreement for completion of design and construction;
- Assist in the negotiation of a comprehensive agreement, including guaranteed maximum price (GMP);
- Monitor the design contract including; technical design control, cost control, and progress reporting;
- Estimate probable construction cost; and
- Monitor and administer construction contract, including the services of a resident project representative.

MILESTONES

Contract negotiation is expected to begin shortly after selection. The following chart shows the schedule of key events:

<i>DATE</i>	<i>EVENT</i>
September 15, 2016	Issuance of RFQ
October 6, 2016	Last day for questions
October 13, 2016	SOQ Packages are due by 2:00 p.m. on this date
October 25 - 31, 2016	Selection notification

STATEMENT OF QUALIFICATION PREPARATION

If your firm would like to be considered for providing the required services to the City, please submit one (1) originally signed and four (4) copies, all bound, in addition to one (1) electronic copy in pdf format (provided on CD or flash drive), of your SOQ. The name and address of the proposer and RFQ #20160915, including RFQ Title, shall be placed on the outside of the package. SOQs shall be addressed and delivered to:

Charlotte Water
 Procurement Department, 2nd Floor
 ATTN: Abby Dolan, Procurement Manager
 5100 Brookshire Blvd.
 Charlotte, NC 28216

SOQs may be mailed, or placed in the designated locked Procurement box in the 2nd Floor Lobby at the above address. SOQs must be submitted in a sealed envelope or box with the following information clearly notated on the face of it:

SOQ ENCLOSED
 RFQ #20160915
 Owner’s Advisor for the McAlpine Creek WWMF Nutrient Harvesting Project
 Name of Firm
 Address of Firm

If submitted via mail (by a third party vendor): the outside sealed SOQ envelope or box must contain the aforementioned information clearly notated on the face of it.

If hand delivered via depositing in the designated box, the SOQ envelope must be placed inside the WHITE box designated for SERVICES located in the 2nd Floor Lobby. Packages must be the following dimensions or smaller: 12”W x 8.25”H x 11.5”D. If the package is larger, it must be separated into smaller packages with the outside of the package clearly marked “PACKAGE X OF X”. Firm shall allow enough time to sign in at the reception desk and obtain a visitor badge in order to access the 2nd floor.

No responsibility will be attached to the City for prematurely opening an SOQ not properly addressed or identified.

Each Firm is solely responsible for the timely delivery of their SOQ. Firms accept all risks of late delivery regardless of fault. Any SOQ received after the date and time specified, regardless of the mode of delivery, shall not be considered. The Procurement Officer will confirm receipt of SOQs to all Firms via email within 24 hours of the SOQ deadline.

The SOQ Package should consist of the information described below. Due to demands on the time of the Selection Committee members, please limit your submittal to seven (7) double-sided pages (or fourteen (14) single-sided pages). Type size should be no smaller than 11 points for narrative sections, but may be reduced for captions, footnotes, etc. as required while still maintaining legibility. Front and back covers, dividers, and required Exhibit forms will not count toward the page limit. Statements consisting of more than the previously stated page limit may be rejected. Promotional literature, brochures, and the cover letter will be considered as part of the page limit.

Cover Letter

Cover letter should be signed by a person empowered to commit the firm to a contractual arrangement with the City of Charlotte. The cover letter should also provide contact information including phone number, **email address**, and mailing address. If proposal contains trade secret / proprietary / confidential information, state this in cover letter.

Section One:

1. Identify the legal entity that would enter into the contract with the City and include location of company headquarters, local office location, type of business (sole proprietorship, partnership, or corporation), state of incorporation or organization.
2. Provide an organizational chart identifying members of the team, including subconsultants who would be assigned to this project. The chart should clearly delineate roles and responsibilities of the various team members.
3. For proposed subconsultants, please provide the name of each firm, the office location, contact name and telephone number, and the services to be provided.
4. Indicate if any member of your team has been certified as a Minority or Small Business Enterprise (M/SBE) by the City of Charlotte.
5. State any conflicts of interest your firm or any key individual may have with these projects.
6. List any unresolved claims or disputes with the City of Charlotte.

Section Two:

1. Provide brief bios for the team members listed on the organizational chart. Particular emphasis should be placed on the project manager, his/her length of time with the firm, and his/her relevant experience for this project. Background information for all team members should include professional registrations/certifications listing applicable state(s).
2. CLTWater is particularly interested in Firms' previous experience as an Owner's Advisor or similar role on a P3 project. Please provide up to three (3) project examples by your firm that were similar to this project. For each project, provide a brief project summary, identify the owner, and include the name and phone number of the owner's representative. In addition, indicate which member(s) of your proposed project team had key roles in the projects, and what those roles were. If the Firm does not have any experience with the P3 delivery method, please list experience with various types of Design Build projects.
3. As this project is specific to Phosphorus management and extraction, please include up to three (3) projects demonstrating experience with this type of project. For each project, provide a brief project summary, identify the owner, and include the name and phone

number of the owner's representative. In addition, indicate which member(s) of your proposed project team had key roles in the projects, and what those roles were.

4. Describe the general tasks required to fulfill project requirements and your firm's approach to completing those tasks.
5. Summarize why your firm should be selected.

Required Forms

- Exhibit 1 – Commercial Non-Discrimination Certification
- Exhibit 2 – E-Verify Certification

EVALUATION CRITERIA

SOQ packages will be evaluated on the Firm's ability to meet the requirements of this RFQ. Factors will include the following:

- Qualifications and abilities of key individuals identified in the Qualifications Package;
- Firm's specific experience related to P3 projects, particularly as an Owner's Advisor.
- Firm's experience with Phosphorus management and extraction, especially from dewatering sidestreams.
- Process control project experience, especially with regards to latest sidestream process technologies;
- Firm's approach;
- Proposed utilization of firms certified as Minority and Small Business Enterprises by the City who will be given realistic opportunities to perform under the scope of this contract; and
- References.

ADDITIONAL INFORMATION ABOUT THIS RFQ

1. *Charlotte Business INClusion*

In 2013, Charlotte City Council adopted the Charlotte Business INClusion (CBI) Policy to promote diversity, inclusion, and local business opportunities in the City's contracting and procurement process for Minority, Women, and Small Business Enterprises headquartered in the Charlotte Combined Statistical Area (CSA). The CBI Policy is posted at www.charlottebusinessinclusion.com.

The **Charlotte CSA consists of the following 13 counties**: In North Carolina: Anson, Cabarrus, Cleveland, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Union and Stanly. In South Carolina: Chester, Lancaster, and York.

The City will negotiate M/W/SBE Subcontracting Goals for the Project with the selected firm(s):

- **MBE Goal:** May be satisfied by an entity that qualifies as a Minority Business Enterprise under N.C. Gen. Stat. § 143-128, and that has been certified as a Historically Underutilized Business by the State of North Carolina with the business headquarters in the Charlotte Combined Statistical Area. Please note, when identifying MBEs for inclusion towards the MBE Goal, only HUB-certified MBEs **headquartered in the Charlotte Combined Statistical Area** will be counted towards the MBE Goal.

- **WBE Goal:** May be satisfied by an entity that qualifies as a Women-owned Business Enterprise under N.C. Gen. Stat. § 143-128, and that has been certified as a Historically Underutilized Business by the State of North Carolina with the business headquarters in the Charlotte Combined Statistical Area. Please note, when identifying WBEs for inclusion towards the WBE Goal, only HUB-certified WBEs **headquartered in the Charlotte Combined Statistical Area** will be counted towards the WBE Goal.
- **SBE Goal:** May be satisfied by an entity that is certified by the City of Charlotte under Part E of the CBI Policy as meeting all of the requirements for SBE certification.
- **Aggregate M/W/SBE Goal (Project Goal):** The total work performed by MBEs, WBEs or SBEs in the aggregate for this Project. The City will negotiate a Project Goal for individual projects/contracts with the selected firm(s).

Entities Certified In Multiple Categories. In measuring Goal attainment, a subconsultant that is certified in multiple categories may be counted toward the individual Goal of such category, but the subconsultant may only be counted once towards the Project Goal. For example, a subconsultant that is certified as both an SBE by the City and an MBE by the State shall be counted towards both the SBE Goal and the MBE Goal. However, the M/W/SBE firm will only be counted once towards the Project Goal.

Firms are highly encouraged to consider any and all possibilities for M/W/SBE participation. A complete list of City certified SBEs is available at www.charlottebusinessinclusion.com. A list of State of North Carolina HUB certified MBEs and WBEs is available at <http://www.doa.nc.gov/hub/searchhub.aspx>.

In evaluating the firm's proposal, the City may take into account: (1) the firm's past performance in meeting MBE, WBE and SBE goals; (2) the firm's Participation Plan; and (3) the Participation Plan submitted by other firms in comparison to the firm's Participation Plan.

2. Vendor Registration

In order to measure the effectiveness of the City's CBI Program, all prime consultants and first-tier subconsultants and suppliers must be registered in the City's Vendor Registration System. Consultants and subconsultants not registered cannot receive payment for services and/or supplies provided under any City contract.

3. Selection Process

CLTWater will conduct a fair and impartial evaluation of all submittals that are received in accordance with the provisions of this RFQ. CLTWater will appoint a selection committee to perform the evaluation. Interviews with firms are not anticipated, but may be held at the option of the selection committee. CLTWater reserves the right to obtain clarification of any point in a firm's/team's Qualification Package or to obtain additional information. All firms/teams who submit Qualification Packages will be notified of the selection committee's choice. Final approval of any selected firm/team is subject to the action of City Council or appropriate City officials.

4. Public Records

Upon receipt by the City, each Qualifications Package becomes the property of the City and is considered a public record except for material that qualifies as "Trade Secret" information under North Carolina General Statute 66-152 et seq. Qualifications Packages will be reviewed by the City's Selection Committee, as well as other City staff and members of the general public who submit public record requests after a selection result has been announced to the public. To properly designate material as a trade secret under these circumstances, each firm must take the following precautions: (a) any trade secrets submitted by a firm should be submitted in a separate, sealed envelope marked "Trade Secret - Confidential and Proprietary Information - Do Not Disclose Except for the Purpose of Evaluating this Qualifications Package," and (b) the same trade secret/confidentiality designation should be stamped on each page of the trade secret materials contained in the envelope.

In submitting a Qualifications Package, each firm agrees that the City may reveal any trade secret materials contained in such response to all City staff and City officials involved in the selection process and to any outside consultant or other third parties who serve on the Selection Committee or who are hired by the City to assist in the selection process. Furthermore, each firm agrees to indemnify and hold harmless the City and each of its officers, employees and agents from all costs, damages, and expenses incurred in connection with refusing to disclose any material that the firm has designated as a trade secret. Any firm that designates its entire Qualifications Package as a trade secret may be disqualified from the selection process.

5. Commercial Non-Discrimination Ordinance

The following provisions are incorporated into any contract that may result from this solicitation:

As a condition of entering into this agreement, the Company represents and warrants that it will fully comply with the City's Commercial Non-Discrimination Policy, as described in Section 2, Article V of the Charlotte City Code, and consents to be bound by the award of any arbitration conducted thereunder. As part of such compliance, the Company shall not discriminate on the basis of race, gender, religion, national origin, ethnicity, age, marital status, familial status, sexual orientation, gender identity, gender expression, or disability in the solicitation, selection, hiring, or treatment of subcontractors, vendors or suppliers in connection with a City contract or contract solicitation process, nor shall the Company retaliate against any person or entity for reporting instances of such discrimination. The Company shall provide equal opportunity for subcontractors, vendors and suppliers to participate in all of its subcontracting and supply opportunities on City contracts, provided that nothing contained in this clause shall prohibit or limit otherwise lawful efforts to remedy the effects of marketplace discrimination that has occurred or is occurring in the marketplace. The Company understands and agrees that a violation of this clause shall be considered a material breach of this Agreement and may result in termination of this Agreement, disqualification of the Company from participating in City contracts or other sanctions.

As a condition of entering into this Contract, Company agrees to: (a) promptly provide to the City all information and documentation that may be requested by the City from time to time regarding the solicitation, selection, treatment and payment of subcontractors in connection with this Contract; and (b) if requested, provide to the City within sixty days after the request a truthful and complete list of the names of all subcontractors, vendors,

and suppliers that Company has used on City contracts in the past five years, including the total dollar amount paid by Company on each subcontract or supply contract. Company further agrees to fully cooperate in any investigation conducted by the City pursuant to the City's Non-Discrimination Policy, to provide any documents relevant to such investigation that are requested by the City, and to be bound by the award of any arbitration conducted under such Policy.

Company agrees to provide to the City from time to time on the City's request, payment affidavits detailing the amounts paid by Company to subcontractors and suppliers in connection with this Contract within a certain period of time. Such affidavits shall be in the format specified by the City from time to time.

Company understands and agrees that violation of this Commercial Non-Discrimination provision shall be considered a material breach of this Contract and may result in contract termination, disqualification of Company from participating in City contracts and other sanctions.

7. E-Verify

As a condition for payment under this Contract, Company shall: (i) comply with the E-Verify requirements set forth in Article 2 of Chapter 64 of the North Carolina General Statutes (the "E-Verify Requirements"); and (ii) cause each subcontractor under this Contract to comply with such E-Verify Requirements as well. Company will indemnify and save harmless the City from all losses, damages, costs, expenses (including reasonable attorneys' fees), obligations, duties, fines, penalties, interest charges and other liabilities (including settlement amounts) incurred on account of any failure by Company or any subcontractor to comply with the E-Verify Requirements.

8. Conditions and Reservations

The City plans to select one firm, but reserves the right to request substitutions of subconsultants. The City reserves the right to contact any firm/team to negotiate if such is deemed desirable by the City. The City reserves the right to reject any or all responses to the RFQ, to advertise for new RFQ responses, or to accept any RFQ response deemed to be in the best interest of the City. The City reserves the right to waive technicalities and informalities.

A response to this RFQ should not be construed as a contract, nor indicate a commitment of any kind. The RFQ does not commit the City to pay for costs incurred in the submission of a response to this RFQ or for any cost incurred prior to the execution of a final contract. No recommendations or conclusions from this RFQ process concerning any firm shall constitute a right (property or otherwise) under the Constitution of the United States or under the Constitution, case law or statutory law of North Carolina. No binding contract, obligation to negotiate, or any other obligation shall be created on the part of the City unless the City and a firm jointly execute a contract.

9. Communication Guidelines

Firms and their staff are prohibited from communicating with elected City officials and City employees regarding the RFQ or submittals from the time the RFQ has been released until all respondents have been notified and the selection results have been publicly announced. These restrictions extend to "thank you" letters, phone calls, and emails and any contact that results in the direct or indirect discussion of the RFQ and/or the Qualification Package submitted by the firm/team. Violation of this provision by the

firm/team and/or its agents may lead to disqualification of the firm's/team's submittal from consideration. Exceptions to the restrictions on communications with City employees are as follows:

- Firms may submit written questions concerning this RFQ to the Contact Person for receipt no later than 5:00 PM local time on **October 6, 2016**. Questions may be submitted to Abby Dolan via email to adolan@charlottenc.gov. Questions received after the stated deadline will not be answered. No oral statement of any person shall modify or otherwise change or affect the terms, conditions, or specifications stated in the RFQ, and changes to the RFQ, if any, shall be made in writing only and issued in the form of an Addendum to the RFQ. Clarifications will be posted on our website at cmucontracts.charmeck.org.
- Firms are encouraged to contact the Charlotte Business INClusion (CBI) Liaison for assistance or clarification with issues specifically related to the City's CBI Program. The point of contact is Frederica Love, who may be reached via email at flove@charlottenc.gov.

10. *Iran Divestment Act*

The proposer warrants and certifies that it is not identified on the Final Divestment List created by the North Carolina State Treasurer pursuant to N.C.G.S. 143-6A-4. The person signing this proposal certifies that he or she is authorized by the proposing firm to make the foregoing certification. Proposer further agrees that it will not utilize on this Contract, if awarded, any subcontractor that is identified on the Final Divestment List.

EXHIBIT 1

COMMERCIAL NON-DISCRIMINATION CERTIFICATION

Project: Owner's Advisor for the McAlpine Creek WWMF for the Nutrient Harvest Project

Proposer: _____

All requests for proposals issued for City contracts shall include a certification to be completed by the proposer in substantially the following form:

The undersigned Bidder or Proposer hereby certifies and agrees that the following information is correct:

1. In preparing its enclosed bid or proposal, the Bidder or Proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not engaged in discrimination as defined in Section 2.
2. For purposes of this Section, *discrimination* means discrimination in the solicitation, selection, or treatment of any subcontractor, vendor or supplier on the basis of race, ethnicity, gender, age, religion, national origin, marital status, familial status, sexual orientation, gender identity, gender expression or disability or any otherwise unlawful form of discrimination. Without limiting the foregoing, *discrimination* also includes retaliating against any person or other entity for reporting any incident of *discrimination*.
3. Without limiting any other remedies that the City may have for a false certification, it is understood and agreed that, if this certification is false, such false certification will constitute grounds for the City to reject the proposal submitted with this certification, and terminate any contract awarded based on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance and shall subject the Bidder or Proposer to any remedies allowed thereunder, including possible disqualification from participating in City contracts or bid processes for up to two years.
4. As a condition of contracting with the City, the Bidder or Proposer agrees to promptly provide to the City all information and documentation that may be requested by the City from time to time regarding the solicitation and selection of suppliers and subconsultants in connection with this solicitation process. Failure to maintain or failure to provide such information shall constitute grounds for the City to reject the proposal and to any contract awarded on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance, and shall subject the Bidder or Proposer to any remedies that are allowed thereunder.
5. As part of its bid or proposal, the Bidder or Proposer shall provide to the City a list of all instances within the past ten years where a complaint was filed or pending against Bidder or Proposer in a legal or administrative proceeding alleging that Bidder or Proposer discriminated against its subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.
6. As a condition of submitting a bid or proposal to the City, the Bidder or Proposer agrees to comply with the City's Commercial Non-Discrimination Policy as described in Section 2, Article V of the Charlotte City Code, and consents to be bound by the award of any arbitration conducted thereunder.

Name of Company

Signature of Company's Authorized Official

Date

Print Name

Title

EXHIBIT 2

E-VERIFY CERTIFICATION

This E-Verify Certification is provided to the City of Charlotte (the "City") by the company signing below ("Company") as a prerequisite to the City considering Company for award of a City contract (the "Contract").

1. Company understands that:

- a. E-Verify is the federal program operated by the United States Department of Homeland Security and other federal agencies to enable employers to verify the work authorization of newly hired employees pursuant to federal law, as modified from time to time.
- b. Article 2 of Chapter 64 of the North Carolina General Statutes requires employers that transact business in this state and employ 25 or more employees in this state to: (i) verify the work authorization of newly hired employees who will be performing work in North Carolina through E-Verify; and (ii) maintain records of such verification (the "E-Verify Requirements"). Section 126-7.1 of the North Carolina General Statutes requires state agencies to verify their employees' work statuses through E-Verify.
- c. North Carolina General Statute 160A-20.1(b) prohibits the City from entering into contracts unless the contractor and all subcontractors comply with the E-Verify Requirements.

2. As a condition of being considered for the Contract, Company certifies that:

- a. If Company has 25 or more employees working in North Carolina (whether now or at any time during the term of the Contract), Company has complied and will comply with the E-Verify Requirements with respect to Company employees working in North Carolina; and
- b. Regardless of how many employees Company has working in North Carolina; Company will take appropriate steps to ensure that each subcontractor performing work on the Contract that has 25 or more employees working in North Carolina complies with the E-Verify Requirements.

3. Company acknowledges that the City will be relying on this Certification in entering into the Contract, and that the City may incur expenses and damages if the City enters into the Contract with Company and Company or any subcontractor fails to comply with the E-Verify Requirements. Only in the manner and to the extent permitted by the North Carolina Tort Claims Act, N.C.G.S. § 143-291, et seq., and without waiver of its sovereign immunity, company agrees to indemnify and save the City harmless from and against all losses, damages, costs, expenses obligations, duties, fines and penalties (collectively "Losses") arising directly or indirectly from violation of the E-Verify Requirements by Company or any of its subcontractors, including without limitation any Losses incurred as a result of the Contract being deemed void.

Name of Company

Signature of Company's Authorized Official

Date

Print Name

Title

EXHIBIT 3
PILOT RESULTS

NUTRIENT RECOVERY
AT
CHARLOTTE MECKLENBURG
UTILITIES'
McALPINE CREEK
WWTP

PILOT STUDY REPORT

July 27, 2010



690-1199 WEST PENDER STREET
VANCOUVER, BC, V6E 2R1
604 408 6697

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1.0 Executive Summary

Charlotte Mecklenburg Utilities is currently evaluating the application of Ostara's Pearl® Nutrient Recovery Process for the treatment of digested sludge dewatering centrate. The technology offers numerous benefits, specifically:

- Reducing the loads of phosphorus and ammonia returned to the main plant
- Preventing struvite scale formation
- Increasing environmental sustainability
- Avoiding dependence on chemical dosing
- Creating revenues from fertilizer sales

A pilot study of the Pearl® process was undertaken at the McAlpine Creek WWTP to demonstrate the performance and operational characteristics of the process. The pilot equipment treated centrate over a 6 day operational period during June 2010.

The principal results of the study were:

- Orthophosphate removal performance averaging 79%
- High quality fertilizer production [to be confirmed]
- Robust process operation

From the results it can be concluded that the Pearl® process provides a viable method of recovering nutrients from McAlpine Creek's centrate and for converting these nutrients into a high quality fertilizer product.

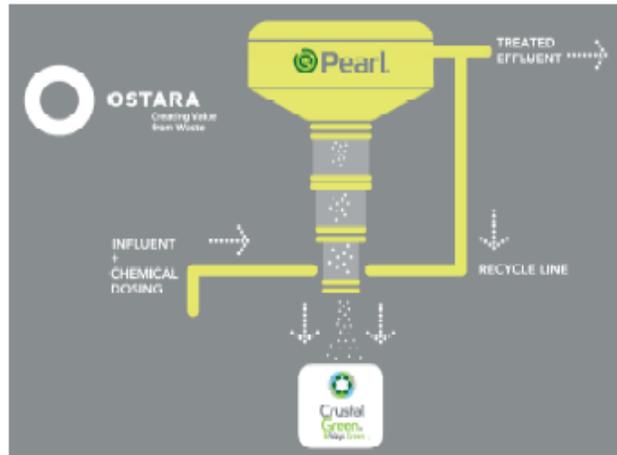
Ostara would like to acknowledge the diligent support that was received from Charlotte Mecklenburg Utilities staff and contractors during the setup, operation and decommissioning of the pilot plant, as this assistance was critical to the success of the project.

2.0 Background

Charlotte Mecklenburg Utilities operates five wastewater treatment plants, of which the McAlpine Creek WWTP is the largest at 64 MGD. The McAlpine Creek WWTP operates biological phosphorus removal and anaerobic sludge digestion, which results in digested sludge with a high concentration of dissolved nutrients, specifically phosphorus and nitrogen (as ammonia). To avoid returning the phosphorus load to the main plant, ferric chloride is dosed prior to the dewatering centrifuges. This incurs considerable costs, thus the potential for Ostara's Pearl process to avoid the need for ferric chloride addition is of interest to Charlotte Mecklenburg Utilities. To explore this potential, a pilot scale demonstration of the Pearl process was undertaken at the McAlpine Creek WWTP during June 2010.

2.1 Ostara's Pearl® Nutrient Recycling Process

The Pearl® Nutrient Recycling Process is based on the initiation and control of struvite precipitation within an upflow fluidized bed reactor. Struvite is an equi-molar crystalline matrix of magnesium, ammonium and phosphate $[\text{NH}_4\text{MgPO}_4 \cdot 6(\text{H}_2\text{O})]$, which forms when these three ions are present in a solution above its saturation point. The process is based on the addition of either one or two of these precipitants, such that the remaining compound(s) is removed from solution and struvite is formed. In municipal sewage treatment applications the limiting precipitant is magnesium, hence this is added to the process (typically in the form of magnesium chloride) to balance the phosphorus concentration. The saturation point of a solution is strongly influenced by pH, if the feed stream does not have sufficient alkalinity, sodium hydroxide is added. The process is generally operated at a pH of between 7 and 8. The Pearl® process is capable of achieving phosphate removal rates well in excess of 90%, with the economic optimum removal rate varying depending upon the waste stream and the treatment objectives. The process configuration is shown below.



Ostara's Pearl® Nutrient Recycling Process

The rate of struvite formation is carefully controlled in the Pearl® process, so that a high quality product is formed with the desired physical properties (size, hardness, purity etc.). The product made by the Pearl® process (branded Crystal Green®) is sold by Ostara as a premium quality fertilizer. Crystal Green® has been subjected to extensive tests, which have consistently found it to be completely inorganic, very high in purity, and pathogen-free. Crystal Green® has a number of differentiating characteristics relative to conventional fertilizers that position it as a high value product, including a slow nutrient release rate, beneficial magnesium content and environmentally sustainable production. The product has obtained fertilizer certification in the United States, Canada and the UK. Ostara currently has the capacity to manufacture over 1000 tons/year of Crystal Green in North America, and sells the product to both commercial and retail consumers.

The Pearl process offers Charlotte Mecklenburg Utilities numerous benefits, including:

- Removal of nutrient loads returned for re-treatment - avoiding the need for chemical dosing and freeing up treatment capacity in the plant, thus reducing costs
- Control of struvite formation in the sludge treatment stream - improving plant reliability and facilitating efficient plant operation and maintenance
- Reducing the phosphorus content of biosolids - facilitating land application
- Recovering nutrients as a premium quality, environmentally-friendly fertilizer - generating recurring revenues and conserving finite natural resources

3.0 Objectives

The objectives of this project were to:

- Demonstrate the phosphorus and nitrogen removal performance of Ostara's Pearl® nutrient recycling process on McAlpine Creek WWTP's digested sludge dewatering centrate
- Demonstrate the operational characteristics and robustness of the process
- Assess various process parameters, such as centrate quality and chemical dosing implications
- Demonstrate that manufactured struvite is of an appropriate quality to be marketed by Ostara as Crystal Green® fertilizer

4.0 Method

Ostara's Pearl® pilot plant was assembled at the McAlpine Creek WWTP on June 1st 2010 in the dewatering/thickening building. Centrate was sourced from the outlet of one of the dewatering centrifuges, from where it was pumped to a temporary feed storage tank. The feed was collected in batches, during which time the ferric chloride dose to the centrifuge was stopped to maximize the amount of dissolved phosphorus and to create conditions that would be representative of a full scale Pearl implementation. Feed was introduced to the reactor on June 2nd and the process was then run continuously until June 9th, except during the weekend when centrate was not produced. The pilot equipment setup at the McAlpine Creek WWTP is shown in the photo below:



Pearl Pilot Equipment Setup at the McAlpine Creek WWTP

Samples of process influent and effluent were taken on a daily basis. These samples were analyzed on site by Ostara using a Hach spectrophotometer for the following parameters:

- Influent ammonia, dissolved magnesium (before $MgCl_2$ dosing), orthophosphate; and
- Effluent ammonia, dissolved magnesium, and orthophosphate

The pilot plant is also equipped with on-line pH, temperature and flow measurement.

Grab and composite samples of influent and effluent were also taken and provided to Charlotte Mecklenburg Utilities for analysis of total suspended solids, ammonia, magnesium, total phosphorus and orthophosphate in the centralized off-site laboratory.

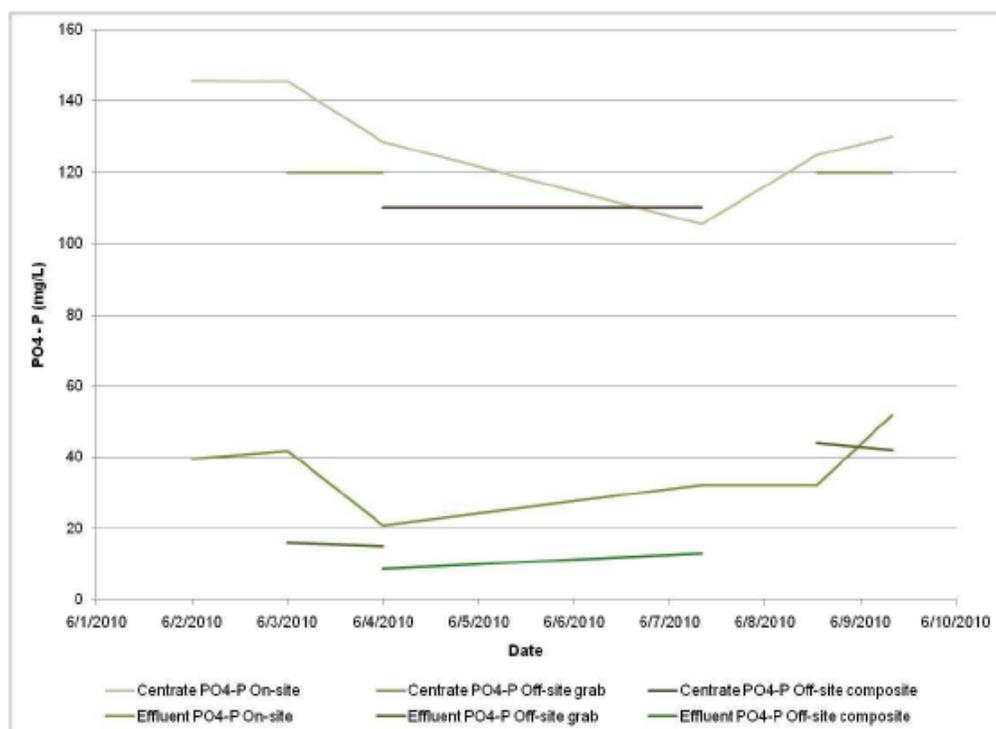
The operation of the process was primarily based on maintaining a target molar ratio of magnesium to phosphorus, which was achieved by automatic adjustment of the magnesium chloride dose rate in relation to the on-site phosphorus analysis results. During this study the production of feed material in daily batches meant that the process was adjusted "after the event" i.e. the samples of both feed and effluent were taken before the analysis result was available and therefore before the process was adjusted to suit the feed phosphorus concentration. This introduced a degree of inefficiency to the control of the process that impacted performance. This inefficiency would not be present in a full scale installation as feed would be provided more consistently, allowing the ability to stabilize the process at more optimal conditions.

Magnesium chloride stock solution was made up from magnesium chloride flakes in a dilute magnesium chloride storage/batch tank. The solution was then metered into the reactor through a dosing pump at the targeted molar ratio. As the levels in the batch tank lowered, the calibration of the dosing pump can be impacted resulting in under dosing of magnesium.

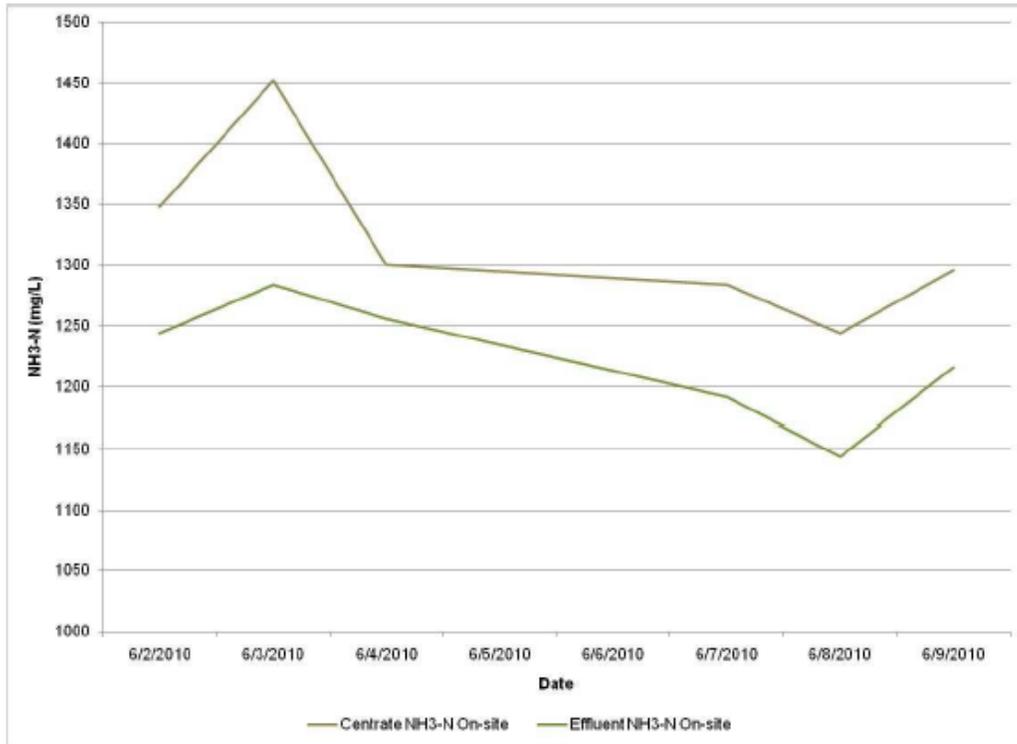
Sodium hydroxide was not dosed at any point during the project, as the influent centrate had a pH of 7.7, which was considered sufficient to achieve a reasonable degree of removal. This should be revisited when potential full scale designs are discussed to optimize the removal objectives in balance with any associated increase in operating costs due to caustic addition.

5.0 Results

Ostara's pilot scale reactor operated at the McAlpine Creek WWTP from 2nd to 9th June 2010, and treated an average centrate flow rate of 0.67 gpm for the majority of this period. Detailed test results are provided in the accompanying MS Excel document (see file: "Pearl Demonstration Project – Charlotte Mecklenburg Utilities, McAlpine Creek WWTP – June 2010"), with a summary of phosphate and nitrogen removal performance provided in the charts below. The orthophosphate chart shows all results (from both on-site and off-site laboratory analysis), whereas the ammonia chart only shows results from on-site analysis as the off-site analysis results appeared to have been rounded to the nearest 100 mg/L, resulting in a relatively "granular" view of performance.



Ortho-phosphate (PO₄-P) Removal Performance Summary



Ammonia (NH₃-N) Removal Performance Summary

The average concentrations of orthophosphate and nitrogen in the centrate and effluent, as measured by the various sampling and analysis methods undertaken, are summarized in the table below:

	On-site	Off-site grab	Off-site composite	Average
Centrate PO₄-P (mg/L)	130	120	110	120
Effluent PO₄-P (mg/L)	37	29	11	26
PO₄-P removal (%)	71.8	75.6	90.0	79.2%
Centrate NH₃-N (mg/L)	1321	1225	1200	1249
Effluent NH₃-N (mg/L)	1223	1150	1100	1158
NH₃-N removal (%)	7.3	5.9	8.3	7.2%

Total phosphorus concentrations were ~30 mg/L higher than orthophosphate concentrations in both the centrate and effluent, thus the process did not appear to affect the non-soluble phosphorus in the feed. Total suspended solids results were quite variable, but again the process did not appear to have any appreciable effect on the TSS concentration.

Analysis results for the struvite produced during the study have been analyzed with results appended. The results are within the boundaries of what we commonly see on other pilot tests and would not pose any concern to Ostara for implementation of a full scale system.

6.0 Discussion and Conclusions

The pilot study at McAlpine Creek WWTP is considered to have successfully achieved the targeted objectives.

Removal performance was in line with expectations, and was obtained without any sodium hydroxide addition, which would be expected to further increase removal.

Analysis results showed a moderate degree of variation between on-site and off-site tests, with off-site tests indicating superior performance.

The struvite recovered during the study appears of suitable quality, as confirmed via lab analysis of the product.

The study confirmed that nutrient recovery using Ostara's Pearl process is feasible at the McAlpine Creek WWTP.

Appendix A. Struvite Product Analysis Results

Parameter	Result	Units
Chloride	<0.002	%
Total Kjeldahl Nitrogen	5.4	%
Total Phosphorus	10.6	%
Calcium	130	ppm
Magnesium	10.3	%
Potassium	<0.10	%
Sodium	<100	ppm
Arsenic	<1	ppm
Boron	<1	ppm
Cadmium	<0.5	ppm
Chromium	<1	ppm
Cobalt	<1	ppm
Copper	2	ppm
Iron	204	ppm
Lead	<1	ppm
Manganese	74	ppm
Mercury	<0.1	ppm
Molybdenum	<1	ppm
Nickel	<1	ppm
Selenium	<1	ppm
Sulphur	<0.01	%
Zinc	3	ppm
K as K ₂ O	<0.12	%
P as P ₂ O ₅	24.3	%

EXHIBIT 4
SAMPLE AGREEMENT

CONTRACT NUMBER _____



**AGREEMENT FOR
PROFESSIONAL SERVICES**

PROJECT:

OWNER:

City of Charlotte
Charlotte Water
5100 Brookshire Boulevard
Charlotte, North Carolina 28216

CONTRACTOR:

**AGREEMENT FOR PROFESSIONAL SERVICES
BETWEEN THE CITY OF CHARLOTTE AND**

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EXHIBITS

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EXHIBIT 2	Hourly Rate / Compensation Schedule
EXHIBIT 3	Schedule
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EXHIBIT 6	E-Verify Certification
EXHIBIT 7	Insurance Certificate
EXHIBIT 8	Charlotte Business INClusion Program

**AGREEMENT FOR PROFESSIONAL SERVICES
BETWEEN THE CITY OF CHARLOTTE AND**

THIS AGREEMENT, made and entered into this ____ day of _____, 201__ (“Effective Date”), by and between the **CITY OF CHARLOTTE**, a North Carolina municipal corporation, hereinafter referred to as the “City”, and _____, a professional corporation doing business in North Carolina, hereinafter referred to as the “Engineer”.

GENERAL RECITALS

WHEREAS, the City issued a Request for Qualifications (RFQ # _____) for _____ dated _____;

WHEREAS, the City desires to engage the Engineer to provide professional services as outlined hereinafter upon the terms and conditions as set out herein;

WHEREAS, the City is authorized by the _____ to enter into an Agreement for performance of such services;

NOW THEREFORE, the City and the Engineer, for consideration hereinafter stipulated, mutually agree that the Engineer shall perform the services provided under this Agreement and shall do, perform and carry out in a satisfactory manner, as determined by the City, the following:

AGREEMENT

ARTICLE 1 – DESCRIPTION; SCOPE OF SERVICES

The Engineer has been retained by the City to provide _____ services. A detailed description and scope of services is included in **Exhibit 1** of the Agreement.

ARTICLE 2 - ENGINEER’S RESPONSIBILITIES

Upon receipt of a written Notice to Proceed, Engineer shall:

- a. Provide for the City professional services to which this Agreement applies;
- b. Serve as City’s _____ professional as directed by the City’s Project Manager;
- c. Furnish professional consultation and advice and _____ services incidental to the Project;
- d. Review available data and consult with City to clarify and define City’s requirements;
- e. Obtain that information, conduct those investigations, and undertake other reasonable efforts necessary for the Engineer to become conversant with the philosophy and purpose of each project and to carry out its responsibilities; and
- f. Identify and analyze requirements of governmental authorities having jurisdiction and assist the City in obtaining required approval from such authorities.

ARTICLE 3 - TIME OF BEGINNING AND COMPLETION

This Agreement shall commence on the Effective Date and shall continue in full force until all contract monies have been expensed, unless sooner terminated or extended in accordance with the provisions of this Agreement. Time is of the essence and the Engineer shall begin work immediately following issuance of written Notice to Proceed. All services shall be completed in accordance with the schedule in Exhibit 3.

ARTICLE 4 - PERSONNEL

The key personnel listed in the Engineer's organizational chart (Exhibit 4) shall be assigned to the Project until completion. No changes in Engineer's key personnel shall be made without prior written approval of the City.

4.1 *Addition, Removal and Replacement of Personnel*

The City has the right to require any additional personnel that the City deems necessary to maintain the Project schedule. The City also has the right to require removal and replacement of any personnel deemed unsatisfactory by the City.

4.2 *Commercial Non-Discrimination Ordinance*

As a condition of entering into this Contract, the Engineer represents and warrants that it will fully comply with the City's Commercial Non-Discrimination Policy, as described in Section 2, Article V of the Charlotte City Code, and consents to be bound by the award of any arbitration conducted thereunder. As part of such compliance, the Engineer shall not discriminate on the basis of race, gender, religion, national origin, ethnicity, age, marital status, familial status, sexual orientation, gender identity, gender expression, or disability in the solicitation, selection, hiring, or treatment of subcontractors, vendors or suppliers in connection with a City contract or contract solicitation process, nor shall the Engineer retaliate against any person or entity for reporting instances of such discrimination. The Engineer shall provide equal opportunity for subcontractors, vendors and suppliers to participate in all of its subcontracting and supply opportunities on City contracts, provided that nothing contained in this clause shall prohibit or limit otherwise lawful efforts to remedy the effects of marketplace discrimination that has occurred or is occurring in the marketplace. The Engineer understands and agrees that a violation of this clause shall be considered a material breach of this Agreement and may result in termination of this Agreement, disqualification of the Engineer from participating in City contracts or other sanctions.

As a condition of entering into this Contract, Engineer agrees to: (a) promptly provide to the City all information and documentation that may be requested by the City from time to time regarding the solicitation, selection, treatment and payment of subcontractors in connection with this Contract; and (b) if requested, provide to the City within sixty days after the request a truthful and complete list of the names of all subcontractors, vendors, and suppliers that Engineer has used on City contracts in the past five years, including the total dollar amount paid by Engineer on each subcontract or supply contract. Engineer further agrees to fully cooperate in any investigation conducted by the City pursuant to the City's Non-Discrimination Policy, to provide any documents relevant to such investigation that are requested by the City, and to be bound by the award of any arbitration conducted under such Policy.

Engineer agrees to provide to the City from time to time on the City's request, payment affidavits detailing the

amounts paid by Engineer to subcontractors and suppliers in connection with this Contract within a certain period of time. Such affidavits shall be in the format specified by the City from time to time.

Engineer understands and agrees that violation of this Commercial Non-Discrimination provision shall be considered a material breach of this Contract and may result in contract termination and disqualification of Engineer from participating in City contracts and other sanctions.

4.3 ***Subconsultant Employees***

For purposes of this section, Engineer's "employees" shall include employees of any subconsultant. The Engineers' employees who normally and regularly come in direct contact with the public shall be clearly identifiable by name badges, nametags, or identification cards. The Engineer shall assure that its employees serve the public in a courteous, helpful, and impartial manner. All employees of the Engineer in both field and office shall refrain from belligerent behavior and/or profanity. Correction of any such behavior or language shall be the responsibility of the Engineer. The Engineer agrees to make itself aware of and comply with the City's Harassment Policy. The City will not tolerate or condone acts of harassment based upon race, sex, religion, national origin, color, age or disability. Violators of this policy shall be subject to termination.

ARTICLE 5 - POINTS OF CONTACT; NOTIFICATION

5.1 ***City's Point of Contact***

The City will designate a Project Manager who is authorized to act in the City's behalf with respect to the Project, except as otherwise limited by this Agreement. The Project Manager will examine the documents submitted by the Engineer and will expedite decisions concerning the documents in order to avoid unreasonable delay in the progress of the Engineer's Services. The Project Manager will coordinate all communication between the Engineer and the City unless otherwise specified in writing. The Engineer shall contact the Project Manager prior to all meetings involving City personnel.

The City's Point of Contact and Project Manager is:

5.2 ***Engineer's Point of Contact***

The duties of the Engineer's Point of Contact include, but are not limited to:

- Coordinating Services and the Engineer's resource assignments based on the City's requirements;
- Providing consultation and advice to the City on matters related to the Services and the Project and acting as a conduit to the Engineer's specialist resources that may be needed to supplement the Engineer's regular staff;
- Acting as the Engineer's point of contact for all aspects of contract administration, including invoicing for Services, and status reporting;
- Facilitating meetings and conferences between the City and the Engineer's staff when scheduled or requested by the City;
- Communicating among and between the City and the Engineer's staff;

- Promptly responding to the City’s Project Manager when consulted in writing with respect to Service deviation and necessary documentation;
- Identifying and providing the City with written notice immediately after the Engineer becomes aware of any issue that may threaten the delivery of Services in the manner contemplated by this Agreement; and
- Ensuring that adequate quality assurance procedures are in place for the performance of Services.

The Engineer’s Point of Contact is:

5.3 Legal Notices

Any notice, consent or other formal communication required or contemplated by this Agreement shall be in writing and shall be delivered in person, by U.S. mail, by overnight courier, by electronic mail or by telefax to the intended recipient at the address set forth below:

For the City:

Charlotte Water
 5100 Brookshire Boulevard
 Charlotte, NC 28216
 Attn: Abby Dolan
 Phone: 704-391-5097
 Email: adolan@charlottenc.gov

City of Charlotte Attorney’s Office
 600 E. Fourth Street, 15th Floor
 Charlotte, NC 28202
 Attn: Jude Starrett
 Phone: 704-336-5801
 Email: jstarrett@charlottenc.gov

For the Engineer:

 Attn: _____
 Phone: _____
 Email: _____

Notice shall be effective upon the date of receipt by the intended recipient, provided that any notice that is sent by electronic mail shall also be simultaneously sent by mail deposited with the U.S. Postal Service or by overnight courier. Each party may change its address for notification purposes by giving the other party written notice of the new address and the date upon which it shall become effective.

ARTICLE 6 - COMPENSATION AND PAYMENTS

6.1 Lump Sum Fees

The Engineer shall be compensated on a lump sum basis for the services listed in this Agreement using the fee schedule in Section 6.3, provided, however, that the total of payments to the Engineer shall not exceed \$_____.

6.2 **Hourly and Unit Price Basis Allowances**

The Engineer shall be compensated for actual work performed on an hourly and unit price basis for the services listed in this Agreement using the fee schedule in Section 6.3 and **Exhibit 2**; provided, however, that the total of payments to the Engineer for providing hourly and unit price basis services shall not exceed \$ _____ as shown in Section 6.3.

6.3 **Lump Sum or Unit Price Basis**

As complete compensation for the services described in the Agreement, the Engineer will be paid _____ basis as described below:

Task	Description	LS Fee	Hourly NTE Limit
1		\$	\$
2		\$	\$
3		\$	\$
4		\$	\$
5		\$	\$
6		\$	\$
		Subtotal	\$
		TOTAL	\$

The Engineer may receive compensation for coordination of professional services by subconsultant(s). The maximum fee for coordination is ten percent (10%) of the fee paid to the subconsultant. Such compensation shall be included within the applicable section of the scope of services. This fee is designed to cover general overhead the Engineer may incur on review and responsibility of the subconsultant's work.

6.4 **Allowance for Additional Services**

Additional services shall be performed by the Engineer only after written instructions to do so are received from the City's Project Manager. Compensation for additional services performed shall be in accordance with the hourly and unit price rates set forth in this Agreement and shall not exceed \$ _____.

6.5 **Reimbursable Expenses**

Reimbursable expenses shall be limited to the actual expenditures made by the Engineer during the performance of the work. The following items may be considered reimbursable expenses and will be compensated at cost:

6.5.1 Travel:

- a. Vehicular transportation at the rate established by the Internal Revenue Service current at the time the travel occurs. The rate effective as of January 1, 2016 is \$0.54 per mile;
- b. Parking fees;
- c. Airline tickets (with prior approval of the Project Manager); and
- d. Meals and lodging in connection with out-of-town travel (with prior approval of the Project Manager).

6.5.2 Permit fees

- a. Permit costs and fees paid for securing approval of authorities having jurisdiction over the Project.
- 6.5.3 Reprographics
 - a. Copying and binding expenses for drawings, specifications, reports and other Project documents;
 - b. Photography as approved by the City’s Project Manager; and
 - c. Renderings and models requested by the City if not specifically included in basic services.
- 6.5.4 Postage for sending project documents.

6.6 **Summary of Fees and Allowances**

The maximum cumulative amount paid to the Engineer pursuant to this Agreement for all services performed and all reimbursable expenses shall not exceed the following:

Lump Sum Fees	\$
Hourly and Unit Price Allowances	\$
Allowance for Additional Services	\$
TOTAL MAXIMUM FEES AND ALLOWANCES	\$

6.7 **Invoices**

Payment of the fees provided for under this Agreement will be made to the Engineer on a monthly basis upon submission of an invoice stating the nature and quantity of work performed and accompanied by proper supporting documentation as the City may require. Hourly basis fees and reimbursable expenses shall be itemized on each invoice, when applicable. Payments will be made within 30 calendar days of the date of receipt of a correct payment request. A correct payment request is defined as an invoice that indicates only those work items that have been satisfactorily completed and accepted by the City. The Engineer waives the right to payment for all services that are not invoiced to the City within 90 days after the date on which they have been completed. Final payment to the Engineer will not be made until Record Drawings for the Project have been completed, submitted and approved by the City.

6.8 **Payment Affidavits**

To determine whether disparities exist in City contracting based on race, gender and other factors, and also to measure the effectiveness of the City’s Small Business Opportunity Program, the City tracks the utilization of subcontractors and suppliers on City contracts based on race, gender, small business status, and other factors. For analysis purposes, it is important that the City obtain this data not only for minority, female and small business suppliers and subcontractors, but also for other subcontractors and suppliers. As a condition to receiving payment under this Agreement, the Contractor agrees to provide to the City with each invoice for payment submitted under this Agreement, a written payment affidavit detailing the amounts paid by the Contractor to first tier subcontractors and suppliers in connection with this Agreement (“Payment Affidavits”). Payment Affidavits shall be in the format specified by the City from time to time, and shall include all payments made to first tier subcontractors and suppliers under this Agreement that are not included on a prior Payment Affidavit.

Failure to provide a properly completed version of each Payment Affidavit required by this Section shall constitute a default under this Agreement, and shall entitle the City to: (a) withhold payment of any amounts due

the Contractor (whether under this Agreement or otherwise), or (b) exercise any other remedies legally available for breach of this Agreement; or (c) impose any other sanctions permitted under the City's Small Business Opportunity Program. In order to have a properly completed Payment Affidavit, each prime contractor and first tier subcontractor identified must be registered in the City's Vendor Registration System.

6.9 ***Cost Overruns***

If it appears during the course of the work that any of the estimated fees and allowances may be exceeded, the Engineer shall immediately notify the City's Project Manager in writing. The estimated fees and allowances shall not be exceeded except by written amendment to this Agreement. Any work performed without prior written approval shall be at the Engineer's expense.

6.10 ***Accounting and Auditing***

The Engineer shall maintain complete and accurate records, using Generally Accepted Accounting Practices (GAAP), of all costs related to this Agreement. Such records shall be open to inspection and subject to audit and/or reproduction, during normal working hours, by the City's agent or authorized representative to the extent necessary to adequately permit evaluation and verification of any invoices, payments, or claims submitted by the Engineer or any of his payees in connection with this Agreement. Records subject to examination will include, but are not limited to, those records necessary to evaluate and verify direct and indirect costs (including overhead allocations) as they may apply to costs associated with this Agreement. Except as otherwise expressly provided herein, records subject to examination do not include those pertaining solely to services compensated on a lump sum basis.

For the purpose of such inspections, the City's agent or authorized representative shall have access to said records from the Effective Date of this Agreement, for the duration of the Services, and until three (3) years after the date of final payment by the City to the Engineer pursuant to this Agreement.

The City's agent or authorized representative shall have access to the Engineer's facilities and shall be provided an adequate and appropriate work place, in order to conduct audits in compliance with this Article. The City will give the Engineer reasonable advance notice of planned inspections. If, as the result of an audit hereunder, the Engineer is determined to have charged the City for amounts that are not allocable or verifiable, the Engineer shall promptly reimburse the City for said amount.

ARTICLE 7 - ITEMS TO BE FURNISHED BY THE CITY

At the request of the Engineer and in connection with providing the services, the City will furnish the following items and/or services either directly or indirectly to the Engineer at no cost:

- a. Access to facilities to perform any inspections required to perform the Scope of Services for the Project.
- b. Background information on the Project, including planning, programming, and budgeting documents. The City also will provide applicable City standard specifications, details and other materials listed herein on a timely basis. All such specifications are hereby incorporated into this Agreement by reference.

ARTICLE 8 - INSURANCE

The Engineer shall purchase and maintain during the life of this Agreement with an insurance company acceptable to the City and authorized to do business in the State of North Carolina the following insurance:

DRAFT

8.1 ***Automobile Liability***

Bodily injury and property damage liability covering all owned, non-owned and hired automobiles for limits of not less than \$1,000,000 combined single limit each occurrence/aggregate.

8.2 ***Commercial General Liability***

Bodily injury and property damage liability as shall protect the Engineer and any subcontractor performing work under this Agreement from claims of bodily injury or property damage which arise from operation of this Agreement whether such operations are performed by Engineer, any subcontractor or any person directly or indirectly employed by either. The amounts of such insurance shall not be less than \$1,000,000 bodily injury each occurrence/aggregate. This insurance shall include coverage for products/completed operation, personal and advertising injury liability and contractual liability assumed under the indemnity provision of this Agreement.

8.3 ***Workers' Compensation Insurance***

Meeting the statutory requirements of the State of North Carolina and Employers Liability - \$100,000 per accident limit, \$500,000 disease per policy limit, \$100,000 disease each employee limit, providing coverage for employees and owners.

8.4 ***Professional Liability Insurance***

In an amount of not less than \$1,000,000 each claim and \$1,000,000 aggregate.

The City shall be exempt from, and in no way liable for, any sums of money that may represent a deductible in any insurance policy. The payment of such deductible shall be the sole responsibility of the Engineer and/or subconsultant providing such insurance.

The City of Charlotte shall be named as additional insured under the commercial general liability insurance for operations and services rendered under this Agreement. Certificates of all required insurance shall be furnished to the City and shall contain the provision that the City will be given 30 day written notice of any intent to reduce coverage in any manner or to any extent, or to terminate by either the insured or the insuring company.

If any part of the work under this Agreement is sublet, the subconsultant shall be required to meet all insurance requirements set forth in this Agreement. Nothing contained herein shall relieve the Engineer from meeting all insurance requirements or otherwise being responsible for the subconsultant.

ARTICLE 9 - QUALITY CONTROL PROGRAM

The Engineer shall establish and follow a quality control program throughout the Planning and Design process. The Quality Control Program will identify review personnel and describe the procedures to be used to verify, to independently check, and to review all drawings, reports, designs, specifications and other documentation prepared, as well as any function, activity, or task as part of this Agreement. The Quality Control Program will specify the manner for documenting the check and review processes, for recording required procedures, and for verifying work activities. It will provide for internal reviews and will detail the frequency and types of reviews to be conducted for the specific job to ensure compliance with quality standards. Within 30 days after receiving a notice to proceed, the Engineer shall submit a

written Quality Control Program, to address all quality assurance/quality control issues in connection with the Project, for review and approval by the City's Project Manager.

Throughout the project development, the Engineer will maintain quality control procedures as covered in the approved Quality Control Program and documentation of the Engineer's internal design reviews for inspection by the City's Project Manager. The City's Project Manager will have the option to review planning and design documents in the Engineer's office periodically to verify that proper quality control procedures are employed in the development process.

ARTICLE 10 - OWNERSHIP AND USE OF WORK PRODUCTS

The City shall own title to any and all intellectual property rights in and to all documents, reports, specifications, designs, developments, computations, and other materials prepared, obtained or delivered under the terms of this Agreement (collectively the "Deliverables"). The City may use, transfer, copy and distribute the Deliverables without restriction or limitation. The City accepts responsibility for any changes made by the City to these Deliverables after final submittal by the Engineer.

10.1 *Ownership*

The City acknowledges that the Deliverables are instruments of professional service. The City acknowledges and agrees that the Engineer may retain one copy of each Deliverable and use the Deliverable solely for its internal general reference.

10.2 *Modification or Reuse Risk*

Any modification or reuse of the Deliverables by the City without the involvement of the Engineer shall be at the sole risk of the City.

10.3 *Other Items*

The Engineer shall cooperate with and provide reasonable assistance to the City as necessary to obtain or enforce any patents, copyrights or other proprietary rights in the Deliverables and to execute all Deliverables necessary to give the City full legal ownership of such Deliverables. The Engineer shall also take all necessary actions to ensure that all employees and approved subcontractors engaged by the Engineer in connection with the Agreement are bound by the terms of this Section. The Engineer shall, as required for the performance under this Agreement and otherwise upon the request of the City or upon expiration or termination of this Agreement, deliver to the City all Deliverables. At the City's option, Deliverables shall also be provided in electronic format. The deliverable shall be compatible with the City's current software applications packages, operating systems and computer hardware.

If there is a discrepancy between the electronic files and the hard copies, the hard copies shall govern.

ARTICLE 11 - TERMINATION

11.1 *Termination for Convenience*

The City may terminate this Agreement for any reason or no reason by giving written notice of termination at least thirty (30) days before the date of termination. The notice shall specify the date upon which such termination becomes effective and the City shall pay the Engineer for Services rendered prior to the effective

date of termination.

11.2 ***Termination for Default***

By giving written notice, either party may terminate this Agreement upon the occurrence of one or more of the following events, each of which constitute a non-exclusive Event of Default under this Agreement:

- a. The other party violates or fails to perform any covenant, provision, obligation, term, or condition contained in this Agreement, provided that, unless otherwise provided in this Agreement, such failure or violation shall not be cause for termination if the defaulting party cures such default (if the default is susceptible to cure) within thirty (30) days of receipt of written notice of default from the other party.
- b. The Engineer takes or fails to take any action which constitutes grounds for immediate termination under the terms of this Agreement, including but not limited to failure to obtain or maintain the insurance policies and endorsements as required by this Agreement, or failure to provide the proof of insurance as required by this Agreement.

Any notice of default shall state the party's intent to terminate this Agreement if the default is not cured within the specified time period.

11.3 ***Additional Grounds for Termination by the City***

The City may terminate this Agreement immediately by written notice to the Engineer upon the occurrence of one or more of the following events each of which shall also constitute a non-exclusive Event of Default:

- a. The other party makes or allows to be made any material written misrepresentation or provides any materially misleading written information in connection with this Agreement, the Engineer's Proposal, or any covenant, agreement, obligation, term, or condition contained in this Agreement; or
- b. The Engineer ceases to do business as a going concern, makes an assignment for the benefit of creditors, admits in writing its inability to pay debts as they become due, files a petition in bankruptcy or has an involuntary bankruptcy petition filed against it (except in connection with a reorganization under which the business of such party is continued and performance of all its obligations under this Agreement shall continue), or if a receiver, trustee or liquidator is appointed for it or any substantial part of the other party's assets or properties.

11.4 ***Obligations Upon Expiration Or Termination***

Upon expiration or termination of the Agreement, the Engineer shall promptly provide or return to the City:

- a. All Deliverables, in whatever form;
- b. Documentation to evidence completion of matters covered by this Agreement and setting forth progress in developing the Deliverables to the date of termination; and

- c. All equipment, materials, documents, or data, whether in written, graphic, machine readable or other form, supplied by the City in connection with this Agreement, in as good condition as when delivered, reasonable wear and tear excepted.

Upon the request of the City, the Engineer agrees to provide reasonable assistance and cooperation to the City and City contractors for a period of up to twelve (12) months after expiration or termination of this Agreement at its then-current rates.

11.5 *No Effect On Taxes, Fees, Charges Or Reports*

Any termination of this Agreement shall not relieve the Engineer of the obligation to pay any fees, taxes, or other charges then due to the City, nor relieve the Engineer of the obligation to file any daily, monthly, quarterly, or annual reports covering the period to termination nor relieve the Engineer from any claim for damages previously accrued or then accruing against the Engineer.

11.6 *Substitute Performance*

In the event the Engineer fails to perform any part of the Scope of Services within the time frame set forth in this Agreement without good cause, then, without limiting any other remedies available to the City, the City may take either or both of the following actions:

- a. Employ such means as it may deem advisable and appropriate to continue work until the matter is resolved and the Engineer is again able to carry out operations under this Agreement; and
- b. Deduct any and all operating expenses incurred by the City from any money then due or to become due the Engineer and, should the City's cost of continuing the operation exceed the amount due the Engineer, collect the amount due from the Engineer.

11.7 *Cancellation Of Orders And Subcontracts*

In the event this Agreement is terminated by the City for any reason, the Engineer shall upon the effective date of termination (unless the City's notice of termination directs otherwise), immediately discontinue all service in connection with this Agreement and promptly cancel all existing orders and subcontracts which are chargeable to this Agreement. As soon as reasonable after receipt of notice of termination, the Engineer shall submit a statement to the City showing in detail the services performed under this Agreement to the date of termination.

11.8 *Other Remedies*

Upon termination of this Agreement, each party may seek all legal and equitable remedies to which it is entitled. The remedies set forth herein shall be deemed cumulative and not exclusive and may be exercised successively or concurrently, in addition to any other available remedies.

11.9 *Authority to Terminate*

The Director of Charlotte Water will have authority, without the necessity of further action by City Council, to terminate this Agreement on behalf of the City.

ARTICLE 12 - COVENANTS AND REPRESENTATIONS

- 12.1 The Engineer covenants and represents that it shall exercise a customary degree of care and diligence in performing all services under this Agreement. The Engineer shall render services under this Agreement in accordance with the customary professional standards prevailing in the Mecklenburg County area.
- 12.2 The Engineer further covenants and represents that (i) the services performed by it under this Agreement do not violate any contracts with third parties or any third party rights in any patent, trademark, copyright, trade secret or similar right, (ii) that the services performed hereunder shall be performed in a professional manner and by qualified staff and shall satisfy the requirements set forth in this Agreement, and (iii) that it has sufficient expertise and resources to perform under this Agreement.
- 12.3 The Engineer further represents and covenants that:
- a. It is validly existing and in good standing under the laws of North Carolina;
 - b. It has all the requisite power and/or authority to execute, deliver and perform its obligations under this Agreement;
 - c. The execution, delivery, and performance of this Agreement have been duly authorized by the Engineer;
 - d. No approval, authorization, or consent of any governmental or regulatory authority is required to be obtained or made by it in order for it to enter into and perform its obligations under this Agreement; and
 - e. In connection with its obligations under this Agreement, it shall comply with all applicable federal, state and local laws and regulations and shall obtain all applicable permits and licenses.
- 12.4 Any defective designs, specifications, plats or surveys (BFF) furnished by the Engineer and any failure of any services performed by the Engineer to comply with any requirements set forth in this Agreement shall be promptly corrected by the Engineer at no cost to the City. The City's approval, acceptance, use of, or payment for all or any part of the Engineer's services or of the Project itself shall in no way alter the Engineer's obligations or the City's rights under this Agreement.

ARTICLE 13 - INDEMNIFICATION

To the fullest extent permitted by law, the Engineer shall indemnify, and hold harmless the City and the City's officers, agents and employees from and against any and all claims, losses, damages, obligations, liabilities and expenses (including reasonable attorneys' fees and costs of defense) that arise directly or indirectly from:

- 13.1 Any negligent act(s), error(s) or omission(s) or willful misconduct by the Engineer or any of its agents, employees or subcontractors (or any allegations of any of the foregoing), including but not limited to any liability caused by an accident or other occurrence resulting in bodily injury, death, sickness or disease to any person(s) or damage or destruction to any property, real or personal; or
- 13.2 Any claims by any persons or entities supplying labor or material to the Engineer in connection with the performance of the Engineer's obligations under this Agreement ("Labor and Material Claims").

ARTICLE 14 - GENERAL COMPLIANCE WITH LAWS

The Engineer shall comply with all Federal, State, and local laws, ordinances, and regulations applicable to the services provided herein. If, due to conflicts between two or more such ordinances, statutes, laws, rules, and regulations (the "Regulations") or due to conflicts in the interpretation or enforcement of such Regulations by courts or governing bodies having jurisdiction over the project, the Engineer is unable to comply with such Regulations, the Engineer shall exercise usual and customary professional care in the in complying with such conflicting Regulations.

The Engineer further agrees that it will at all times during the term of this Agreement be in compliance with all applicable Federal, State and/or local laws regarding employment practices. Such laws include, but shall not be limited to workers' compensation, the Fair Labor Standards Act (FSLA), the Americans with Disabilities Act (ADA), the Family and Medical Leave Act (FMLA), and all Occupational Safety and Health Administration (OSHA) regulations applicable to the work.

ARTICLE 15 - MISCELLANEOUS CONDITIONS

15.1 Relationship Of The Parties

The relationship of the parties established by this Agreement is solely that of independent contractors, and nothing contained in this Agreement shall be construed to (i) give any party the power to direct or control the day-to-day activities of the other; or (ii) constitute such parties as partners, joint venturers, co-owners or otherwise as participants in a joint or common undertaking; or (iii) make either party an agent of the other for any purpose whatsoever. Neither party nor its agents or employees is the representative of the other for any purpose, and neither has power or authority to act as agent or employee to represent, act for, bind, or otherwise create or assume any obligation on behalf of the other, unless expressly authorized in writing by the City for the performance of specific tasks by the Engineer.

15.2 Entire Agreement

This Agreement is the entire agreement between the parties with respect to its subject matter, and there are no other representations, understandings, or agreements between the parties relative to such subject matter. This Agreement supersedes all prior agreements, negotiations, representations, and proposals (prior agreements), written or oral, except to the extent such prior agreements are incorporated by reference into this Agreement. In the event of conflict between the terms and conditions of this Agreement and the purchase orders associated with this Agreement, the terms and conditions of this Agreement shall govern.

15.3 Amendment

No amendment or change to this Agreement shall be valid unless in writing and signed by both parties to this Agreement.

15.4 Governing Law and Jurisdiction

The parties acknowledge that this Agreement is made and entered into in Charlotte, North Carolina. The parties further acknowledge and agree that North Carolina law shall govern all rights, obligations, duties, and liabilities of the parties to this Agreement, and that North Carolina law shall govern interpretation of this Agreement and any other matters relating to this Agreement (all without regard to North Carolina conflicts of laws principles).

The parties further agree that any and all legal actions or proceedings relating to this Agreement shall be brought in a state court sitting in Mecklenburg County, North Carolina. By execution of this Agreement, the parties submit to the jurisdiction of said courts and hereby irrevocably waive any and all objections that they may have with respect to venue in any of the above courts.

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15.5 ***Binding Nature and Assignment***

This Agreement shall bind the parties and their successors and permitted assigns. Neither party may assign this Agreement without the prior written consent of the other. Any assignment attempted without the written consent of the other party shall be void.

15.6 ***Delays and Extensions***

Reasonable extensions of time for unforeseen or unavoidable delays may be made by mutual consent of the parties involved.

15.7 ***Force Majeure***

Neither party shall be liable for any failure or delay in the performance of its obligation pursuant to the Contracts, and such failure or delay shall not be deemed a default of the Contracts or grounds for termination hereunder if all of the following conditions are satisfied:

- a. If such failure or delay could not have been prevented by reasonable precautions;
- b. If such failure or delay cannot reasonably be circumvented by the non-performing party through the use of alternate sources, work-around plans, or other means; and
- c. If and to the extent, such failure or delay is caused, directly or indirectly, by fire, flood, earthquake, hurricane, elements of nature or acts of God, acts of war, terrorism, riots, civil disorders, rebellions or revolutions or court order.

An event, which satisfies all of the conditions set forth above, shall be referred to as a "Force Majeure Event". Upon the occurrence of a Force Majeure Event, the affected party shall be excused from any further performance of those of its obligations, which are affected by the Force Majeure Event for as long as (a) such Force Majeure Event continues and (b) the affected party continues to use reasonable efforts to recommence performance whenever and to whatever extent possible.

Upon the occurrence of a Force Majeure Event, the affected party shall promptly notify the other by telephone (to be confirmed by written notice within five (5) days of the inception of the failure or delay) of the occurrence of a Force Majeure Event and shall describe in reasonable detail the nature of the Force Majeure Event. If any Force Majeure Event prevents the Company from performing its obligations for more than fifteen (15) days, Charlotte Water shall have the right to terminate the Contract(s) by written notice to the Company.

Notwithstanding anything contained herein to the contrary, strikes, slow-downs, walkouts, lockouts, and industrial disputes of the Company or its subcontractors shall not constitute "Force Majeure Events" and are not excused under this provision.

15.8 ***Severability***

The invalidity of one or more of the phrases, sentences, clauses or sections contained in this Agreement shall not affect the validity of the remaining portion of the Agreement so long as the material purposes of the Agreement can be determined and effectuated. If any provision of this Agreement is held to be unenforceable, then both parties shall be relieved of all obligations arising under such provision, but only to the extent that such

provision is unenforceable, and this Agreement shall be deemed amended by modifying such provision to the extent necessary to make it enforceable while preserving its intent.

15.9 ***Approvals***

All approvals or consents required under this Agreement must be in writing. Electronic documents shall have the same validity as physical documents.

15.10 ***Waiver***

No delay or omission by either party to exercise any right or power it has under this Agreement shall impair or be construed as a waiver of such right or power. A waiver by either party of any covenant or breach of this Agreement shall not constitute or operate as a waiver of any succeeding breach of that covenant or of any other covenant. No waiver of any provision of this Agreement shall be effective unless in writing and signed by the party waiving the rights.

15.11 ***Interest of the Parties***

The Engineer covenants that its officers, employees, shareholders and subconsultants have no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement.

15.12 ***Taxes***

The Engineer shall pay all applicable Federal, State and local taxes that may be chargeable against the performance of the Services.

15.13 ***No Bribery or Lobby***

The Engineer certifies that to the best of its knowledge, information, and belief, neither it, any of its affiliates or subcontractors, nor any employees of any of the forgoing has bribed or lobbied, or attempted to bribe or lobby, an officer or employee of the City in connection with this Agreement.

15.14 ***Change In Control***

In the event of a change in "Control" of the Engineer (as defined below), the City shall have the option of terminating this Agreement by written notice to the Engineer. The Engineer shall notify the City within ten (10) days of the occurrence of a change in control. As used in this Agreement, the term "Control" shall mean the possession, direct or indirect, of either:

- a. The ownership of or ability to direct the voting of, as the case may be, fifty-one percent (51%) or more of the equity interests, value or voting power in the Engineer; or
- b. The power to direct or cause the direction of the management and policies of the Engineer whether through the ownership of voting securities, by contract or otherwise.

15.15 ***Subcontracting***

Should the Engineer choose to subcontract, the Engineer shall remain fully responsible for performance of all

obligations that it is required to perform under this Agreement. Any subcontract entered into by the Engineer in connection with the Project shall name the City as a third party beneficiary.

15.16 ***City Not Liable for Delays***

Except as expressly provided in this Agreement, the City shall not be liable to the Engineer, its agents, representatives or subconsultants for or on account of any stoppages or delay in the performance of any obligations of the City or any other party hereunder.

15.17 ***Survival of Provisions***

All definitions and express representations and indemnifications included in this Agreement will survive its completion or termination. Those sections of this Agreement including Exhibits that by their nature would reasonably be expected to continue after the termination of this Agreement shall survive the termination of this Agreement.

15.18 ***Endorsement of Documents***

The Engineer shall sign and seal, or shall cause to be signed and sealed, with the appropriate North Carolina Professional Seal, all plans, specifications, calculations, reports, plats, and construction documents prepared by the Engineer under this Agreement.

15.19 ***Reliance on City-Furnished Information***

In response to reasonable requests by the Engineer, the City will endeavor to provide to the Engineer all information in the possession of Charlotte Water reasonably related to the Scope of Services. Except as otherwise expressly stated herein, the Engineer may reasonably rely upon the accuracy, timeliness and completeness of such information provided by the City, unless the Engineer knew or should have known that such information was not accurate or complete.

15.20 ***Access to Facilities***

The City will make its facilities reasonably accessible to the Engineer as required for the Engineer's performance of its services under this Agreement. Except as otherwise expressly stated herein, the City will perform at no cost to the Engineer such tests of equipment, machinery, pipelines, and other components of the City's facilities as may be reasonably required in connection with the Engineer's services under this Agreement.

15.21 ***Advertisements, Permits and Access***

Except as expressly stated herein, the City will obtain, arrange, and pay for all advertisements for bids, permits and licenses required by applicable law, and all land, easements and access thereto necessary for the Engineer to perform its services under this Agreement.

15.22 ***Opinions and Estimates***

The Engineer's opinions, estimates, projections, or other forecast of future costs or revenues shall be made on the basis of available information and the Engineer's expertise and qualifications as a professional. The Engineer does not warrant or guarantee that its opinions, estimates, projections or other forecasts of future costs or revenues will not vary from the actual costs or revenues

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15.23 ***Construction Procedures***

Engineer's observation or monitoring portions of the work performed under construction contracts shall not relieve the contractor from its responsibility for performing work in accordance with applicable contract documents. Engineer shall not control or have charge of, and shall not be responsible for, construction means, methods, techniques, sequences, procedures of construction, health or safety programs or precautions connected with the work and shall not manage, supervise, control or have charge of construction. Further, Engineer shall not be responsible for the acts or omissions of the contractor or other parties on the project.

15.24 ***Litigation Support***

In the event Engineer is required to respond to a subpoena, government inquiry or other legal process related to the services in connection with a legal or dispute resolution proceeding to which Engineer is not a party, City shall reimburse Engineer for reasonable costs in responding and compensate Engineer at its then standard rates for reasonable time incurred in gathering information and documents and attending depositions, hearings, and trial.

15.25 ***Utility Location***

If underground sampling/testing is to be performed, Engineer shall contact a local utility locating service to make arrangements for all utilities to determine the location of all underground utilities. In addition, City shall notify Engineer of the presence and location of any underground objects and City facilities known to Charlotte Water and located on the City's property which are not the responsibility of private/public utilities. Engineer shall take reasonable precautions to avoid damaging underground utilities and objects that are properly marked. The City agrees to waive any claim against Engineer arising from or caused by Engineer's damaging of City property, which the City failed to identify prior to beginning the underground sampling/testing.

15.26 ***Hazardous Materials***

City represents that, to the best of its knowledge and belief, it has disclosed to Engineer the existence of hazardous materials known to Charlotte Water, including but not limited to asbestos, PCB's, petroleum, hazardous waste, hazardous biological matter or radioactive material located at or near the project site, including type, quantity and location of such hazardous materials. As a result of entering into this agreement, Engineer is not and shall not be considered (i) the owner of material, substances, or wastes noted in the Scope of Work; (ii) the operator of a waste management facility; (iii) the generator, storer, or disposer of hazardous or solid waste; (iv) to have arranged for the transportation or disposal of any wastes, pollutants, or contaminants by virtue of the performance of Engineer's services under this Agreement or anything contained herein, as those terms are used in the Resource Conservation and Recovery Act ("RCRA"), as amended, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA"), as amended, or any other federal, state statute or regulation governing the treatment, transportation, storage, or disposal of substances, materials or wastes. If Engineer's services hereunder cannot be performed because of the existence of undisclosed hazardous materials, Engineer shall be entitled to terminate this Agreement for cause on 7 days written notice.

ARTICLE 16 - PUBLICITY AND STATEMENTS TO THE PRESS

Advertising, sales promotion or other materials of the Engineer or its agents or representatives shall limit the identification or reference to this Agreement to the general physical description and location of the approved final

design/product of the Project. Descriptions of conceptual or alternative designs/products considered for the Project shall not be included in advertising, sales or other materials. As a condition of entering into this Agreement, the Engineer further agrees to refrain from the following, absent the City's prior written approval: (1) making any statement to the media or public regarding the subject matter of this Agreement or the City's position on any issue relating to this Agreement; or (2) making any statement to the media or public on any issue which is in the City's judgment likely to cast doubt on the competence or integrity of the City or Engineer. Failure to comply with this Article by the Engineer shall constitute a material breach and, without limiting any other remedies the City may have, shall entitle the City to terminate this Agreement for default.

ARTICLE 17 - CHARLOTTE BUSINESS INCLUSION PROGRAM

The Charlotte City Council has declared that a race and gender neutral and race and gender conscious program employing goals and good faith efforts to promote the utilization of small and minority businesses in City contracts will benefit the City by promoting competition in City contracting and by promoting economic growth and development in the Charlotte CSA.

In August 2002, the North Carolina State Legislature ratified Session Law 2002-91 authorizing the City to establish a Small Business Enterprise program to enhance opportunities for small businesses to participate in City contracts. In April 2013, the Charlotte City Council adopted the Charlotte Business INclusion (CBI) Program that utilizes both race and gender neutral measures and race and gender conscious measures. The City's Charlotte Business INclusion Program (CBI Program) applies to all aspects of the City's contracting and procurement programs and its provisions are incorporated in their entirety into this Agreement by reference. Forms and instructions for complying with the CBI Program are included in **Exhibit 8**, attached hereto and incorporated herein by reference.

ARTICLE 18 - SENSITIVE DOCUMENTS

All or substantial portions of the following documents may not be considered to be public records pursuant to applicable provisions of North Carolina law: Engineer's work product under this Agreement; and all plans, drawings and other documents containing security plans and arrangements and/or detailed plans and drawings of any facility of the City.

Such work product, security arrangements, and/or detailed plans and drawings are herein referenced as *Sensitive Document(s)*. Without limiting the foregoing, it is expressly understood and agreed that *Sensitive Document(s)* is not limited to documents related to this Agreement and includes any and all documents herein described concerning any facility of the City regardless of the type of facility and regardless of the manner in which the Engineer acquired possession of such documents. The City retains sole authority and discretion to determine whether all or any portion of any Sensitive Document is a public record pursuant to applicable provisions of North Carolina law. Under no circumstances will the Engineer provide the original or copy of any portion of any Sensitive Document (without regard to the status of such Sensitive Document as in preliminary, draft or final form) to any person or entity unless directed by the City or unless reasonably necessary to satisfy Engineer's obligations pursuant to this Agreement. The Engineer will maintain and implement such rules and procedures governing the conduct of its officers, employees, agents and subcontractors and the maintenance, handling and use of Sensitive Documents as may be reasonably necessary to prevent the release of any Sensitive Document in violation of this provision. Such rules and procedures will be subject to review by the City and such changes as the City determines to be reasonably necessary, including without limitation maintaining a log identifying any Sensitive Document provided to any person or entity that includes at a minimum, identification of

the Sensitive Document provided, name of person releasing the Sensitive Document, name of person receiving the Sensitive Document, State Driver's License number of person receiving Sensitive Document, reason for releasing Sensitive Document, and date Sensitive Document released. Without exception, every person or entity receiving a Sensitive Document must agree not to copy or release such Sensitive Document to any other person or entity, unless otherwise approved by the City in writing. Such log need not include the release of any document to an officer or employee of the Engineer or to any employee of the City. A violation of any provision of this section is a serious violation of this Agreement and will be the basis for immediate termination of this Agreement for cause, notwithstanding any other provision of this Agreement to the contrary.

ARTICLE 19 – E-VERIFY

Engineer shall comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes. Furthermore, if Engineer utilizes a subconsultant, Engineer shall require the subconsultant to comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes.

ARTICLE 20 – IRAN DIVESTMENT ACT

Company warrants and certifies that as of the Effective Date, Company is not identified on the Final Divestment List created by the North Carolina State Treasurer pursuant to N.C.G.S. 143-6A-4. The person signing this Contract certifies that he or she is authorized by Company to make the foregoing certification. Company further agrees that it will not utilize on this Contract any subcontractor that is identified on the Final Divestment List.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

THIS AGREEMENT, entered into as of the day and year first written above for Professional Services for _____ in an amount not to exceed \$_____.

By: _____
Title: _____
Date: _____

ATTEST
By: _____
Title: _____
Date: _____

CITY OF CHARLOTTE
By: _____
Charlotte Water Director
Date: _____

ATTEST
By: _____
Charlotte Water Contracts Officer
Date: _____

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

Finance Officer

Risk Management Division

EXHIBIT 1

SCOPE OF SERVICES

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EXHIBIT 2

HOURLY RATE / COMPENSATION SCHEDULE

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EXHIBIT 3

SCHEDULE

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EXHIBIT 4

PROJECT TEAM

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EXHIBIT 5

COMMERCIAL NON-DISCRIMINATION CERTIFICATION

Project: _____

Engineer: _____

All requests for proposals issued for City contracts shall include a certification to be completed by the proposer in substantially the following form:

The undersigned Bidder or Proposer hereby certifies and agrees that the following information is correct:

1. In preparing its enclosed Bid or proposal, the Bidder or Proposer has considered all bids and proposals submitted from qualified, potential subcontractors and suppliers, and has not engaged in discrimination as defined in Section 2.
2. For purposes of this Section, *discrimination* means discrimination in the solicitation, selection, or treatment of any subcontractor, vendor or supplier on the basis of race, ethnicity, gender, age, religion, national origin, marital status, familial status, sexual orientation, gender identity, gender expression or disability or any otherwise unlawful form of discrimination. Without limiting the foregoing, *discrimination* also includes retaliating against any person or other entity for reporting any incident of *discrimination*.
3. Without limiting any other remedies that the City may have for a false certification, it is understood and agreed that, if this certification is false, such false certification will constitute grounds for the City to reject the Bid or proposal submitted with this certification, and terminate any contract awarded based on such Bid or proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance and shall subject the Bidder or Proposer to any remedies allowed thereunder, including possible disqualification from participating in City contracts or Bid processes for up to two years.
4. As a condition of contracting with the City, the Bidder or Proposer agrees to promptly provide to the City all information and documentation that may be requested by the City from time to time regarding the solicitation and selection of suppliers and subcontractors in connection with this solicitation process. Failure to maintain or failure to provide such information shall constitute grounds for the City to reject the Bid or proposal and to any contract awarded on such Bid or proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance, and shall subject the Bidder or Proposer to any remedies that are allowed thereunder.
5. As part of its bid or proposal, the Bidder or Proposer shall provide to the City a list of all instances within the past ten years where a complaint was filed or pending against Bidder or Proposer in a legal or administrative proceeding alleging that Bidder or Proposer discriminated against its subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.
6. As a condition of submitting a Bid or proposal to the City, the Bidder or Proposer agrees to comply with the City's Commercial Non-Discrimination Policy as described in Chapter 2, Article V of the Charlotte City Code, and consents to be bound by the award of any arbitration conducted thereunder.

NAME OF COMPANY

BY: _____

DATE: _____

SIGNATURE OF AUTHORIZED OFFICIAL

NAME & TITLE: _____

EXHIBIT 6
E-VERIFY CERTIFICATION

This E-Verify Certification is provided to the City of Charlotte (the “City”) by the company signing below (“Company”) as a prerequisite to the City considering Company for award of a City contract (the “Contract”).

1. Company understands that:
 - a. E-Verify is the federal program operated by the United States Department of Homeland Security and other federal agencies to enable employers to verify the work authorization of newly hired employees pursuant to federal law, as modified from time to time.
 - b. Article 2 of Chapter 64 of the North Carolina General Statutes requires employers that transact business in this state and employ 25 or more employees in this state to: (i) verify the work authorization of newly hired employees who will be performing work in North Carolina through E-Verify; and (ii) maintain records of such verification (the “E-Verify Requirements”). Section 126-7.1 of the North Carolina General Statutes requires state agencies to verify their employees’ work statuses through E-Verify.
 - c. North Carolina General Statute 160A-20.1(b) prohibits the City from entering into contracts unless the contractor and all subcontractors comply with the E-Verify Requirements.
2. As a condition of being considered for the Contract, Company certifies that:
 - a. If Company has 25 or more employees working in North Carolina (whether now or at any time during the term of the Contract), Company has complied and will comply with the E-Verify Requirements with respect to Company employees working in North Carolina; and
 - b. Regardless of how many employees Company has working in North Carolina; Company will take appropriate steps to ensure that each subcontractor performing work on the Contract that has 25 or more employees working in North Carolina complies with the E-Verify Requirements.
3. Company acknowledges that the City will be relying on this Certification in entering into the Contract, and that the City may incur expenses and damages if the City enters into the Contract with Company and Company or any subcontractor fails to comply with the E-Verify Requirements. Only in the manner and to the extent permitted by the North Carolina Tort Claims Act, N.C.G.S. § 143-291, et seq., and without waiver of its sovereign immunity, company agrees to indemnify and save the City harmless from and against all losses, damages, costs, expenses obligations, duties, fines and penalties (collectively “Losses”) arising directly or indirectly from violation of the E-Verify Requirements by Company or any of its subcontractors, including without limitation any Losses incurred as a result of the Contract being deemed void.

Signature of Company’s Authorized Representative

Date

Print Name and Title

EXHIBIT 7

(Attach Insurance Certificate Here)

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**EXHIBIT 8
CHARLOTTE BUSINESS INCLUSION PROGRAM**

REQUIREMENTS FOR PROFESSIONAL SERVICE CONTRACTS

The City's Charlotte Business INclusion Program (CBI Program) applies to all aspects of the City's contracting and procurement programs and its provisions are incorporated in their entirety into this Agreement by reference. In order to comply with the CBI Program, the Engineer will need to complete **Exhibits 8-A** through **8-C** at appropriate times during the term of the Agreement.

The SBE Utilization Goal for this contract is _____%.

Exhibit 8-A - Subconsultant/Supplier Utilization Commitment (CBI Form #3)

Once all subcontracts have been finalized, and prior to the finalization of the Agreement, the Engineer will complete **Exhibit 8-A** and submit it for inclusion in the Agreement. This will constitute the Engineer's formal commitment to utilize the specified SBE and non-SBE firms as subconsultants or suppliers in the performance of the Agreement.

Exhibit 8-B – Small Business Enterprise Letter of Intent (CBI Form #4)

For each SBE firm listed on **Exhibit 8-A**, the Engineer will complete a Letter of Intent in the form of **Exhibit 8-B**. A copy of each Letter of Intent, properly signed by the Engineer, will become part of the Agreement. A copy of each Letter of Intent, signed by both the Engineer and the SBE, will be provided to the Charlotte Water SBE Liaison Officer and kept in the contract file as an official record.

Exhibit 8-C – Payment Affidavit–Subcontractor/Supplier Utilization (CBI Form #6)

The Engineer must submit a completed **Exhibit 8-C** with each invoice or payment request. All payments made by the Engineer to any SBE in any amount must be listed on this form.

EXHIBIT 8A

CBI FORM 3: Subcontractor / Supplier Utilization Commitment (page 1 of 2)

This form **MUST** be submitted at the time of Bid Opening. *Copy this CBI Form 3 as needed.*

Failure to properly complete and submit Form 3 with the Bid constitutes grounds for rejection of the Bid.

Per Part B, Section 3.5 of the CBI Policy, the Subcontractor/Supplier Utilization Commitment (**CBI Form 3**), captures information regarding the MSBEs and other subcontractors and suppliers that the Bidder intends to use on the Contract **FOR ALL TIERS**.

Bidder Name:			
Project Name:			
Project Number:		Established SBE Goal:	
		Established MBE Goal:	

List below all **MSBEs (Non-Hauling Services)** that you intend to use on this contract. **NOTE: You will only receive credit for SBEs that are currently certified with the City as of the Bid Opening Date. Furthermore, you will only receive credit for MBEs that are registered with the City as of Bid Opening Date and who have an ethnic designation of African American, Hispanic, or Native American.**

MSBE Vendor Name (Non-Hauling Services)	Mark X for each Certification		Description of work / materials	NIGP Code	Vendor #	Total Projected Utilization (\$)
	SBE	MBE				

List below all MSBEs that you intend to use for **hauling services** on this contract and the Total Projected Utilization (\$) for all hauling services for the contract. **If the project has both MBE and SBE subcontracting goals established and the Bidder utilizes a hauling vendor that is both a MBE and a SBE, the Bidder must designate the specific dollar amount to be committed to that hauling vendor. The Bidder will still indicate the total utilization for haulers that are only SBE certified.**

MSBE Vendor Name (Hauling Services)	Mark X for each Certification		Description of work / materials	NIGP Code	Vendor #	Utilization (\$)
	SBE	MBE				
	X					Input Total SBE Hauling Utilization
	X					
	X					
	X					
	X	X				
	X	X				



CBI FORM 3: Subcontractor / Supplier Utilization Commitment (page 2 of 2)

Total SBE Utilization	\$ _____
Total MBE Utilization	\$ _____
Total Bid Amount (including Contingency and excluding Allowance Amount)	\$ _____
Percent SBE Utilization* (Total SBE Utilization <i>divided by</i> Total Bid Amount)	_____ %
Percent MBE Utilization* (Total MBE Utilization <i>divided by</i> Total Bid Amount)	_____ %

*THE MSBE Utilization percentage stated **MUST** be rounded to two (2) decimal places

CBI FORM 3: Subcontractor / Supplier Utilization Commitment (page 2 of 2)

List below all **non-MSBEs subcontractors and suppliers** that you intend to use on this contract:

Vendor Name	Description of work / materials	NIGP Code	Vendor #	Projected Utilization (if known) (\$)

Letters of Intent submitted upon notice from the City

Per Part B, Section 3.6 of the CBI Policy, within three (3) Business Days after receiving a request from the City (or within such longer time as may be communicated by the City in writing), Bidders must submit a separate Letter of Intent (**CBI Form 4**) for each MSBE listed on **CBI Form 3** and for any additional MSBEs for which the Bidder seeks credit under the last sentence of Part B, Section 3.5. Each Letter of Intent must be executed by both the MSBE and the Bidder. The City shall not count proposed MSBE utilization for which it has not received a Letter of Intent by this deadline. Per Part B, Section 3.3, a Regular Dealer as defined in the CBI Policy shall only count 60% of all expenditures towards the established Subcontracting Goal(s). In addition, a Hauler, Broker, or Packager shall only count fees or commissions charged by the established Subcontracting Goal(s). The Bidder is still obligated to pay the MSBE the full amount listed on the Contract with the MSBE regardless of what percentage is actually counted towards the established Subcontracting Goal(s).

Adding subcontractors or suppliers after submitting this form

Nothing in this certification shall be deemed to preclude you from entering into subcontracting arrangements after submission of this form. However, per Part D of the CBI Policy, you must comply with the following:

- You must maintain the level of MSBE participation proposed on this **CBI Form 3** (and **CBI Form 3A**, if applicable) throughout the duration of the Contract, except as specifically allowed in Part D.
- If you need to terminate or replace a MSBE, you must comply with Part D, Section 5.
- If the scope of work on the Contract increases, or if you elect to subcontract any portion of work not identified on this form as being subcontracted, then you must comply with Part D, Section 6.
- A Letter of Intent (**CBI Form 4**) must also be submitted for each MSBE you add subsequent to contract award.

All Subcontractors and Suppliers must be registered with the City of Charlotte.

Pursuant to the City's Vendor Registration Policy, each subcontractor or supplier (non-MSBEs and MSBEs) that you use on this contract must be registered in the City's vendor database. You will need to provide the vendor number for each subcontractor or supplier used on this contract as a condition for receiving payment on this Contract.

Signature

Your signature below indicates that the undersigned firm certifies and agrees that:

- (a) It has complied with all provisions of the CBI Policy; and,
- (b) Failure to properly document such compliance in the manner and within the time periods established by the CBI Policy shall constitute grounds for rejection of your bid.

Signature of Authorized Official	Printed Name	Title	Submittal Date
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EXHIBIT 8B

CBI FORM 4: Letter of Intent

Per Part B, Section 2.2 of the CBI Policy, within (3) Business Days after receiving a request from the City (or within such longer time as may be communicated by the City in writing), Primes must submit a separate Letter of Intent for each MSBE listed on CBI Form 3 and CBI Form 3A (if applicable).

Project Name:	_____
Project Number:	_____

To be completed by the Prime	
Name of Prime: _____	Vendor #: _____
Address: _____	
Contact Person: _____	Email: _____
Telephone: _____	Fax: _____

If the Prime has entered into a Quick Pay Agreement, in association with this Letter of Intent and as defined in the CBI Policy, please attach a copy of the executed Agreement with the undersigned MSBE.

Identify in complete detail the scope of work to be performed or item(s) to be supplied by the MSBE.

NOTE: If the MSBE will provide hauling services, the Prime will be required to contact and utilize each of the MSBE haulers listed on this form on a rotating basis throughout the life of the project.

Cost of work to be performed by the MSBE: _____ \$ _____

To be completed by the MSBE	
Name of MSBE: _____	Vendor#: _____
Address: _____	
Contact Person: _____	Email: _____
Telephone: _____	Fax: _____

Upon execution of a Contract with the City for the above referenced project, the Prime certifies that it intends to utilize the MSBE listed above, and that the description, cost and percentage of work to be performed by the MSBE as described above is accurate. The MSBE Firm certifies that it has agreed to provide such work/supplies for the amount stated above.

Prime: _____	Date: _____
Signature and Title	
MSBE Firm: _____	Date: _____
Signature and Title	

EXHIBIT 8C

CBI FORM 6: Payment Affidavit - Subcontractor / Supplier Utilization (page 1 of 2)

To be submitted with each request for payment from the City of Charlotte showing work that has been paid for all subcontractors, suppliers, manufacturers, brokers, and / or members of a joint venture in connection with the contract. Copy this form as needed. The Prime is responsible for collecting and submitting CBI Form 6 from all subsequent lower tiers.

Project Name: _____

Contractor Name: _____ Payment / Invoice # _____

Contract Number: _____ Invoice Amount: \$ _____

Payment Period: From _____ To _____ City Department: _____

FINAL PAYMENT Check this box only when submitting Final Pay request.

Section 1: Payments to SUBCONTRACTORS (MSBEs and Non-MSBEs)

Complete the chart below for all subcontractors used on the Project/Contract regardless of dollar amount. All subcontractors must be registered in the City's Vendor Management System.

Subcontractor's Name	Mark X for each Certification		Description of Work Performed	NIGP Code	Vendor #	Payments this Period	Cumulative Payments
	SBE	MBE					

Section 2: Payments to SUPPLIERS

All suppliers providing goods under City contracts must be listed on the Sales Tax Statement submitted with each pay request. The City may request on a case-by-case basis that the Contractor require certain suppliers to be registered in the City's Vendor System and may withhold payment of any amounts due the Contractor in the event the Contractor fails to comply with such request.

The undersigned Company certifies the preceding chart is a true and accurate statement of all payments that have been made to subcontractors on this Project/Contract, and that all Suppliers providing goods under this contract have been listed in the Sales Tax Statements submitted to the City in connection with this Payment Affidavit. If no subcontractors or suppliers are listed on the preceding chart or Sales Tax Statements, the Company certifies that no subcontractors or suppliers were used in performing the Project/Contract for the payment period indicated. Failure to provide accurate and truthful information is a violation of the Charlotte Business INclusion Policy and may result in the sanctions prescribed therein.

 This _____ day of _____ 20____

 Signature Print Name and Title

To be completed by City for FINAL PAYMENT

	SBE Goal:	%	MBE Goal:	%	
Total Paid to Contractor:	\$	SBE Goal Commitment:	%	MBE Goal Commitment:	%
Total Paid to SBEs:	\$	SBE Goal Attainment:	%	MBE Goal Attainment:	%
Total Paid to MBEs:	\$				

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